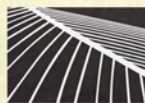


WAI'ALE

FINAL ENVIRONMENTAL IMPACT STATEMENT

VOLUME 1 OF 2

PREPARED BY:



PBR HAWAII
& ASSOCIATES, INC.

OCTOBER 2011

WAI'ALE

FINAL ENVIRONMENTAL IMPACT STATEMENT

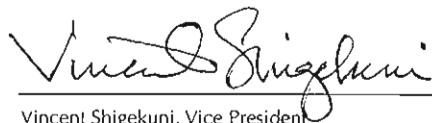
Submitted Pursuant to
Chapter 343, Hawai'i Revised Statutes
and
Title 11, Chapter 200, Hawai'i Administrative Rules

Prepared for:
A&B Properties, Inc.

Prepared by:



This Final Environmental Impact Statement and all ancillary documents have been prepared under my direction or supervision and the information submitted, to the best of my knowledge, fully addresses document content requirements as set forth in Chapter 343, Hawai'i Revised Statutes and Section 11-200-17, Hawai'i Administrative Rules.



Vincent Shigekuni, Vice President
PBR HAWAII & Associates, Inc.

10/7/11

October 2011

OVERVIEW

Wai'ale, located in the Wailuku-Waikapū region of Maui and adjacent to the Maui Lani development, will be a master planned community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways (See Figure O-1). Wai'ale will also feature cultural preserve areas dedicated to the preservation of archaeological features and lithified sand dunes.

Wai'ale will provide homes priced for a range of consumer groups, including the workforce market segment in compliance with Chapter 2.96, Maui County Code (Residential Workforce Housing Policy). Wai'ale will create a socially integrated community with a “unique” sense of identity and character, capitalizing on its location and natural features. Wai'ale is envisioned as a community that makes both residents and visitors feel “welcome”.

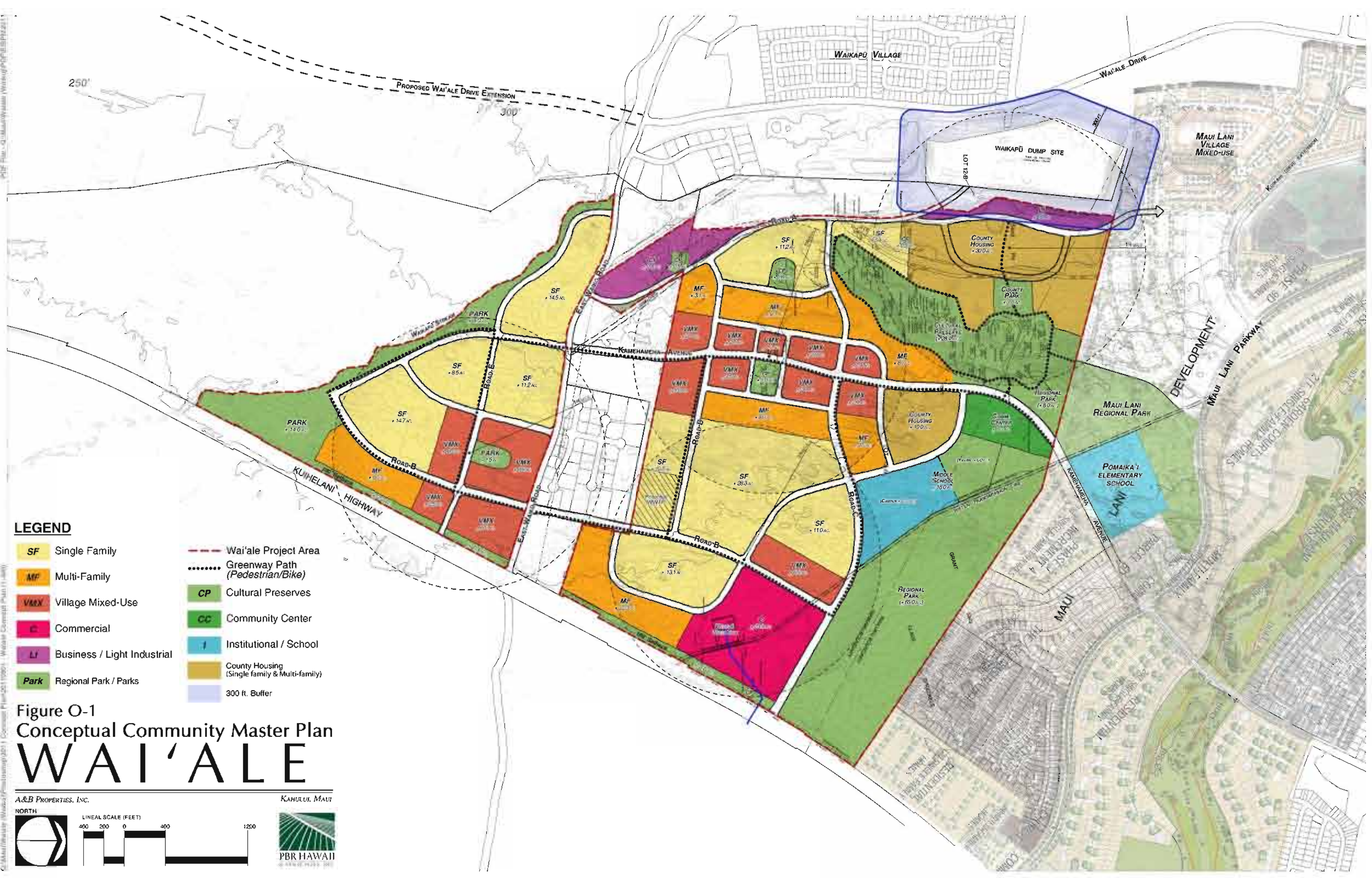
Wai'ale's mix of land uses is an essential component to providing alternatives to driving such as walking or biking. The location of commercial and retail establishments throughout Wai'ale provide for greater interaction, economic activity, and quality of life for residents and visitors. Wai'ale's open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, protection of important habit and natural features, and an overall setting of enhanced environmental quality and community health.

Wai'ale is in compliance the *Countywide Policy Plan*, a comprehensive policy document for the islands of Maui County to 2030. This plan provides the policy framework for the development of the *Maui Island Plan*, as well as an update for ~~updated~~ the nine detailed Community Plans. Wai'ale is within the “urban growth boundaries” of the Directed Growth Maps in the *Draft Maui Island Plan*.

Although its design is still preliminary in nature, many of the goals, objectives, and policies set forth in the *Countywide Policy Plan* are inherent in Wai'ale. The following list represents some of the pertinent characteristics that are consistent with the *Countywide Policy Plan*:

- Protect the natural environment;
- Preserve local cultures and traditions;
- Improve education;
- Expand housing opportunities for residents;
- Improve parks and public facilities;
- Diversify transportation options; and
- Promote sustainable land use and growth management.

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LEGEND

- | | |
|---------------------------------------|---|
| SF Single Family | --- Wai'ale Project Area |
| MF Multi-Family | Greenway Path (Pedestrian/Bike) |
| VMX Village Mixed-Use | CP Cultural Preserves |
| C Commercial | CC Community Center |
| LI Business / Light Industrial | I Institutional / School |
| Park Regional Park / Parks | County Housing (Single family & Multi-family) |
| | 300 ft. Buffer |

Figure O-1
Conceptual Community Master Plan
WAI'ALE

A&B PROPERTIES, INC.
KAHULUI, MAUI

NORTH

LINEAL SCALE (FEET)
400 200 0 400 1200

PBR HAWAII
COMMUNITY DEVELOPMENT

TABLE OF CONTENTS

OVERVIEW	I
1.0 INTRODUCTION AND SUMMARY	1
1.1 PROFILE.....	1
1.2 APPLICANT.....	2
1.3 ENVIRONMENTAL CONSULTANT.....	2
1.4 ACCEPTING AUTHORITY	3
1.5 COMPLIANCE WITH STATE OF HAWAII AND COUNTY OF MAUI ENVIRONMENTAL LAWS	3
1.6 SCOPE OF THIS EIS.....	5
1.7 STUDIES CONTRIBUTING TO THIS EIS	6
1.8 EXECUTIVE SUMMARY	6
1.8.1 Wai'ale	6
1.8.2 Summary of Potential Impacts and Proposed Mitigation Measures	7
1.8.3 Relationship to Land Use Policies.....	13
1.8.4 Anticipated Permits and Approvals	15
1.8.5 Alternatives	16
1.8.6 Cumulative and Secondary Impacts	16
1.8.7 Rationale for Proceeding with Wai'ale Notwithstanding Unavoidable Effects	16
1.8.8 Unresolved Issues	17
2.0 WAI'ALE DESCRIPTION	19
2.1 BACKGROUND INFORMATION	19
2.1.1 Location and Property Description.....	19
2.1.2 Surrounding Land Uses.....	19
2.1.3 Regional Land Use History	20
2.1.4 Wai'ale Recent Property History	21
2.2 WAI'ALE COMMUNITY PURPOSE AND NEED	22
2.2.1 Statement of Objectives/Community Planning Process.....	25
2.3 WAI'ALE DESCRIPTION.....	27
2.3.1 Vision Statement for Wai'ale	27
2.3.2 Conceptual Community Master Plan for Wai'ale	28
2.3.3 Urban Design Principles.....	30
2.4 WAI'ALE SCHEDULE.....	33
2.5 ESTIMATED COST OF DEVELOPMENT	33
2.6 ENVIRONMENTALLY-RESPONSIBLE PLANNING AND DESIGN.....	34
2.6.1 OEQC's Sustainable Building Design Guidelines.....	34
2.6.2 EPA Energy Star Program.....	36
2.6.3 Leadership in Energy and Environmental Design.....	37
2.6.4 Solar Water Heaters	38
2.6.5 Placement of Charging Unit for Electric Vehicles.....	38
2.6.6 Low Impact Design.....	38
2.6.7 EPA Smart Growth.....	39
3.0 DESCRIPTION OF THE NATURAL ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES	41
3.1 CLIMATE.....	41
3.2 GEOLOGY AND TOPOGRAPHY.....	41

3.3	SOILS.....	44
3.3.1	Natural Resources Conservation Service Soil Survey	44
3.3.2	Land Study Bureau Detailed Land Classification	44
3.3.3	Agricultural Lands of Importance to the State of Hawai'i	45
3.3.4	Impact to Existing Agricultural Use	45
3.4	NATURAL HAZARDS	47
3.4.1	Flood	49
3.4.2	Tsunami	49
3.4.3	Hurricane	49
3.4.4	Earthquake.....	49
3.4.5	Volcanic Eruptions	50
3.5	GROUNDWATER RESOURCES AND WATER QUALITY.....	50
3.6	SURFACE WATER RESOURCES	54
3.7	FLORA RESOURCES.....	59
3.8	FAUNA RESOURCES.....	60
4.0	DESCRIPTION OF THE HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES	65
4.1	ARCHAEOLOGICAL AND HISTORIC RESOURCES	65
4.2	CULTURAL RESOURCES	72
4.3	ROADWAYS AND TRAFFIC	78
4.4	NOISE AND VIBRATION	86
4.5	AIR QUALITY.....	91
4.6	MAN-MADE HAZARDS.....	96
4.7	VISUAL RESOURCES.....	99
4.8	INFRASTRUCTURE AND UTILITIES	100
4.8.1	<i>Water System</i>	100
4.8.2	<i>Wastewater System</i>	106
4.8.3	<i>Drainage System</i>	110
4.8.4	<i>Internal Roadways</i>	112
4.8.5	<i>Solid Waste</i>	113
4.8.6	<i>Electrical System</i>	116
4.8.7	<i>Communication Facilities</i>	117
4.9	SOCIO-ECONOMIC CHARACTERISTICS	118
4.9.1	<i>Community Character</i>	118
4.9.2	<i>Population</i>	118
4.9.3	<i>Housing</i>	120
4.9.4	<i>Economy</i>	124
4.10	PUBLIC SERVICES AND FACILITIES	129
4.10.1	<i>Schools</i>	129
4.10.2	<i>Police</i>	130
4.10.3	<i>Fire</i>	131
4.10.4	<i>Medical</i>	131
4.10.5	<i>Public Transportation</i>	132
4.10.6	<i>Recreational Facilities</i>	132
5.0	LAND USE CONFORMANCE.....	133
5.1	STATE OF HAWAI'I.....	133
5.1.1	Chapter 343, Hawai'i Revised Statutes.....	133
5.1.2	State Land Use Law, Chapter 205, Hawai'i Revised Statutes.....	133

5.1.3	Coastal Zone Management Act, Chapter 205A, Hawai'i Revised Statutes.....	133
5.1.4	Hawai'i State Plan, Chapter 226, Hawai'i Revised Statutes.....	139
5.1.5	State Functional Plans	167
5.2	COUNTY OF MAUI	176
5.2.1	Countywide Policy Plan.....	176
5.2.2	Maui Island Plan	216
5.2.3	Wailuku-Kahului Community Plan	218
5.2.4	County of Maui Zoning.....	247
5.2.5	Special Management Area	247
5.3	APPROVALS AND PERMITS	247
6.0	ALTERNATIVES	249
6.1	NO ACTION ALTERNATIVE.....	249
6.2	ALTERNATIVE LOCATIONS	250
6.3	ALTERNATIVE PROJECT DESIGN	251
6.4	THE ALTERNATIVE OF POSTPONING ACTION PENDING FURTHER STUDY	254
7.0	CONTEXTUAL ISSUES	255
7.1	RELATIONSHIP BETWEEN THE SHORT-TERM USES OF ENVIRONMENTAL RESOURCES AND LONG-TERM PRODUCTIVITY	255
7.2	CUMULATIVE AND SECONDARY IMPACTS.....	257
7.3	IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES.....	266
7.4	PROBABLE ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED	266
7.4.1	Rationale for Proceeding with Wai'ale Notwithstanding Unavoidable Effects ...	269
7.5	UNRESOLVED ISSUES.....	269
8.0	CONSULTATION.....	273
8.1	INDIVIDUALS AND ORGANIZATIONS CONSULTED WITH PRIOR TO THE EIS PROCESS.....	273
8.2	INDIVIDUALS AND ORGANIZATIONS CONSULTED DURING THE EIS PROCESS.....	273
9.0	LIST OF PREPARERS.....	277
10.0	REFERENCES	279
11.0	FEA/EISPN COMMENTS AND RESPONSES.....	281
12.0	DRAFT EIS COMMENTS AND RESPONSES.....	283

LIST OF APPENDICES

APPENDIX A	Planning Process
APPENDIX B	Geological Reconnaissance Survey
APPENDIX C	Aquatic Resource Survey
APPENDIX D	Flora and Fauna Survey
APPENDIX E	Archaeological Inventory Survey
APPENDIX F	Archaeological Inventory Survey Acceptance Letter
APPENDIX G	Data Recovery Plan and Preservation Plan
APPENDIX H	Data Recovery Plan and Preservation Plan Acceptance Letter
APPENDIX I	Cultural Impact Assessment
APPENDIX J	Traffic Impact Analysis Report
<u>APPENDIX J-1</u>	<u>Traffic Impact Analysis Report Addendum 1</u>
APPENDIX K	Noise Study
APPENDIX L	Air Quality Study
APPENDIX M	Phase I Environmental Site Assessment
APPENDIX N	Preliminary Engineering and Drainage Report
APPENDIX O	Market Study
APPENDIX P	Assessment of Economic and Fiscal Impacts
<u>APPENDIX Q</u>	<u>Solid Waste Management Plan</u>
<u>APPENDIX R</u>	<u>Zoning and Flood Confirmation Form</u>

LIST OF TABLES

Table	Page
1-1	Anticipated Permits and Approvals.....15
4-1	Forecasted Demand of Units in 2030122
5-1	Coastal Zone Management Act, Chapter 205A, Hawai'i Revised Statutes133
5-2	Hawai'i State Plan, Chapter 226, Hawai'i Revised Statutes139
5-3	State Functional Plans167
5-4	Countywide Policy Plan176
5-5	Wailuku-Kahului Community Plan218
5-6	Anticipated Permits and Approvals.....247
7-1	Cumulative Mobile Source Noise Levels – AM Peak Hour265
7-2	Cumulative Mobile Source Noise Levels – PM Peak Hour265
9-1	List of Preparers.....277
9-2	List of Consultants277
11-1	<u>FEA/EISPN Comment Letters</u>281
12-1	<u>Draft EIS Comment Letters</u>283

LIST OF FIGURES

Figure	Follows Page
O-1	Conceptual Community Master Planii
2-1	Regional Location20
2-2	Tax Map Key.....20
2-3	State Land Use Districts.....20
2-4	Wailuku-Kahului Community Plan20
2-5	Special Management Area.....20
3-1	Geological Survey.....44
3-1a	<u>Geological Survey with Conceptual Community Master Plan</u>44
3-2	Natural Resources Conservation Services Soil Survey44
3-3	Detailed Land Classification46
3-4	Agricultural Lands of Importance to the State of Hawai'i46
3-5	Flood Insurance Rate Map.....50
4-1	Cultural Features76
4-2	Proposed Roadways84
5-1	Draft Maui Island Plan Directed Growth Map: Department of Planning.....216
5-2	Draft Maui Island Plan Directed Growth Map: Maui Planning Commission216
5-3	Draft Maui Island Plan Directed Growth Map: General Plan Advisory Committee.....216

LIST OF ACRONYMS AND ABBREVIATIONS

The following is a list of terms, abbreviations, and acronyms used in this document.

A

ac-ft	Acre-foot
ACM	ACM Consultants, Inc.
AIS	Archaeological inventory survey
ALISH	Agricultural Lands of Importance to the State of Hawai'i
AM	Ante meridiem ("before noon")
ASH	Archaeological Services Hawaii, LLC
ASTM	American Society for Testing and Materials
ATA	Austin Tsutsumi & Associates, Inc.
<u>AWUDP</u>	<u>Agricultural Water Use Development Plan</u>

B

BMP	Best Management Practices
BOE	State of Hawai'i Board of Education
BV	Bureau Veritas North America, Inc.

C

CATV	Cable television
CC&Rs	Covenants, conditions and restrictions
CFR	Code of Federal Regulations
cfs	cubic feet per second
CIA	Cultural Impact Assessment
<u>Corps</u>	<u>U.S. Army Corps of Engineers</u>
CWRM	State of Hawai'i Commission on Water Resource Management
CZM	Coastal Zone Management

D

dBA	Decibels
<u>DBCP</u>	<u>Dibromochloropropane</u>
DBEDT	State of Hawai'i Department of Business, Economic Development, and Tourism
DEM	County of Maui Department of Environmental Management
DLIR	State of Hawai'i Department of Labor and Industrial Relations
<u>DMA</u>	<u>Disaster Management Act of 2000</u>
DLNR	State of Hawai'i Department of Land and Natural Resources
<u>DOA</u>	<u>State of Hawai'i Department of Agriculture</u>
DOE	State of Hawai'i Department of Education
DOFAW	State of Hawai'i Division of Forestry and Wildlife
DOH	State of Hawai'i Department of Health
DOT	State of Hawai'i Department of Transportation
DPM	Diesel particulate matter
DPR	County of Maui Department of Parks and Recreation

DWS	Department of Water Supply
E	
EA/EISPN	Environmental Assessment/Environmental Impact Statement Preparation Notice
EDSPECS	DOE Educational Specifications for Middle/Intermediate Schools
EIS	Environmental Impact Statement
<u>FEA/EISPN</u>	<u>Final Environmental Assessment/Environmental Impact Statement</u> Preparation Notice
EMI	East Maui Irrigation Company
EMWDP	East Maui Water Development Plan
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
F	
°F	Fahrenheit
FEMA	Federal Emergency Management Agency
FHWA	Federal Highways Administration
FIRM	Flood Insurance Rate Map
FO	Fiber optic
FTA	Federal Transit Administration
G	
gpd	Gallons per day
gpm	Gallons per minute
H	
HAR	Hawai'i Administrative Rules
HC&S	Hawaiian Commercial & Sugar Company
HRS	Hawai'i Revised Statutes
HUD	U.S. Housing and Urban Development
I	
IAL	Important Agricultural Land
<u>IIFS</u>	<u>Interim In-Stream Flow Standards</u>
J	
JaC	Jaucus sand
K	
kV	Kilovolt
kVA	Kilovolt Ampere
L	
LSB	Land Study Bureau
LCA	Land Commission Award
LEED	Leadership in Energy and Environmental Design
L_{eq}	dBA equivalent continuous noise level
LOS	Level of Service
LUC	Land Use Commission
M	
MCC	Maui County Code
MECO	Maui Electric Company

MFD	(County of) Maui Police Department of Fire and Public Safety
MG	Million gallons
MGD	Million gallons per day
<u>MIP</u>	<u>Maui Island Plan</u>
MLIBC	Maui/Lāna'i Islands Burial Council
MPD	(County of) Maui Police Department
mph	Miles per hour
msl	Mean sea level
MSWLF	Municipal solid waste landfill
MTDFM	Maui Transportation Demand Forecasting Model
N	
NAAQS	National Ambient Air Quality Standards
NPDES	National Pollutant Discharge Elimination System
O	
OEQC	State of Hawai'i Office of Environmental Quality Control
OHA	Office of Hawaiian Affairs
OTWC	Oceanic Time Warner Cable
P	
PM	Post meridiem ("after noon")
PVC	Polyvinyl chloride
PZUE	Pu'uone Sand
R	
R-1	Highest quality recycled water (significant reduction in viral and bacterial pathogens)
REC	Recognized environmental condition
ROW	Right-of-way
S	
<u>SCD</u>	<u>State of Hawai'i Civil Defense</u>
SCS	U.S. Soil Conservation Service
SCSI	Scientific Consultant Services, Inc.
<u>SDWB</u>	<u>State of Hawai'i Department of Health Safe Drinking Water Branch</u>
SHPD	State Historic Preservation Division
SMA	Special Management Area
T	
TAHA	Terry A. Hayes Associates, Inc.
TIAR	Traffic Impact Analysis Report
TMK	Tax Map Key
TNM	FHWA Traffic Noise Model
U	
<u>UIC</u>	<u>Underground Injection Control</u>
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGBC	U.S. Green Building Council
USGS	United States Geological Survey
V	

VMX Village mixed use
VOC Volatile Organic Compound

W

WCT Waikapū Country Town
WHPA Wellhead protection area
WSS DWS' Water System Standards
WTF Water treatment facility
WUDP County of Maui Water Use and Development Plan
WWPS Wastewater pump station
WWRF Wastewater reclamation facility
WWTP Wastewater treatment plant

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1.0 INTRODUCTION AND SUMMARY



1.0 INTRODUCTION AND SUMMARY

This Environmental Impact Statement (EIS) is prepared pursuant to Chapter 343, Hawai'i Revised Statutes (HRS), and Title 11, Chapter 200, Hawai'i Administrative Rules (HAR), Department of Health (DOH), State of Hawai'i. Proposed is an applicant action by A&B Properties, Inc., for the creation of Wai'ale, a master-planned community located in the Wailuku and Waikapū region, Island of Maui.

1.1 PROFILE

Project Name: Wai'ale

Location: Waikapū, Wailuku, Maui

Judicial District: Wailuku

Tax Map Key (TMK)/

Landowners: TMK (2) 3-8-005: 023 (portion)/Alexander & Baldwin, Inc.
TMK (2) 3-8-005: 037/Alexander & Baldwin, Inc.
TMK (2) 3-8-007: 071/Alexander & Baldwin, Inc.
TMK (2) 3-8-007: 101 (portion) /Alexander & Baldwin, Inc.
TMK (2) 3-8-007: 104/Alexander & Baldwin, Inc.

Approximate Land Area: Approximately 545 acres

Existing Use: Fallow sugar cane fields, a plant nursery, portions of a cattle feed lot, sand stockpiles, and vacant land.

Proposed Use: A master planned residential community that would include: Village Mixed Use, Commercial, Business/Light Industrial, Multi Family and Single Family Residential, Community Center, Regional Park, Neighborhood Parks, Greenways and Open Space, Cultural Preserves, Middle School, and related infrastructure, including a possible wastewater treatment plant.

As part of a Maui Planning Commission requirement for the Maui Business Park – Phase II project, 50 acres of the subject lands are being provided to the County of Maui: 40 acres for Affordable Housing, seven acres for a Community Center, and three acres for a Neighborhood Park.

Property

Land Use Designations: State Land Use: Agricultural
Community Plan: Agriculture
County Zoning: Agricultural
Special Management Area (SMA): Not in SMA

Major Approvals/Permits

Required: Compliance with Chapter 343, HRS
State Land Use District Boundary Amendment
Community Plan Amendment
Project District (Phase I)/Change in Zoning
Project District (Phases II)
Project District (Phase III)/Subdivision Approval
Compliance with Chapter 6E, HRS
National Pollutant Discharge Elimination System Permit
Grading/Building Permits

Accepting Authority: State of Hawai'i Land Use Commission

1.2 APPLICANT

The applicant is A&B Properties, Inc.

Contact: Mr. Grant Chun, Vice President
A&B Properties, Inc.
P. O. Box 156
Kahului, Hawai'i 96732
Telephone: (808) 872-4312
Fax: (808) 871-7497

1.3 ENVIRONMENTAL CONSULTANT

The environmental planning consultant is PBR HAWAII & Associates, Inc.

Contact: Mr. Vincent Shigekuni, Vice President
PBR HAWAII & Associates, Inc.
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, Hawai'i 96813
Telephone: (808) 521-5631
Fax: (808) 523-1402

1.4 ACCEPTING AUTHORITY

In accordance with Chapter 343, HRS, privately-initiated EIS documents must be accepted by the government agency empowered to approve permits for a project. "The authority to accept a final statement shall rest with the agency receiving the request for approval." The accepting authority is the State of Hawai'i Land Use Commission (LUC).

Contact: Mr. Dan Davidson, Executive Officer
State of Hawai'i
Land Use Commission
P.O. Box 2359
Honolulu, Hawai'i 96804
Telephone: (808) 587-3822
Fax: (808) 587-3827

1.5 COMPLIANCE WITH STATE OF HAWAI'I AND COUNTY OF MAUI ENVIRONMENTAL LAWS

This document has been prepared in accordance with the provisions of Chapter 343, HRS and Title 11, Chapter 200, HAR. Section 343-5, HRS, establishes nine "triggers" that require compliance with these regulations. These include:

§343-5 Applicability and requirements. (a) *Except as otherwise provided, an environmental assessment shall be required for actions that:*

- (1) *Propose the use of state or county lands or the use of state or county funds, other than funds to be used for feasibility or planning studies for possible future programs or projects that the agency has not approved, adopted, or funded, or funds to be used for the acquisition of unimproved real property; provided that the agency shall consider environmental factors and available alternatives in its feasibility or planning studies; provided further that an environmental assessment for proposed uses under section 205-2(d)(11) or 205-4.5(a)(13) shall only be required pursuant to section 205-5(b);*
- (2) *Propose any use within any land classified as a conservation district by the state land use commission under chapter 205;*
- (3) *Propose any use within a shoreline area as defined in section 205A-41;*
- (4) *Propose any use within any historic site as designated in the National Register or Hawaii Register, as provided for in the Historic Preservation Act of 1966, Public Law 89-665, or chapter 6E;*
- (5) *Propose any use within the Waikiki area of Oahu, the boundaries of which are delineated in the land use ordinance as amended, establishing the "Waikiki Special District";*
- (6) *Propose any amendments to existing county general plans where the amendment would result in designations other than agriculture, conservation, or preservation, except actions proposing any new county general plan or amendments to any existing county general plan initiated by a county;*

- (7) Propose any reclassification of any land classified as a conservation district by the state land use commission under chapter 205;
- (8) Propose the construction of new or the expansion or modification of existing helicopter facilities within the State, that by way of their activities, may affect:
 - (A) Any land classified as a conservation district by the state land use commission under chapter 205;
 - (B) A shoreline area as defined in section 205A-41; or
 - (C) Any historic site as designated in the National Register or Hawaii Register, as provided for in the Historic Preservation Act of 1966, Public Law 89-665, or chapter 6E; or until the statewide historic places inventory is completed, any historic site that is found by a field reconnaissance of the area affected by the helicopter facility and is under consideration for placement on the National Register or the Hawaii Register of Historic Places; and
- (9) Propose any:
 - (A) Wastewater treatment unit, except an individual wastewater system or a wastewater treatment unit serving fewer than fifty single-family dwellings or the equivalent;
 - (B) Waste-to-energy facility;
 - (C) Landfill;
 - (D) Oil refinery; or
 - (E) Power-generating facility.

Of those listed in HRS Chapter 343-5, the applicable "triggers" for the preparation of this EIS include:

- Possible use of State and/or County lands and funds related to infrastructure improvements, including but not limited to, roadway, traffic, water, sewer, drainage, utility or other related facilities;
- Possible development of an on-site wastewater treatment facility; and
- Amendments to the *Wailuku-Kahului Community Plan (General Plan)*.

While it is not certain at this time whether an on-site wastewater treatment facility will be required to service the proposed project, an amendment to the *Wailuku-Kahului Community Plan (General Plan)* will be required and the project is anticipated to involve the use of State and County lands for the construction of roadway, infrastructure and utility improvements. The applicant has decided to take a conservative interpretation of the "triggers" for the preparation of this EIS to address each of the above circumstances, including the construction of a wastewater treatment plant.

During the Draft EIS public review period, the State of Hawai'i Office of Environmental Quality Control noted that: "Under subsection 11-200-11.2(A)(1), Hawaii Administrative Rules, the EISPN is a determination supported by a final environmental assessment (FEA); therefore, the initial document should have been called FEA/EISPN instead of the EISPN. Subsequent uses of the acronym EISPN should also be revised to read FEA/EISPN." This

The Draft EIS was preceded by the Wai'ale Final Environmental Assessment/Environmental Impact Statement Preparation Notice (FEA/EISPN). The State of Hawai'i Land Use Commission submitted the FEA/EISPN to the State of Hawaii Office of Environmental Quality Control (OEQC) prior to September 28, 2010. Notice of the availability of the FEA/EISPN was published in the October 8, 2010 edition of the OEQC's *The Environmental Notice*. Copies of the FEA/EISPN were provided to appropriate government agencies and other organizations (See Chapter 11). The public comment period for the FEA/EISPN began on October 8, 2010 and ended November 7, 2010. Comments and responses on the FEA/EISPN received during the public comment period are incorporated in this EIS and the letters are provided in Chapter 11.

1.6 SCOPE OF THIS EIS

This EIS covers potential impacts relating to Wai'ale, the property (TMK (2) 3-8-005: 023 (por.) and 037; and TMK (2) 3-8-007: 071, 101 (por.), and 104) and potential off-site improvements.

The creation of Wai'ale may involve or impact State and/or County lands relating to infrastructure improvements, including but not limited to, roadway, traffic, water, sewer, drainage, utility or other related facilities. While the specific nature of each improvement is not known at this time, this EIS is intended to address all current and future instances involving the use of State and/or County lands and funds relating to Wai'ale. Those State and County lands that may be impacted include, but are not limited to:

- Kuihelani Highway;
- Honoapi'ilani Highway;
- East Waiko Road;
- West Waiko Road;
- Wai'ale Road and the future Wai'ale Road Extension;
- Kamehameha Avenue;
- Kuikahi Drive;
- Maui Lani Parkway;
- Consolidated Baseyard Access Road;
- Kuikahi Drive/Wai'ale Road Intersection;
- Kuikahi Drive/Maui Lani Parkway Intersection;
- Maui Lani Parkway/Kamehameha Avenue Intersection;
- East Waiko Road/Kamehameha Avenue Intersection;
- East Waiko Road/Proposed Wai'ale Community "Road B" Intersection;
- East Waiko Road/Kuihelani Highway Intersection;
- The proposed Wai'ale Water Treatment Facility (WTF);
- County of Maui Department of Water Supply's (DWS) 'Iao 3.0 MG Tank;
- DWS' Kehalani Mauka 1.5 MG Mid-Level Tank;
- DWS' Wai'ale 3.0 MG Tank;
- Kahului Wastewater Reclamation Facility;

- Waikapū Landfill; and
- Central Maui Landfill – Reuse & Recycling Center.

1.7 STUDIES CONTRIBUTING TO THIS EIS

A number of specific technical studies have been prepared for this EIS, and the full reports are included as appendices. These studies include:

- Air Quality Study;
- Aquatic Resource Survey;
- Archaeological Inventory Survey;
- Assessment of Economic and Fiscal Impacts;
- Cultural Impact Assessment;
- Data Recovery Plan and Preservation Plan;
- Flora and Fauna Survey;
- Geological Reconnaissance Survey;
- Market Study;
- Noise Study;
- Phase I Environmental Site Assessment;
- Preliminary Engineering and Drainage Report; ~~and~~
- Solid Waste Management Plan; and
- Traffic Impact Analysis Report.

1.8 EXECUTIVE SUMMARY

1.8.1 *Wai'ale*

Wai'ale, located in the Wailuku-Waikapū region of Maui adjacent to the Maui Lani development, will be a master planned community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways (See Figure O-1). Wai'ale will also feature cultural preserve areas dedicated to the preservation of archaeological features and lithified sand dunes.

Wai'ale will provide homes priced for a range of consumer groups, including the workforce market segment in compliance with Chapter 2.96, Maui County Code (Residential Workforce Housing Policy). Wai'ale will create a socially integrated community with a “unique” sense of identity and character, capitalizing on its location and natural features. Wai'ale is envisioned as a community that makes both residents and visitors feel “welcome”.

Wai'ale's mix of land uses is an essential component to providing alternatives to driving such as walking or biking. The location of commercial and retail establishments

throughout Wai'ale provide for greater interaction, economic activity, and quality of life for residents and visitors. Wai'ale's open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, protection of important habitat and natural features, and an overall setting of enhanced environmental quality and community health.

Wai'ale is in compliance the *Countywide Policy Plan*, a comprehensive policy document for the islands of Maui County to 2030. This plan provides the policy framework for the development of the *Maui Island Plan*, as well as an update for ~~updated~~ the nine detailed Community Plans. Wai'ale is within the "urban growth boundaries" of the Directed Growth Maps in the *Draft Maui Island Plan*.

Although its design is still preliminary in nature, many of the goals, objectives, and policies set forth in the *Countywide Policy Plan* are inherent in Wai'ale. The following list represents some of the pertinent characteristics that are consistent with the *Countywide Policy Plan*:

- Protect the natural environment;
- Preserve local cultures and traditions;
- Improve education;
- Expand housing opportunities for residents;
- Improve parks and public facilities;
- Diversify transportation options; and
- Promote sustainable land use and growth management.

1.8.2 Summary of Potential Impacts and Proposed Mitigation Measures

The creation of Wai'ale will transform the vacant open land of the property into a vibrant, mixed-use community. Appropriate mitigation measures have been incorporated into overall community planning. For areas of particular concern, the following summarizes potential impacts and mitigation measures recommended or planned to minimize or mitigate potential adverse impacts.

Groundwater Resources – The applicant is exploring several potential drinking water source opportunities to serve Wai'ale. Some of these sources include new well sources in the Central Maui region. As part of its ongoing assessment and analysis of potential water sources within the Central Maui region, the applicant drilled a test well within the northeastern portion of the property. Pump test indicated good water quality and capacity. This resulted in the construction of two wells within the property. These wells, Wai'ale Well No. 1 (State No. 5129-04) and Wai'ale Well No. 2 (State Well No. 5129-05) are situated within the Kahului Aquifer. While water from these wells is not planned for use by Wai'ale, it demonstrates the potential for the development of drinking quality water within the Central Maui region. The applicant continues to examine the feasibility of other

wells in the region, including partnerships with other parties in the development of these resources.

To mitigate potential groundwater contamination, best management practices (BMPs) for the future use of the property will be implemented. Covenants will be imposed which inform potential homebuyers that activities at the property could impact the ~~ground water~~ groundwater beneath the property, requires compliance with all applicable environmental and other governmental laws, rules and regulations and requires efforts to protect ~~ground water~~ groundwater contamination from fertilizers, pesticides, metals, petroleum products, solvents and other contaminants. Industrial users will be required to protect groundwater contamination from metals, petroleum products, solvents and other contaminants, including runoff collection and treatment and to institute spill prevention containment and control programs.

Section 3.5 contains a full discussion of groundwater resources.

Surface Water Resources – As previously mentioned, the applicant is exploring several potential drinking water source opportunities to serve the Wai'ale. While new well sources are being explored, the applicant has also been involved in ~~primary focus has been~~ the development of a surface water treatment facility utilizing water from the West Maui ditch system. The applicant acknowledges that the proposed WTF requires further discussion, review and approvals by various governmental agencies in order to proceed. An agreement with the County outlining the sharing of development costs for the proposed Wai'ale WTF, terms of use, the allocation of water and other matters will be required. This agreement will ultimately be subject to the review and approval of the Maui County Council. Also, the establishment of interim in-stream flow standards for the four streams which make up the Na Wai 'Eha, including Waihe'e Stream, will need to be resolved. In June 2010, the CWRM rendered its decision in the Na Wai 'Eha case by setting interim in-stream flow standards for the four streams that make up the Na Wai 'Eha. However, the CWRM's decision was subsequently appealed and is currently before the court.

An aquatic resource survey was conducted however there were no apparent wetland hydrology features on the property.

Section 3.6 contains a full discussion of surface water resources.

Flora Resources – No Federal or State of Hawai'i listed threatened or endangered plant species were identified on the property. No special habitats or rare plant communities were identified at the property. As a result of these conditions there is little botanical concern on this property and the proposed land use changes are not expected to have a significant negative impact on the botanical resources in this part of Maui. Section 3.7 contains a full discussion of flora resources.

Fauna Resources – While the fauna life on the property is strongly dominated by non-native species, the endangered Blackburn’s sphinx moth has been seen in the egg and larval stages of growth. The applicant, in cooperation with the U.S. Fish and Wildlife Service, will develop an appropriate mitigation plan for the Blackburn’s sphinx moth at the property. No other Federal or State of Hawai’i listed threatened or endangered animal species have been identified on the property. Section 3.8 contains a full discussion of fauna resources.

Archaeological and Historic Resources – An archaeological inventory survey of the property was undertaken and subsequently reviewed and accepted by the State Department of Land and Natural Resources State Historic Preservation Division (SHPD). Several previous archaeological investigations have occurred on portions of the property and are described in the AIS. These investigations have led to the documentation of burials, a terrace, and several historic-period sites. Full-time archaeological monitoring shall occur during future ground altering disturbance at ~~Precautionary archaeological monitoring is recommended for portions of the property~~ which contain natural, sandy matrices that are relatively undisturbed. To address burials identified at the site, including those within the former Hawaiian Cement sand mining area, a Final Burial Site Component of a Data Recovery Plan and Preservation Plan for State Sites Nos. 50-50-04-5504 and -6679 has been prepared. The preservation plan was reviewed by the Maui/Lāna’i Islands Burial Council and subsequently accepted by the SHPD. A&B Properties, Inc. and its archaeological contractors will comply with all State and County laws and rules regarding the preservation of archaeological and historic sites. Section 4.1 contains a full discussion of archaeological and historical resources.

Cultural Resources – A cultural impact assessment was prepared for the property to identify traditional customary practices within the property and in the vicinity of the property. Based on consultation with interviewees, the cultural impact assessment report concludes that “there are potential adverse effects to the remaining cultural resources extant on the property that can be mitigated with proper community consultation and proactive planning on the part of the developers. The CIA notes that A&B Properties, Inc. has done much in seeking to protect the known cultural resources on the property, creating approximately 33 acres of cultural preserves and minimizing the need for relocation of burials.” Section 4.2 contains a full discussion of cultural resources.

Traffic – The Traffic Impact Analysis Report (TIAR) prepared for Wai’ale accounted for traffic impacts due to Wai’ale and additional projects in the Wailuku and Waikapū region. By the year 2022, the region is anticipated to experience significant growth, both in its residential population and commercial/industrial/business land uses. Traffic along Kuihelani Highway and other roadways are expected to increase even if Wai’ale is not built. Wai’ale will contribute to regional traffic improvements that will address the impacts of general regional traffic growth, as well as impacts specifically related to Wai’ale.

Wai'ale is also part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Kuihelani Highway, since many establishments providing for residents' day-to-day needs will be within walking and biking distance. Therefore, unlike in a conventional subdivision, Wai'ale is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing trips to outside areas and reducing congestion.

Section 4.3 contains the full discussion regarding traffic.

Noise and Vibration – In the short term, construction of Wai'ale will generate temporary increases in ambient noise levels in the property on an intermittent basis. The highest noise levels are expected to occur during the grading/excavation and finishing phases of construction. Implementation of noise control measures would reduce the construction noise effects to less than adverse. Wai'ale will not result in adverse effects related to construction vibration; therefore, no noise control measures are required.

In the long-term, the noise study concludes that Wai'ale would not result in an adverse effect related to vehicular noise. Noise control measures are proposed for stationary noise impacts generated by ventilation and air conditioning systems. In addition, light industrial and commercial land uses may generate truck loading/unloading noise near residential land uses. Land uses within the property sensitive to vehicle and stationary noise sources include: residential, schools and park-type uses. The implementation of noise control measures would ensure compliance with State rules and regulations, ensure that new land uses would be compatible with ambient noise environments, and reduce the operational noise effects to less than adverse. Wai'ale will not result in an adverse effect related to the operational vibration; therefore, no noise control measures are required.

Section 4.4 contains a full discussion regarding noise and vibration impacts.

Air Quality – In the short-term, construction activity would be expected to generate emissions through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the property. Fugitive dust emissions would primarily result from site preparation (e.g., grading) activities. Establishment and implementation of air quality control measures would ensure compliance with State rules and regulations for construction emissions, as well as reduce the construction air quality effects to less than adverse.

In the long-term, the main source of operational emissions would be on-road vehicles. The amount of these emissions is not considered substantial. Therefore, Wai'ale would not result in an adverse effect related to regional operational emissions. The primary source of localized emissions would be diesel particulate matter (DPM) emitted during truck loading/unloading activity. The amount of DPM emitted in Wai'ale would be directly

related to truck idling times at light industrial and commercial facilities. Without a control measure to limit idling, Wai'ale would result in an adverse effect related to operational emissions. Wai'ale may include an on-site wastewater treatment plant (WWTP). Any place or process in which wastewater is collected, conveyed or treated has the potential to generate and release nuisance odors to the surrounding area. The facility would be constructed using best available control technology to meet U.S. Environmental Protection Agency (EPA) and Hawai'i hydrogen sulfide regulations. Variable meteorological conditions may occasionally lead to on-site nuisance odors. These odors would generally be short-term and are not considered adverse. However, a control measure is recommended to ensure regulatory compliance. Implementation of air quality control measures would reduce the operational air quality effects to less than adverse.

Section 4.5 contains the full discussion regarding air quality.

Man-Made Hazards – A Phase I Environmental Site Assessment (ESA) was conducted for the property, and included recommendations and mitigative measures for recognized environmental conditions (RECs) in connection with the property. The applicant will continue to conduct further investigation and to undertake the mitigative measures identified in the Phase I ESA. Section 4.6 contains the full discussion regarding man-made hazards.

Water – The applicant is exploring several potential drinking water source opportunities to serve the project. These include surface water treatment and new well sources in the Central Maui region. ~~The primary focus has been the development of a surface water treatment facility utilizing water from the West Maui ditch system.~~ Non-drinking quality water will be sought for landscape irrigation purposes. A&B Properties, Inc. is committed to water conservation strategies to reduce consumption, conserve resources and minimize water demands, and it will implement water conservation recommendations of the County of Maui Department of Water Supply. Section 4.8.1 contains the full discussion.

Wastewater – There are two alternatives for treating the wastewater generated by Wai'ale. The first alternative involves constructing an on-site wastewater treatment plant (WWTP) for treatment of the wastewater generated by Wai'ale only. This alternative would require effluent reuse and/or disposal, options for which are also discussed. The second alternative involves conveying the wastewater from Wai'ale to the Kahului WWRF, in the event that there is capacity available to treat the flows, either with or without future expansion of the Kahului WWRF.

If an on-site WWTP is necessary to treat the wastewater generated by Wai'ale, then effluent reuse and/or disposal will be necessary. Parks, open space areas, playing fields associated with a proposed middle school site and community center, and roadway landscaping are possible areas for irrigation use of R-1 water quality effluent. Section 4.8.2 contains the full discussion.

Drainage – Drainage from Wai'ale is not expected to have a significant adverse effect on groundwater, downstream properties, or marine waters. All drainage improvements will be designed so that there will be no increase in the peak rate of storm water runoff leaving the property compared to existing conditions. Stormwater over Wai'ale will percolate directly into the ground (in natural and landscaped areas), evaporate, or will be collected and managed through a drainage system. Runoff will be stored in detention basins located throughout the property. A maintenance plan will be developed for managing the Best Management Practices (BMPs) for Wai'ale. The plan will include requirements for removing accumulated sediments and debris, maintaining vegetation, and performing regular inspections so that the BMPs operate effectively into the future. Section 4.8.3 contains the full discussion.

Solid Waste – A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale by reducing solid waste. A solid waste management plan (See Appendix Q) will be coordinated with the County's Department of Environmental Management Solid Waste Division for the disposal of on-site and construction-related waste material, and A&B Properties, Inc. will work with contractors to minimize the amount of solid waste generated during the construction. After construction, A&B Properties, Inc. will implement strategies from the County of Maui Integrated Solid Waste Management Plan (2009) for diverting solid waste from landfills by providing options for recycling. Section 4.8.5 contains the full discussion.

Housing – Wai'ale will help to address the housing demand of a growing population by providing homes in the Wailuku and Waikapū region and will include homes priced for a range of consumer groups, including the workforce market segment in compliance with Chapter 2.96, Maui County Code (MCC), Residential Workforce Housing Policy. Wai'ale's market-rate homes will be comparable with other Maui communities and are expected to attract purchasers from the same market segments. This inclusionary design provides for a community with social diversity, a mix of ages, and a range of life experiences. The market assessment prepared for Wai'ale concludes that there is sufficient demand for the range of homes within Wai'ale on island within the workforce market segment. Section 4.9.3 contains the full discussion.

Economy – The creation of Wai'ale will contribute substantial positive economic benefits, including approximately:

- \$732,413,000 of direct capital investment in the Maui economy;
- 7,500 “worker years¹” of direct on-site employment;
- \$352,203,000 in employee wages;
- \$47,199,000 of estimated excise taxes;
- 1,000 jobs after the build-out period; and

¹ A “worker year” is defined as the amount of time one full-time worker can work in one year although one worker year (2,080 working hours) may be comprised of many employees involved in specialized tasks of shorter duration.

- \$1,100,000 in annual net real property tax revenue benefit (taxes less costs) to the County of Maui after the build-out period.

Section 4.9.4 contains the full discussion.

Public Services and Facilities – Wai'ale will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and increased income taxes from increased employment. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to the public that may result will be effectively minimized. Wai'ale will also contribute significantly to the provision of public services by directly providing:

- Providing 65 acres of land to the County for a new regional park;
- Providing eight acres of land to the County adjacent to the Maui Lani Regional Park to allow for its expansion into Wai'ale;
- Providing 40 acres of land to the County for affordable housing;
- Providing three acres of land to the County for a neighborhood park;
- Providing seven acres of land to the County for a community center; and
- Providing 18 acres of land to the DOE for a potential middle school site.

Section 4.10 contains the full discussion.

1.8.3 Relationship to Land Use Policies

State Land Use Law, Chapter 205, Hawai'i Revised Statutes – The State Land Use Law (Chapter 205, HRS), establishes the LUC and authorizes this body to designate all lands in the State into one of four Districts: Urban, Rural, Agricultural, or Conservation. The property is in the Agricultural District. A State Land Use District Boundary Amendment will be sought to change the site from the Agricultural District to the Urban District.

Coastal Zone Management Act, Chapter 205A, Hawai'i Revised Statutes – The Coastal Zone Management (CZM) Area as defined in Chapter 205A, HRS, includes all the lands of the State. As such, the property is within the CZM Area. Section 5.1.3 contains a detailed discussion of Wai'ale's compliance with the objectives and policies of the CZM Act.

Hawai'i State Plan, Chapter 226, Hawai'i Revised Statutes – The Hawai'i State Plan (Chapter 226, HRS), establishes a set of goals, objectives, and policies that serve as long-range guidelines for the growth and development of the State. The creation of Wai'ale is relevant to many of the goals, objectives, and policies set forth by the Hawai'i State Plan. Section 5.1.4 contains a discussion of Wai'ale's compliance.

State Functional Plans – The Hawai'i State Plan directs State agencies to prepare functional plans for their respective program areas. There are 14 state functional plans that serve as the primary implementing vehicle for the goals, objectives, and policies of the Hawai'i State Plan. Section 5.1.5 contains a discussion of Wai'ale's compliance.

Countywide Policy Plan – *The Countywide Policy Plan* was adopted in March 2010 and is a comprehensive policy document for the islands of Maui County to 2030. The plan provides broad goals, objectives, policies and implementing actions that portray the desired direction of the County's future. The plan replaces the *General Plan of the County of Maui 1990 Update* and provides the policy framework for the development of the *Maui Island Plan* as well as for updating the nine detailed Community Plans. Section 5.2.1 contains a discussion of Wai'ale's compliance.

Maui Island Plan – The County of Maui is currently in the process of updating the *General Plan*, which will establish long-term planning guidelines for Maui County to the year 2030. The first step in this process involved the creation of a *Countywide Policy Plan*, which provides broad goals, objectives, policies and implementing actions used to develop the *Maui Island Plan* and Community Plans.

The *Draft Maui Island Plan* has not yet been adopted by the Maui County Council; however the backbone of the *Maui Island Plan* will be the Directed Growth Strategy, which will include Directed Growth Maps specifying "urban growth boundaries" for the Island of Maui. As of November 2010, Wai'ale is within the "urban growth boundary" of the Directed Growth Maps set forth by: 1) the Department of Planning; 2) the Maui Planning Commission; and 3) the General Plan Advisory Committee.

During the Draft EIS public review period, the County Planning Department's Long Range Division wrote: "The Division supports the location of the Wai'ale master-planned community. The proposed project falls within the proposed Urban Growth Boundaries of the draft Maui Island Plan, and thus conforms to an island growth strategy that encourages development of land in proximity to major work and employment centers and existing infrastructure."

Wailuku-Kahului Community Plan – The *Wailuku-Kahului Community Plan* is one of nine community plans developed to address the unique aspects of each region. According to the *Wailuku-Kahului Community Plan* Land Use Map, the property is designated Agriculture. A Community Plan Amendment will be sought to change the site from Agricultural to Urban. Section 5.2.3 contains a discussion of Wai'ale's compliance.

County of Maui Zoning – The property is designated as Agricultural. A Project District Phase I/Change in Zoning will be sought to change the site from Agricultural to a Project District.

1.8.4 Anticipated Permits and Approvals

A listing of anticipated permits and approvals required for Wai'ale is presented below:

Table 1-1: Anticipated Permits and Approvals

PERMIT/APPROVAL	RESPONSIBLE AGENCY	STATUS
Chapter 343, HRS Compliance	State Land Use Commission	Final EIS is pending public comments on EIS and <u>Pending</u> acceptance by the State Land Use Commission.
State Land Use District Boundary Amendment	State Land Use Commission	Petition has been filed. Processing is on hold until the to commence <u>after</u> EIS (Chapter 343, HRS) process has been completed.
Community Plan Amendment	Maui Department of Planning	Application(s) to be submitted after successful processing of State Land Use District Boundary Amendment.
Project District Phase I/Change in Zoning	Maui Department of Planning	Application(s) to be submitted after successful processing of State Land Use District Boundary Amendment.
Project District Phase II	Maui Department of Planning	Application(s) to be submitted after Project District Phase I approval.
Project District Phase III/Subdivision Approval	Maui Department of Planning	Application(s) to be submitted after Project District Phase II approval.
Chapter 6E, HRS Compliance	State Historic Preservation Division	Application(s) to be submitted pending Project District Phase II approval.
National Pollutant Discharge Elimination System Permit	State Department of Health	Application to be submitted prior to Grading/Building Permits.
Grading/Building Permits	Maui Department of Public Works	Application to be filed after Project District Phase II approval.
Grading and Grubbing	Maui Department of Public Works	Application to be filed after Project District Phase III approval.
Drainage Approval	Maui Department of Public Works	Application to be filed after Project District Phase III approval.
Permit to Perform Work within a State Right-of-Way (ROW)	State Department of Transportation	Application to be filed after Project District Phase III approval.
<u>Request for Access to State ROW</u>	<u>State Department of Transportation</u>	<u>Application to be filed after Project District Phase I approval.</u>
<u>Surface Water Use Permit</u>	<u>State Department of Land and Natural Resources, Commission on Water Resource Management</u>	<u>Application to be submitted after successful processing of State Land Use District Boundary Amendment.</u>
<u>New Raw Water Source</u>	<u>State Department of Health, Safe Drinking Water Branch</u>	<u>Application to be submitted after water source determined.</u>
<u>Capacity</u>	<u>State Department of Health, Safe Drinking Water Branch</u>	<u>Application to be submitted after water source determined.</u>

PERMIT/APPROVAL	RESPONSIBLE AGENCY	STATUS
Construction Plans	State Department of Health, Safe Drinking Water Branch	Application to be submitted after water source determined.

The current status of each identified permit is described in Table 1-1 above. It is nearly impossible to accurately estimate the future submittal dates for the anticipated permits. Since many of the applications are sequential in nature, any delays will impact the timing of subsequent applications. Any estimate at this time would be highly speculative. Should State Land Use Commission approval of the subject land use petition be attained in late 2012, Community Plan Amendment and Project District Phase I/Change in Zoning applications would be filed shortly thereafter in either late 2012 or 2013. The remaining State and County permits listed would then be filed in 2013 or 2014.

1.8.5 Alternatives

The alternatives that have been considered are:

- No Action Alternative;
- Alternative Locations; ~~and~~
- Alternative Project Design; and
- Alternative of Postponing Action Until Further Study.

Chapter 6.0 contains a discussion of the alternatives.

1.8.6 Cumulative and Secondary Impacts

Cumulative and secondary impacts are impacts that may result from other reasonably foreseeable actions within the area, regardless of who initiates the action. Cumulative and secondary impacts resulting from Wai'ale, along with other proposed development projects in the region, include increased population and greater demands on public infrastructure systems and services. However, the population of the Wailuku-Kahului region is projected to grow and the needs of a growing population relating to traffic, infrastructure, public services, and other issues will need to be addressed regardless if some or all of these projects are built. Section 7.2 discusses cumulative and secondary impacts.

1.8.7 Rationale for Proceeding with Wai'ale Notwithstanding Unavoidable Effects

In light of the above-mentioned potential impacts, Wai'ale should proceed because significant adverse impacts can be mitigated and are offset by substantial positive factors, including:

- Compliance with the *Countywide Policy Plan* (current *General Plan* and *Draft Maui Island Plan*);
- Significant long-term community benefits; and
- Significant economic benefits.

During the Draft EIS public review period, the County Planning Department's Long Range Division wrote: "The Division supports the location of the Wai'ale master-planned community. The proposed project falls within the proposed Urban Growth Boundaries of the draft Maui Island Plan, and thus conforms to an island growth strategy that encourages development of land in proximity to major work and employment centers and existing infrastructure." Section 7.4.1 elaborates on the rationale for proceeding with Wai'ale notwithstanding unavoidable effects.

1.8.8 *Unresolved Issues*

Water – Several potential drinking water source opportunities to serve Wai'ale are being considered. These include a surface water treatment facility and new well sources in the Central Maui region. ~~The primary focus has been the development of a surface water treatment facility utilizing water from Maui's ditch system.~~

The timing of completion of these potential source development alternatives will, in large part, determine the particular water source for Wai'ale. All source alternatives will require further discussion, review, and approval by applicable governmental agencies (County Department of Water Supply; and State Department of Health, Safe Drinking Water Branch) as the project proceeds. Maui County Ordinance No. 3502 requires in part that no subdivision shall be approved unless prior to submittal of subdivision construction plans the Director of the County's Department of Water Supply verifies a long-term reliable supply of water. The applicant expects to meet the requirements of this ordinance or subdivision approval will not be granted.

Wastewater – In recent discussions with the County of Maui Wastewater Reclamation Division, the County has confirmed that there is probably not enough capacity at the Kahului Wastewater Reclamation Facility (WWRF) for even initial flows from Wai'ale, since treatment capacity is allocated on a first come first served basis, and they already have multiple requests for capacity allocation.

There are two alternatives for treating the wastewater generated by Wai'ale. The first alternative involves constructing an on-site wastewater treatment plant (WWTP) for treatment of the wastewater generated by Wai'ale only. This alternative would require effluent reuse and/or disposal, options for which are also discussed. The second alternative involves conveying the wastewater from Wai'ale to the Kahului WWRF, in the event that there is capacity available to treat the flows, either with or without future expansion of the Kahului WWRF. The County will be consulted to discuss what improvements to the existing County collection system may be needed to accommodate the flows from the project.

All wastewater treatment alternatives will require further discussion, review, and approval by applicable governmental agencies (County Department of Environmental Management; and State Department of Health, Wastewater Branch)~~as the project proceeds~~. As part of the engineering design process relating to wastewater treatment and disposal, the applicant and its engineering consultants expect to have ongoing consultations with these agencies. At any time prior to filing any subdivision application, should it be confirmed that an on-site treatment plant will be required, the design of such a plant will be undertaken in consultation with these agencies.

2.0 WAI'ALE DESCRIPTION



2.0 WAI'ALE DESCRIPTION

2.1 BACKGROUND INFORMATION

2.1.1 *Location and Property Description*

The Wai'ale property comprises approximately 545 acres of land covering all or a portion of five tax map key parcels (See Figures 2-1 and 2-2). The property is located in the Kahului Isthmus Region of the island of Maui, Hawai'i. According to the United States Geological Survey (USGS), Wailuku, Hawai'i, 7.5-minute topographic quadrangle map, a small portion of the subject property is located in the Wailuku district and the remaining subject property is located in the Waikapū district. Kuihelani Highway borders the property on the east. East Waiko Road intersects Kuihelani Highway and divides the property into two sections, one section lies north of East Waiko Road comprised of approximately 422 acres and the other south of East Waiko Road comprised of approximately 123 acres. Current access to the property is off of East Waiko Road and Kuihelani Highway.

The project site generally slopes in an east or northeasterly direction with an average slope of approximately two (2) to three (3) percent. Elevations range from 154 to 308 feet mean sea level (MSL). The south project site has been graded to have fairly consistent land slopes while the north side has more rolling terrain and a few small gulches. The property is generally flat along the eastern boundary along Kuihelani Highway, with a gentle slope rising from the northeastern to the northwestern corner. Elevations at and around the property range from approximately 160 to 300 feet above mean sea level (msl). Waikapū Stream, located outside of the Wai'ale project area, borders the southwestern edge of the property.

Current land use designations for the Wai'ale property are:

- State Land Use: Agricultural (See Figure 2-3);
- Community Plan: Agriculture (See Figure 2-4);
- County Zoning: Agricultural; and
- Special Management Area: Not in SMA (See Figure 2-5).

2.1.2 *Surrounding Land Uses*

The area surrounding the property consists of residential, industrial, vacant and agricultural land uses. To the north, and adjacent to the property, is the master planned Maui Lani community including residential, commercial, recreational and educational uses. An 18-hole championship golf course, The Dunes at Maui Lani, is also located within Maui Lani. To the east are Kuihelani Highway and sugar cane fields. To the south are Waikapū Stream and sugar cane fields.

To the west of Wai'ale are light industrial uses including the Wailuku Agribusiness Company, Inc., and Maui Scrap Metal Company, Inc., as well as the County's closed Waikapū landfill. Beyond these uses are Wai'ale Drive and Waikapū Village (residential). Most of Waikapū Village is located mauka of Honoapi'ilani Highway, but a portion of Waikapū Village does extend approximately 700 feet east of Honoapi'ilani Highway along East Waiko Road. Further west is Honoapi'ilani Highway in Waikapū. The average distance between Honoapi'ilani Highway and the property is approximately 3,000 feet. The Waiolani 'Elua subdivision (25 single-family lots), the Waiolani Mauka subdivision (104 single-family lots), the Waiolani Pikake subdivision (38 single-family lots), and the Waikapū affordable housing subdivision located off Honoapi'ilani Highway has approximately 410 existing single-family home sites. Maui Tropical Plantation is also located west of Wai'ale and adjacent to Waikapū. The 60-acre plantation is a demonstration farm, open to the public for tours and special events and the area surrounding it is planned for residential development (Waikapū Country Town).

From the makai portion of Waikapū Village, to Kuihelani Highway, the land uses along East Waiko Road (including the subject property) are primarily vacant lands with scrub brush. As previously described in Section 2.1.1, East Waiko Road divides Wai'ale into two sections. Light industrial uses (not part of the subject property) including the Consolidated Baseyards, ABC Development, Inc., and the former Campaign Recycle Maui green waste facility can be accessed from East Waiko Road.

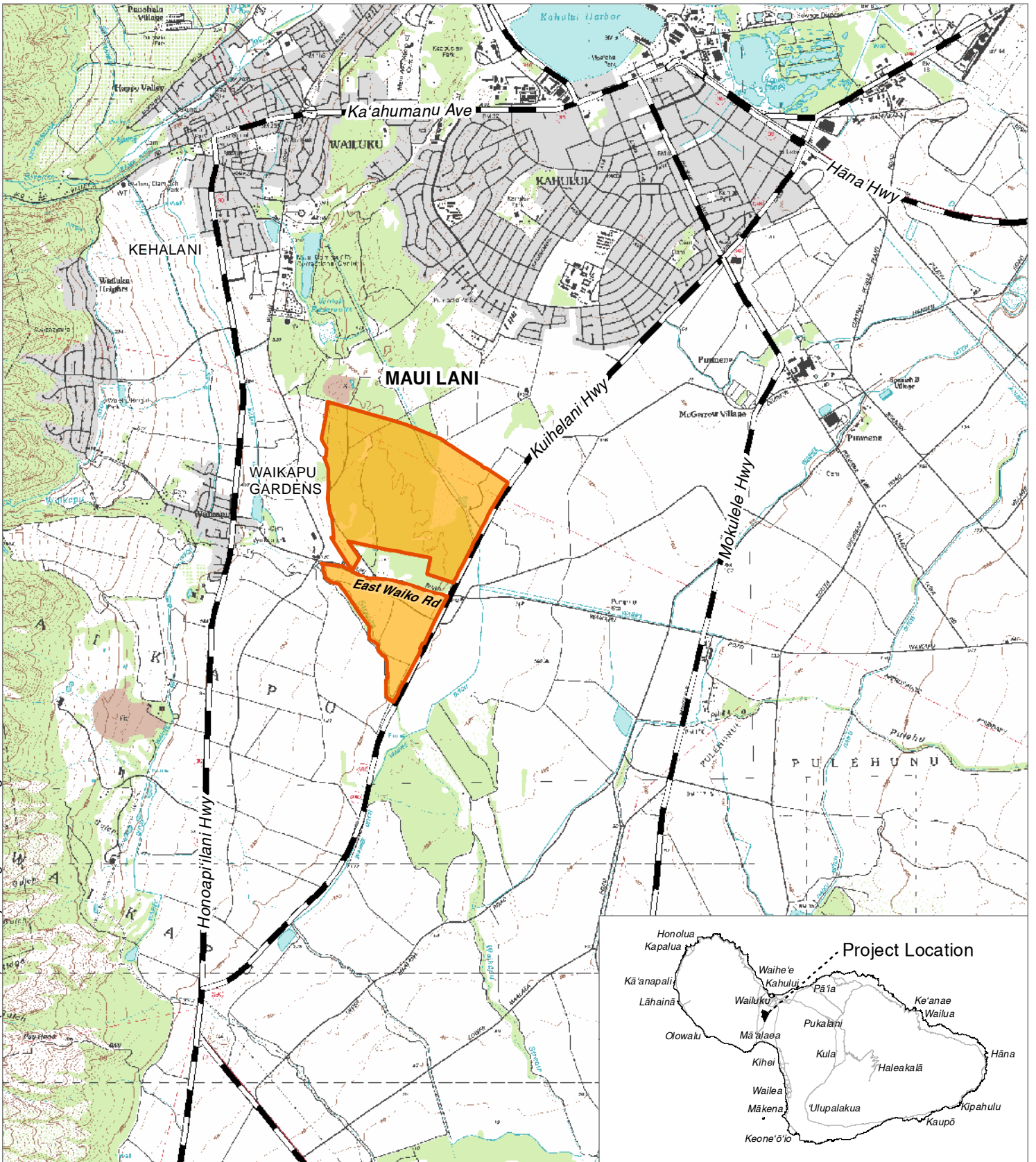
2.1.3 Regional Land Use History

According to the Archaeological Inventory Survey prepared for the property (See Section 4.1, and Appendix E), the Wailuku district is frequently mentioned in historical texts and oral tradition as being politically, ceremonially, and geographically important during traditional times. Wailuku was considered a "chiefly center" with many of the chiefs and much of the area's population residing near or within portions of 'Īao Valley and lower Wailuku.

Closer to the property, in the southwest corner of the Wailuku district, pre-Contact settlement was not as dense as concentrations to the north. Climate had much to do with that trend, as the lower Waikapū-Mā'alaea area is a more arid environment than the rain-soaked areas located upslope.

In 1848, commissioners of the Mahele instigated an extreme modification to traditional land tenure on all islands that resulted in a division of lands and a system of private ownership. The Mahele was based upon the principles of Western law. While a complex issue, many scholars believe that in order to protect Hawaiian sovereignty from foreign powers, Kamehameha III was forced to establish laws changing the traditional Hawaiian society into that of a market economy. The dramatic shift from a redistributive economy to a market economy resulted in drastic changes to land tenure, among other things. As a result, foreigners demanded private ownership of land to ensure their investments.

Path: Q:\Maui\Waiale (Waiko)\GIS\Project\Figure 2-1 - Regional Location.mxd



LEGEND

 Project Area

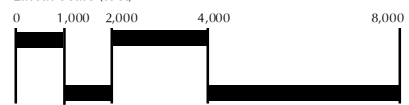
Figure 2-1
Regional Location
WAI'ALE

A&B PROPERTIES, INC.

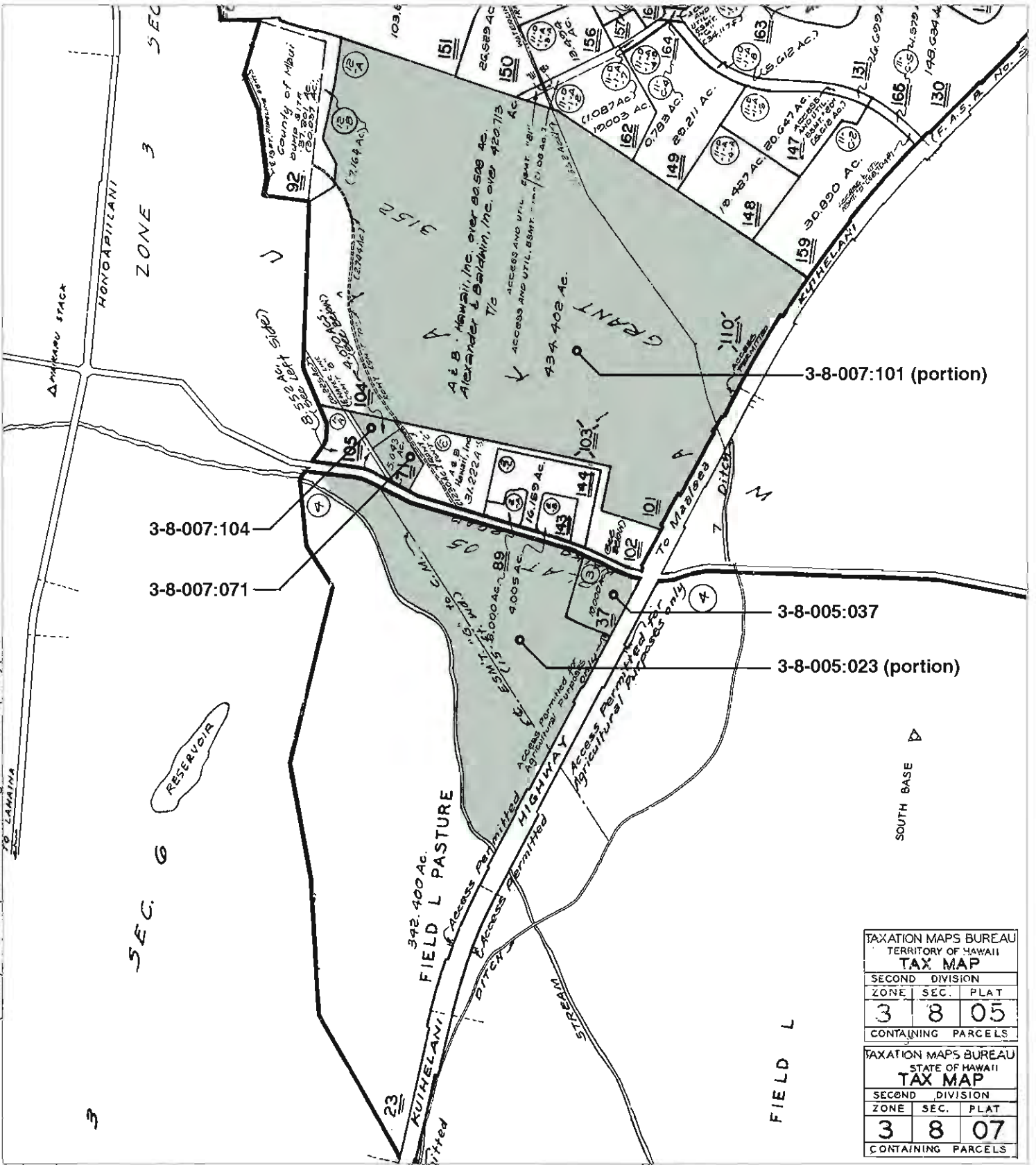
KAHULUI, MAUI

North

Lineal Scale (feet)



Source: U.S. Geological Survey (GIS)
Disclaimer: This graphic has been prepared for general planning purposes only.



LEGEND
 Project Area

Figure 2-2
 Tax Map Key
WAI'ALE

A&B PROPERTIES, INC. KAHULUI, MAUI

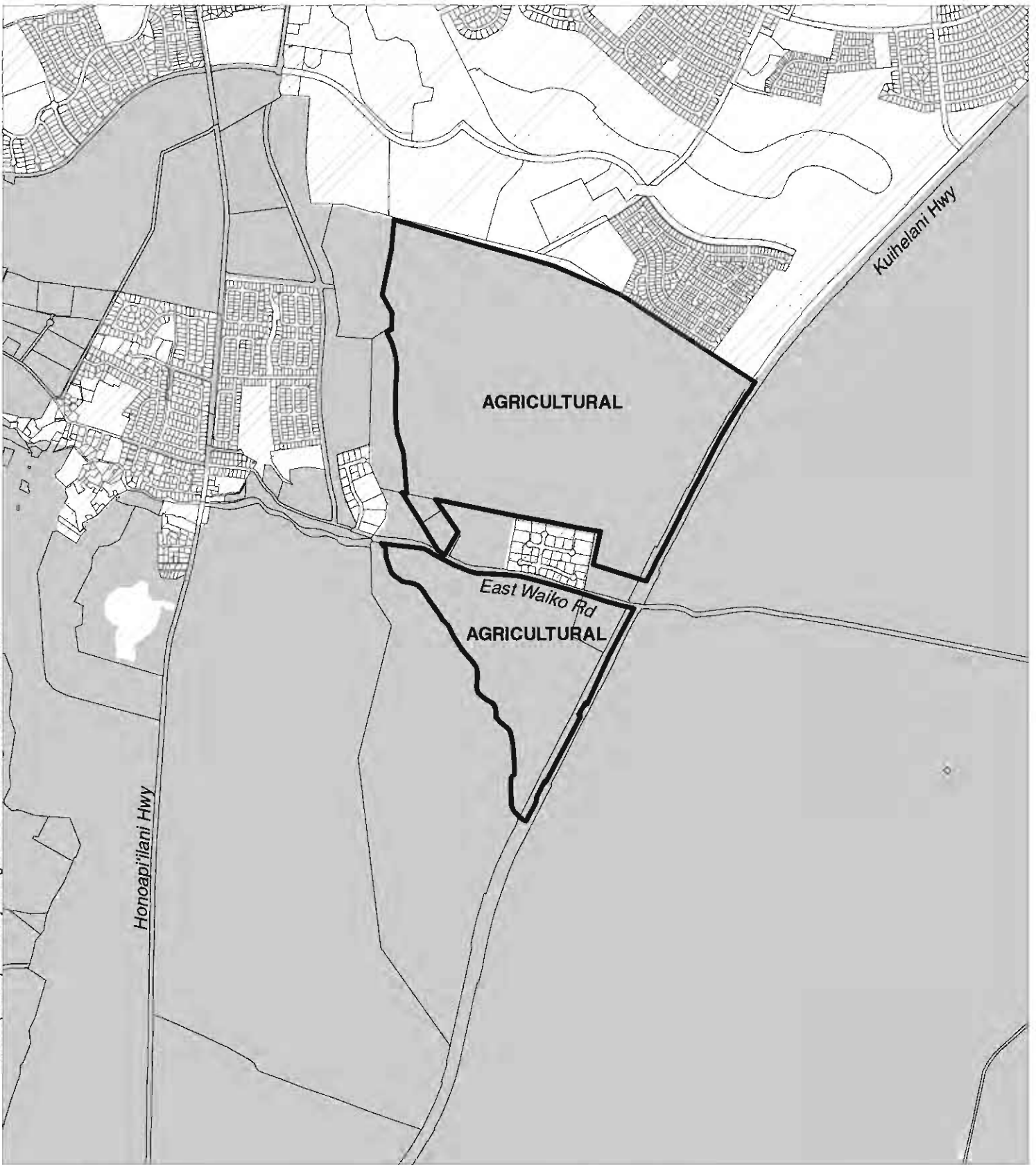
North

Linear Scale (feet)
 0 750 1,500 3,000

TAXATION MAPS BUREAU TERRITORY OF HAWAII TAX MAP		
SECOND DIVISION		
ZONE	SEC.	PLAT
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CONTAINING PARCELS		
TAXATION MAPS BUREAU STATE OF HAWAII TAX MAP		
SECOND DIVISION		
ZONE	SEC.	PLAT
3	8	07
CONTAINING PARCELS		

Source: Tax Map Key: 3-8-05xxx and 3-8-07xxx
 Disclaimer: This graphic has been prepared for general planning purposes only.

Path: Q:\Maui\Waiale (Waiko)\GIS\Project\Figure 2-3 - State Land Use Districts.mxd



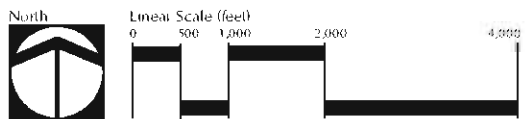
LEGEND

-  Project Area
-  Agricultural
-  Urban

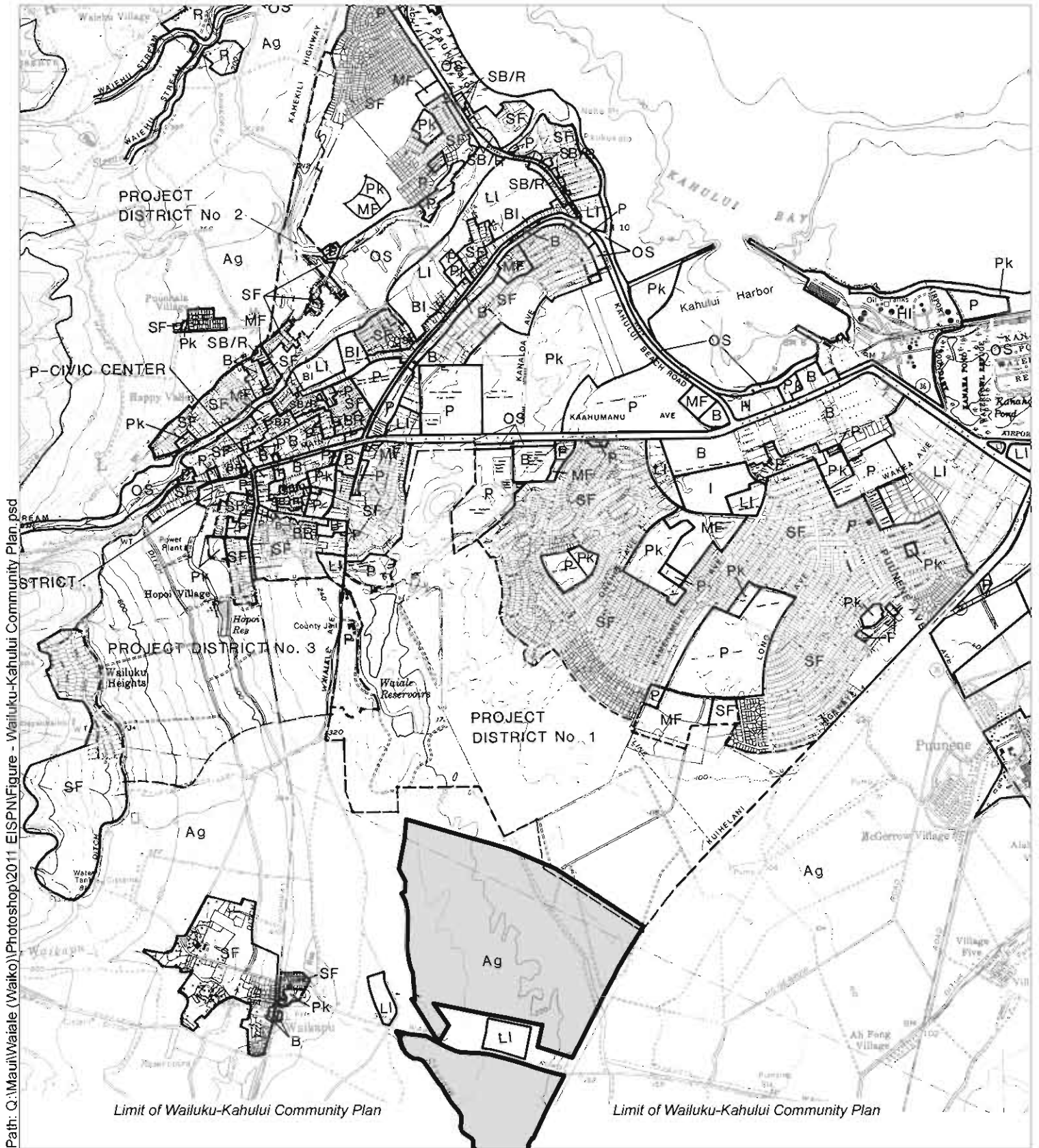
Figure 2-3
State Land Use Districts
WAI'ALE

A&B PROPERTIES, INC.

KAHULUI, MAUI



Source: State Land Use Commission, 2010 (GIS)
Disclaimer: This graphic has been prepared for general planning purposes only.



Path: Q:\Maui\Waialeale (Waiko)\Photoshop\2011 EISPNI\Figure - Wailuku-Kahului Community Plan.psd

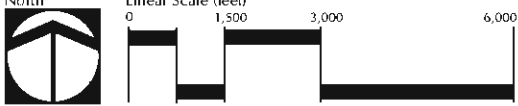
LEGEND


-  Agriculture
-  Project Area

Figure 2-4
Wailuku-Kahului Community Plan
WAI'ALE

A&B PROPERTIES, INC. KAHULUI, MAUI

North Linear Scale (feet)

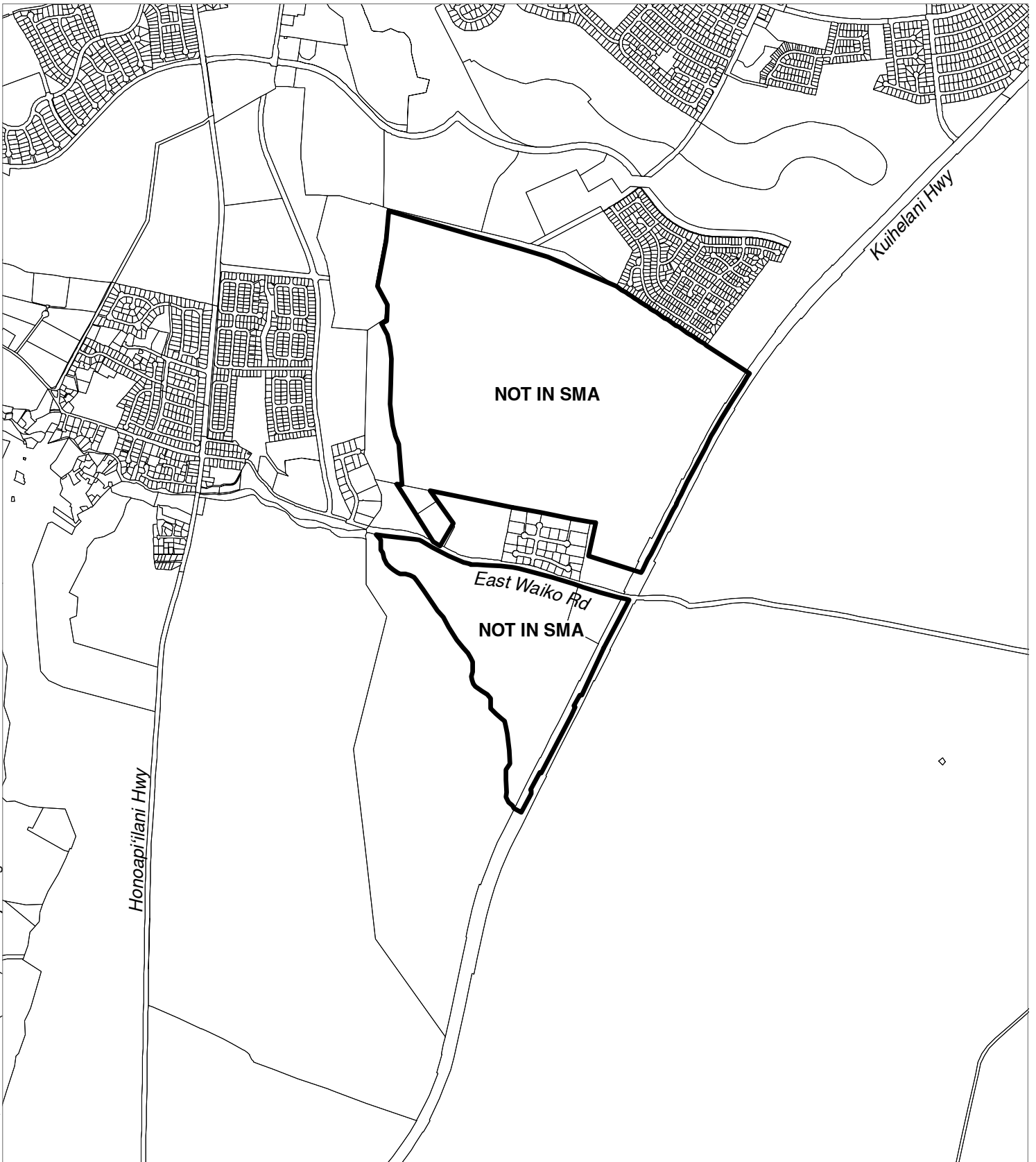




PBR HAWAII
& ASSOCIATES, INC.

Source: County of Maui Wailuku-Kahului Community Plan (1990), Ordinance No. 3601 (Wailuku-Kahului Community Plan 2002), effective June, 5, 2002.
Disclaimer: This graphic has been prepared for general planning purposes only.

Path: Q:\Maui\Waiale (Waiko)\GIS\Project\Figure 2-5 - SMA.mxd



LEGEND



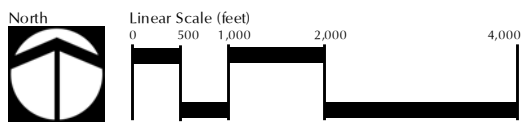
-  Project Area
-  Special Management Area (SMA)

Figure 2-5
Special Management Area
WAI'ALE

A&B PROPERTIES, INC.

KAHULUI, MAUI



Source: County of Maui, 2009 (GIS)
Disclaimer: This graphic has been prepared for general planning purposes only.

Once lands were made available and private ownership was instituted, native Hawaiians, including the *maka'āinana* (commoners), were able to claim land plots upon which they had been cultivating and living. Often times, foreigners were simply just given lands by the *ali'i*. However, commoners would often only make claims if they had first been made aware of the foreign procedures (*kuleana* lands, or land commission awards). These claims could not include any previously cultivated or currently fallow land, *okipu*, stream fisheries, or many other natural resources necessary for traditional survival. Awarded parcels were labeled as Land Commission Awards (LCAs). Significantly, the majority of LCAs were awarded to Hawaiians, a gauge that can be used to measure pre-Contact settlement, since there was little overall change in traditional land use among Hawaiians prior to 1853. Two Royal Patent Grant Numbers are associated with the property, Number 3152 to Henry Cornwell and Number 3343 to Claus Spreckels. ~~There are no LCAs or any other claims of land (e.g., royal patents, land grants) present within the Wailuku ahupua'a section of the project area. A single Land Grant is present on TMK: (2) 3-8-007: 101 within the Waikapū ahupua'a and is identified as Land Grant 3152.~~

As it expanded its territory, the Wailuku Sugar Company first appeared on maps in the area in the 1920s (although their acquisition of land south of the property may have been as early as the turn of the century). On November 18, 1875, Henry Cornwell, through Land Grant 3152, acquired Waikapū ahupua'a from the ~~state~~ government. By the turn of the century, a large portion of Waikapū, and possibly portions of the property, was under sugarcane cultivation.

According to the Phase I Environmental Site Assessment prepared for the property, review of a historic topographic map from 1885 indicated that the property and adjacent properties were undeveloped land owned by the Hawaiian Commercial & Sugar Company (HC&S). A review of aerial photographs taken in 1950 and 1965 revealed that the majority of the property appears as undeveloped land with low-lying vegetation, with a small portion of the property north of East Waiko Road being cultivated. A 2004 aerial photograph showed the property similar to its current configuration, except that the majority of the property south of East Waiko Road appearing to be cultivated.

2.1.4 Wai'ale Recent Property History

The property is divided into two sections by East Waiko Road. The section north of East Waiko Road is comprised of approximately 422 acres and the section south of East Waiko Road is comprised of approximately 123 acres.

The section located north of East Waiko Road is currently leased to several tenants. Approximately 162 acres is leased to Brendan Balthazar, Gary Vares, and Manuel Lopes for cattle and horse grazing. Ameron International Corporation and T.J. Gomes occupy approximately 17 acres of the subject property for sand stockpiling. Hawaiian Cement previously occupied a portion of this land for sand mining operations, however, sand mining operations are no longer conducted at the subject property. Nobriga's Ranch, Inc.

occupies approximately five acres for a cattle feed lot. Tom's Backhoe lease area occupies two acres and is used as a storage yard for construction and asphalt paving equipment. A portion of the property was previously used as a turf sod farm.

The section located south of East Waiko Road is currently fallow sugar cane fields, with an orchid farm and a former scrap yard. HC&S used most of this land for sugar cane cultivation until production ceased in about 2008. Melia Orchards Maui leases approximately 10 acres and specializes in orchid flowers used for hotels and restaurants. A portion of the property was formerly leased to a scrap metal company and some materials from the scrap yard still remain onsite. Additionally, portions of the property were observed with unauthorized dumping of appliances, furniture, automotive parts, and other materials.

2.2 WAI'ALE COMMUNITY PURPOSE AND NEED

ACM Consultants, Inc. (ACM) was retained by A&B Properties, Inc., to analyze each of the specified segments of the real estate market as it relates to Wai'ale. In particular, ACM studied economic trends and demographics, and supply and demand factors for residential, commercial and industrial properties. Residential properties included single-family residences, single-family house lots, and condominium units. Commercial and industrial properties included vacant developable lots as well as improved properties. In the process, ACM gathered as much information as possible on real estate activity on Maui while focusing primarily on the Central Maui market.

The objectives of the market analysis were as follows: (1) to define and delineate the market area; (2) to identify and analyze the current supply and demand conditions specific to the subject's market; and (3) identify, measure and forecast the effect of anticipated developments or other factors on future supply.

ACM determined that there are approximately 2,300 new housing units (single family residential, condominium and residential house lots) either currently available in the market or which will become available in the short-term future. ACM estimated that based on historical annual absorption rates of the real estate markets, the current short term supply of units is expected to last approximately four years (2,300 units of supply ÷ 580 units of average annual absorption).

Long term housing supply, as being recommended in the *Maui Island Plan* by the County of Maui (County) Department of Planning, the Maui Planning Commission and the General Plan Advisory Committee, is estimated to be 11,623 housing units. Although this count is based on a 20-year span, it is difficult to gauge the timing of these projects until construction actually begins. However, ACM noted that economic changes, community intervention, market conditions or internal issues with the developers may affect the feasibility of these projects. In reality, some of these projects may never be approved or be built out by 2030. For this reason, the number of units of potential supply that will actually be developed is expected to be lower than the County-estimated supply of 11,623 units.

ACM also noted that “Without an adequate supply of new construction projects, the resulting shortage of housing typically causes prices in general to move up. As a result, those at the bottom end of the income scale usually find it most difficult to purchase real estate. Historically, supply has lagged demand and is a significant limiting factor in the affordability of real estate in the Maui market.”

Central Maui has the largest share of future housing units on the island, with 4,850 units planned. The largest component of future growth in Central Maui is Wai'ale, which, with 2,550 units proposed, accounts for over 50 percent of the planned units in Central Maui.

According to ACM, if the residential units proposed within Wai'ale were (entitled/permitted, designed, and built) available for sale today, it would likely be facing the same types of sales difficulties that other ongoing projects are witnessing. However, Wai'ale will still need to go through entitlement, design and construction processes before sales can occur. As such, release of Wai'ale's housing units may be very well timed with the economic recovery. Once market conditions improve, the project can expect to see heightened demand. During the Draft EIS public review period, the Sierra Club Maui Group asked: “The DEIS does not discuss what happens if Wai'ale gets approved but not built for many years...” As alluded to above, “sales difficulties” are often market-, and economy-related. But that is the risk that all residential developers face. Government's role in facilitating affordability is to ensure there is competition in pricing through adequate supply.

In regards to the commercial/industrial market, ACM found that Central Maui had a significant increase in population from the 2000 to 2010 census, with a growth rate of 26.3 percent (similar to that of 1990 to the 2000 census, with a growth rate of approximately 26 percent). Increasing population must be followed with the availability of professional services and commercial establishments to support the growth. ACM noted that although Central Maui has the lowest ratio of population to acres of finished commercial and industrial land area, unit prices remain comparable to commercial and industrial parks in South Maui and West Maui. This would indicate the continued demand for commercial and industrial land in Central Maui.

All public utilities including electricity, water, telephone, and sewer service are available in Kahului and Wailuku, as is police, fire and ambulance services. Propane gas is not a public utility, however, is available.

With the increase of public transportation now available on Maui, Kahului and Wailuku are easily accessible from most parts of the island. The availability of public utilities and services, public transportation, and the fact that Kahului and Wailuku are centrally located to airport and harbor facilities, and co-located with other commercial and industrial establishments, makes commercial and industrial properties in Kahului and Wailuku ideally located.

Due to this region being the center of County, State and Federal offices, as well as community services, the properties in Kahului and Wailuku are anticipated to be in greater demand in the years ahead. Based on the desirability of this area and forecasted demand here, property values are expected to continue their appreciation in the long-term future.

ACM concluded:

Central Maui is the nucleus of commercial and residential activity in the County of Maui. It is the transportation hub, employment center, and focus of government activities. In addition it is home to the island's secondary education campus and features more commercial, industrial and professional space than any other urban region. There is little doubt that for these reasons, those involved with the development of the Maui Island Plan have recommended that more than 40 percent of Maui's future supply units, to the year 2030, be located in Central Maui.

Most importantly, the Wai'ale Master Plan Development will be primarily targeted toward the workforce market segment. Statistical evidence has clearly shown that regardless of conditions, this market segment has the most demand. Although the pricing of the project units have not been determined, this development will give entry level market participants an opportunity for home ownership.

The Wai'ale Master Plan Development is a primary component of future growth in Central Maui and is being projected to supply greater than 50 percent of the required future housing units for Central Maui. The property owners continue to work diligently with government agencies in an effort to design a master plan community that represents smart-growth for the Central Maui region. As previously discussed, the proposed project is consistent with many of the goals, objectives, policies and implementing actions set forth in the Countywide Policy Plan, which provides a policy framework for the Maui Island Plan and Community Plans. After consideration of current economic and real estate market conditions; forecasts by Hawaii economists; as well as long-term supply and demand recommendations being deliberated for the 2030 General Plan, it is the Consultant's opinion that the Wai'ale Master Plan Development should be well positioned to capitalize on the recovery of the real estate market and play an important role in providing a long-term solution to the housing needs of Central Maui's workforce.

2.2.1 *Statement of Objectives/Community Planning Process*

Wai'ale has been planned through a community-based process including meetings with key stakeholders, community leaders, the County of Maui administration, and Maui residents. Questionnaires and informational meetings and planning workshops held in 2005 sought community input and participation in developing a vision and conceptual master plan for Wai'ale, based on the most current information that was available on the site at that time. The community has contributed to Wai'ale's conceptual master plan and vision statement, which envisions a socially integrated community with a unique sense of identity and character that makes both visitors and residents feel welcomed.

Community Meetings:

- August 11, 2005 – This meeting provided an orientation of the project area, the planning process, and the formulation of a vision statement for Wai'ale.
- August 13, 2005 – In this planning workshop, residents had the opportunity to help develop alternative conceptual master plans consistent with their vision for a new community.
- August 20, 2005 – At the community open house, residents were able to provide additional input on the project and refine the preferred master plan for Wai'ale.
- August 25, 2005 – The preferred conceptual master plan was presented to the community at this meeting.

During the FEA/EISPN public review period, the Maui Tomorrow Foundation, Inc. commented that its view of the 2005 community consultation process was as follows:

The 2005 community consultation process did not provide participants with any sense of the historic or cultural significance of the land; therefore the community's decisions regarding the project were incomplete. No mention is made of the long-held concerns of members of the Maui-Lanai Island Burial Council and members of the public who asked that the sand mining on this site be halted and the burials be left in peace.

The original conceptual master plan for the property included approximately 826 acres; comprising of 474 acres contiguous to Maui Lani, extending to Kuihelani Highway and East Waiko Road, and approximately 352 acres extending south from East Waiko Road along Kuihelani Highway. The project was envisioned as a master planned community that would incorporate a mix of land uses to support the projected future community growth in Central Maui, including affordable housing and the potential for a new civic center for the County of Maui.

However, ~~since that time,~~ in consultation with the County Planning Department in the initial stages of formulating the *Draft Maui Island Plan*, the original project area has been reduced in scope ~~and~~ to fit within the population and land use projections for Year 2030.

Thus, the lands south of Waikapū Stream (approximately 220 acres) were not included in the scaled back conceptual master plan. As currently planned, the entire project area is designated within the Urban Growth area under the *Draft Maui Island Plan* (December 2010). Although the lands south of Waikapū Stream are still envisioned as a potential future urban expansion area, they are not included in this project.

While the ~~final~~ *Draft Maui Island Plan* ~~has not yet been adopted~~ is still under review by the Maui County Council and is not anticipated to be finalized and adopted until later this year, a major element of the *Maui Island Plan* ~~will be~~ is the Directed Growth Strategy, ~~which will include~~ including Directed Growth Maps specifying “urban growth boundaries” for the island of Maui. As of ~~July~~ the December 2010 draft, all of the subject lands north of Waikapū Stream are within the “urban growth boundary” of the Directed Growth Maps put forth by: 1) the Department of Planning; and 2) the General Plan Advisory Committee; and 3) the Maui Planning Commission. In addition, various County and State governmental agencies have been consulted in the development preparation and refinement of the Wai’ale master plan.

The Wai’ale master plan has sought to incorporate the open space buffer between Maui Lani and Wai’ale as articulated in the *Draft Maui Island Plan*. Within the Wai’ale master plan, areas designated for park space and planned cultural preserves seek to provide that open space buffer. However, the rationale for designating a portion of lands within the northern portion of Wai’ale for planned County Housing is in part based on County Ordinance No. 3559. The County of Maui via Ordinance No. 3559 (Maui Business Park Phase II-Change in Zoning) required in part that A&B dedicate 50 acres to the County for affordable housing (40 acres), community center (7 acres) and park (3 acres). The specific location of these lands was described as being “...at the approximate location of the terminus of Kamehameha Avenue, near the new Maui Lani Park and Pomaikai Elementary School”. This location in the northern portion of the property, is where infrastructure and roadway connections to Maui Lani would be the closest, cheapest and the fastest to build. Additionally, in order for these areas to be zoned and utilized for recreational park purposes, they must be situated within the Urban Growth Boundary (UGB) so that appropriate zoning can be eventually obtained through the County’s zoning process (per Maui County Code Section 19.615.040 which states that regional parks must be situated either in the State Land Use “Urban” or “Rural” Districts).

Also, in satisfying a condition of zoning for the Maui Business Park — Phase II project, A&B Properties, Inc. agreed to contribute 50 acres within the Wai’ale community site to the County of Maui. The lands are to be used by the County as follows: Affordable Housing (40 acres), Community Center (seven acres) and Neighborhood Park (three acres).

2.3 WAI'ALE DESCRIPTION

2.3.1 Vision Statement for Wai'ale

Through the community-based planning process, the following vision statement was developed:

Create a socially integrated community with a “unique” sense of identity and character, capitalizing on its location and natural features. As an extension of Kahului “Dream City,” it will be a community that makes both visitors and residents feel “welcome” and plans for the long-range community and civic facilities to support the central Maui region.

Some of the key community planning goals and objectives to achieve this vision includes:

- Provide walkable mixed-use neighborhoods.
- Provide homes for a variety of income ranges, ages, and lifestyles. If so desired, a resident can grow-up and spend their entire lives in the community with the appropriate housing types available.
- Plan for needed community facilities to meet the region’s current and future needs.
- Include a multi-modal transportation system that accommodates walking, biking, jogging and driving.
- Include commercial activities (including locally-owned stores and restaurants), schools, and other civic and recreational facilities.
- Respect the natural, historical, and cultural significance of the land.
- Capitalize on the views of Haleakalā (East Maui Mountains), the Mauna Kahalawai (West Maui Mountains) and other significant landmarks.

Subsequent to the community-based planning process that resulted in the 2005 conceptual master plan, there have been several developments which have resulted in modifications to the conceptual community master plan. These include:

- Recommendation of the County Department of Planning to limit the proposed development to the area north of Waikapū Stream within the 2030 planning horizon of the *Maui Island Plan*. Approximately 220 acres south of Waikapū Stream were not recommended for community growth at this time.
- Zoning Ordinance that required A&B Properties, Inc. to contribute 50 acres to the County of Maui for Affordable Housing, Community Center, and Neighborhood Park.
- The County’s public transportation system (“Maui Bus”) was started. The Maui Bus public transit service consists of 12 bus routes, all operated by Roberts Hawaii. These routes are funded by the County and provide service in and between various Central, South, West, Ha’ikū and Upcountry Maui

communities. All of the routes are operated seven days a week, including all holidays. All vehicles on the routes are ADA accessible. This results in a potentially positive impact to one of the key community planning goals of "Include a multi-modal transportation system..." by accommodating another alternative mode of transportation to cars.

- Portions of the original planning area were sold to others and are not included in the project.
- Maui Lani has continued its development and expansion to the north of Wai'ale. The expansion includes village mixed uses, residential neighborhoods, Pōmaika'i Elementary School (opened in 2007) and a regional park, which provide opportunity to coordinate and connect this planned community with Wai'ale.

2.3.2 Conceptual Community Master Plan for Wai'ale

Wai'ale is envisioned to be a community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways (See Figure O-1). Approximately 2,550 residential units are proposed for Wai'ale, including approximately 300 residential units within the 40 acres to be contributed to the County of Maui.

Proposed land uses are shown in the conceptual master plan for Wai'ale and are generally described below. As described, the approximate land use areas are summarized generally and may be adjusted as the master plan is refined through the land use review and approval process.

Village Mixed Use. Commercial, office, retail, business, civic, social services and multi-family residential uses would be located on several parcels of land near the Kuihelani Highway/East Waiko Road intersection, as well as along the extension of Kamehameha Avenue. The proposed County zoning would not allow for the development of transient vacation rentals or timeshares.

Pedestrian and bicycle paths connecting these uses with the rest of the Wai'ale community (including schools and places of employment) encourage multi-modal transportation.

Commercial. To provide a variety of services and employment opportunities within Wai'ale, a commercial area is planned along Kuihelani Highway. The commercial area is approximately 23 acres, and is envisioned for commercial, office, retail, and business uses.

Business/Light Industrial. To meet regional and area demands and to provide for an additional employment center for Wai'ale, approximately 16 acres are planned to provide an area for light industrial type users and businesses such as, but not limited to, warehousing/distribution and light manufacturing/processing facilities. Heavy industrial uses, including businesses that generate loud noises or noxious fumes will not be allowed.

Residential. Ranging from traditional single family homes to multi-family dwellings with a variety of live-work opportunities, there are approximately 202 acres planned for residential uses. Consistent with the *Draft Maui Island Plan's* Directed Growth Strategy for Central Maui, a total of approximately 2,550 residential units are planned at Wai'ale (including the County of Maui's 300 residential units).

County of Maui Lands. Integrated into the conceptual master plan in the vicinity of the current terminus of Kamehameha Avenue in the north-western portion of Wai'ale, 50 acres of land are to be contributed to the County of Maui. The lands are to be used as follows: Affordable Housing (40 acres), Community Center (seven acres) and Neighborhood Park (three acres). Approximately 300 residential units, including both multi-family and single family residences are assumed for the affordable housing. The County affordable housing sites are proposed to be located in two separate parcels that would be centrally located between the larger of two proposed Village Mixed Use areas within Wai'ale and the Maui Lani Village Mixed Use area (adjacent to Wai'ale). The proposed County affordable housing sites will also be located within walking/bicycling distance of the proposed Wai'ale Regional Park and the Maui Lani Regional Park, Pōmaika'i Elementary School, a proposed DOE middle school site in Wai'ale, and a proposed community center in Wai'ale. The proposed County affordable housing sites would be highly regarded as "livable communities" with convenient access to potential places of employment, recreation, schools and shopping, which will not force residents of these two parcels to rely on personal motorized vehicle trips.

Schools. To accommodate the educational needs of children living in Wai'ale and the surrounding neighborhoods, it has been estimated that one middle school site, totaling approximately 18 acres, may be needed, and has been provided for within Wai'ale.

Public Support Facilities & Regional Community Center. Public support and civic-related facilities and a regional community center would be located in the center of the Wai'ale community along the extension of Kamehameha Avenue. The regional community center is envisioned to be developed by the County of Maui on 7 acres, as part of the County of Maui lands.

Parks and Cultural Preserves. A regional park is proposed along the northern boundary of Wai'ale, providing a spatial separation between the neighborhoods of Wai'ale and Maui Lani. This park is intended to support regional and Wai'ale recreational activities and would be within walking distance or a bicycle ride from residential communities and schools. Additional neighborhood parks are provided within residential areas, as well as along the perimeter of Wai'ale. Parks, cultural preserves (approximately 33 acres are

proposed to be set aside for six non-contiguous sites), and open space planned within Wai'ale total nearly 142 acres.

Greenways and Open Space. The conceptual master plan for Wai'ale includes greenways and open space along Kuihelani Highway, within residential communities, and along Waikapū Stream to enhance the visual character of the community.

Bicycle/Pedestrian Paths. Wai'ale is designed as a bikeable/walkable community. A system of linked paths will provide pedestrians and bicyclists with another option for transportation throughout the community. Residents would be able to travel from their homes to the Village Mixed Use, Commercial Center, parks, school, and other public uses on pedestrian and bicycle pathways that would run through a network of open spaces and greenways. No bicycle and/or pedestrian paths will be provided through the largest of the cultural preserves.

Landmark Buildings. At prominent locations within a community, there are opportunities to create buildings that have “landmark” qualities. These buildings could include civic or other institutional uses such as churches and will contribute to the overall character and visual orientation of the community.

2.3.3 Urban Design Principles

During the Draft EIS public review period, the County Planning Department wrote on July 22, 2011: “Please discuss urban design principles contemplated for the project in the Final EIS.” The urban design principles being considered for the project include the following:

Walkable Streets

Proposed major project roadways are shown on Figure O-1. Wai'ale will include the construction of new internal east-west and north-south roadways that will generally run parallel and perpendicular to Kuihelani Highway. Access will be provided via the property's proposed internal collector roadways' connections with Kuihelani Highway, East Waiko Road, Kamehameha Avenue, and Kuikahi Drive (See Figure O-1).

In addition, Kamehameha Avenue will be extended from its existing terminus near Pōmaika'i Elementary School to approximately 1,400 feet south of East Waiko Road and serve as an alternate (to Kuihelani Highway) north-south connection between Wai'ale, Maui Lani and Kahului. This road will consist of a two-lane travel way, turning medians, and sidewalks along both sides of the street, including extending the bike path. Roads A through E are collector roads that will consist of a two-lane travel way, turning medians, and sidewalks along both sides of the streets.

Compact Development

Ranging from traditional single family homes to multi-family dwellings with a variety of live-work opportunities, including the village mixed use districts and the County's workforce housing areas, there are approximately 276 acres planned for residential uses. Consistent with the Draft Maui Island Plan's Directed Growth Strategy for Central Maui, a total of approximately 2,550 residential units are planned at Wai'ale (including the County of Maui's planned 300 residential units). The number of dwelling units proposed within the Wai'ale Community would result in an average density of approximately 9 to 12 units per acre. With the village mixed use and multi-family residential uses achieving higher densities in close proximity to neighborhood and regional serving commercial uses, these densities would be characterized as compact development.

Neighborhood Connections

Wai'ale will include the construction of a new network of internal east-west and north-south roadways that will run parallel and perpendicular to Kuihelani Highway. Access will be provided via the property's proposed internal collector roadways' connections with Kuihelani Highway, East Waiko Road, Kamehameha Avenue, and Kuikahi Drive (See Figure O-1).

In addition, Kamehameha Avenue will be extended from its existing terminus near Pōmaika'i Elementary School to approximately 1,400 feet south of East Waiko Road and serve as an alternate (to Kuihelani Highway) north-south connection between Wai'ale, Maui Lani and Kahului. This road will consist of a two-lane travel way, turning medians, and a pedestrian/bike path. Roads A through E are collector roads that will consist of a two-lane travel way, turning medians, and a pedestrian/bike pathway. The design of the roadways will be based on standards set forth and accepted by the County during the later stages of community planning that would be provided for in Project District zoning process.

The alignment and spacing of Wai'ale's proposed internal roadways will provide greater neighborhood connections to and from Wai'ale, as well as the adjoining Maui Lani development, and the established communities of Wailuku and Kahului beyond. Greater connectivity via roadways and open spaces to surrounding communities and within Waiale will permit the extension of the County's bus transit system, and provide great transportation and mobility options for those who can and cannot drive.

Mixed Uses

Wai'ale's mix of land uses is an essential component to providing alternatives to driving such as walking or biking. The location of commercial and retail establishments throughout Wai'ale provide for greater interaction, economic activity, and quality of life for residents and visitors. Wai'ale's open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, protection of

important habit and natural features, and an overall setting of enhanced environmental quality and community health. Uses envisioned include commercial or civic facilities such as restaurants, schools, pharmacies, supermarkets, parks, libraries and/or bookstores, shops, and possibly theatres.

Affordable and Diverse Housing

Wai'ale will provide homes priced for a range of consumer groups, including the workforce market segment in compliance with Chapter 2.96, Maui County Code (Residential Workforce Housing Policy). Wai'ale will create a socially integrated community with a "unique" sense of identity and character, capitalizing on its location and natural features. To achieve a socially integrated community, the project will provide multiple housing types of different sizes, such as large and small apartments, duplexes, townhomes, and/or single-family homes. To address the Residential Workforce Housing Policy, a percentage of new rental and/or for-sale housing will be provided. The Assessment of Economic and Fiscal Impacts (pages 1-2), Appendix P of the Draft EIS, includes a projected breakdown of the anticipated affordable units by income group and unit type for Wai'ale (see below). A total of approximately 563 affordable units in four income categories are projected based on the provisions of the current workforce housing policy. The actual allocation of affordable units would be based on discussions and agreement with the County Department of Housing and Human Concerns. Note that changes to the overall project unit count would affect the amount of affordable units required.

Single-Family

<u>Gap Income</u>	<u>62 units (20 percent)</u>
<u>Above Moderate Income</u>	<u>62 units (20 percent)</u>
<u>Moderate Income</u>	<u>93 units (30 percent)</u>
<u>Below Moderate Income</u>	<u>93 units (30 percent)</u>
<u>Total Affordable Single-family Housing Units</u>	<u>310 units</u>

Multi-Family

<u>Gap Income</u>	<u>50 units (20 percent)</u>
<u>Above Moderate Income</u>	<u>51 units (20 percent)</u>
<u>Moderate Income</u>	<u>76 units (30 percent)</u>
<u>Below Moderate Income</u>	<u>76 units (30 percent)</u>
<u>Total Affordable Multi-family Housing Units</u>	<u>253 units</u>

Parking and Transportation Demand

Wai'ale encompasses a total of 545 acres and it is anticipated that the total surface parking area will be less than 20 percent of the total development area (less than 100 acres). Where possible, any off-street parking associated with Village Mixed Use and Commercial uses will be located at the side or rear of buildings.

Village Mixed Use and Commercial developments will be encouraged to provide bicycle storage for building occupants, bicycle parking for visitors and spaces for carpool or shared vehicles to reduce single-occupancy motorized vehicle usage. At least one parking stall will be provided for shared vehicles within a ¼ mile walk distance of every residential area.

In addition, A&B will work with the County Department of Transportation prior to subdivision to identify the possible location of bus stops to ensure there is adequate area set aside for possible bus pull outs, shelters, benches, lighting and information displays.

Parks and Recreation

Wai'ale will be designed so that open spaces such as squares, mini-parks and plazas will be within a ¼mile walking distance of Village Mixed Use, Commercial, Multi- and Single-Family Residential areas. Furthermore, outdoor recreational facilities of at least one acre in size will be within a ½ mile of Village Mixed Use, Commercial, Multi- and Single-Family Residential areas.

2.4 WAI'ALE SCHEDULE

The EIS process is anticipated to be completed in 2011. State Land Use Commission approval of the subject land use petition is anticipated in late 2012, followed by County approvals (Community Plan Amendment, Project District Phases I, II, and III through about 2014. Construction of Wai'ale is expected to commence after Project District Phase II and III applications are approved. Full urban development of the property is anticipated to be substantially completed within 10 years.

2.5 ESTIMATED COST OF DEVELOPMENT

The required off-site and on-site infrastructure improvements, including new roads, intersection improvements and traffic signals, wastewater systems (on-site wastewater treatment plant), drinking water system (on-site system & off-site tanks), ~~drinking and non-drinking quality water systems, wastewater systems,~~ drainage systems, electrical and communications systems is preliminarily estimated to cost approximately \$273,000,000 in 2010 dollars. Several potential drinking water source opportunities are being considered, including surface water treatment and new well sources. The estimated cost of the planned Wai'ale water treatment facility (9 million gallons per day) is approximately \$30 million. The design and scale of the final Wai'ale water treatment facility will be subject to other decisions and approvals, and these decisions could result in a smaller treatment facility with lower capacity than planned. The alternative of new groundwater wells is estimated at approximately \$15.2 million (4 wells, each at approximately \$3.8 million). With regard to wastewater treatment, two alternatives are considered, including an on-site wastewater treatment plant and treatment at the Kahului wastewater reclamation facility. The cost of an on-site wastewater treatment plant is estimated at approximately \$33

million. The alternative of conveying wastewater to the Kahului wastewater reclamation facility is estimated at approximately \$11 million.

The applicant has estimated that vertical construction costs for the single-family units to be approximately \$150 per square foot and about \$175 per square foot for the multi-family units. On average, the typical three-bedroom single-family unit will have approximately 1,100 square feet of living area, while the living area for the typical two-bedroom multi-family unit will average approximately 750 square feet. Vertical construction expenditures for the 2,250 proposed housing units totaled approximately \$337,163,000. It should be noted that this figure includes the residential component of the “live/work” units in the Village Mixed-Use area.

Other estimated vertical construction costs from the applicant were as follows: \$46,000,000 for the 230,000 square feet of neighborhood commercial area; \$26,250,000 for the 175,000 square feet of light industrial area; and \$50,000,000 for the commercial component of the village mixed-use area. Including the site work and infrastructure costs for the project (\$273,000,000), the construction expenditures for Wai'ale is estimated at approximately \$732,413,000 in 2010 dollars. The cost to develop the 50 acres that are to be provided to the County of Maui were not included in the total construction expenditures for Wai'ale.

2.6 ENVIRONMENTALLY-RESPONSIBLE PLANNING AND DESIGN

2.6.1 OEQC's Sustainable Building Design Guidelines

The OEQC issued *Guidelines for Sustainable Building Design in Hawai'i: A Planner's Checklist* (OEQC 1999) and has requested that consideration be made in applying sustainable building techniques to projects. The OEQC Guidelines state:

A sustainable building is built to minimize energy use, expense, waste and impact on the environment. It seeks to improve the region's sustainability by meeting the needs of Hawai'i's residents and visitors today without compromising the needs of future generations. Compared to conventional projects, a resource-efficient building project will:

- 1. Use less energy for operation and maintenance.*
- 2. Contain less embodied energy (e.g. locally produced building products often contain less embodied energy than imported products because they require less energy-consuming transportation).*
- 3. Protect the environment by preserving/conserving water and other natural resources and by minimizing impact on the site and ecosystems.*
- 4. Minimize health risks to those who construct, maintain, and occupy the building.*
- 5. Minimize construction waste.*
- 6. Recycle and reuse generated construction wastes.*
- 7. Use resource-efficient building materials (e.g. materials with recycled content and low embodied energy, and materials that are recyclable, renewable, environmentally benign, non-toxic, low VOC (Volatile Organic Compound) emitting, durable, and that give high life cycle value for the cost.)*

8. Provide the highest quality product practical at competitive (affordable) first and life cycle costs.

Where appropriate, Wai'ale will include sustainable design features described in the *Guidelines for Sustainable Building Design in Hawai'i*. These may include:

- Identification of eco-efficient goals and ensuring goals are met;
- A community design that includes a mix of residential, commercial, public uses, parks, open space, a neighborhood school, biking and walking paths combining to form a community that encourages residents to build relationships with each other, rely less on cars for transportation, walk and bicycle more often, enjoy outdoor surroundings, and actively engage in civic life;
- The existing resources and natural features of the property will be preserved;
- Buildings will be sited to take advantage of natural features and maximize their beneficial effects where practical;
- Bike racks will be provided for bicycle commuters in commercial areas and other suitable locations;
- The streets within the community will be designed to maximize pedestrian use;
- Natural cooling such as street trees that shade buildings and paved areas will be included within the community;
- Use renewable energy. Use solar water heaters and consider the use of photovoltaics and Building Integrated Photovoltaics;
- Energy consumption will be minimized through the use of solar design features such as solar water heaters;
- Where feasible, landscaping will include:
 - Use of locally made soil amendments and compost for plant nourishment, improved water absorption and holding capacity;
 - Use of drought tolerant and/or slow growing hardy grasses, native and indigenous plants, shrubs, ground covers, trees, appropriate for local conditions, to minimize the need for irrigation;
 - Use of mulches to minimize evaporation, reduce weed growth, and retard erosion; and
 - Use of non-drinking quality water or reclaimed water for common areas, fire system, and recreational fields.
- Recycling and waste diversion strategies will be employed during construction and during occupancy;
- Homes will include water conserving, low flow fixtures as required by Uniform Plumbing Code;
- Provide an Integrated Pest Management approach. The use of products such as Termi-mesh, Basaltic Termite Barrier and the Sentricon "bait" system can provide long term protection from termite damage and reduce environmental pollution;

- For termite protection, use non-toxic alternatives to pesticides and herbicides, such as Borate treated lumber, Basaltic Termite Barrier, stainless steel termite barrier mesh, and termite resistant materials; and
- Specifications for building materials will encourage use of products with high recycled content, low or non-toxic materials, which are locally produced.

According to Hawai'i Energy (a ratepayer-funded conservation and efficiency program administered by Science Applications International Corporation under contract with the Hawai'i Public Utilities Commission serving the islands of Hawai'i, Lāna'i, Maui, Moloka'i and O'ahu), the typical Hawai'i residence utilizes approximately 20.0 kilowatt hours per day. The proposed 2,550 residences (including the 300 unit County Housing project) would generate a demand for approximately 51 megawatts (MW) of electricity per day. As noted in Section 4.8.6 of this Final EIS, the applicant's electrical engineering subconsultant met with Maui Electric Company (MECO) staff to discuss the estimated electrical demand and what improvements will be required so that service can be provided on a timely basis. No indication was given that MECO anticipates any generating or transmission capacity constraints may arise as a result of the proposed project and other projects planned for the region.

According to the Hawai'i Clean Energy Initiative, "Maui is served by the Maui Electric Company, which has about 260 megawatts of capacity. Maui has significant local renewable energy resources, as well as energy-efficiency potential. An aggressive program to retrofit inefficient buildings and increase the efficiency of new buildings could flatten Maui's load growth over the next 20 years... Two large renewable energy projects—a 30-megawatt wind farm (the state's largest) and a 16-megawatt biomass power plant burning bagasse at a commercial sugar operation—already provide Maui with about 20% renewable energy generation. Maui also has a few megawatts of hydroelectric generation, and rooftop PV distributed across the island currently contributes approximately 1 megawatt to the island's renewable energy portfolio... Technical assessments show that Maui has significant additional resource potential, including: Wind energy – 67 megawatts, Biomass energy – 25 megawatts, Geothermal energy – 140 megawatts, Solar thermal energy (exact capacity to be determined)... Proposed renewable generation projects include 42 megawatts of wind energy, 6 megawatts of biomass power, and 10 megawatts of geothermal... Although ocean energy technologies are not yet proven on a commercial scale, Maui is at the forefront of ocean energy research. The island is planning to help test and demonstrate a wave project off its north coast in the near future." This appears to demonstrate that Maui has significant additional resource potential to meet the estimated demand from the proposed project.

2.6.2 EPA Energy Star Program

The design and construction of energy systems for residential units will seek to meet applicable Energy Star requirements established by the U.S. Environmental Protection Agency (EPA) in effect at the time of construction. Energy systems will include all hot

water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.

The Energy Star program was established in 1992 for energy-efficient computers. Now a joint program under the EPA and the U.S. Department of Energy, the Energy Star program has grown to encompass more than 35 energy-efficient product categories for homes and workplace.

Homes that earn the Energy Star designation must meet guidelines for energy efficiency set by the EPA. Energy Star qualified homes can include a variety of energy-efficient features, such as effective insulation, high performance windows, tight construction and ducts, efficient heating and cooling equipment, and Energy Star qualified lighting and appliances.

These EPA standards for the Energy Star program can be found at the following website: <http://www.energystar.gov>.

2.6.3 Leadership in Energy and Environmental Design

During the FEA/EISPN public review period, the State Office of Planning recommended that the DEIS include "...an analysis of the LEED-ND system, and provide a discussion of the LEED elements that will or could be incorporated into the project." Leadership in Energy and Environmental Design (LEED) was created in the late 1990s by pioneers in the green building movement to create a common standard for defining and assessing environmentally-responsible, whole-building, high-performance design and building practices. It was also intended to stimulate green competition among the tens of thousands of companies that supply the building industry. In LEED circles, this competition and the environmental improvements it drives is called market transformation.

During the Draft EIS public review period, the State Energy Office wrote: "Our website (<http://hawaii.gov/dbedt/info/energy>) provides detailed information on guidelines, directives, and statutes, as well as studies and reports on aspects of energy efficiency and renewable energy."

A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale and will implement, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, and environmental stewardship, consistent with the standards and guidelines promulgated by the Building Industry Association of Hawaii, the U.S. Green Building Council, the Hawaii Commercial Building Guidelines for Energy Star, and Green Communities into the design and construction of Wai'ale. A&B Properties, Inc. will also provide information to home purchasers regarding energy conservation measures that may be undertaken by individual homeowners.

2.6.4 Solar Water Heaters

During the Draft EIS public review period, the State Energy Office wrote: "...effective January 1, 2010, no building permit shall be issued for a new single-family dwelling that does not include a solar water heating system that meets standards established by the Hawai'i Public Utilities Commission, unless the DBEDT Director approves a variance (HRS 196-6.5; Energy Resources)."

2.6.5 Placement of Charging Unit for Electric Vehicles

During the Draft EIS public review period, the State Energy Office wrote: "...owners of multi-family residential dwellings or townhouses must be permitting to install and electrical vehicle charging station on or near their parking stall (HRS 196-7.5)." HRS 196-7.5 (a) states:

Notwithstanding any law to the contrary, no person shall be prevented by any covenant, declaration, bylaw, restriction, deed, lease, term, provision, condition, codicil, contract, or similar agreement, however worded, from installing an electric vehicle charging system on or near the parking stall of any multi-family residential dwelling or townhouse that the person owns. Any provision in any lease, instrument, or contract contrary to the intent of this section shall be void and unenforceable.

Per HRS 196-7.5 (b), the applicant "...may adopt rules that reasonably restrict the placement and use of electric vehicle charging systems for the purpose of charging electrical vehicles in the parking stalls of any multi-family residential dwelling or townhouse; provided that those restrictions shall not prohibit the placement or use of electric vehicle charging systems altogether." Further, the applicant understands that "No private entity shall assess or charge any homeowner any fees for the placement of any electric vehicle charging system; provided that the private entity may require reimbursement for the cost of electricity used by such electric vehicle charging system." Finally HRS 196-7.5 (c) and (d) provides rules for the homeowners who install an electric vehicle charging system.

2.6.6 Low Impact Design

According to the State Office of Planning, Coastal Zone Management Program's "Low Impact Development – A Practitioner's Guide (June 2006):

LID is defined as a more sustainable land development pattern than the conventional method currently used in most areas. It incorporates a suite of landscaping and design techniques known as "Better Site Design" that attempt to maintain the natural, pre-development hydrology of a site and the surrounding watershed. An important LID principle is the idea that stormwater is not merely a waste product to be disposed of, but rather that rainwater is a resource. LID also integrates a range of structural best

management practices (BMPs) for road design and stormwater and wastewater management systems that minimize environmental impacts...

The LID process utilizes a three-step process as follows:

1. *Avoid the Impacts – Preserver Natural Features and use Conservation Design Techniques.*
2. *Reduce the Impacts – Reduce Impervious Cover.*
3. *Manage the Impacts – Utilize Natural Features and Natural Low-Impact techniques to manage stormwater.*

The proposed project is designed to preserve Waikapū Stream (including an uninterrupted linear buffer between the proposed project and the stream) as well as a large relatively intact sand dune of approximately 28 acres. In total, approximately 25 percent of Wai'ale will be reserved as park areas, cultural preserves, or other open spaces. Important natural and cultural features will remain undisturbed. Reducing impervious coverage where possible promotes infiltration and maintains the natural hydrologic cycle.

Besides preserving natural features and setting aside 25 percent of the property in pervious surfaces, there are established means to control stormwater runoff to increase groundwater recharge and reduce pollutant loadings from the site towards Waikapū Stream. These include:

Grass Swales

Surface stormwater runoff from developed areas will be directed to grass swales and landscaped areas where practical. The grasses and other vegetation provide natural filtration while allowing percolation into the underlying soil.

Stormwater Retention/ Infiltration

The bottom one to two feet of the stormwater basins will be reserved for retention of the water quality volume. The water quality runoff and potential pollutants will be prevented from flowing to downstream areas such as Waikapū Stream. Stormwater will be held for an extended period allowing suspended solids to settle out. To reduce the risk of children playing in the collected storm water, various alternatives are being considered to provide retention basin safety, including fencing, installing a “safety shelf”, and/or installing landscaping. Water will infiltrate into the soils gradually over 24 to 48 hours and recharge groundwater.

2.6.7 EPA Smart Growth

According to the U.S. Environmental Protection Agency (EPA) “‘Smart growth’ covers a range of development and conservation strategies that help protect our natural environment and make our communities more attractive, economically stronger, and more socially diverse... The EPA smart growth program helps communities improve their development practices and get the type of development they want. We work with local,

state, and national experts to discover and encourage successful, environmentally sensitive development strategies."

According to the EPA Smart Growth website: <
http://www.epa.gov/dced/location_efficiency_BTU.htm>

People can do many things to reduce their energy use: install energy-efficient light bulbs, carpool or walk, or buy Energy Star appliances, among other things. But the way in which we plan and build our communities also has a significant role to play in creating a more environmentally and economically sustainable future. By understanding the relative share that housing type, location, and "green" (in this case, energy- or fuel-efficient) technology have in energy consumption, communities can begin to align their policies and public investments to support a more sustainable path forward.

In March 2011, the EPA published a paper produced by the Jonathan Rose Companies. It was developed as part of a Smart Growth planning study in partnership with the firm, Wallace Roberts Todd, LLC. The work was funded by the EPA's Smart Growth Program.

This paper illustrated two key points about the effect of compact, location efficient development on energy consumption:

- 1. A home's location relative to transportation choices has a large impact on energy consumption. People who live in a more compact, transit-accessible area have more housing and transportation choices compared to those who live in spread-out developments where few or no transportation options exist besides driving. Choosing to live in an area with transportation options not only reduces energy consumption, it also can result in significant savings on home energy and transportation costs.*
- 2. Housing type is also a very significant determinant of energy consumption. Fairly substantial differences are seen in detached versus attached homes, but the most striking difference is the variation in energy use between single-family detached homes and multifamily homes, due to the inherent efficiencies from more compact size and shared walls among units. Moderate energy-efficient building technologies, such as those qualifying for Energy Star performance, also generate household energy savings that are notable but not as significant as the housing location and type.*

3.0 DESCRIPTION OF THE NATURAL ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES



3.0 DESCRIPTION OF THE NATURAL ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES

This section describes existing conditions of the physical or natural environment, preliminary potential impacts of Wai'ale, and preliminary mitigation measures to minimize any impacts.

3.1 CLIMATE

The annual average temperature in the property is 75.6 degrees Fahrenheit (°F). The property experiences an average winter temperature of approximately 72.2°F and an average summer temperature of approximately 78.5°F. Annual average wind speed in the property is approximately 12.8 miles per hour (mph). Total precipitation in the property averages approximately 18.5 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer. Precipitation averages approximately 9.1 inches during the winter, approximately 4.6 inches during the spring, approximately 3.7 inches during the fall, and less than one inch during the summer.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Wai'ale is not expected to have a significant effect on climatic conditions and no mitigation measures are proposed.

During the Draft EIS public review period, Mark G. Hyde wrote: "Given long term weather trends toward a hotter, dryer[sic] climate in Hawaii and given the expected lifespan of this project, what effect will projected climatic change have on the sustainability of the project and its water source in light of expected population growth particularly when coupled with documented degradation of the primary source of potable water for Maui, the Iao/Waihee aquifer complex?"

Review of various sources including the Western Regional Climate Center (WRRC) and the University of Hawai'i School of Ocean and Earth Science and Technology (SOEST) indicates that while there are drier periods associated with the El Nino effect, there are also periods where the climate is wetter (called La Nina). In general, though, we believe it is safe to state that it is difficult to predict climate over the long term.

3.2 GEOLOGY AND TOPOGRAPHY

The island of Maui was built by two major volcanoes, the older West Maui Mountain, also known as Mauna Kahanalawai, and the more recent East Maui Mountain, also known as Haleakalā. The isthmus of Maui is a narrow, gently sloping plain located between these two volcanoes.

The isthmus of Maui was created by lava flows from Haleakalā banking against the older flank of Mauna Kahanalawai. Stratigraphy in the isthmus is complicated due to the multitude of erosional and depositional forces that have played roles in its creation. Much of the eastern and western sides of the isthmus are comprised of alluvium washed from the slopes of the two volcanoes. The erosional processes in the slopes above the isthmus are dominated by the detachment of soil and rock masses from the mountain walls, and the soil materials are transported downslope toward the isthmus primarily by gravity as colluvium.

Further complicating the stratigraphy of the isthmus was the development of broad fringing reefs in the bay formed at the juncture between Mauna Kahanalawai and Haleakalā; and the glacio-eustatic sea level changes that occurred during the Pleistocene Epoch in response to the advance and retreat cycles of continental glaciation. During the glacial advances, water was bound into the wide spread glaciers as ice on a year round basis and less water was available to fill the ocean basins. As a consequence, global sea levels fell below the current sea level. During the retreats, more water was available and sea levels rose.

When the sea levels fell, the fringing reefs, with their complement of calcium carbonate sand derived from both detrital and bioclastic sources, were exposed to the prevailing tradewinds which blew in about the same direction as the current tradewinds but were estimated to have an average velocity of about 60 mph. These winds, transporting the loose sand from the reef areas, resulted in a strip of sand dunes that extended from the present Wailuku-Kahului area to as far as the south coast of the Maui isthmus (including the Maui Lani development), blanketing the volcanic and alluvial deposits on the floor of the isthmus.

Similar dune formations can be also found on the northwest portion of Moloka'i, in the Kahuku-Lā'ie and Waimānalo areas on the island of O'ahu and the Kekaha-Mānā area of Kaua'i.

The property is located in the western area of the isthmus of Maui. The project site generally slopes in an east or northeasterly direction with an average slope of approximately two to three percent. Elevations range from 154 to 308 feet mean sea level (MSL). The south project site has been graded to have fairly consistent land slopes while the north side has more rolling terrain and a few small gulches. The existing contours within the north side can be described as having non-definitive grade variations. Substantial elevation differences occur along the western side of the north area of the property.~~The property is generally flat along the eastern boundary along Kuihelani Highway, with a gentle slope rising from the northeastern to the northwestern corner. At its lowest point (at the northeastern corner), the property is approximately 160 feet above mean sea level (msl). Higher elevations occur along the western edge of East Waiko Road at approximately 300 above msl. Slopes generally increase from the north to the south, and the topography of the property at the southern tip is approximately 200 feet above~~

msl. Waikapū Stream borders the southwestern edge of the property. With a gentle overall terrain, the average slope is about three percent or less.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Geolabs, Inc. (Geolabs) was retained by A&B Properties, Inc. to conduct an on-ground field reconnaissance survey and geological mapping of in-situ dune features at the property (See Appendix B). In conducting their survey, Geolabs considered the following in determining dune features: geomorphology and location, as well as bedding planes and grain size. These standards, along with their professional experience, knowledge and judgment as trained professionals in the fields of geology and geotechnical engineering were used to assess the condition of the dunes. During the course of the field reconnaissance, Geolabs did not find natural sand dunes that could be considered to be pristine geological features. The majority of the dunes within the project limits have essentially been obliterated by human activities.

In the section of the property south of East Waiko Road, the former dune lands were flattened and tilled for the cultivation of sugar cane.

In the section of the property north of East Waiko Road, are some small clusters of dunes particularly in the north central area. However, these dune clusters have been degraded by longstanding ranching activities and other agricultural uses. The northwestern portion of the site has been heavily disturbed by sand mining, stockpiling and agricultural use. However, this area also includes the larger and comparatively more representative examples of the remaining dune structures within the property. Figure 3-1 contains a mapping of natural lithified sand dunes remaining on the property. While it appears that a very small portion (approximately 1,045 square feet or 0.08 percent) of the 30 acre County Housing site contains a portion of the largest contiguous portion of a sand dune, it is located in the southeastern corner of the County Housing site, and construction of buildings in that area can be avoided (See Figure 3-1a).

Much better examples of lithified dunes on Maui can be found at Keoupuolani Regional Park, which contains some of the most pristine remnant dunes on Maui; Haleki'i Pihana Heiau State Monument; and, the Dunes at Maui Lani Golf Course. Good dune examples elsewhere in Hawai'i are the Kahuku area of the north shore of O'ahu, Waimānalo on O'ahu; and, to an extent, in the northwest part of the island of Moloka'i.

Wai'ale will require both excavation and embankment for the construction of new roadways, building pad areas, and drainage structures. Overall, the property will be graded to maintain the existing drainage patterns. Proposed roadway slopes will vary between 0 and 12 percent. Embankments will have a maximum slope of two feet horizontal to one-foot vertical. Where elevation drops are required, retaining walls will be installed with heights ranging from two to six feet. Designated archaeological sites and the largest intact lithified sand dune will remain undisturbed as cultural preserves. A park buffer will also be maintained along the property's boundary with Waikapū Stream.

While Wai'ale will alter how the land is currently used, the proposed improvements are relatively insignificant compared to the overall geological character of the region. Construction activities, such as grading, will alter the topography of the property to accommodate the Wai'ale community. While most of the property has been heavily ~~“decimated,”~~ disturbed, there is a large portion of the site (approximately 28 acres) where there ~~is a~~ are relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the proposed cultural preserves (and where the highest concentration of burials reside). Appropriate engineering, design and construction measures will be implemented to minimize potential erosion due to grading of soils during construction. Further information on soils and grading is provided in Section 3.3 below.

3.3 SOILS

Three primary soil suitability studies describe the physical attributes of land and their relative productivity for agricultural production in Hawai'i. These include the U.S. Department of Agriculture, Natural Resource Conservation Service's Soil Survey, the University of Hawai'i, Land Study Bureau's Detailed Land Classification and the State Department of Agriculture's Agricultural Lands of Importance to the State of Hawai'i system.

3.3.1 *Natural Resources Conservation Service Soil Survey*

According to *The Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii* (1972), the property consists of two soil types: Jaucas Sand, 0 to 15 percent slopes; and Pu'uone Sand, 7 to 30 percent slopes (See Figure 3-2). The Pu'uone Sand occupies approximately 94 percent of the property north of East Waiko Road, and 44 percent of the property south of East Waiko Road. The remaining areas are comprised of Jaucas Sand.

Jaucas Sand, 0 to 15 percent slopes (JaC). It is described with a surface layer, approximately six inches thick, of a grayish-brown, single-grained sand. The subsurface is approximately 54 inches thick and is described as a brown, single-grained sand. This soil is moderately alkaline, runoff is slow, and permeability is rapid.

Pu'uone Sand, 7 to 30 percent slopes (PZUE). It is formed in wind-deposited sand from coral and seashells. The surface layer is grayish sand approximately 20 inches thick. The subsurface layer is a cemented, grayish-brown sand. This soil is moderately alkaline, runoff is slow, and permeability is rapid.

3.3.2 *Land Study Bureau Detailed Land Classification*

The University of Hawai'i, Land Study Bureau (“LSB”) developed the Overall Productivity Rating, which classified soils according to five levels, with “A” representing the class of highest productivity soils and “E” representing the lowest. These letters are followed by

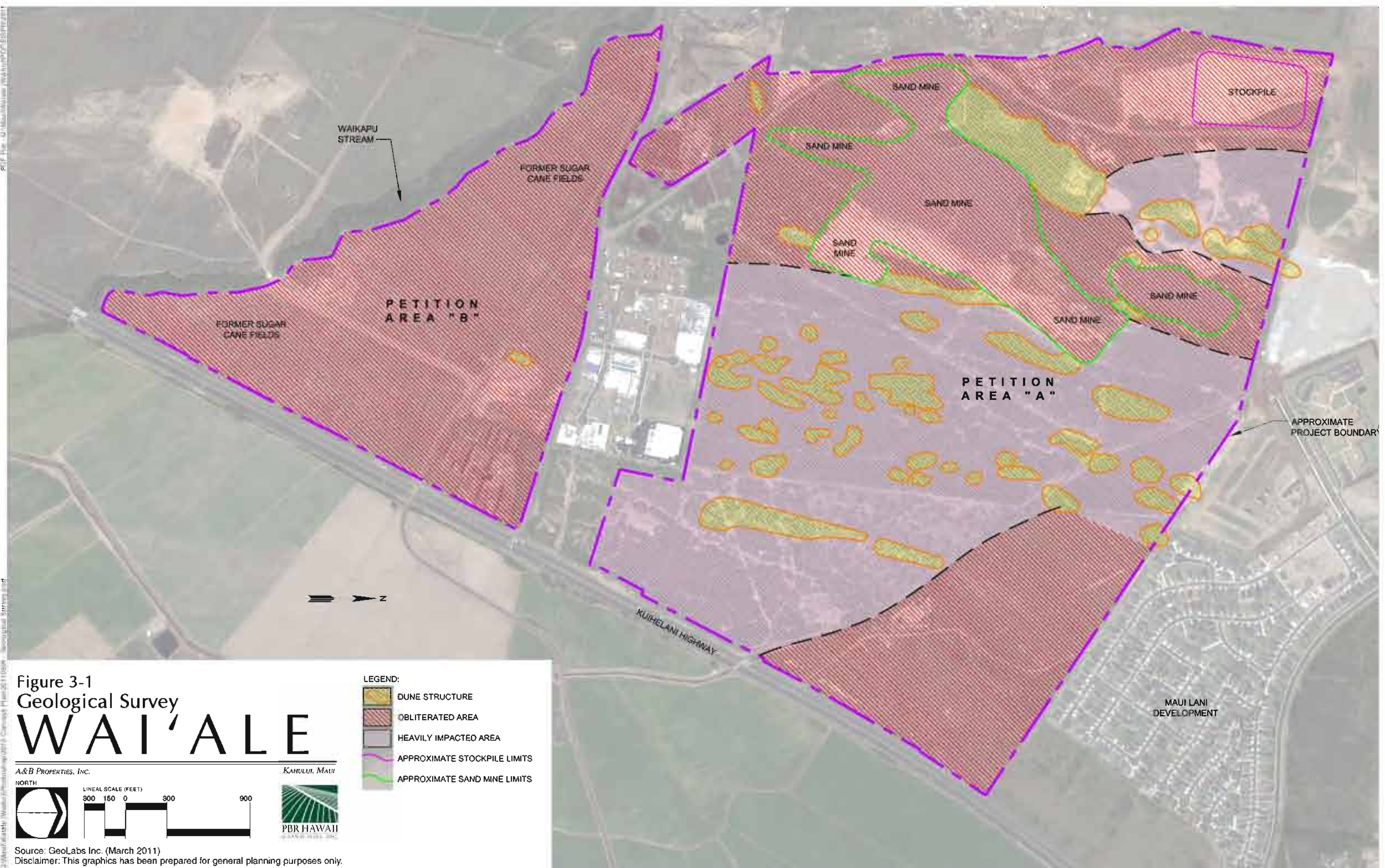


Figure 3-1
 Geological Survey
WAI'ALE

A&B PROPERTIES, Inc. KAHOOLA, MAUI

NORTH

LINEAL SCALE (FEET)
 300 150 0 300 900

PBR HAWAII

- LEGEND:**
- DUNE STRUCTURE
 - OBLITERATED AREA
 - HEAVILY IMPACTED AREA
 - APPROXIMATE STOCKPILE LIMITS
 - APPROXIMATE SAND MINE LIMITS

Source: GeoLabs Inc. (March 2011)
 Disclaimer: This graphics has been prepared for general planning purposes only.

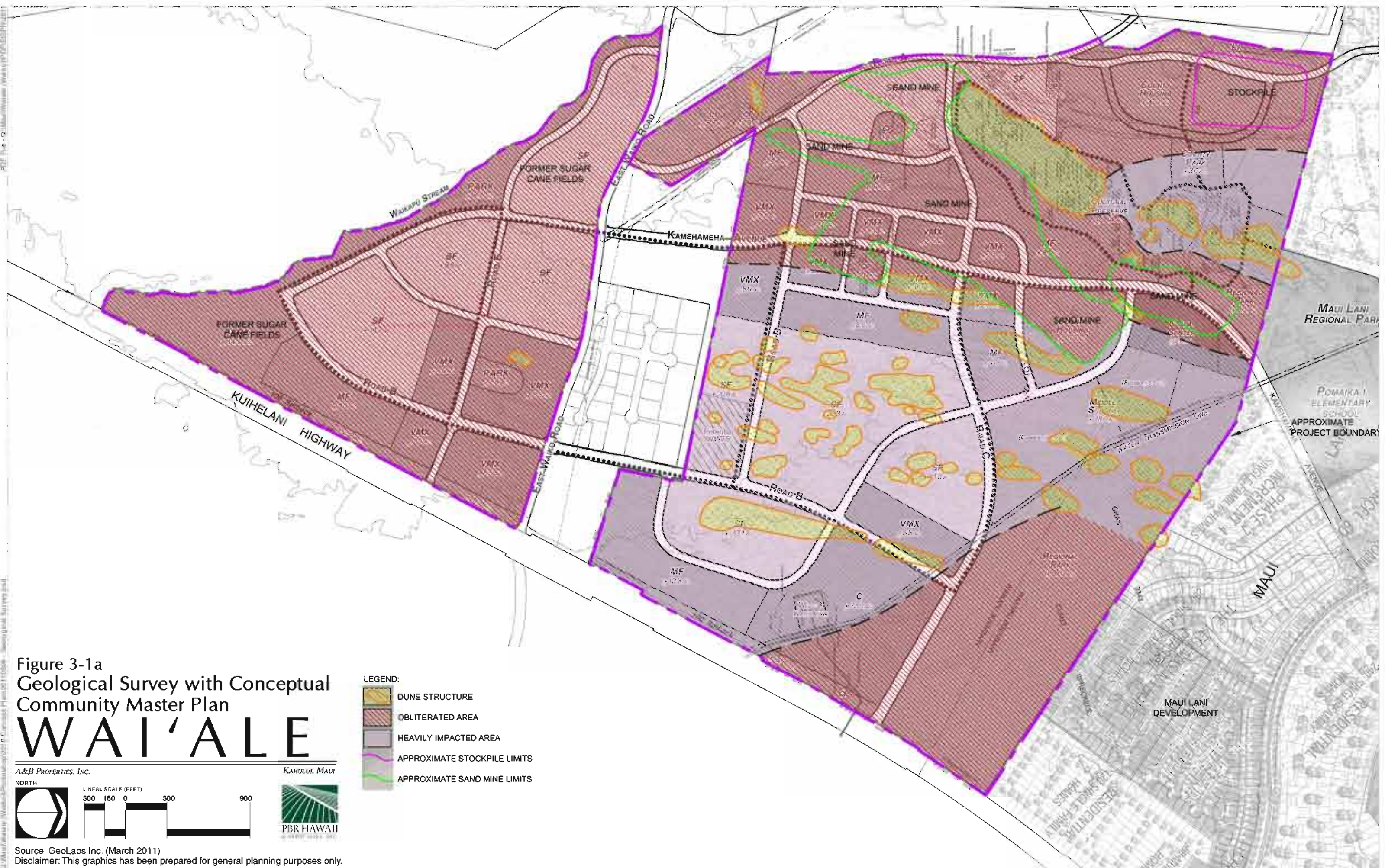


Figure 3-1a
 Geological Survey with Conceptual
 Community Master Plan
WAI'ALE

A&B PROPERTIES, INC. KAHOOLA, MAUI

NORTH

LINEAL SCALE (FEET)
 300 150 0 300 900

PBR HAWAII

Source: GeoLabs Inc. (March 2011)
 Disclaimer: This graphics has been prepared for general planning purposes only.



LEGEND

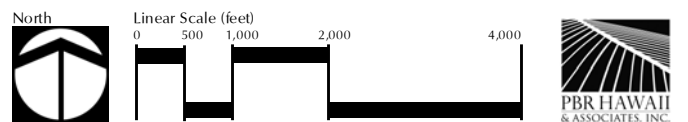
- Project Area
- JaC: Jaucas Sand, 0-15% slopes
- PsA: Pulehu Clay Loam, 0-3% slopes
- PrB: Pulehu Cobbly Silt Loam, 3-7% slopes
- PZUE: Puuone Sand, 7-30% slopes
- Others

Source: Natural Resources Conservation Service, 1970 (GIS)
 Disclaimer: This graphic has been prepared for general planning purposes only.

Figure 3-2
 Natural Resource Conservation Services Soil Survey
WAI'ALE

A&B PROPERTIES, INC.

KAHULUI, MAUI



numbers which further classify the soil types by conveying such information as texture, drainage and stoniness. The majority of property is located on lands designated "E" or very poor by the LSB (See Figure 3-3). These lands have the lowest productivity rating under the LSB classification system. Machine tillability is very poorly suited, thus grazing is the typical use for this type of soil. A small portion of the property along its northeast boundary with Maui Lani is designated "C" by the LSB.

3.3.3 Agricultural Lands of Importance to the State of Hawai'i

In 1977, the State Department of Agriculture developed a classification system to identify Agricultural Lands of Importance to the State of Hawai'i (ALISH). The classification system is based primarily, though not exclusively, upon the soil characteristics of the lands. The three classes of ALISH lands are: "Prime", "Unique", and "Other", with all remaining lands termed "Unclassified". When utilized with modern farming methods, "Prime" agricultural lands have a soil quality, growing season, and moisture supply necessary to produce sustained crop yields economically. "Unique" agricultural lands possess a combination of soil quality, growing season, and moisture supply to produce sustained high yields of a specific crop. "Other" agricultural lands (of "importance to the State of Hawai'i") include those that have not been rated as "Prime" or "Unique". The property has been classified as "Other" by the ALISH classification system (See Figure 3-4).

3.3.4 Impact to Existing Agricultural Use

Agricultural uses to be impacted by the project include pasture use (grazing of cattle and horses on approximately 162 acres), a feed lot (five acres) and orchid farm (plant nursery on about 10 acres). All tenants have been aware of the planned future development and use of the property for some time. Future development of the area has been discussed for several years within the context of the *Maui Island Plan* update process, wherein the subject lands have been proposed for future urban growth. These uses are currently under short term, month to month licenses. The applicant will work with these tenants to seek alternative sites for relocation.

A portion of the property located south of East Waiko Road (approximately 110 acres) had previously been in sugar cultivation. This area was predominantly used for the cultivation of seed cane, where sugar yields were low. These lands are very sandy and require higher quantities of water and nutrition to make them productive for sugar cultivation. These factors have contributed to the property's current fallow state. Furthermore, Waikapū Stream effectively separates this area from sugar fields situated further to the south. There are no current plans to place this area back into sugar cultivation. Lands north of East Waiko Road have not been utilized for sugar cultivation. The long term removal of these lands from sugar cultivation will not have a significant adverse impact on the operations of Hawaiian Commercial & Sugar Company (HC&S). Improvements in sugar cultivation technology and practices have resulted in higher yields per acre, therefore a slight reduction in the area cultivated is not expected to adversely impact the operations and viability of HC&S.

In 2009 the State Land Use Commission approved Alexander & Baldwin, Inc.'s petition to designate approximately 27,102 acres of its land in Central Maui as Important Agricultural Lands (IAL) pursuant to *Hawaii Revised Statutes*, Sections 205-44 and 45. This voluntary designation represented a long term commitment toward the continued agricultural use of these lands. The vast majority of these lands was and continues to be in active sugar cultivation by HC&S and represent the core of the sugar plantation. The IAL designation process took into account many factors, including current agricultural use of the land, availability of water and supportive agricultural infrastructure, and soil quality and suitability as determined by agricultural productivity rating systems. These lands represented a large and contiguous land mass for long term agricultural use.

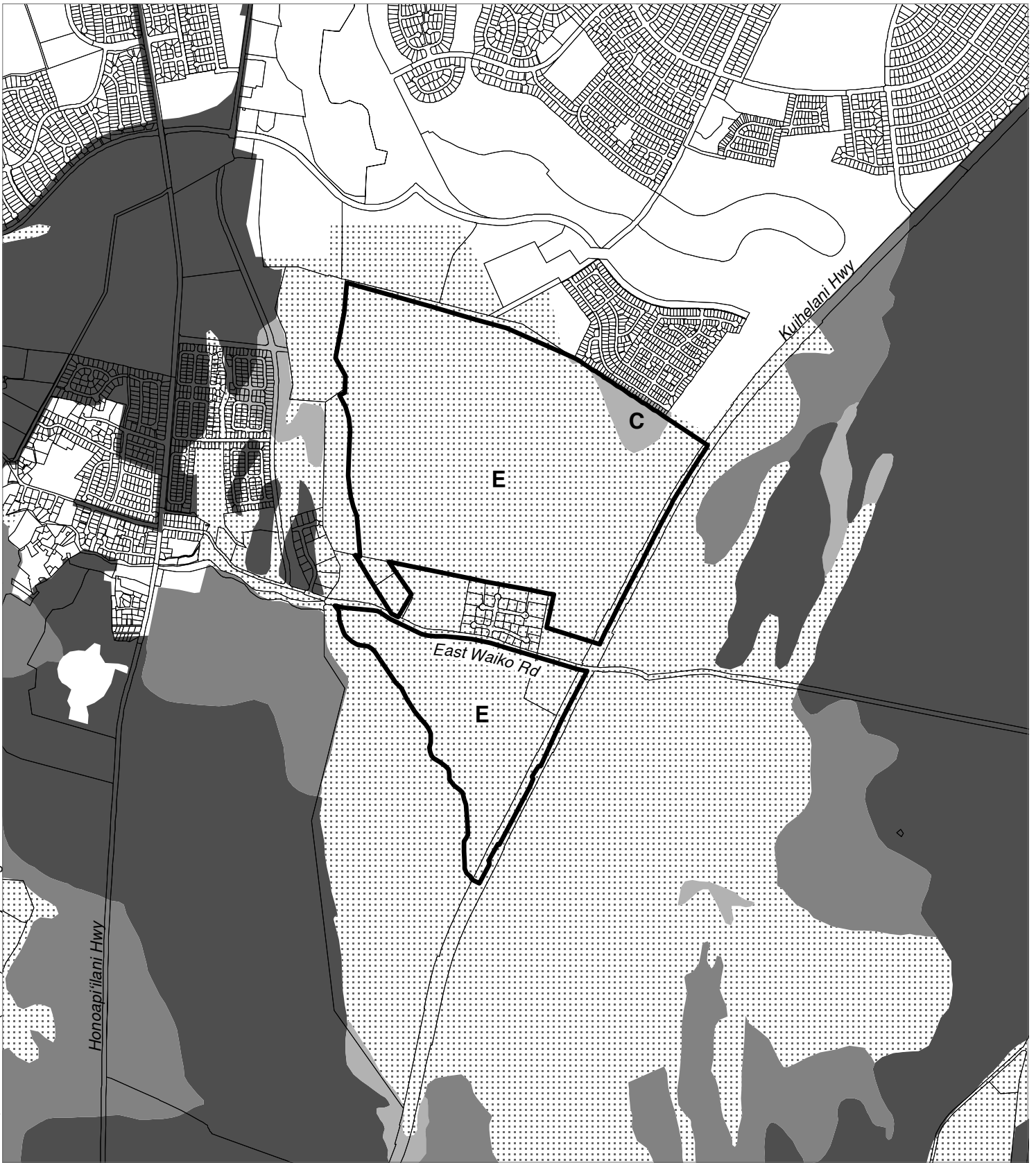
The property was not designated IAL for several reasons. Future development of the area had already been proposed within the context of the *General Plan* update process and the preparation of the *Maui Island Plan*. This included the concept of a future Wai'ale residential community extending south from Maui Lani and providing needed future housing for the Central Maui region. The area was deemed proximate to existing infrastructure and employment opportunities in Wailuku-Kahului and possessed favorable topography and highway access. Also, other lands in the vicinity along East Waiko Road were already designated for and being developed for urban uses. These factors, together with the property's marginal suitability for productive agricultural use were why these lands were not designated IAL.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Temporary erosion control measures will be incorporated during the construction period to minimize soil loss and erosion hazards. Special care will be taken to protect sensitive areas such as Waikapū Stream and the proposed Cultural Preserves. Temporary Best Management Practices (BMPs) will include sediment basins, diversion berms and swales, silt fences, dust fences, inlet protection, slope protection, stabilized construction entrances and truck wash-down areas. Periodic water spraying on loose soils will take place to minimize airborne dirt particles from reaching adjacent properties. During the Draft EIS public review period, the State Department of Health, Clean Water Branch wrote: "...all discharges related to the project construction or operation activities, whether or not National Pollutant Discharge Elimination system permit coverage and/or Section 401 Water Quality Certification are required, must comply with the Water Quality Standards...specified in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55..." An application for a National Pollution Discharge Elimination System (NPDES) permit will be submitted to the State Department of Health (DOH) for review and approval.

At the end of construction, all disturbed areas of the property will be permanently stabilized. Permanent sediment control measures will be used once construction is completed. These are described in Section 4.8.3 of this EIS.

Path: Q:\Maui\Waiale (Waiko)\GIS\Project\Figure 3-3 - Detailed Land Classification.mxd



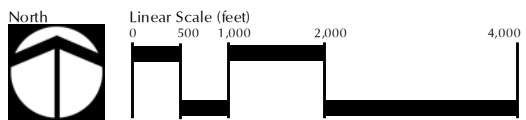
LEGEND

- | | | |
|--------------|---------------------|----------------|
| Project Area | Productivity Rating | D: Poor |
| A: Excellent | E: Very Poor | Not Classified |
| B: Good | | |
| C: Fair | | |

Figure 3-3
Detailed Land Classification
WAI'ALE

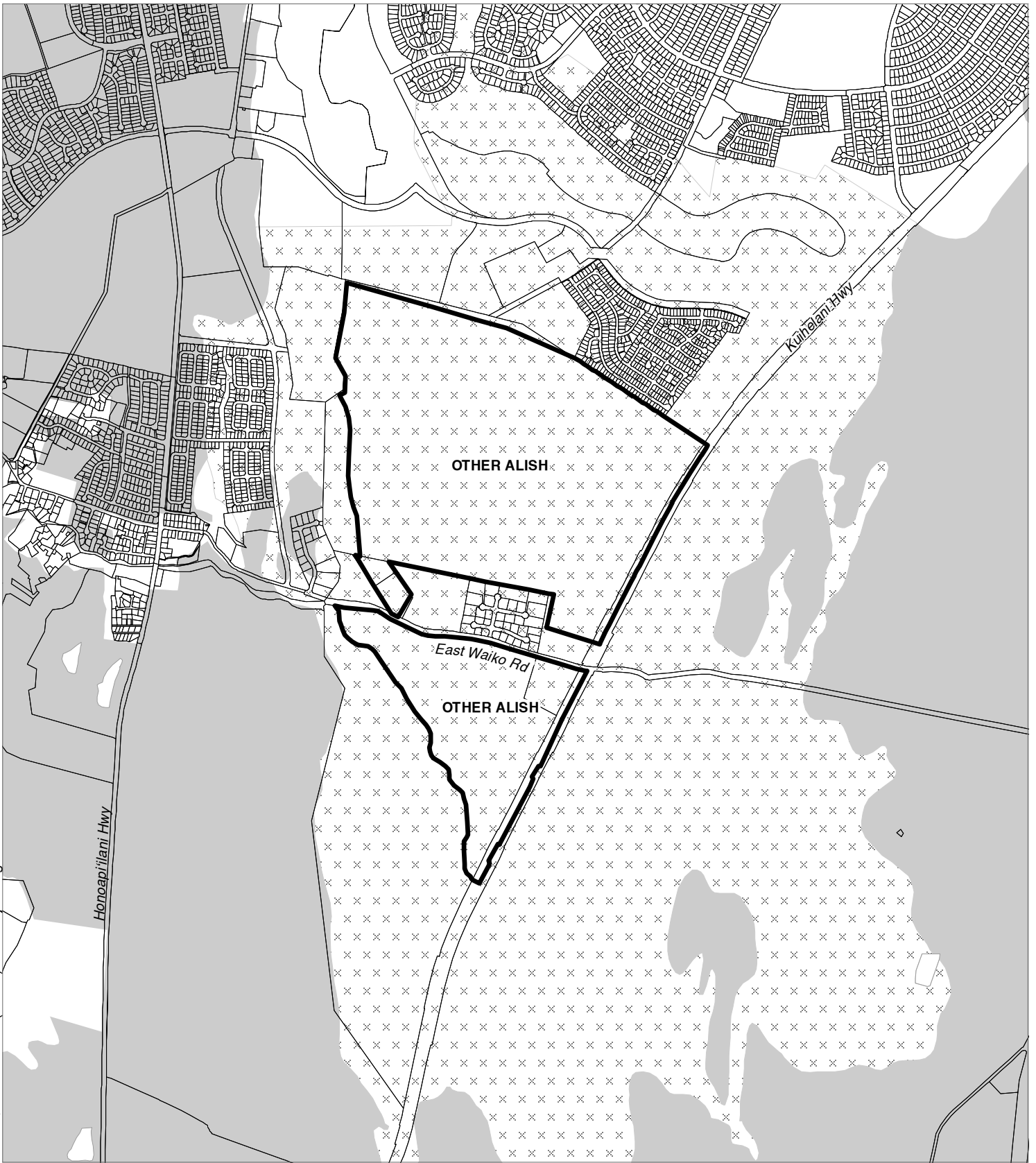
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KAHULUI, MAUI



Source: Land Study Bureau, 1967 (GIS)
Disclaimer: This graphic has been prepared for general planning purposes only.

Path: Q:\Maui\Waiale (Waiko)\GIS\Project\Figure 3-4 - ALISH.mxd



LEGEND





-  Project Area
-  Prime ALISH Lands
-  Other ALISH Lands
-  Unclassified ALISH

Figure 3-4
 Agricultural Lands of Importance to the State of Hawai'i
WAI'ALE

A&B PROPERTIES, INC.

KAHULUI, MAUI



Source: State Department of Agriculture, 1977 (GIS)
 Disclaimer: This graphic has been prepared for general planning purposes only.

During the Draft EIS public review period, The State Department of Land and Natural Resources, Commission on Water Resource Management (CWRM) wrote: "We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP)." According to the CWRM website, "The major objective of the AWUDP is to develop a long-range management plan that assesses state and private agricultural water use, supply and irrigation water systems. The plan is intended to be a master irrigation inventory plan which identifies system rehabilitation needs and prioritizes system repair." It is not envisioned that any agricultural activities will cease as a result of the water needs of this project.

The agricultural impact of this project is near negligible when taken in the context of recent trends on Maui. In the last 30 years, the closures of Wailuku Sugar and Pioneer Mill have taken significant acreages out of active sugar cultivation. More recently, Maui Land & Pineapple's shutdown of its pineapple operations has also added to the availability of agricultural acreage on Maui. These actions have greatly increased the supply of non-sugar based agricultural lands. Much of these lands of the former plantations continue to remain fallow and provide opportunities for future agricultural use. Rather than the availability of land, limiting factors to the growth of diversified agriculture include the market demand and profitability of the various agricultural crops and the availability of water. Wai'ale will involve the use of approximately 545 acres of land, which represents approximately 0.2 percent of the roughly 246,000 acres of State Agricultural district lands on the island of Maui.

3.4 NATURAL HAZARDS

Maui is susceptible to potential natural hazards, such as flooding, tsunami inundation, hurricanes, earthquakes, and volcanic eruptions. The State Department of Defense, Office of Civil Defense operates a system of civil defense sirens throughout the state to alert the public of emergencies and natural hazards, particularly tsunamis and hurricanes. The closest siren to the property is approximately 1.5 miles to the north in Kahului.

Authorized by Section 322 of the Robert T. Stafford Act as amended by Section 104 of the Disaster Mitigation Act of 2000 (DMA 2000), 44 CFR Part 201, Hazard Mitigation Planning, establishes criteria for developing state and local hazard mitigation plans. This act required states and counties to have approved hazard mitigation plans by November 1, 2004 to receive Pre-Disaster Mitigation funding. The Standard State Hazard Mitigation Plan is also required for non-emergency assistance provided under the Stafford Act, including Public Assistance restoration of damaged facilities and the Hazard Mitigation Grant Program. The development of state and local hazard mitigation plans is critical for maintaining eligibility for future Federal Emergency Management Agency (FEMA) mitigation and disaster recovery funding. The State of Hawai'i's Multi-Hazard Mitigation Plan was formally approved on October 27, 2004, and the update in 2007 was approved

on October 24, 2007. Another three-year update is in process, with a draft available for public review. The Plan states:

Land use policies are one of the primary ways to mitigate the impacts of natural hazards...Pursuant to State law (Hawaii Revised Statutes Chapter 205 and 225M), OP develops and presents the position of the State of Hawaii in all boundary change petitions and proceedings before the State Land Use Commission (LUC)... OP solicits input from the State Civil Defense Division of the State Department of Defense in every petition for boundary change... If there is a risk to public safety due to the probabilities of natural hazards occurring in the area, OP will provide analysis and recommendations based on further state agency reviews and collaboration with the federal and county governments. At the hearings on the petitions and other proceedings, OP may call witnesses to testify on behalf of the State of Hawaii.

In addition, the County Civil Defense Agency is responsible for administering and operating the various local, state, and federal civil defense programs for the County. This includes planning, preparing, and coordinating civil defense operations in meeting disaster situations and coordinating post-disaster recovery operations. The Maui Hazard Mitigation Plan is a master plan for the County that:

- identifies the hazards and risks posed by natural and technological disasters,
- identifies hazard mitigation actions and activities to reduce losses from such disasters, and,
- establishes priorities and a long-term sustained process to implement those actions.

The Maui Hazard Mitigation Plan focuses on mitigating hazards to critical facilities and special populations or areas. Critical facilities include those public and private facilities that need to be operational during and after a hazard event to meet public health and safety needs, or to speed economic recovery. These facilities include the following:

- Emergency response facilities: Civil Defense Emergency Operations Center (EOS), emergency shelters, police, fire and Emergency Medical Service (EMS) stations, hospitals, and Department of Public Works base yards.
- Infrastructure lifeline facilities: transportation (harbors, airports, roads/bridges), energy (electrical, fuel, gas), communication (wired/cabled telecommunication, wireless), water, and wastewater.
- Recovery facilities: debris clearing and disposal, car rentals, buses, financial institutions, survival and building supplies.
- Secondary hazard facilities: facilities that increase the hazard risk if damaged, including wastewater facilities and hazardous waste sites.

There are no objectives or priorities in the Maui Hazard Mitigation Plan that specifies implementation requirements by the applicant.

3.4.1 Flood

Flood hazards are primarily identified by the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA), National Flood Insurance Program. According to the FIRM, most of the property is designated Zone X, which denotes areas determined to be outside both the 500-year and 100-year flood plains (See Figure 3-5). The intent of the master plan is to avoid any development within the Waikapū Stream floodway. During the Draft EIS public review period, the State Department of Land and Natural Resources, Engineering Division confirmed that the project site is located in Zone X and stated: "The Flood Insurance Program does not have any regulations for developments within Zone X."

3.4.2 Tsunami

Wai'ale is located outside of the ~~FIRM~~ tsunami inundation zone.

3.4.3 Hurricane

Records show that strong wind storms have struck all major islands in the Hawaiian Island chain since the beginning of history. The first officially recognized hurricane in Hawaiian waters was Hurricane Hiki in August of 1950. Since 1980, two hurricanes have had a devastating effect on Hawai'i: Hurricane 'Iwa in 1982 and Hurricane 'Iniki in 1992.

3.4.4 Earthquake

In Hawai'i, most earthquakes are linked to volcanic activity rather than the movement of tectonic plates. Each year, thousands of earthquakes occur in Hawai'i, but the vast majority of them are only detectable with highly sensitive instruments. However, moderate and disastrous earthquakes have occurred in Hawai'i.

The 1938 Maui Earthquake, with a magnitude of between 6.7 and 6.9 on the Richter Scale and an epicenter six miles north of Maui, created landslides and forced the closure of Hāna Highway. Damaged water pipes and ground fractures were reported in Lāhainā.

A recent series of earthquakes, with magnitudes of 6.7 and 6.0, occurred at Kīholo Bay (Hawai'i Island) on October 15, 2006. On Maui, these earthquakes caused a closure of the Pa'īhi Bridge between Kīpahulu and Hāna, as well as a rockslide over the highway between Kīpahulu and Kaupō, cutting utility lines and undermining sections of the narrow roadway. The road between Kīpahulu and Kaupō was shut down in December 2006 and not re-opened until October 2008.

3.4.5 Volcanic Eruptions

Volcanic hazards on Maui are considered minimal due to the dormant status of the island's volcanoes.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The Wai'ale community will not exacerbate any hazard conditions. Potential damage caused by earthquakes and hurricanes will be mitigated, as all structures will be constructed in compliance with the County Building Code. In its Draft EIS public review comments, the State Department of Defense, Office of Civil Defense (SCD) recommended that the applicant install two 121 dB(c) omni-directional sirens. The applicant will coordinate with the SCD to provide suitable sites for access and installation of a warning siren(s).

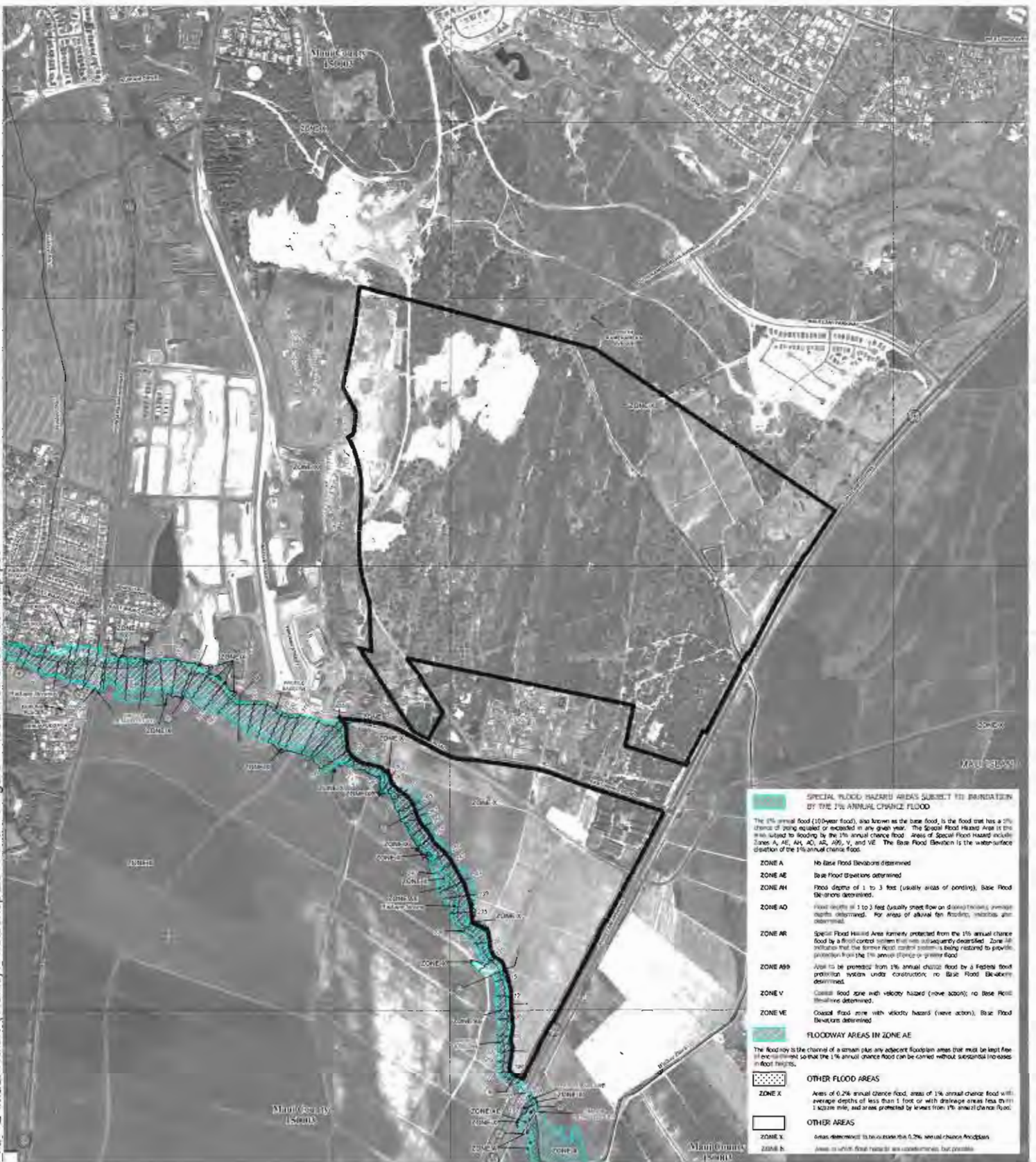
3.5 GROUNDWATER RESOURCES AND WATER QUALITY

The applicant is exploring several potential drinking water source opportunities to serve Wai'ale. These include surface water treatment and new well sources in the Central Maui region. ~~The primary focus has been the development of a surface water treatment facility utilizing water from the West Maui ditch system.~~ The following describes the alternative of developing new well sources on groundwater resources.

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, need to be developed. The need for these improvements is discussed in the WUDP and also the Maui Island Plan.

The Maui Island Plan (MIP) is the guiding document for future growth on the island of Maui to the year 2030. Resident population estimates in the Draft MIP reflect 135,838 residents in year 2010, 157,390 residents in year 2020 and 176,687 residents in year 2030. The plan has designated the Wai'ale area for future residential growth, and is the largest component of future growth in the Central Maui region. The Draft MIP notes that the development of additional water sources is crucial for the Central Maui water system. The plan includes a long range implementation plan to address capital improvements, including water source development and related infrastructure.

The Kahului Aquifer is an approximately 9.5-square mile area that extends across the isthmus of Maui. Groundwater in this aquifer occurs under the compressed alluvium which functions as a caprock over the Haleakalā basalts. Over most of the isthmus, the



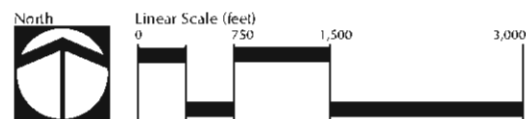
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Project Area

Figure 3-5
Flood Insurance Rate Map
WAI'ALE

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top of the groundwater lens is approximately four feet above msl and consists of drinking quality water. The aquifer has not been designated a ground water management area.

Within and in the nearby vicinity of the property, there are several drinking quality groundwater wells. Wai'ale Well No. 1 (State No. 5129-04) and Wai'ale Well No. 2 (State No. 5129-05) are situated within the northeastern portion of the property. Two other small capacity drinking quality wells are located outside the property near East Waiko Road: Consolidated Baseyards (State Nos. 5129-02 and 03). North of the property within the Maui Lani development are Maui Lani Wells 5, 6, and 7 (State Nos. 5229-04, 05, and 06) which have been turned over to the County Department of Water Supply (DWS) for drinking quality water use.

The CWRM's Water Resource Protection Plan notes a sustainable yield of 1 million gallons per day (MGD) for the Kahului Aquifer, commenting specifically that this "Sustainable Yield ignores significant importation of surface water into Kahului from outside the aquifer system area. This explains the ability to withdraw fresh water from the aquifer at significantly higher rates than the sustainable yield without apparent negative impacts (i.e. rising chloride concentrations or decreasing water levels)" ~~The State Commission on Water Resource Management (CWRM) has set the sustainable yield of the Kahului Aquifer at 1.0 million gallons per day (MGD) based on its estimate that approximately 20 percent of the rainfall directly on the 9.5-square mile area becomes recharged to the underlying groundwater and that 44 percent of this recharge can be safely pumped by wells. As mentioned above, this sustainable yield estimate, however, reflects natural recharge, i.e., rainfall only. As discussed below, the Kahului Aquifer is also fed by other sources and has long yielded significant amounts of brackish water far in excess of this sustainable yield figure. The aquifer has a long history of substantial pumpage of brackish water by HC&S for sugarcane irrigation. In more recent years, the pumpage has been reduced to the range of 25 MGD.~~

The Kahului Aquifer is recharged by several other sources of substantially greater magnitude other than rainfall. These include: 1) underflow from Haleakalā, which passes through the Pā'ia Aquifer into the Kahului Aquifer with no known hydrological impediment, 2) underflow from the West Maui Mountains (Mauna Kahalawai), which moves into the Kahului Aquifer through the weathered surface and alluvium of the mountains, 3) irrigation return flow from sugarcane fields and other agricultural activities, and 4) leakage from the Wai'ale Reservoir. Another contributor in the vicinity is irrigation return flow from the nearby golf course (The Dunes at Maui Lani). In examining these contributing sources of groundwater recharge, it should be noted that any future reductions due to reduced irrigation return flow from agricultural activities would be offset by less pumpage from the aquifer for agricultural irrigation.

The development of new groundwater sources from the 'Īao Aquifer system is not planned for the Wai'ale project. The 'Īao Aquifer system has been designated a State groundwater management area and as such is under the management of the CWRM. The CWRM regulates water withdrawals through a water use permit process. The sustainable yield of

the aquifer is monitored and withdrawals are managed by the CWRM. This system of monitoring and management also examines potential impacts to the aquifer, including groundwater levels, the chloride content of pumped water, as well as potential effects due to impacts from climate change (lower rainfall/drought conditions). The CWRM has not modified the sustainable yield for the 'Āo Aquifer system since its designation as a State groundwater management area in 2003. Similarly, the development of new groundwater resources from the Waihe'e Aquifer system is not planned for the Wai'ale project.

The Underground Injection Control (UIC) program serves to protect the quality of Hawai'i's underground sources of drinking water from chemical, physical, radioactive, and biological contamination that could originate from injection well activity. Underground Injection Wells are wells used for injecting water or other fluids into a groundwater aquifer. The State Department of Health Administrative Rules, Title 11, Chapter 23 provides conditions governing the location, construction, and operation of injection wells so that injected fluids do not migrate and pollute underground sources of drinking water. Section 4 of the Rules gives the criteria for classifying aquifers into those that are designated as underground sources of drinking water and those that are not. The boundary between non-drinking water aquifers and underground sources of drinking water is generally referred to as the "UIC Line". Restrictions on injection wells differ, depending on whether the area is inland (mauka) or seaward (makai) of the UIC line. The UIC Map for Maui shows that Wai'ale is located seaward of the UIC line.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The applicant, on its own and in collaboration with other parties, is also pursuing other potential drinking water sources, including new water wells in Central Maui. As part of its ongoing assessment and analysis of potential water sources within the Central Maui region, the applicant drilled a test well within the northeastern portion of the property. The well was drilled at an approximate ground elevation of 183 feet above msl and to a depth of about 207 feet. Pump test indicated good water quality and capacity. This resulted in the construction of two wells within the property. These wells, Wai'ale Well No. 1 (State No. 5129-04) and Wai'ale Well No. 2 (State Well No. 5129-05) are situated within the Kahului Aquifer.

The approved pump capacity for Wai'ale Well Nos. 1 and 2 by CWRM is 550 gallons per minute (gpm), however, the intended pump capacity is 450 gpm or approximately 0.648 MGD. One well is intended to be a backup while the other is operational. Engineering reports for both Wai'ale wells have been accepted by DOH. While water from these wells is not planned for use by Wai'ale, or to serve the Maui Lani development, it demonstrates the potential for the development of drinking quality water within the Central Maui region. The aforementioned Maui Lani Wells Nos. 5, 6 and 7, which were drilled in the Kahului Aquifer and are hooked up to the DWS' Central Maui system, are further evidence of this potential. The applicant continues to examine the feasibility of other wells in the region, including partnerships with other parties in the development of these resources.

As noted by the Commission on Water Resource Management (CWRM) in its FEA/EISPN public review comments, any proposed water supply source located in a designated water management area will require a Water Use Permit prior to the use of water. Any new wells drilled in these aquifers would have to be permitted by the CWRM and thus will be within the allowable sustainable yields of the respective aquifers.

Any water well that ultimately does source the Wai'ale project, as with all public water systems, will comply with regular water sampling and reporting requirements. This would include the preparation of periodic water quality reports as required by law.

The applicant will implement water conservation measures. Water conservation can be achieved through low flow fixtures as required by Uniform Plumbing Code and through xeriscaping. Xeriscaping is a concept of water conservation in the landscape. It preserves water and can reduce operational costs. Xeriscaping principles will guide the landscape architectural design and are described more fully in Section 4.8.1 of this EIS.

To mitigate potential groundwater contamination, best management practices (BMPs) for the future use of the property will be implemented. Covenants will be imposed which inform potential homebuyers that activities at the property could impact the ~~ground water~~ groundwater beneath the property, requires compliance with all applicable environmental and other governmental laws, rules and regulations and requires efforts to ~~protect~~ prevent groundwater contamination from fertilizers, pesticides, metals, petroleum products, solvents and other contaminants. Industrial users will be required to protect groundwater contamination from metals, petroleum products, solvents and other contaminants, including runoff collection and treatment and to institute spill prevention containment and control programs. As recommended by DWS, the operators of proposed active parks and schools will be advised to implement Integrated Pest Management (management practices to ~~protect~~ prevent groundwater contamination from over-reliance and overuse of fertilizers and pesticides). Integrated Pest Management strategies for turf management could include: careful selection of turf species; careful site preparation to ensure proper drainage and avoid saturated areas; proper irrigation amount and frequency; and proper mowing height and schedule. These are strategies that may require more labor but could result in cost savings in water, fertilizer, and pesticide application, as well as the costs of replacing turf, and in the worst case, of groundwater remediation.

In addition to reducing peak flow rates, the proposed stormwater management system will provide water quality treatment to reduce the discharge of pollutants to the maximum extent practicable. Instead of just managing the infrequent peak storm events, the more common smaller storms will be targeted for treatment. The goal will be to provide water quality treatment for 90 percent of the average annual rainfall.

The project will incorporate stormwater BMPs to control water quality. Examples of stormwater BMPs that will be employed include:

Grass Swales

Surface stormwater runoff from developed areas will be directed to grass swales and landscaped areas where practical. The grasses and other vegetation provide natural filtration while allowing percolation into the underlying soil.

Open Space/ Reduced Impervious Coverage

Approximately 25 percent of Wai'ale will be reserved as park areas, cultural preserves, or other open spaces. Important natural and cultural features will remain undisturbed. A buffer strip will be maintained along Waikapū Stream. Open space and park areas will be maintained with grass or other native vegetative cover. Reducing impervious coverage where possible promotes infiltration and maintains the natural hydrologic cycle.

Stormwater Retention/ Infiltration

The bottom one to two feet of the stormwater basins will be reserved for retention of the water quality volume. The water quality runoff and potential pollutants will be prevented from flowing to downstream areas such as Waikapū Stream. Stormwater will be held for an extended period allowing suspended solids to settle out. To reduce the risk of children playing in the collected storm water, various alternatives are being considered to provide retention basin safety, including fencing, installing a "safety shelf", and/or installing landscaping. Water will infiltrate into the soils gradually over 24 to 48 hours and recharge groundwater. Since the project will not contain stormwater "hotspot" uses such as heavy industrial, car salvage, or fueling sites, stormwater infiltration is considered acceptable.

While the County does not specifically require water quality treatment of stormwater, the U.S. Green Building Council (USGBC) (through LEED), and the U.S. Environmental Protection Agency (EPA) accept the above methods of stormwater quality control as stormwater BMPs that reduce the pollutant loads associated with stormwater runoff.

A maintenance plan will be developed for managing the BMPs on the property. The plan will include requirements for removing accumulated sediments and debris, maintaining vegetation, and performing regular inspections so that the BMPs operate effectively into the future.

3.6 SURFACE WATER RESOURCES

As previously mentioned in Section 3.5, the applicant is exploring several potential drinking water source opportunities to serve ~~Wai'ale the project~~. These include surface water treatment and new well sources in the Central Maui region. ~~The primary focus has been the development of a surface water treatment facility utilizing water from the West Maui ditch system.~~ The following discusses the alternative of developing a new surface water treatment facility.

The *Maui County General Plan 2030, Maui Island Plan - Infrastructure and Public Facilities Technical Issue Paper* (September 2007), outlined preliminary estimates for major County system upgrades for Central Maui including the Wai'ale Water Treatment

Facility (WTF) which was envisioned as having an installed capacity of nine MGD with an average capacity of six MGD.

The State Water Code (*Chapter 174C, Hawaii Revised Statutes*) and Maui County Code Chapter 14.02 require the preparation of a Water Use and Development Plan (WUDP). The WUDP is the primary long range plan of the County Department of Water Supply (DWS). The WUDP directs the management of water resources in a manner that is a plan for the management of water resources that is consistent with the County's land use plans and policies. The WUDP serves as a guideline for the use and commitment of water resources and funds. The DWS is in the process of updating the WUDP.

Per Mark G. Hyde's comments during the Draft EIS public review period, the following information is provided: The WUDP accounts for the effects of climate change, particularly drought conditions in areas where surface water is the primary water source, such as the Upcountry region. In these areas, restrictions on water use have been implemented as a demand-side management measure. Other demand-side management measures include incentives for low-flow water fixtures, efficient landscape irrigation methods, and use of drought tolerant plants and recycled water. The WUDP promotes extensive conservation measures and the increased use of recycled water as a means of maximizing the use of water resources.

As part of the update process, a Central District: Final Candidate Strategies Report was prepared by Haiku Design & Analysis in June 2009. The report notes that water consumption for the Central District system is expected to grow from about 22 MGD in 2005 to about 34 MGD in 2030, an increase of about 12 MGD. To meet this increased demand, the report recommends proceeding with the Wai'ale WTF negotiations and approvals to the extent possible pending determination of assurance of long term water availability and price. The report further notes that the Wai'ale WTF is considered to be potentially the most cost effective solution to providing needed future water. The WUDP also considered other potential strategies, including new basal groundwater wells to the north of the existing Central District system (into the north half of the Waihe'e Aquifer and the Kahakuloa Aquifer). However, the anticipated costs of developing these wells and the related transmission system are high and the anticipated yields are uncertain. Other resource strategies examined included developing transmission lines eastward to the Ha'ikū Aquifer and the desalination of brackish water, however, both of these strategies entail substantial development and operational costs.

While Wai'ale does not incorporate any portion of Waikapū Stream; the applicant has assessed the project's potential to impact surface waters, including those that may be categorized as wetlands or other aquatic resources that might fall under the jurisdiction of the U.S. Army Corps of Engineers under provisions of the Clean Water Act (1973 and as amended). In order to address this potential issue, Robert Hoby conducted an aquatic resource survey (See Appendix C). According the aquatic resource survey, a complete walk-through of the property failed to find any apparent wetland hydrology features, these findings included:

- No dominant hydrophytic vegetation was found in any of these plant communities.
- No wetland hydrology indicators were found in any of the three plant communities in the project area. No streams, gullies or drainages bring water into this area from outside its borders, and all rainfall quickly percolates down through these porous soils.
- No hydric soils were found in any part of the project area. All of the soils were highly porous sand soils. No water accumulates on the surface or within several feet of the surface. No hydric soils indicators were identified in any part of this project.

The aquatic resource survey concluded:

No positive wetland indicators were found in any of the parameters of vegetation, soils or hydrology in the three plant communities that encompass this entire 545 acre project...This entire Waiale Project area is found to be non-wetland in character.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The proposed Wai'ale Water Treatment Facility (WTF) is a collaborative effort of the applicant and DWS. The concept of utilizing surface water from West Maui evolved and was advanced from the DWS' pursuit of the East Maui Water Development Plan (EMWDP). The EMWDP proposed developing new water wells in East Maui to meet future water demands on the Central Maui water system. However, opposition to the EMWDP ultimately resulted in a lawsuit, the settlement of which directed the County to pursue surface water treatment utilizing West Maui ditch water before resuming its exploration of East Maui well water. Surface water treatment technology is familiar to the County who has experience operating such facilities. The DWS operates treatment plants at Kama'ole Weir using water from East Maui Irrigation Company's (EMI) Wailoa Ditch, Pi'iholo on the Lower Kula System, Olinda on the Upper Kula system, the 'Iao Plant using 'Iao Stream water, and at Māhinahina above Lāhainā using water from the Honokōhau Ditch. DWS has qualified personnel to operate these treatment plants to produce drinking quality water.

The applicant acknowledges that the proposed WTF requires further discussion, review and approvals by various governmental agencies in order to proceed. An agreement with the County outlining the sharing of development costs for the proposed Wai'ale WTF, terms of use, the allocation of water and other matters will be required. This agreement will ultimately be subject to the review and approval of the Maui County Council. Also, the establishment of interim in-stream flow standards (IIFS) for the four streams which make up the Na Wai 'Eha, including Waihe'e Stream, will need to be resolved. In June 2010, the CWRM rendered its decision in the Na Wai 'Eha case by setting interim in-

stream flow standards for the four streams that make up the Na Wai 'Eha. However, the CWRM's decision was subsequently appealed and is currently before the court.

The following is a description of the proposed Wai'ale WTF upon which detailed engineering was undertaken. It is acknowledged that the design and scale of the final Wai'ale WTF will be subject to other decisions and approvals, including the final interim in-stream flow standards for the streams which make up the Na Wai 'Eha, and that these decisions could result in a smaller treatment facility with lower capacity than currently planned. The proposed Wai'ale WTF would not involve a change to the status quo relative to the diversion of water from the Na Wai 'Eha streams. There will be no additional diversion. Since there will be no additional diversion of water, there would be no additional adverse impacts over the status quo, including that relating to traditional and customary Native Hawaiian rights.

The proposed Wai'ale WTF is planned to be located on about 3.5 acres near the upper Wai'ale Reservoir site in Wailuku, on lands owned by Alexander & Baldwin, Inc. The proposed Wai'ale WTF will treat surface water primarily from Waihe'e Stream utilizing membrane filtration. A total of three filter units are currently being proposed for the WTF, which would yield a sustained average production capacity of approximately nine MGD. As noted previously, this design capacity could be reduced pending decisions in other related matters. Detailed engineering design of the WTF has been undertaken, including designs for piping connections to the County's Central Maui water system. The plant is about 80 percent designed. Over the past several years, about \$1,100,000 has been spent by the applicant on the engineering design and preparation of regulatory documents needed for the plant to proceed. The applicant continues to work with the County to address design and regulatory matters relating to the WTF.

Per Mark G. Hyde's and Hōkūao Pellegrino's comments during the Draft EIS public review period, the following information is provided: The source water for the Wai'ale WTF is the Waihe'e Ditch, via the Hopoi Chute. The majority of water from the Waihe'e Ditch is diverted from the Waihe'e Stream. The U.S. Geological Service has a gauge installed at Waihe'e Stream near the existing dam structure and has recorded flows on a daily, monthly and annual basis. Over the 22 year period between 1983 and 2005, the lowest minimum daily flow recorded ranged from 31.0 MGD to 41.8 MGD. The average daily flow through the Hopoi Chute was 22.0 MGD between 1994 and 2003. This flow volume would account for and include potential reductions due to climate change.

During the Draft EIS public review period, the State Department of Health, Safe Drinking Water Branch (SDWB) wrote:

The project qualifies as a public water system if it is constructed as a new private water system. Federal and state regulations define a public water system as a system that serves 25 or more individuals at least 60 days per year or has at least 15 service connections. All public water system owners and operators are required to

comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, titled "Rules Relating to Potable Water Systems."...

All new public water systems are required to demonstrate and meet minimum capacity requirements prior to their establishment. This requirement involves demonstration that the system will have satisfactory technical managerial and financial capacity to enable the system to comply with safe drinking water standards and requirements in accordance with HAR Title 11, Chapter 20, Section 29.5, entitled "Capacity demonstration and evaluation."...

Projects that propose development of new sources of drinking water serving or proposed to serve a public water system must comply with the terms of HAR Title 11, Chapter 20, Section 29, entitled "Use of new sources of raw water for public water systems." This section requires that all new public water system sources be approved by the Director of Health prior to its use. Such approval is based primarily upon the submission of a satisfactory engineering report which addresses the requirements set forth in Section 11-20-29...

The engineering report must identify all potential sources of contamination and evaluate alternative controls measures which could be implemented to reduce or eliminate the potential for contamination, including treatment of the water source. In addition, water quality analyses for all regulated contaminants, performed by a laboratory certified by the State Laboratories Division of the State of Hawaii, must be submitted as part of the report to demonstrate compliance with all drinking water standards. Additional parameters may be required by the Director for this submittal or additional tests required upon his or her review of the information submitted...

All sources of public water systems must undergo a source water assessment which will delineate a source water protection area. This process is preliminary to the creation of a source water protection plan for that source and activities which will take place to protect the source of drinking water...

Projects proposing to develop new public water systems or proposing substantial modifications to existing public water systems must receive approval by the Director of Health prior to the construction of the proposed system or modification in accordance with HAR Title 11, Chapter 20, Section 30, entitled "New and modified public water systems." These project include treatment, storage and distribution systems of public water systems. The approval authority for projects owned and operated by a County Board or Department of Water or Water Supply has been delegated to them...

All public water systems must be operated by certified distribution system and water treatment operators as defined by HAR Title 11, Chapter 11-25, entitled "Rules Pertaining to Certification of Public Water System Operators."...

All projects which propose the establishment of a potentially contaminating activity (as identified in the Hawai'i Source Water Assessment Plan) within the source water protection area of an existing source of water for a public water supply should address this potential and activities that will be implemented to prevent or reduce the potential for contamination of the drinking water source.

During the Draft EIS public review period, the U.S. Army Corps of Engineers (Corps) wrote: "Based on the information the applicant provided in the DEIS, the project site appears to be absent of navigable waters subject to Corps jurisdiction. Therefore Section 10 authorization may not be required." Although no construction is proposed within Waikapū Stream, the Corps wrote that it is unable to provide a determination whether a DA permit pursuant to Section 404 of the Clean Water Act would be required for the proposed project. At the appropriate stage in the design process, the Corps will be contacted to determine if proposed activities warrant a DA permit. Since there are no wetlands on the property, no impacts to wetlands are anticipated.

3.7 FLORA RESOURCES

Walk-through biological surveys of the property were conducted by Robert Hobdy in 2007 and 2011. The walk-through biological surveys attempted maximum coverage of the property. Areas most likely to harbor native or rare plants such as any undisturbed portions of dunes were more intensively examined.

The vegetation of the property is dominated by buffelgrass (*Cenchrus ciliaris*) which occupies most habitats. Also common are *kiawe* (*Prosopis pallida*), golden crown-beard (*Verbesina encelioides*), Guinea grass (*Megathyrsus maximus*) and 'uhaloa (*Waltheria indica*).

The old agricultural fields have sparse stands of remnant sugar cane with an assortment of weeds. The pasture areas are primarily *kiawe* trees and buffelgrass. The sand excavation areas are highly disturbed with much bare ground and hardy weeds.

A total of 131 species of plants were recorded during the most recent survey in 2011 (See Appendix €D). Four indigenous native plants were found: 'uhaloa (*Waltheria indica*), 'ilima (*Sida fallax*), kou (*Cordia subcordata*) and *popolo* (*Solanum americanum*). All four of these are widely spread and common in Hawai'i, as well as in other Pacific islands. An additional two species, *niu* (*Cocos nucifera*) and *ko* or sugar cane (*Sacharum officinarum*) are of Polynesian origin and common.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The vegetation throughout the property is dominated by a great variety of non-native plants. The four native species and the two Polynesian introductions are all common and of no particular environmental concern.

No federally listed endangered or threatened native plant species (USFWS, 2009) were encountered during the course of the survey. Nor were any species that are candidates for such status seen during Hobdy's surveys in 2007 and 2011. No special habitats or rare plant communities were seen on the property.

As a result of these above conditions there is little botanical concern on this property and the proposed land use changes are not expected to have a significant negative impact on the botanical resources in this part of Maui. Therefore, no recommendations are deemed necessary or appropriate regarding the botanical resources on this property.

3.8 FAUNA RESOURCES

Walk-through fauna surveys were conducted by Robert Hobdy in conjunction with the biological surveys conducted in 2007 and 2011. All parts of the property were covered. Field observations were made with the aid of binoculars and by listening to vocalizations. Notes were made on species, abundance, activities and location as well as observations of trails, tracks, scat and signs of feeding. In addition, evening visits were made to the area to record crepuscular activities and vocalizations and to see if there was any evidence of occurrence of the Hawaiian hoary bat (*Lasiurus cinereus semotus*) in the area.

Mammals

Six species of non-native mammals or their signs were observed on the property during four site visits. Most common were axis deer (*Axis axis*). One herd was seen, but their tracks, scat, antler rubbings and signs of feeding were seen throughout the area. Also common were cattle (*Bos Taurus*) which were in the pastures or concentrated in feed lots. Uncommon or rare were horses (*Equus caballus*), mongoose (*Herpestes auropunctatus*), feral cats (*Felis catus*) and dogs (*Canis familiaris*).

Other non-native mammals one would expect to see in this habitat include mice (*Mus domesticus*) and rats (*Rattus* spp.). These rodents feed on seeds, fruits, insects, eggs and herbaceous vegetation and are prey for the cats and mongoose.

A special effort was made to look for the native Hawaiian hoary bat by making an evening survey at four sites in the area. When present in an area these bats can be easily identified as they forage for insects, their distinctive flight patterns clearly visible in the glow of twilight. No evidence of such activity was observed though visibility was excellent and plenty of flying insects were seen. In addition, a bat-detecting device (Batbox IIID) was employed, set to the frequency of 27,000 Hertz which these bats are known to use for echolocation. No bats were detected at any site using this device.

Birds

Both the diversity of birds and their numbers were substantial across the property due to the presence of cattle feed lots with grains and insect populations. 19 species of birds

were seen during four site visits to the property. Included were 18 introduced, non-native species and one migratory species, the *kolea* or Pacific golden-plover (*Pluvialis fulva*).

The common bird species included: zebra dove (*Geopelia striata*), common myna (*Acridotheres tristis*), spotted dove (*Streptopelia chinensis*), gray francolin (*Francolinus pondicerianus*), northern cardinal (*Cardinalis cardinalis*), and house finch (*Carpodacus mexicanus*). The remaining 13 species were uncommon to rare on the property. A few other non-native birds such as the nutmeg mannikin (*Lonchura punctulata*) and the mourning dove (*Zenaida macroura*) might occasionally be seen here, but the habitat is not suitable for Hawai'i's native forest birds that are presently restricted to higher elevations beyond the range of mosquitoes and the deadly avian diseases they carry and transmit. None of the endangered nene goose (*Branta Sandwicensis*) were seen in this kiawe forest habitat.

During the Draft EIS public review period, Maui Tomorrow Foundation wrote: "Although the fauna survey does not reflect the fact, pueo (native Hawaiian owls) are often seen on the Waiale project site by local residents, especially in the gulch areas. Nene are also seen and have established a presence at nearby Waiale reservoir." As noted in the Flora and Fauna Study (page 12), Appendix D of the Draft EIS, no Hawaiian geese were observed in the kiawe forest habitat found at the property. The Waikapū Community Association also wrote: "A number of community members commented on their observation of native pueo in the region proposed for the Wai'ale community." Pueo frequent middle elevation pastures and scrub forests where human activity is minimal. Per biological consultant Robert Hobdy, he has not seen a pueo in some 40 years in Maui's central valley. The introduced barn owl (*Tyto alba*) is widespread in lower elevations, closer to human activities and structures. It is occasionally seen in the project area. It roosts in the forest corridor along Waikapū Stream during the day and does not fly unless disturbed. It becomes active during the evening when it is often seen just before dark. None of the commenters state that they personally have sighted the pueo, so it is possible that those that claim to have seen pueo in the area may have actually sighted the more common larger barn owl, which actually out-competes the pueo for food and is a predator on its young where their habitats overlap. Barn owls have no federal endangered species protections and no native Hawaiian cultural connections.

Hawaiian Biodiversity and Mapping records indicate that several of the Endangered Hawaiian stilt (*Himantopus mexicanus knudseni*) and Hawaiian coot (*Fulica alai*) have been occasionally seen at a small plantation reservoir a half mile to the southwest of the property. These waterbirds are attracted to such aquatic features. No such aquatic features occur within the property and these birds are not likely to utilize this dry habitat.

Reptiles

Just one species of reptile, the non-native mourning gecko, was observed. These geckos were scattered throughout the property and could be heard making their chipping calls during the evening survey.

Insects

An abundance of insect species were observed in the property during four site visits. The onset of the wet season stimulates the emergence of many species from dormancy. A total of 36 species were recorded in nine insect orders. Three native species were seen including the endemic and endangered Blackburn's sphinx moth (*Manduca blackburni*) as well as two indigenous dragonflies, the globe skimmer (*Pantala flavescens*) and the green darner (*Anax junius*). The remaining 33 species were an array of non-native insect introductions or accidental arrivals.

One species was abundant across the property, the dung fly (*Musca sorbens*). Another six species were common: the European garden spider (*Araneus diadematus*), the tachinid fly (*Lespesia archippivora*), the honey bee (*Apis mellifera*), the kiawe moth (*Anacamptodes fragillaria*), the monarch butterfly (*Danaus plexippus*) and the globe skimmer.

Mollusks

Two species of non-native snails were observed within the property, both of which were rare. These were the giant African snail (*Achatina fulica*) and the rosy cannibal snail (*Euglandina rosea*).

POTENTIAL IMPACTS AND MITIGATION MEASURES

The fauna life on this property is strongly dominated by non-native species. Of the six mammals, 15 birds, one reptile, 36 insects and three mollusks, only three insects were native to Hawai'i: the endemic and endangered Blackburn's Sphinx moth, and two indigenous dragonflies: the green darner and the globe skimmer.

The endangered Blackburn's sphinx moth has been seen in the egg and larval stages of growth, and they were found on their alternate host plant species, the non-native tree tobacco (*Nicotiana glauca*). Approximately 300 tree tobacco plants were found on the property, mostly in recently disturbed areas on the northern part of the property. These shrubs, like most of the rest of this property, were experiencing a flush of new growth in response to recent winter rains and were growing vigorously. The rains and the vigorous plant growth stimulate a burst of seasonal insect activity as many species emerge from dormancy and begin a new cycle of growth and breeding. The Blackburn's sphinx moth fits the annual pattern which typically lasts from December through April during which time they breed, lay eggs which hatch on host plants on which they feed until they mature. Then they migrate to the leaf litter below the host plants where they pupate. The pupae then begin a long stage of dormancy until the next winter rains renew the cycle.

About seven percent of the tree tobacco plants (or about 20 widely scattered shrubs) were found to have one or more eggs on the leaves. One plant had newly hatched larvae that had begun to feed on the leaves and one other plant had a fully grown five inch long caterpillar on it. These larvae have the capacity to ingest the toxic nicotine in these leaves without being poisoned. These toxins then protect the larvae from potential predators. Blackburn's sphinx moths co-evolved with native 'aiea trees of the genus *Nothocestrum*

which are also in the nightshade family and contain similar toxins as the tree tobacco. 'Aiea trees are quite rare now and this led to the decline in populations of the moth and its eventual placement on the endangered species list. But with the spread of the tree tobacco, this moth has been able to successfully switch host plants and its numbers are now increasing.

Tree tobacco is a non-native weed that would, under other circumstances, have no particular value. Since, however, it has been shown to be important to the survival and increase of the Blackburn's sphinx moth, it has been given ancillary protections as an essential food plant for this moth under the Endangered Species Act, although the project site is not within any designated critical habitat area for the Blackburn's Sphinx moth.

The applicant, in cooperation with the U.S. Fish and Wildlife Service (USFWS), will develop an appropriate mitigation plan for the Blackburn's sphinx moth at the property with the aim of preventing any "take" of the Blackburn's sphinx moth. The USFWS has been consulted and has offered assistance in the development of a mitigation plan.

The two indigenous dragonflies, the green darner and the globe skimmer, are both species that are found in other parts of the world besides Hawai'i. The green darner is also native to the U.S. mainland and Mexico where it is widespread and common. The globe skimmer is found throughout the tropics worldwide. Both species are common in Hawai'i. Neither species is of any particular environmental concern nor are any recommendations offered.

The list of insect species was fairly extensive and many orders were represented. Other native species were sought, especially those that are rare or listed. No damselflies (*Megalagrion* spp.) were observed. The habitat was unsuitable for these delicate, water-loving insects. Also, no yellow-faced bees (*Hylaeus* spp.) were seen. These small solitary bees are particularly attracted to the flowers of 'ilima (*Sida fallax*) to which they are well-adapted. 'Ilima plants were seen in moderate amounts across the property and these were in full flower, but none of these bees were observed.

No Hawaiian hoary bats were detected during the evening survey at four sites within the property. While the habitat does not appear ideal for these bats, one cannot preclude the occasional presence of these highly mobile creatures.

No native bird species were found on the property during four site visits and none are to be expected in this habitat. Nonetheless, there are native seabirds, the endangered Hawaiian petrel (*Pterodroma sandwichensis*) and the threatened Newell's shearwater (*Puffinus newelli*), that fly over these lowlands on the way to their burrows high in the mountains. These seabirds, and especially the fledglings, are attracted to bright lights in the evenings and early dawn hours and can become disoriented and crash. They are then vulnerable to injury, vehicle strikes and predators. It is recommended that any significant outdoor lighting in any proposed development on this property be shielded to direct the light downward to minimize disorientation of these protected seabirds.

Although none of the endangered nene goose (*Branta Sandwicensis*) were sighted in this kiawe forest habitat, during the Draft EIS public review period, the USFWS commented that the "Proposed green space in the proposed parks and school grounds in the Community Master Plan will likely attract this species into the project area." Should the planned parks and open spaces at the project attract the Hawaiian geese, appropriate mitigation measures will be undertaken.

During the Draft EIS public review period, the Sierra Club Maui Group wrote: 'The interviewees in the Cultural impact Assessment all mention the Pueo frequenting the project area. Whether or not these native birds were noted in the flora and fauna survey, the DEIS should acknowledge the cultural impact if their habitat is disturbed, to be in compliance with Article XII section 7 of the State Constitution which protects traditional cultural practices. If the Pueo loses its habitat, families will have difficulty being connected to their "aumakua." As noted above, per biological consultant Robert Hobdy, he has not seen a pueo in some 40 years in Maui's central valley. The introduced barn owl (*Tyto alba*) is widespread in lower elevations, closer to human activities and structures. It is occasionally seen in the project area. It roosts in the forest corridor along Waikapū Stream during the day and does not fly unless disturbed. It becomes active during the evening when it is often seen just before dark. None of the commenters state that they personally have sighted the pueo, so it is possible that those that claim to have seen pueo in the area may have actually sighted the more common larger barn owl, which actually out-competes the pueo for food and is a predator on its young where their habitats overlap. Barn owls have no federal endangered species protections and no native Hawaiian cultural connections.

No other issues are anticipated with wildlife species.

4.0 DESCRIPTION OF THE HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES



4.0 DESCRIPTION OF THE HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES

This section describes the existing conditions of the human environment, preliminary potential impacts of Wai'ale, and preliminary mitigation measures to minimize any impacts.

4.1 ARCHAEOLOGICAL AND HISTORIC RESOURCES

Scientific Consultant Services, Inc. (SCSI) completed an archaeological inventory survey (AIS) for the property in February 2010. Appendix E contains the complete archaeological inventory survey. Also, attached as Appendix F is the February 28, 2010 letter from the SHPD accepting the subject AIS.

Several previous archaeological investigations have occurred on portions of the property and are described in the AIS. These investigations have led to the documentation of burials, a terrace, and several historic-period sites. These include State Site Nos. 50-50-04-4200, -4201, -4202, -3525, -5504 and -6679.

State Site Nos. 50-50-04-4200, -4201 and -4202 comprise burial features and a multi-stepped terrace. A burial treatment and preservation plan was prepared for these features in 1998 (Kennedy and Moore 1998). State Site No. 50-50-04-3525 comprise burial features that were re-interred by the Maui/Lanai Islands Burial Council in 1995 (Fredericksen and Fredericksen 1996). State Site No. 50-50-04-5504 is an inadvertently discovered burial site identified in 2003. State Site No. 50-50-04-6679 includes multiple inadvertent burial features associated with the former Hawaiian Cement sand mining area.

The previous archaeological investigations have revealed definite patterns concerning historic properties within the property. First and foremost, the ubiquity of burials in sandy locations is recognizable. However, burials do not appear to occur throughout the entire property. Based on the information in hand, they appear clustered in areas of higher elevation dunes. The burials do not appear as isolates but rather occur in sizeable groupings. That a fairly high proportion of burials occur in this locale may be attributed, at least partially, to the nature of the area: large sand dune systems. These lands would have been quite economically-poor areas for traditional practices, particularly farming and habitation (given the perceived lack of readily available fresh water). Other classes of historic properties that have been documented on the subject parcel include habitation (terrace, imu) and more modern constructions (water irrigation ditches). The limit of archaeological site types in the area is brought more into focus when compared with the overall settlement pattern of the wider Wailuku/Waikapū region.

Identified Sites

The archaeological inventory survey for the property yielded only one previously unrecorded archaeological site. The site consisted of a subsurface imu and was designated as State Site No. 50-50-04-6578. The archaeological inventory survey evaluated three sites for significance, these included: the newly identified imu (State Site No. 50-50-04-6578); a segment of Spreckels Ditch (State Site No. 50-50-04-1508); and a ~~previously identified~~ inadvertently discovered burial site (State Site No. 50-50-04-5504).

For resources to be significant they must possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet one or more of the following criteria:

Criterion A – Site is associated with events that have made a significant contribution to the broad patterns of our history.

Criterion B – Site is associated with the lives of persons significant to our past.

Criterion C – Site is an excellent site type; embodies distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual construction.

Criterion D – Site has yielded or has the potential to yield information important in prehistory or history.

Criterion E – Site has cultural significance; probable religious structures or burials present (State of Hawai'i criteria only).

State Site No. 50-50-04-1508 – The historic Spreckels Ditch will continue to be classified under Criteria A and D as it is associated with events that have made an important contribution to the broad patterns of State history (i.e., Maui's sugar industry) and has yielded information important to history.

State Site No. 50-50-04-5504 – The burial site is considered significant under Criteria D and E in that the presence of the site has yielded additional information to prehistory, the site is culturally significant.

State Site No. 50-50-04-6578 – The late-traditional/early historic period imu is considered significant under Criterion D in that the site has yielded information to prehistory.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Full-time archaeological monitoring shall occur during future ground altering disturbance at ~~Precautionary archaeological monitoring is recommended for portions of the property~~ which contain natural, sandy matrices that are relatively undisturbed. In addition, two recommendations were proposed for State Site No. 50-50-04-5504²: 1) a predetermined area of the sand berm should be closely monitored for the recovery of any other displaced human remains; and 2) a Burial Treatment Plan will be prepared and submitted to the State Department of Land and Natural Resources Historic Preservation Division (SHPD) and Maui/Lāna'i Islands Burial Council (MLIBC) for review.

To address the burial treatment plan for State Site No. 50-50-04-5504 as well as State Site No. 50-50-04-6679 comprising the former Hawaiian Cement sand mining area, a Final Burial Site Component of a Data Recovery Plan and Preservation Plan for State Sites Nos. 50-50-04-5504 and -6679 ("preservation plan") was prepared by Archaeological Services Hawaii, LCC (ASH) (See Appendix G). The preservation plan proposes the preservation in place of inadvertent burial features of State Site Nos. 50-50-04-5504 and -6679 consisting of 33 partially intact primary burial features, 13 burial pits which are highly probable to contain human skeletal remains, 6 disturbed, possible primary burials, and secondarily deposited/scatters of human skeletal remains with no primary/in situ component representing 36 individuals. The preservation plan includes the relocation of two partially intact primary burial features and five secondary scatters. These burial features will be preserved within five established preservation areas totaling in excess of 30 acres. Additionally, State Sites Nos. 50-50-04-4200, -4201 and -4202, comprising five burial features and a multi-stepped terrace are also preserved in place within Preservation Area 1 (largest preserve) pursuant to a previously accepted burial treatment and preservation plan (Kennedy and Moore 1998).

The preservation plan was reviewed by the Maui/Lanai Islands Burial Council in July 2010 and the SHPD subsequently accepted the preservation plan by letter dated September 13, 2010 (See Appendix H).

State Site No. 50-50-04-1508 is the currently utilized, small section of Spreckels Ditch, located in the eastern portion of the property, has been documented and no further work recommended. State Site No. 50-50-04-6578 has also been documented and sampled with no further worked recommended.

Short-Term Preservation Measures – The identification and implementation of appropriate short-term or interim site protection measures, including an archaeological monitoring plan. These include:

² The above mentioned burials were inadvertently identified by ASH archaeologists.

- Prior to construction commencement a meeting shall be held to inform all pertinent parties regarding the locations and buffer zones for all sites slated for preservation in or near areas of potential effect;
- The erection of temporary construction fencing (orange plastic) or other visible markings defining no-encroachment buffer zones around the perimeter of sensitive areas;
- ~~Full-time~~ Regular monitoring of preservation sites ~~during~~ and construction activities; and
- Ensuring transition to permanent preservation measures following completion of construction.

Long-Term Preservation Measures – The identification and implementation of long-term or permanent site protection measures provide for the continued protection of archaeological and cultural resources. The two typical categories of long-term preservation are passive and active preservation, as described below:

- **Passive Preservation** – Sites in this category do not undergo any interpretive development, occur in areas that can be avoided by development, and are left as is. This category is sometimes referred to as “data banking.” Most sites in this category are not intended to be permanently preserved, but are anticipated to undergo data recovery procedures in the future, presumably when improved data gathering techniques and refined analysis technologies are available or on large tracts of land where development is intended to take place in incremental phases; and
- **Active Preservation** – Sites in this category are chosen for their interpretive potential. Their selection may be based on aesthetic, academic, or cultural representation values. Different levels of interpretive development may be undertaken, including: stabilization, partial or complete restoration, and/or reconstruction. Signs may be involved, and details regarding access and protocols need to be worked out.
- **Cultural Preserves** - Approximately 33 acres are proposed to be set aside as cultural preserves where the greatest concentrations of burials occur. These areas are planned to be permanently preserved, and none of the burials within these cultural preserves are anticipated to undergo data recovery procedures in the future. These areas are intended to be *kapu* and only accessed by lineal and/or cultural descendants, recognized and/or acknowledged cultural practitioners and for periodic maintenance and/or fire protection. The plan for preservation, any landscaping and reinterment is provided in the Preservation Plan (See Appendix G) and includes the following:

PRESERVATION PLAN

Short-Term Measures

Short term protective measures are implemented at preservation areas during the interim period before and during construction. The burial features of Site

5504 and 6679 are currently protected by erecting orange caution fencing around the burial site. Additionally, each burial feature is covered with a layer of sand, tarp and plywood or wooden gate. To ensure the protection of the remnant sand dune feature containing the burials, a 2:1 slope must be maintained if grading occurs outside the temporary buffer zone. Periodic field inspections are performed to ensure that burial features are protected from the elements. All collected, displaced human skeletal remains are curated at the offices of ASH.

Any burials to be disinterred will be performed utilizing all accepted methods and procedures. As human skeletal remains are removed, they will be documented on Burial Inventory forms and placed into cardboard boxes lined with kapa and ti leaves. The disinterred burials will be curated at the ASH offices, where they will be prepared for reinterment by appropriate personnel.

Long-Term Preservation Measures

Long-term measures are a mitigation strategy to protect the site in perpetuity. These measures may not be adjusted and or changed without prior consultation and acceptance by the SHPD in consultation with the appropriate MLIBC members.

The proposed reinterment location for the burial features is within the preservation areas established around existing intact primary burials. Preservation Area 1 is the largest and comprised of 28.4 acres. It is situated within the northwestern quadrant of the project area. Preservation Area 1 contains the majority of the burial features and secondary deposited human remains, Feature 46 shall be reinterred into the Preservation Area 1. Preservation Area 2 consists of .2 acres and is situated within Phase B surrounding Feature 61. Feature 60 will be reinterred within Preservation Area 2. Preservation Area 3 measuring 1.7 acres is located south east of Preservation Area 1 and has been erected around Features 55-58. Preservation Area 4 comprised of 1.2 acres contains Features 50 and 54 and lies just south of Preservation Area 1. Secondary scatters, Features 48, 49b/c and 51, as well as a partial intact primary burial Feature 49a will be relocated and interred within Preservation Area 4. Preservation Area 5 contains Site 5504, a primary burial feature, and is comprised of .115 acres situated along Kuihelani Highway. All preservation areas will be protected in perpetuity by a combination of landscaping, signage, recordation buffer zones and surface demarcation. These measures are discussed in detail below.

Surface Demarcation – All primary, in situ burial sites and reinterred human skeletal remains shall be marked on the surface by cobbles and or small boulders. For reinterred burials, a reinterment pit measuring approximately 4.0 ft. by 4.0 ft. by 3.0 ft. deep will be excavated adjacent to the in situ burial

features. The bundles of human skeletal remains will be placed in the bottom of the pit and the remainder of the pit will be filled with clean sand. A concrete cap measuring approximately 4 inches thick or some other acceptable form of cover shall be placed over all burial features and inscribed with the SIHP number and KAPU. Soil and or sand will cover the concrete so that vegetation can be established. A large boulder or and or several cobbles will be placed on the surface over the burial to demarcate its location.

Preservation Area/Buffer Zone – The preservation area includes the burial site, the surface demarcation and the buffer zone which surrounds the burials. The buffer zone is a protective area for the buried human remains in which temporary or permanent structures shall not be placed or built. Subsurface utilities and other uses shall be routed outside of the buffer zone. The buffer zone will be delineated by a combination of aligned boulders, fencing and vegetated berms as applicable and appropriate to each preservation area. Along the outside perimeter of these preservation areas will be clearly marked walking trails. The trails will encircle each preservation area and are envisioned to be utilized by the general public and those wishing to visit the preservation areas.

Only traditional and customary activities associated with Native Hawaiian burial sites shall be allowed within the preservation area. At this time, no access is afforded inside the preservation area except for maintenance purposes. For continued protection of the burials, Preservation Areas 1-5 will be clearly identified on all construction plans, as built plans etc.

Landscaping – The interior of all preservation areas will be maintained with existing vegetation or landscaped with appropriate dry land Native plants to stabilized the sand dune formation. The Native plantings will be a combination of ground cover and shrubs that are not deeply rooted. Appropriate trees for ceremonial and religious areas such as Milo may be planted but must be placed far away from any known burials. If existing non-native trees are removed or new trees planted, all excavations for proposed trees must be monitored by the archaeologist. Generally, trees that require removal are clear cut and the base is poisoned in place. Native plantings may consist of drought tolerant native plantings such as naio papa, ililma papa or other appropriate native plants found in the central Maui area. The landscaping shall be maintained so that the burial markers and signage are visible. Several openings not more than 3.0 ft. wide will be provided for maintenance purposes. To establish the native plantings, temporary irrigation may be installed on the surface. Within the preservation area, no trenching for subsurface irrigation will be permitted.

Signage – Bronze plaques measuring 18 inches by 10 inches shall be permanently affixed at two locations along the exterior of the preservation area. Signage would consist of the following:

- Native Hawaiian Burial Sites
- KAPU
- State Site Number 50-50-04-6679
- Please respect This Area

Maintenance – The plaques, burial markers, landscaping and buffer zone delineation (aligned boulders, vegetated berms, fencing, landscaping) shall be maintained by the landowner, homeowners association or other applicable entity with such responsibilities. If any of these protective measures should deteriorate or are damaged over time, the landowner, homeowners association or applicable entity shall be responsible for the repair or replacement of these measures; however no changes may be made without written authorization by SHPD.

To ensure perpetual protection of this burial site, periodic site inspections by the SHPD may be conducted to verify that the signage, platform and all long-term measures are in place and the site is adequately protected. Site inspections will be performed at mutually agreed upon times between the landowner, homeowners association or applicable entity and the SHPD staff.

Recordation – The preservation area shall be surveyed by a licensed surveyor and a metes and bounds description of the preservation area shall be recorded by the landowner, along with the Burial Treatment and Preservation Plan at the State of Hawaii Bureau of Conveyances within 90 days of written acceptance of the Burial Treatment and Preservation Plan by the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD). The DLNR-SHPD and the Maui/Lanai Islands Burial Council (MLIBC) shall be provided with copies of the recorded Burial Treatment and Preservation Plan.

Access – Burial sites may be viewed from walking trails at the preservation area. Access within the preservation areas for lineal and or cultural descendants is not afforded at this time, as no lineal and or cultural descendant claims have been received by the SHPD for these burial features. In the event that a future lineal or cultural descendancy claim is recognized by the MLIBC, access to the burial site within the preservation area shall be permitted at reasonable dates and times mutually agreed upon by the landowner and lineal and cultural descendants.

A&B Properties, Inc. and its archaeological contractors will comply with all State and County laws and rules regarding the preservation of archaeological and historic sites. Should historic remains such as artifacts, burials, concentrations of shell or charcoal be inadvertently encountered during the construction activities, work will cease immediately in the immediate vicinity of the find and the find will be protected. The archaeological

contractor shall immediately contact SHPD, which will assess the significance of the find and recommend appropriate mitigation measures, if necessary.

4.2 CULTURAL RESOURCES

In compliance with Act 50, Hana Pono, LLC (Hana Pono) prepared a cultural impact assessment (CIA) for the property to identify traditional customary practices within and in the vicinity of the property. The purpose of Act 50 "is to: (1) Require that environmental impact statements include the disclosure of the effects of a proposed action on the cultural practices of the community and State; and (2) Amend the definition of "significant effect" to include adverse effects on cultural practices." The CIA was conducted in accordance with the OEQC Guidelines for Assessing Cultural Impacts and includes archival research and interviews with people knowledgeable of the property and the surrounding area. During the Draft EIS public review period, two of the interviewees who appeared to have initially declined to allow their interview transcripts be published with the CIA wrote that they had actually wanted their interviews to be included. Upon receiving these comments, Hana Pono sent letters, dated August 31, 2011, to the two interviewees requesting their confirmation to include their interview transcripts in the CIA. Since Hana Pono did not receive responses from the two interviewees, their interview transcripts were not included in the CIA. Findings of the CIA and other relevant information are summarized below. Appendix I contains the complete cultural impact assessment.

According to Hana Pono's CIA:

The project area resides in the moku of Wailuku and the ahupua'a of Waikapu with a portion in the ahupua'a of Wailuku...

The Hawaiian culture places a particular importance on place-names. Throughout Polynesia, cultures are for the most part ocean-based, surviving and building their cultures around the bounty of the sea. While Hawaiians share common history with all Pacific peoples, because of the unique factors of these high-islands, their culture turned decidedly more land-oriented than many other Pacific cultures. The abundant access to fresh water sources, fertile soil, relative lack of reef and reef fish compared to older south pacific islands all contributed to their formation of a completely unique and distinct culture; a culture that placed a high inherent value on land and landforms, landscapes and their relationship to people's lives. In place-names one can find its purpose, their purpose, and the hidden kaona (symbolism) behind the word.

Waikapu

There are many different stories associated with the name of this valley and ahupua'a, but perhaps the earliest known is that of the story of Puapualenalena and the conch shell. It was said that in ancient times a conch shell would ring out from the valley, heard around the island it was so loud and resounding. On the opposite, northern side of the Waikapu stream a dog named Puapualenalena was infatuated

with this conch and wanted it for himself. One day, the owners of the conch had been careless and Puapualenalena gained entrance to the cave on the southern side of the stream that hid the conch, and from that point on it no longer sounded through the valley. The area was so named for the conch (Pu). The Water (Wai) of the Conch (Ka Pu) (Nupepa Kuokoa, 1872).

The name was said to have been usurped by Kamehameha after the famous battle of Kepaniwai, whereupon he changed it to honor his victory over the forces of Kalanikupule, chief of Maui after his father, Kahekili's, death. There are two versions of the name. One is Wai-ka-pū, the Water of the Conch, for the place where Kamehameha sounded the Pu to begin the battle for Maui. The second being Wai-Kapu, The Sacred Water. CW Stoddard, in his book Hawaiian Life details, "Kamehameha landed at Kalepolepo, and a kapu was put upon the nearest stream. It became sacred to royalty, as was the custom and is known as Wai-kapu to this hour-that is, the forbidden water". Stoddard continues,

Presently the monarch began his march; and at the second stream a great battle raged, so those water were called Luku. Luku-'to slaughter, to slay as in war, the destruction of many at once'...The enemy defeated and put to flight, and a third stream was called Ehu. Ehu-'to scare away, as dogs or hens,' or faint-hearted and sore-footed foes...There over the hill and down into the dale of Waihe'e rushed the panic-stricken hosts. As for the word Hee, it may mean, probably does mean in this case, utter rout, or to be dispersed in battle (CW Stoddard, 161).

Waiale

A modern name for the reservoir dug to capture and store stream water taken from the rivers of Na Wai Eha.

Waiko

There are two interpretations of this name. The first, attributed to the book Maui Street Names, is "strong current" (Holt & Budnick). The second is "sugarcane water", ko being the Hawaiian word for sugarcane.

Pu'u Hele

Pu'u Hele is the name of a cinder cone that was where the Waikapu dump is now. There is an 'olelo no'eau that says "You cannot claim a circuit of Maui unless after you have been all around, you circle the hill of Pu'u Hele, then climb to the top and proclaim, "Ua puni o Maui ia'u" (Sterling, 94). "I have circled Maui."

Ke Kula o Kama'oma'o

Kula in this context speaks of the plains, pastureland, and open space typified by Maui's central valley. Kama'oma'o, ma'oma'o relating to the "greenness" of things, speaks to a time before rampant unchecked livestock denuded the central valley and turned it into the "dustbowl" many think of it today. Ke Kula o Kama'oma'o are the "green plains" of Maui, a dryland forest stretching for miles broken only by the

Pu'uone sand dunes and the changing climate when reaching higher elevations and more windward, wetter areas.

Hana Pono notes in the CIA that the property is currently being used for multiple purposes.

The area south of Waiko Road, approximately 123 acres is mainly fallowed sugarcane fields and a small section devoted to an orchid farm. The larger portion to the north of Waiko, approximately 422 acres, has a large portion devoted to pasturing of cattle and horses and cattle feed lot. Also on the property are an industrial base yard and an area to stockpile sand.

One of our interviewees accesses the portion of the property to the north of Waiko Road to conduct contemporary cultural practices, honoring the 'iwi kupuna for which she feels a sense of responsibility. Her contemporary or "neo-traditional" cultural practices involve Hawaiian cultural practices as well as teachings she has learned from a variety of spiritual faiths. She has been walking through the areas of the project still containing remnants of the sand dunes for a few years now and feels something must be done to honor these people buried in the area.

There are portions of the property that still contain intact, unaltered sand dune formations. Most of these dunes are located north of Waiko Road in TMK: 3-8-007:101(por.). These remaining intact sand dunes are some of the last remnants of a once uninterrupted dune complex that stretched from Kapoho village in Waihe'e all the way to Kealia in Ma'alaea. The project area also borders the Waikapu stream. One of the four great waters of Na Wai Eha, the water of Waikapu provided sustenance for generations of families by irrigating their crops, supplying fresh drinking water, and being a direct and constant reminder of the presence of Kane, deity of fresh water. The remaining sand dunes and the Waikapu stream are two important cultural features.

During the Draft EIS public review period, Mr. Hōkūao Pellegrino wrote: "I have spent ten plus years researching the ahupua'a of Waikapu and I have concluded that the current East Waiko Road was part of an extensive system of trails and roadways, allowing Hawaiians during and prior to the 1800s to traverse Ke Kula o Kama'oma'o (central Maui plains). These well documented accounts describe the exact location and destination of where the kama'aina (residents) of Waikapu were going and why they were traveling back and forth."

It is Hana Pono's opinion that "The property was used for thousands of years to travel through, between Mā'alaea and Wailuku or those taking the longer trek across the central valley to Pā'ia and Makawao. It could have been part of the advance, and then retreat, of Kalaniopu'u's forces during the Alapa battle of 1776, the last major war conducted on Maui prior to European contact. The sand dune system was selectively used as a place to inter the deceased of those commoners living in the vicinity. The viable portions with

access to the Waikapū Stream would have been in lo'i with other areas used for cultivation of sweet potato, banana, sugar cane, and other useful plants, although a lack of LCA's in this region attests to the poor farming conditions." In regards to the Alapa battle of 1776, Hana Pono also mentions that "It should be noted that the exact location of this battle is still not known and there is no archaeological evidence to support the idea that many warriors perished in the Wai'ale project site."

Hana Pono also wrote:

The project area, mostly in the ahupua'a of Waikapu, with a portion in Wailuku, extending through the Pu'uone Sand Dunes and out into Ke Kula o Kama'oma'o is situated in a unique location in the Valley Isle. With unobstructed near bi-coastal views of Haleakala and Mauna Kahalawai, portions of intact sand dunes, burials, and bordering Waikapu stream, the project has the opportunity to capitalize on these cultural resources by educating the community and protecting them for future generations. The sand dunes blown across the isthmus over millennia along with the large alluvial plain washed down eons ago by the slow erosion of Mauna Kahalawai sit on top of a lava foundation created by flows from Haleakala.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The CIA finds that the property "resides in a culturally significant and unique land area. There are potential adverse effects to the remaining cultural resources extant on the property that can be mitigated with proper community consultation and proactive planning on the part of the developers. The CIA notes that A&B Properties, Inc. has done much in seeking to protect the known cultural resources on the property, creating approximately 33 acres of cultural preserves and minimizing the need for relocation of burials." Hana Pono's recommendations (*in italics*) and comments on how the applicant has or is prepared to address them follow.

Additional Finds

A large percentage of the project sits on remnants of previously altered sand dunes. Due to the underlying sandy nature of much of the project there is the potential for discovering additional burials during earth-disturbance activities. The flexibility to create additional cultural preserves and culturally appropriate buffer zones around additional burials as needed would go a long way in mitigating community concerns over disturbance to 'iwi kupuna. At all times possible, preserving in place is highly suggested over relocation. Some of the knowledgeable individuals interviewed for this report commented that with the Wai'ale development A&B Properties has the opportunity to creatively take the next step in culturally appropriate handling of cultural resources, something that they feel other adjacent projects handled poorly.

A large percentage of the project sits on remnants of previously altered sand dunes. Due to the underlying sandy nature of much of the property there is the potential for discovering additional burials during earth-disturbance activities. As part of the past archaeological investigations numerous archaeological survey trenches were dug throughout the property, providing reasonable confidence assurance that the largest concentration of burials have been identified and will be preserved in the over 30 acres of planned cultural preserves. Should additional burials be inadvertently encountered during the construction activities, work will cease immediately in the immediate vicinity of the burial(s) and the burial(s) will be protected. The archaeological contractor shall immediately contact SHPD, which will assess the significance of the burial(s) and recommend appropriate mitigation measures, if necessary. The applicant acknowledges that burial preservation in place is preferable over relocation.

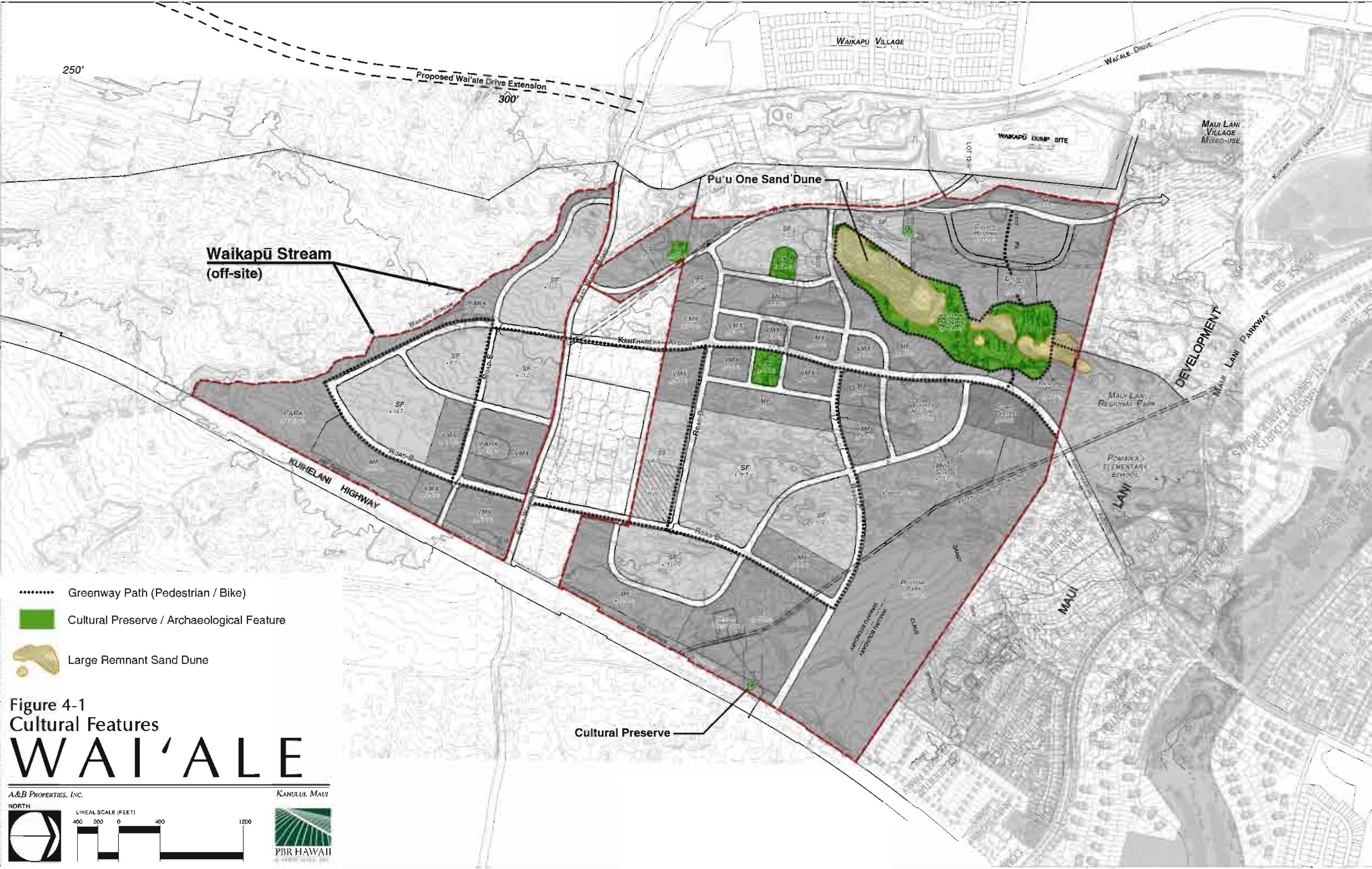
Pu'u One Sand Dunes

The once majestic and geologically unique swath of Aeolian, lithified sand dunes has been decimated by large-scale agriculture, development, sand mining, and a general lack of understanding of the uniqueness of this natural feature. From its beginning in Waihe'e to its sloping end near Kealia the Pu'u One sand dune complex has shaped the lives of countless generations of Mauians, both pre and post-contact. Its formation altered the course of Waikapu stream, its placement determined the outcome of numerous battles, and its shifting sands contain the only visible remains of many of our ancestors. The remaining intact portions of sand dunes within the project area are one of its most authentically unique natural features and appropriate preservation and education about the dunes can go far in achieving the Vision Statement for Wai'ale, creating a community "with a 'unique' sense of identity and character, capitalizing on its location and natural features"...

Geolabs was retained to conduct an on-ground field reconnaissance survey and geological mapping of in-situ dune features on the property. During the course of the field reconnaissance, Geolabs did not find natural sand dunes that could be considered to be pristine geological features. While the majority of the dunes with the property limits have been obliterated by human activities, there is a large portion of the site (approximately 28 acres) where there ~~is a~~ are relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the areas being proposed as a cultural preserve (and where the highest concentration of burials resides). There are opportunities to include appropriate interpretive signage concerning the geological, historical and cultural significance of the Pu'u One sand dune complex. During the FEA/EISPN public review period, Mr. Hōkūao Pellegrino wrote: "...map showing the location of cultural features in relationship to the proposed design would also be of great assistance." Figure 4-1 shows the conceptual master plan with the location of cultural features.

Waikapu Stream

Currently the Waikapu stream borders along the southern boundary of the project. Although not situated within the project, Waikapu Stream is a significant cultural landmark and natural resource which can contribute to the vision of Wai'ale. The



- Greenway Path (Pedestrian / Bike)
- Cultural Preserve / Archaeological Feature
- Large Remnant Sand Dune

Figure 4-1
Cultural Features
WAI'ALE

development plan includes a greenway and park along the entire length of the stream which significantly enhances the visual aesthetic provided by the perennial watercourse. Appropriate measures to mitigate potential adverse impacts to the stream resulting from the development of the project must be implemented, including best management practices during and after construction. Appropriate natural landscaping and signage along its border would serve to integrate and embrace the stream into the project while noting its historic and cultural significance to the region.

The applicant is proposing an open space buffer along Waikapū Stream that will also include interpretive signage and environmental design features to filter soil-laden runoff from entering Waikapū Stream during storm events. This area will also be re-vegetated with native plant materials.

Educational Opportunities

The significant and unique natural, cultural landmarks in the project such as the remaining Pu'u One, Waikapu stream, and Cultural Preserves provide the opportunity to create educational "touchpoints" that can enhance the uniqueness and sense-of-place of the Wai'ale community. Finding exceptional and never-before-done ways of educating community members and the general public about the cultural and historical nature of the project area would further the community's perception of a balanced development. Knowledgeable kupuna and informants used in this report have offered their wisdom in helping to craft these educational outlets.

The applicant welcomes the opportunity to work with the kupuna and informants interviewed in the preparation of the CIA to assist in crafting these educational and interpretive programs.

Cultural Advice

In order to assure the cultural integrity of the project, a qualified cultural specialist should participate in various cultural-related activities. Activities would include the development and implementation of a cultural orientation program for construction personnel, advice concerning inadvertent finds and related protocol, advice and assistance relating to planned burial preserves within the project (e.g. signage, access, landscaping, etc.), advice and assistance concerning potential educational "touchpoints" to enhance the project's unique sense of place, and advice and assistance with project names.

The applicant will continue to consult with knowledgeable cultural practitioners, concerning cultural-related activities identified above by Hana Pono.

During the Draft EIS public comment period, a few of the letters commented on the proposed Wai'ale Water Treatment Facility (WTF) and possible impacts on traditional and customary Native Hawaiian rights. The proposed Wai'ale WTF would not involve a

change to the status quo relative to the diversion of water from the Na Wai 'Eha streams. There will be no additional diversion. Since there will be no additional diversion of water, there would be no additional adverse impacts over the status quo, including that relating to traditional and customary Native Hawaiian rights.

4.3 ROADWAYS AND TRAFFIC

Austin, Tsutsumi & Associates, Inc. (ATA) prepared a Traffic Impact Analysis Report (TIAR) to evaluate the potential traffic impacts resulting from the creation of Wai'ale. The TIAR includes an analysis of existing regional traffic conditions and projected future conditions both without and with Wai'ale. Key conclusions of the TIAR are summarized below. Appendix J contains the complete TIAR.

Existing Roadways

The property includes existing cane haul roads and unimproved dirt roads. The property is located west of Kuihelani Highway, south of the Maui Lani development, east of Wai'ale Road, and north of the intersection of Honoapi'ilani Highway/Kuihelani Highway. The following is a description of roadways in the vicinity of the property.

West Waiko Road: This east-west, two-way, two-lane undivided County collector road has a posted speed limit of 20 miles per hour (mph). West Waiko Road begins approximately 4,500 feet west of Honoapi'ilani Highway in an established residential neighborhood, and extends eastward towards its terminus at its intersection with Honoapi'ilani Highway and East Waiko Road.

East Waiko Road: This east-west, two-way, two-lane, undivided County collector road has a posted speed limit of 20 mph. East Waiko Road currently serves residential and industrial land uses, while also providing connectivity (via Wai'ale Road) to the Waikapū Gardens subdivision and areas further north of it, including Wailuku via Wai'ale Road. Through the Waikapū region, the 20-foot wide East Waiko Road is currently narrow and winding; the road appears to offer limited sight distance around some of its curves, and is stop-controlled approximately 650 feet east of its intersection with Wai'ale Road. East Waiko Road, between Kuihelani Highway and the driveway servicing Rojac Trucking, is considered a County Road.

During the Draft EIS public review period, the County Department of Public Works (DPW) wrote: "A road widening lot may be required for the adjoining half of Waiko Road to provide for a future 60-foot right-of-way, and improved to County standards to include, but not limited to pavement widening, construction of curb, gutter and sidewalks, street lights and relocation of utilities underground. Development Services Administration shall determine whether the aforementioned are enforceable by Maui County Code. If applicable, said lot shall be dedicated to the County upon completion of the improvements." As of this writing, the proposed East Waiko Road Improvements/Waiale Road Extension Final Environmental Assessment will be filed soon.

Wai'ale Road: This north-south, two-way, two-lane, undivided collector road has a posted speed limit of 20 mph. To the north, Wai'ale Road serves as an extension of Lower Main Street – where it extends southward past the Maui Community Correctional Center and residential areas, and eventually terminates at its intersection with East Waiko Road. This road is under County jurisdiction north of Kuikahi Drive.

Between Kuikahi Drive and East Waiko Road, Wai'ale Road serves as the sole access to the residents of the Waikapū Gardens subdivision. Each of the Waikapū Gardens' three existing accesses intersect with Wai'ale Road as “tee-intersections”, with single-lane approaches. Wai'ale Road, between Kuikahi Drive and East Waiko Road, is privately owned.

Honoapi'ilani Highway: This north-south, two-way, two-lane, undivided State arterial has posted speed limits ranging between 30 mph and 45 mph in the vicinity of the property. Honoapi'ilani Highway begins as the continuation of South High Street near Kaho'okele Street, and continues southward through Waikapū, Mā'alaea, and wraps around the “Pali” towards West Maui. Channelization is provided at all of its major intersections within the vicinity of the project.

Kuihelani Highway: This north-south, two-way, four-lane, divided State arterial has a posted speed limit of 55 mph in the vicinity of the property. Kuihelani Highway begins to the north in Kahului at its intersection with Pu'unēnē Avenue and Dairy Road. The road extends southward along the eastern border of the Maui Lani development, intersects with East Waiko Road, and ultimately terminates at its signalized intersection with Honoapi'ilani Highway to the south near Mā'alaea.

Kuikahi Drive: This east-west, two-way, two-lane, undivided County collector road has a posted speed limit of 30 mph. Kuikahi Drive begins approximately 1.2 miles west of Honoapi'ilani Highway within the Wailuku Heights development, and eventually extends eastward to intersect with Honoapi'ilani Highway, and terminates at its intersection with Maui Lani Parkway.

Maui Lani Parkway: This east-west, two-way, two-lane, divided County collector road has a posted speed limit of 20 mph. It begins to the east at its intersection with Kuihelani Highway and curves northward at its intersection with Kuikahi Drive and terminates to the north at its intersection with Ka'ahumanu Avenue. The segment between Kuikahi Drive and Pu'umele Street is currently not constructed.

Kamehameha Avenue: This north-south, two-way, two-lane County collector road has a posted speed limit of 20 mph within the vicinity of the property. It begins at its intersection with Hāna Highway, provides access within the Maui Lani development and terminates to the south near the Pōmaika'i Elementary school. The portion of Kamehameha Avenue through Maui Lani that would tie into Wai'ale is privately owned and not owned by the County.

Regional Overview

Honoapi'ilani Highway and Kuihelani Highway serve as the primary arterials through the Waikapū area. While the former generally serves traffic originating from or destined towards Wailuku, the latter serves traffic originating from or destined towards Kahului, Hāna, or Upcountry. During the AM peak hour of traffic, congestion occurs along Honoapi'ilani Highway headed towards Wailuku; the northbound queue extends to near Kehalani Parkway, which is situated approximately 0.8 miles south of Main Street. No congestion was observed to occur along Kuihelani Highway within the study area.

Wai'ale Road, in addition to its service as a collector road for Waikapū Gardens and the nearby industrial areas, currently provides an alternate north-south route between east Wailuku and Waikapū. However, its ability to process traffic is limited by its slow posted speed limits and termination as a minor approach to East Waiko Road.

Maui Lani Parkway provides access to both Honoapi'ilani Highway via Kuikahi Drive and Kuihelani Highway, as well as to the residential area of Maui Lani development. Currently, Maui Lani Parkway is a two-way, two-lane roadway with a wide median to accommodate future roadway expansion.

The Waikapū/South Wailuku area has experienced considerable growth in residential land use; this growth is anticipated to continue in tandem with commercial, industrial, park and other ancillary land uses. Currently, Waikapū traffic within the property and within the region is provided by access to Honoapi'ilani Highway and Kuihelani Highway via East Waiko Road and Kuikahi Drive/Maui Lani Parkway.

Existing Conditions

ATA conducted manual turning movement traffic counts and field observations at the following study intersections on September 28 and 29, 2010:

- Kuikahi Drive/Honoapi'ilani Highway (Signalized);
- Kuikahi Drive/Wai'ale Road (Signalized);
- Maui Lani Parkway/Kamehameha Avenue (Unsignalized);
- Maui Lani Parkway/Kuihelani Highway (Signalized);
- East Waiko Road/West Waiko Road/Honoapi'ilani Highway (Signalized);
- East Waiko Road/Wai'ale Road (Unsignalized); and
- East Waiko Road/Kuihelani Highway (Signalized).

Based on the count data, it was determined that the weekday AM peak hour of traffic occurs between 7:15 AM and 8:15 AM and the weekday PM peak hour of traffic occurs between 4:00 PM and 5:00 PM.

The opening of the Kuikahi Drive extension in June 2010 has significantly reduced traffic volume along East Waiko Road, especially southbound right-turns and eastbound left-

turns at the East Waiko Road/Kuihelani Highway intersection. Therefore, traffic along East Waiko Road was observed to operate relatively smoothly during both peak hours of traffic.

Within the study area during the AM peak hour of traffic, congestion was observed at intersections along Kuikahi Drive and Maui Lani Parkway. During the PM peak hour of traffic, no congestion was observed at any of the study intersections.

POTENTIAL IMPACTS AND MITIGATION MEASURES

By the year 2022, the Wailuku/Waikapū area (including future traffic from parcels along East Waiko Road that are not in the Petition Area) is anticipated to experience significant growth, both in its residential population and commercial/industrial/business land uses, primarily as a result of the following developments:

- **Waikapū Country Town (WCT)** – currently in the planning phase; assumed to be completed by 2022.
- **Maui Lani development** – partially complete; Maui Lani development and the Maui Lani 100 VMX (Village Mixed Use) Affordable Housing Project were assumed to be completed by Year 2022 – and therefore the final segment of Maui Lani Parkway between Kuikahi Drive and Waiinu Street were assumed to be complete to support the development.
- **Kehalani** – partially complete; assumed to be complete by Year 2022.
- **Pu'unani Residences** – not started; assumed to be complete by Year 2022.

Projected Traffic Conditions Without Wai'ale

These projects, along with other smaller ones combine to represent approximately 4,850 new dwelling units for Central Maui, as well as commercial, industrial, park, school, and other ancillary land uses. The Maui Lani VMX Affordable Housing Project, as well as the Kehalani Commercial will contribute significantly to the increases in traffic along Kuikahi Drive and Maui Lani Parkway. ATA recommends improvements be made, most notably the widening of Maui Lani Parkway and Kuikahi Drive to four lanes between Wai'ale Road and Kuihelani Highway.

The Maui Transportation Demand Forecasting Model (MTDFM) and Trip Generation Methodology (for the WCT only) were used to project (via growth ratios) and assign the traffic generated by these and other Maui developments onto the roadway network. The result was an approximate 60 percent increase in demand along Honoapi'ilani Highway compared to existing conditions. Along Kuihelani Highway, the increase was approximately 70 percent.

The Maui Lani Development Roadway Master Plan (2002) recommended that to accommodate traffic generated by the remaining Maui Lani development, the following improvements would be needed (over current roadway configurations):

- **Kuikahi Drive**

Mitigation:

- Widen to four lanes between Wai'ale Road and Maui Lani Parkway.

- **Maui Lani Parkway**

Mitigation:

- Widen to four lanes between Kuikahi Drive and Kuihelani Highway.
- Extend to four lanes between Kuikahi Drive and Waiinu Street.

- **Kamehameha Avenue**

Mitigation:

- Widen to four lanes between Maui Lani Parkway and Papa Avenue.

According to ATA, Base Year 2022 traffic conditions without Wai'ale and without any improvements besides the ones listed above would yield Level of Service (LOS) E or F and overcapacity conditions at the following intersections:

- **Kuikahi Drive/Honoapi'ilani Highway**

Mitigation:

- Eastbound and westbound approaches: provide exclusive left-turn, through and right-turn lanes.

- **Kuikahi Drive/Wai'ale Road**

Mitigation:

- Northbound approach: provide exclusive left-turn, through and right-turn lanes.
- Southbound approach: provide double left-turn, through and right-turn lanes. This portion of the roadway is currently privately owned.
- Eastbound approach: provide exclusive left-turn, through and right-turn lanes.

- **Kuikahi Drive/Maui Lani Parkway (New signalized intersection)**

Mitigation:

- Northbound approach: provide double left-turn and shared through/right-turn lanes.
- Southbound approach: provide left-turn, through and right-turn lanes.
- Eastbound approach: due to the heavy right-turn movement provide a channelized right-turn lane with an exclusive receiving lane on the westbound approach. Re-stripe the left-turn and through lanes as a shared lane providing two receiving lanes for the double northbound left-turn lanes.
- Westbound approach: this approach will provide access to one of the Maui Lani development subdivisions. It was assumed that this approach would provide a shared left-turn/through, and right-turn lanes.

- **Maui Lani Parkway/Kamehameha Avenue**

Mitigation:

- Signalize the intersection.
- Northbound and southbound approaches: provide exclusive left-turn, through and right-turn lanes.
- Eastbound approach: provide double left-turn, through and right-turn lanes.
- Westbound approach: provide left-turn, through and shared through/right-turn lanes.

- **Maui Lani Parkway/Kuihelani Highway**

Mitigation:

- Northbound approach: provide double left-turn, through and shared through/right-turn lanes.
- Eastbound approach: provide a left-turn, shared left-turn through and right-turn lanes. The westbound approach which is an agricultural access is likely to continue experiencing low volumes. Therefore, although the intersection would provide for the westbound movement, it is likely that the intersection would operate as a “tee” intersection for the majority of the time.

The proposed mitigative measures would improve traffic operations at the study intersections' movements to LOS D or better. However, the Maui Lani Parkway/Kamehameha Avenue intersection will continue to experience LOS E on the westbound left-turn during the PM peak hour of traffic.

Projected Traffic Conditions With Wai'ale

Project Roadways

Wai'ale will construct new internal east-west and north-south roadways that will run parallel and perpendicular to Kuihelani Highway (See Figure 4-2). Access will be provided via the project's internal collector roadways' connections with Kuihelani Highway, East Waiko Road, Kamehameha Avenue, and Kuikahi Drive.

In addition, Kamehameha Avenue will be extended from its existing terminus near Pōmaika'i Elementary School to approximately 1,400 feet south of East Waiko Road and serve as an alternate (to Kuihelani Highway) north-south connection between Wai'ale and Kahului. This road will consist of a two-lane travelway, turning medians, and a pedestrian/bike path. Roads A through E are collector roads that will consist of a two-lane travelway, turning medians, and a pedestrian/bike pathway. The design of the roadways will be based on standards set forth by the County, and will be able to accommodate the extension of the Maui Public Bus Transit System onto and through the property. All main project roadways will be dedicated to the County. The Maui Bus public transit service consists of 12 bus routes, all operated by Roberts Hawaii. These routes are funded by the County and provide service in and between various Central, South, West, Ha'ikū and

Upcountry Maui communities. All of the routes are operated seven days a week, including all holidays. All vehicles on the routes are ADA accessible. This results in a potentially positive impact to one of the key community planning goals of "Include a multi-modal transportation system..." by accommodating another alternative mode of transportation to cars.

Year 2022 with Project Analysis

Wai'ale will generate 2,575 (3,270) trips during the AM (PM) peak hours of traffic, with approximately 10 percent being assumed to be internal to Wai'ale and four percent being assumed as diverted linked trips. As such, improvements are recommended at the study intersections. Roundabouts were considered on a planning level, but were not recommended at any of the study intersections.

For Base Year 2022 with Wai'ale and including Base Year 2022 improvements, some intersections would operate at LOS E or F and overcapacity conditions. A list of recommended improvements is included below:

Roadway Improvements

- **Kamehameha Avenue**

Mitigation

- Extend southward as a two-lane section with turning lanes at major intersections.

- **East Waiko Road**

Mitigation

- Provide turning lanes at unsignalized intersections.

Intersection Improvements

- **Kuikahi Drive/Wai'ale Road**

Mitigation:

- Eastbound approach: re-stripe the right-turn into a shared through/right-turn lane.

- **Kuikahi Drive/Maui Lani Parkway**

Mitigation:

- Eastbound approach: provide a left-turn lane.
- Westbound approach: provide a left-turn lane.

- **Maui Lani Parkway/Kamehameha Avenue**

Mitigation:

- Eastbound approach: re-stripe to provide a shared through/right turn lane.
- Westbound approach: provide a right-turn lane.



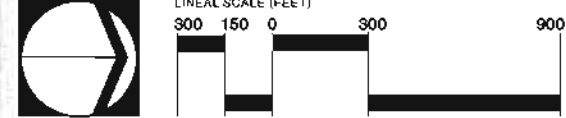
Figure 4-2
Proposed Roadways

WAI'ALE

A&B PROPERTIES, INC.

KAHULUI, MAUI

NORTH



Source: Austin, Tsutsumi & Associates, Inc. (March 2011)
Disclaimer: This graphics has been prepared for general planning purposes only.

- **East Waiko Road/Kamehameha Avenue**
Mitigation:
 - Signalize the intersection.

- **East Waiko Road/Road B**
Mitigation:
 - Signalize the intersection.

- **East Waiko Road/Kuihelani Highway**
Mitigation:
 - Eastbound approach: provide double left-turn lanes.

During the Draft EIS public review period, DPW also wrote:

- *The applicant shall be responsible for all required improvements as required by the Hawaii Revised Statutes and Maui County Code and rules and regulations.*
- *As applicable, construction plans shall be designed in conformance with Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and Standard Details for Public Works Construction, 1984, as amended.*
- *As applicable, worksite traffic-control plans/devices will conform to Manual on Uniform Traffic Control Devices for Streets and Highways, 2003.*
- *The applicant shall develop master plans for traffic and drainage infrastructure improvements. The master plans shall address regional impacts and be developed in coordination with the State and County master planning efforts. Planning parameters shall be developed in consultation with the Engineering Division of the Department of Public Works.*

In their Draft EIS public review comments, the State Department of Transportation (DOT) asked that any substantive changes or refinements to the Wai'ale master plan, or if the project, or portions thereof, are included in any subsequent land use or zoning application, then the Traffic Impact Analysis Report (TIAR) will need to be supplemented or updated. Further, as more detailed development plans are prepared, any subsequent TIAR will reflect the site plan for the area or increment, types of units or spaces, sizes, uses, number of floors and parking. State DOT also asked that a traffic consultant be retained to continue coordination with State DOT Highways Division to ensure that all traffic impacts are adequately addressed and properly mitigated.

It is the intent that all main project roadways would be dedicated to the County. Off-site road and intersection improvements would typically be determined in consultation with the State DOT or County DPW as the case may be. The TIAR discusses these improvements and these would be subject to the review and approval of the respective governmental agencies at the time of development. Similarly, if planned improvements by others are not undertaken on a timely basis, the applicant would consult with the applicable governmental agency.

4.4 NOISE AND VIBRATION

Terry A. Hayes Associates Inc. (TAHA) prepared a noise study to: 1) describe the existing and future noise environment in the environs of the property; and 2) provide recommendations for minimizing noise impacts. This report is included in Appendix K.

Noise generators in the vicinity of the property include nearby agricultural, industrial, and construction activities. Other noise sources in the project area include vehicle traffic along Kuihelani Highway, East Waiko Road, and Wai'ale Drive.

A series of 15-minute sound measurements were taken using a SoundPro DL Sound Level Meter between 7:30 a.m. and 9:30 a.m., and again between 10:30 a.m. and 11:30 a.m., on February 1, 2011 to determine existing ambient daytime peak and off-peak noise levels. A 24-hour measurement was conducted between 12:30 p.m. on February 1, 2011 and 12:30 p.m. on February 2, 2011. These readings were used to establish existing ambient noise conditions and to provide a baseline for evaluating construction and operational noise impacts.

Existing ambient sound levels range between 49.2 and 65.9 Decibels (dBA) Equivalent Continuous Noise Level (L_{eq}) during peak traffic hour, and 49.6 and 66.8 dBA L_{eq} during off-peak traffic hour. The 24-hour L_{dn} was 62 dBA.

Using existing traffic volumes provided by TAHA and the Federal Highways Administration (FHWA) Traffic Noise Model (TNM) Look-Up Program, the L_{eq} was calculated for roadway segments in the project area. The existing AM peak-hour mobile noise levels ranged from 58.4 to 70.5 dBA L_{eq} . The existing PM peak-hour mobile noise levels ranged from 59.4 to 70.4 dBA L_{eq} .

There are no stationary sources of vibration located near the property. Heavy-duty trucks can generate ground-borne vibrations that vary depending on vehicle type and weight, and pavement conditions. Based on site visits, vibration levels from adjacent roadways are not typically perceptible at the property.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Construction-Related Noise

Construction activity would result in temporary increases in ambient noise levels in the property on an intermittent basis. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers.

The highest noise levels are expected to occur during the grading/excavation and finishing phases of construction. Construction activity would occur in phases over the entire

property. The majority of construction would take place central to the property and away from off-site sensitive receptors. Construction activity on the western and northern boundaries of the property would be located near off-site sensitive receptors. Construction noise levels would exceed the 78-dBA County Noise Reference Manual standard at the single-family housing to the north of the property and at Maui Lani Regional Park. Construction levels would also exceed the maximum permissible noise levels listed in the Hawaii Administrative Rules. It is important to note that construction noise will be short-term and intermittent. In addition, construction activity would only occur from 7:00 a.m. to 6:00 p.m., Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays. Nonetheless, without noise control or a noise variance or a permit as required by the Director of DOH, Wai'ale would result in an adverse effect related to construction noise.

Residential land uses constructed on the property may be occupied during the ongoing construction process. They would potentially be exposed to excessive construction noise levels during daytime hours. New residents would be well aware of ongoing construction activity prior to occupying the property. In addition, construction noise will be short-term and intermittent. Construction noise exposure to on-site sensitive receptors is not considered to be an adverse effect.

Measures to control or mitigate impacts to ambient noise levels during construction include:

- N1** The project applicant shall obtain a noise permit associated with exceeding a noise level of 78 dBA L_{eq} as discussed in the *Maui County Noise Reference Manual*.
- N2** The project applicant shall obtain a noise permit associated with exceeding the maximum permissible noise levels discussed in the *Hawaii Administrative Rules*.
- N3** All mobile construction equipment shall be equipped with properly operating mufflers or other noise reduction devices.
- N4** Grading and construction contractors shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than metal-tracked equipment) where feasible.
- N5** The construction contractor shall use on-site electrical sources to power equipment rather than diesel generators where feasible.

Noise Control Measures N1 and N2 would ensure compliance with State rules and regulations for construction noise. Noise Control Measure N3 would reduce on-site construction noise levels by at least 3 dBA and, while difficult to quantify, Noise Control Measures N4 and N5 would assist in attenuating construction noise levels.

Implementation of Noise Control Measures N1 through N5 would reduce the construction noise effects to less than adverse.

Construction-Related Vibration

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods employed. The use of heavy construction equipment will be less than the Federal Transit Administration (FTA) standard for construction vibration levels. Therefore, Wai'ale would not result in adverse effect related to construction vibration, and no noise control measures are required.

Operational Related Noise

Vehicular Impacts

According to the TIAR, 1,039 vehicles would enter the property and 1,536 vehicles would exit the property during the AM peak hour. During the PM peak hour, 1,778 vehicles would enter the property and 1,492 vehicles would exit the property. Some roadway segments will decrease in noise levels. This is a result of new roadway segments that redistribute traffic. The greatest project-related noise increase would be 2.7 dBA L_{eq} along East Waiko Road between Kuihelani Highway and Kamehameha Avenue. Mobile source noise levels would not exceed the 3-dBA operational mobile source significance noise criteria. Therefore, Wai'ale would not result in adverse effect related to off-site vehicular noise.

Stationary Noise Impacts

Wai'ale would develop light industrial and residential land uses adjacent to residences of the Maui Lani development. In addition, on-site residential land uses would be located adjacent to commercial and light industrial land uses. Therefore, it is important to assess stationary source noise levels at sensitive receptors.

It is assumed that the majority of stationary noise would be generated by ventilation and air conditioning systems. Mechanical equipment such as ventilation and air conditioning systems typically generate noise levels of approximately 60 dBA L_{eq} at 50 feet. This noise level would exceed the *Hawaii Administrative Rules* maximum permissible noise levels for Class A and B land uses. Therefore, without noise control, Wai'ale would result in an adverse effect related to mechanical equipment noise.

Light industrial and commercial land uses may generate truck loading/unloading noise (e.g., back-up safety alarms) at residential land uses. Loading/unloading noise is typical in an urban environment but, nonetheless, it would exceed the allowable noise levels. Therefore, without noise control, Wai'ale would result in an adverse effect related to loading/unloading noise.

Land Use Compatibility Within the Property

In addition to impacts on sensitive receptors outside of the property, both noise from vehicles and stationary sources can affect sensitive land uses within the property. These sensitive land uses include: residential, schools and park-type uses

Residential. Residential land uses would be located throughout Wai'ale. A 24-hour noise measurement indicated that the ambient noise level at the property is 62 dBA L_{dn} . This noise level is less than the 65-dBA L_{dn} U.S. Department of Housing and Urban Development (HUD) standard for exterior noise. In general, the property is compatible with residential land uses.

A detailed land use compatibility analysis was completed for residential land uses along heavily traveled roadways. The mobile source noise levels were estimated using the FHWA TNM Lookup Tables. The HUD standards for interior and exterior noise levels are 45 and 65 dBA L_{dn} , respectively. Exterior and interior noise level standards would be exceeded at residences that face Kuihelani Highway and East Waiko Road. In addition, the interior standard would be exceeded at residences that face Kamehameha Avenue. Therefore, without noise control, Wai'ale would result in an adverse effect related to residential land use compatibility.

Light Industrial land uses are located along East Waiko Road adjacent to proposed residential land uses. These land uses generate noise from various sources, including mechanical equipment and medium-duty trucks. Light industrial activity would potentially generate noise levels that exceed the FHWA standards at the planned residential land uses. Therefore, without noise control, Wai'ale would result in an adverse effect related to noise compatibility between existing light industrial land uses and planned residences.

School. Wai'ale would include a proposed middle school located along Road C. The State Board of Education (BOE) has stated that schools should not be located at sites where exterior noise levels exceed 65 dBA L_{10} . The exterior noise level would not exceed the BOE standard. In addition, Wai'ale would need to comply with the State Department of Education (DOE) *Educational Specifications (EDSPECS) for Middle/Intermediate Schools* that state that interior noise levels in general school spaces should not exceed 50 dBA L_{eq} and the noise level in libraries and reading rooms should not exceed 45 dBA L_{eq} . Detailed site plans were not available to complete an interior noise level analysis. It is assumed that interior noise levels could exceed the State standards. Therefore, without noise control, Wai'ale would result in an adverse effect related to school land use compatibility.

Park. Wai'ale would include a regional park that borders Kuihelani Highway and Road C, a neighborhood park that borders Kuihelani Highway, and a cultural preserve in the northeastern portion of the property. The FHWA has indicated that exterior noise levels at park land uses should not exceed 67 dBA L_{eq} .

Regarding the regional park, peak hour noise levels along Kuihelani Highway and Road C would be approximately 73.3 and 59.5 dBA, L_{eq} respectively. Peak hour noise levels along Kuihelani Highway would exceed the noise standard for parks. Mobile source noise attenuates at a rate of 4.5 dBA over soft land every doubling of distance. As a result, the noise levels would be less than 67 dBA L_{eq} at 300 feet. The 300 feet nearest to Kuihelani Highway represents less than 10 percent of the 65 acre regional park. More than 58 acres of the regional park would be compatible with the ambient noise environment. The incompatible noise levels along Kuihelani Highway would not substantially affect use of the park. Therefore, Wai'ale would not result in adverse effect related to the regional park.

A neighborhood park would also be located along Kuihelani Highway. The noise levels would be less than 67 dBA L_{eq} at 300 feet. The 300 feet nearest to Kuihelani Highway represents about 50 percent of the neighborhood park. This is a substantial percentage of the park and would affect daily use. Therefore, without noise control, Wai'ale would result in adverse effect related to the neighborhood park.

A cultural preserve would be located in the northeastern portion of the property. Mobile source noise levels at the cultural preserve would be less than 62 dBA L_{eq} . This would be less than the 67-dBA L_{eq} standard. Therefore, Wai'ale would not result in adverse effect related to the cultural preserve.

Measures to control or mitigate impacts to ambient noise levels during ~~construction~~ operation include:

- N6** The project applicant shall require mechanical equipment (e.g., ventilation and air conditioning systems) to be enclosed in equipment rooms such that noise levels do not exceed the maximum permissible noise levels listed in the *Hawaii Administrative Rules*.
- N7** Truck loading/unloading activities at light industrial and commercial land uses shall be limited to between the hours of 7:00 a.m. and 10:00 p.m.
- N8** Residents of units with exterior useable space facing Kuihelani Highway and East Waiko Road shall be given notice of possible incompatible exterior noise levels.
- N9** All residential units shall be designed to minimize interior noise levels. These design measures shall be established to maintain noise levels at interior spaces to less than an L_{dn} of 45 dBA. Measures to meet the 45 dBA L_{dn} standard may include, but are not be limited to, using perimeter walls, sound-rated interior walls between uses, installing double-pane windows and/or air conditioners on the side facing noise sources, or other site planning and building placement that could reduce or eliminate the light-of-sight between the noise source and residential units. The applicant shall

utilize an acoustical engineer to demonstrate that the 45 dBA L_{dn} interior noise standard has been achieved within a sample of residential units facing Kuihelani Highway, East Waiko Road, and Kamehameha Avenue.

- N10** All educational classrooms shall be designed in compliance with the DOE *Educational Specifications (EDSPECS) for Middle/Intermediate Schools*. In accordance with the guidelines, general school space shall meet a background ambient noise level of 45 dBA L_{eq} and libraries and main reading rooms shall meet a background ambient noise level of 50 dBA L_{eq} . Prior to occupancy, an acoustical engineer shall demonstrate that the applicable noise standards have been achieved in classrooms.
- N11** The 300 feet closest to Kuihelani Highway on the southern portion of the property shall be developed with active recreational land uses (e.g., ball fields or basketball courts) as opposed to passive recreational land uses (e.g., art garden).

Noise Control Measures N6 and N7 would ensure compliance with State rule and regulations for stationary noise. Noise Control Measures N8 through N11 would ensure that new land uses would be compatible with ambient noise environments. Implementation of Noise Control Measures N6 through N11 would reduce the operational noise effects to less than adverse.

Operational-Related Vibration

Wai'ale would not include significant stationary sources of ground-borne vibration. It is not anticipated that light industrial land uses would have vibration-generating activities such as heavy equipment operations. Operational ground-borne vibration in the vicinity of Wai'ale would be generated by vehicular travel on the local roadways. However, similar to existing conditions, project-related traffic vibration levels would not be perceptible by sensitive receptors. Therefore, Wai'ale would not result in an adverse effect related to the operational vibration, and no noise control measures are required.

4.5 AIR QUALITY

Air quality refers to the presence or absence of pollutants in the atmosphere. It is the combined result of the natural conditions (i.e., dust from wind erosion) and emissions from a variety of pollution sources (i.e., automobiles, power generating facilities). TAHA prepared an air quality study to: 1) describe existing air quality in the area; 2) assess the potential short- and long-term direct and indirect air quality impacts that could result from Wai'ale; and 3) recommend measures to mitigate potential air quality impacts where possible and appropriate. This report is included in Appendix L. Key findings and recommendations of air quality study are summarized below.

The Clean Air Act requires the EPA to set National Ambient Air Quality Standards (NAAQS) for six common air pollutants. These commonly found air pollutants (also known as “criteria pollutants”) are found throughout the United States. They are particle pollution (often referred to as particulate matter), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. These pollutants can harm public health and the environment, as well as cause property damage. Of the six pollutants, particle pollution and ground-level ozone are the most widespread health threats. The EPA regulates these “criteria pollutants” by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels. The set of limits based on human health is called primary standards. Another set of limits intended to prevent environmental and property damage is called secondary standards.

The EPA must designate areas as meeting (attainment) or not meeting (nonattainment) the aforementioned “standards.” The Clean Air Act requires states to develop a general plan to attain and maintain the NAAQS in all areas of the country and a specific plan to attain the standards for each area designated nonattainment for a NAAQS. Hawai'i has no areas designated as a “nonattainment” area.

According to the U.S. Environmental Protection Agency (EPA), EPA's National Clean Diesel Campaign (NCDC) promotes clean air strategies by working with manufacturers, fleet operators, air quality professionals, environmental and community organizations, and state and local officials to reduce diesel emissions. As a result of EPA regulations, diesel engines manufactured today are cleaner than ever. Recent diesel rulemakings have focused on light- and heavy-duty highway vehicles, non-road diesel equipment, locomotive and marine engines, and large ocean-going vessels. As part of the Energy Policy Act of 2005, the Diesel Emissions Reduction Act (DERA) authorized funding of up to \$200 million annually for FY2007 through FY2011 to help fleet owners reduce diesel emissions. In January 2011, President Barack Obama signed the Diesel Emissions Reduction Act of 2010 (S. 3973/H.R. 6482), which authorizes \$500 million in diesel clean-up funds over the next five years. According to an EPA website: “DERA is a successful federal program from both an economic and public health perspective. Within NCDC's West Coast Collaborative, comprised of EPA Regions 9 and 10, DERA grant projects produce over \$3 billion in public health benefits, and for every federal dollar invested an average of \$38 dollars in health benefits is realized.”

POTENTIAL IMPACTS AND MITIGATION MEASURES

Construction-Related Impacts

Typically, construction activity would be expected to generate emissions through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the property. Fugitive dust emissions would primarily result from site preparation (e.g., grading) activities. Nitrogen oxide emissions would primarily result from the use of construction equipment. Construction emissions can vary

substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

Construction activity would occur, in phases, over the entire property. Using EPA AP-42 emission factors (EPA AP-42 Handbook, Compilation of Air Pollutant Emission Factors), construction activity could generate up to 16 pounds per day of fugitive dust emissions. During the Draft EIS public review period, the State Department of Health, Clean Air Branch commented that: "The activities must comply with the provisions of Hawaii Administrative Rules, subsection 11-60.1-33 on Fugitive Dust. In addition, for cases involving mixed land use, we strongly recommend that buffer zones be established, wherever possible, in order to alleviate potential dust and odor nuisance problems...We encourage the contractor to implement a dust control plan, which does not require approval by the Department of Health, to comply with the fugitive dust control regulations." Construction emissions would be temporary and are not considered adverse.

Measures to control or mitigate impacts to air quality during construction include:

- AQ1** The construction contractor shall use water or suitable chemicals to control fugitive dust in the demolition of any existing buildings or structures, construction operations, the grading of roads, or the clearing of land.
- AQ2** The construction contractor shall apply asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces which may result in fugitive dust.
- AQ3** The construction contractor shall cover all moving, open-bodied trucks transporting materials which may result in fugitive dust.
- AQ4** The construction contractor shall maintain roadways in a clean manner.
- AQ5** The construction contractor shall promptly remove earth or other materials from paved streets which have been transported there by trucking, earth-moving equipment, erosion, or other means.

Establishment and implementation of air quality control measures AQ1 and AQ5 would ensure compliance with State rules and regulations for construction emissions. According to TAHA, implementation of AQ control measures AQ1 through AQ5 would reduce the construction air quality effects ~~to less than adverse~~.

During the Draft EIS public review period, the State Department of Health, Clean Air Branch commented that: “Additional dust control measures that may be complementary include, but are not limited to, the following:

- a) *Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;*
- b) *Providing an adequate water source at the site prior to start-up of construction activities;*
- c) *Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;*
- d) *Minimizing dust from shoulders and access roads;*
- e) *Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and*
- f) *Controlling dust from debris being hauled away from the project site. Also, controlling dust from daily operations of material being processed, stockpiled, and hauled to and from the facility.”*

Operational-Related Regional Emissions

The main source of operational emissions would be on-road vehicles. Wai'ale would generate 3,270 PM peak hour trips. PM peak hour emissions would represent 0.75 percent of State emissions. These emissions are not considered substantial. Therefore, Wai'ale would not result in an adverse effect related to regional operational emissions. It should be noted that TAHA's calculation of operational emissions were based on the TIAR prepared for the project (See Appendix J), which assumed a development not served by public transportation. The design of the roadways will be based on standards set forth by the County, and will be able to accommodate the extension of the Maui Public Bus Transit System onto and through the property, as well as bicycle traffic. The Maui Bus public transit service consists of 12 bus routes, all operated by Roberts Hawaii. These routes are funded by the County and provide service in and between various Central, South, West, Ha'ikū and Upcountry Maui communities. All of the routes are operated seven days a week, including all holidays. All vehicles on the routes are ADA accessible.

During the Draft EIS public review period, the State Department of Health, Maui District Health Office commented that “This project will be impacted by existing Hawaiian Commercial & Sugar Company's cane burning activities and will be located next to Hawaiian Charcoal...” We understand that the latter operation is mauka (and west) of the project, and downwind of the project site during predominant trade wind conditions. As a result, emissions would not typically traverse the project site.

Operational-Related Localized Emissions

The primary source of localized emissions would be diesel particulate matter (DPM) emitted during truck loading/unloading activity. These emissions are of particular concern because DPM is a carcinogenic compound and light industrial land uses would be

located along East Waiko Road adjacent to proposed residential land uses. The amount of DPM emitted in Wai'ale would be directly related to truck idling times at light industrial and commercial facilities. Detailed land use information was not available when this analysis was completed and estimating truck emissions would be entirely speculative. Without a control measure to limit idling, Wai'ale would result in an adverse effect related to operational emissions.

Operational-Related Odors

Land uses that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. An existing agricultural area is located on the east side of the property off East Waiko Road. The agricultural land uses include confined animals but are small scale operations unlike a large feed lot or a large-scale dairy. Depending on wind conditions, agricultural odors may be detectable at project-related land uses adjacent to the agricultural area. These odors are not considered substantial based on the scale of the generating activities. Therefore, the proposed project would not result in adverse effect related to odors.

Wai'ale may include an on-site wastewater treatment plant (WWTP). Any place or process in which wastewater is collected, conveyed or treated has the potential to generate and release nuisance odors to the surrounding area. Most odor problems occur in the collection system, primary treatment facilities, and solids handling facilities. In most instances, the odors associated with collection systems and primary treatment facilities are generated as a result of an anaerobic or "septic" condition. This condition occurs when oxygen transfer to the wastewater is limited such as in a force main. In the anaerobic state, the microbes present in the wastewater have no dissolved oxygen available for respiration. This allows microbes known as "sulfate-reducing bacteria" to thrive. These bacteria utilize the sulfate ion that is naturally abundant in most waters as an oxygen source for respiration. The byproduct of this activity is hydrogen sulfide. This byproduct has a low solubility in the wastewater and a strong, offensive, rotten-egg odor. The facility would be constructed using best available control technology to meet EPA and Hawai'i hydrogen sulfide regulations. Variable meteorological conditions may occasionally lead to on-site nuisance odors. These odors would generally be short-term and are not considered adverse. However, a control measure is recommended to ensure regulatory compliance.

Measures to control or mitigate impacts to air quality during operation include:

- AQ6** Diesel-fueled trucks shall be prohibited from idling in excess of ten minutes at land uses associated with the proposed project, except under the following conditions:

When forced to remain motionless due to adverse weather conditions;
When verifying that the vehicle is in safe operating condition;

When the vehicle is positioning or providing a power source for equipment or operations; or
While operating air conditioning or any other device to prevent a health or safety emergency.

- AQ7** A detailed Odor Management Plan shall be completed during the final design phase of the wastewater treatment plant. The Odor Management Plan will focus on minimizing nuisance odors.

Implementation of Control Measures AQ6 and AQ7 would reduce the operational air quality effects ~~to less than adverse~~. Additionally, with the continued implementation of DERA, DPM from diesel-fueled trucks are likely to be reduced in future years.

4.6 MAN-MADE HAZARDS

Bureau Veritas North America, Inc. (BV) conducted a Phase I Environmental Site Assessment (ESA) of the property. The Phase I ESA is included as Appendix M and summarized below.

The Phase I ESA revealed the following evidence of recognized environmental conditions (RECs), as defined by the American Society for Testing and Materials (ASTM), in connection with the property:

Former Maui Scrap Metal Operations: The western portion of the property south of East Waiko Road was formerly licensed and occupied by Maui Scrap Metal, Inc. During BV's onsite inspection, the property was observed with metal scraps, automobile parts, and various waste materials buried deep within the soil. Petroleum hydrocarbon impacted soil is currently stored on the property and is pending disposal.

Abandoned/Waste Materials: Several large piles of abandoned/waste materials including household appliances, automobile parts, and household garbage, were observed on the northwestern portion of the property south of East Waiko Road. These materials have accumulated on the subject property from unauthorized dumping by outside parties. Although no staining or other evidence of releases was observed at this dump site, there is a potential that releases from the wastes have impacted the underlying soil.

Waikapū Landfill: The Waikapū Landfill is located on the adjoining and upgradient property to the northwest of the subject property. The landfill was owned and operated by the County. The Waikapū Landfill did not receive waste after 1989 and was closed 20 years ago in 1991. EPA 40 Code of Federal Regulations (CFR) Part 258, Criteria for Municipal Solid Waste Landfills (MSWLFs), requires post-closure monitoring by owners or operators of MSWLFs. These regulations took effect in October 9, 1993. Therefore, because the Waikapū Landfill did not receive waste after 1989, it is exempt from these regulations.

Former Agricultural Operations: A portion of the property south of East Waiko Road has been used as agricultural land for the cultivation of sugar cane crops since the 1990s. Agricultural operations typically utilize chemicals such as herbicides and pesticides, which have a potential to impact the subject property. Based on the cultivation date, it is unlikely that residues of arsenic, dioxins, and organochlorine compounds would be present on these fields because these chemicals were not used on sugarcane in the recent past. Additionally, BV's onsite inspection and historical research did not reveal evidence of storage, mixing, or excessive use of pesticides/herbicides with the potential to impact the subject property.

The following historical REC was revealed during this assessment:

Former Maui Sod Operations: The environmental database report and DOH files reviewed by BV listed the former Maui Sod facility with a diesel fuel release and an abandonment of an estimated 5,500 pounds of hazardous waste. Although both of these release sites received a status of "No Further Action," the DOH file did not include soil sampling and analyses data, and there is a potential for releases from the items stored onsite.

In conjunction with the construction of a water line in the northeastern portion of the site, unexploded ordnance (military hand grenades) were discovered and disposed of. A private contractor was brought in for monitoring and clearing work. Disposal was undertaken by appropriate governmental agencies, including the U.S. Army. The extent of former military use of the area is being determined and appropriate mitigation measures will be undertaken.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The Phase I ESA included recommendations and mitigative measures to address RECs found on the property:

Former Maui Scrap Metal Operations: This finding is considered a REC because there is evidence of releases from scrap materials stored on the property. The applicant will remove the remaining items from the portion of the property formerly occupied by the scrap yard facility and for areas where illegal dumping has occurred (western portion of the property south of East Waiko Road). Any stained soils will be excavated and disposed of properly. For significantly stained areas, soil sampling with laboratory analysis following cleanup activities will be conducted to ensure that proper cleanup has been completed.

Abandoned/Waste Materials: This finding is considered a REC because there is evidence of the unauthorized dumping may include hazardous materials and chemicals, with the potential to impact the subject property. BV recommends the proper removal and disposal of these materials from the property. Any stained soils should be excavated and disposed

of properly. For significantly stained areas, BV recommends confirmation soil sampling with laboratory analyses following cleanup activities to ensure that proper cleanup has been completed.

Waikapū Landfill: BV considers this find to be a REC because there is a potential for contamination from this adjacent property to impact the subject property. Prior to development of the Maui Lani residential area located to the north of the subject property, Bureau Veritas (formerly Clayton Group Services, Inc.) conducted a Phase I ESA of the Maui Lani property and reviewed a groundwater sampling and analyses report prepared by Harding Lawson. The groundwater sample was collected from a well located on the landfill. Eight metals were detected in the samples from the well, but were below EPA and the State of Hawaii maximum contamination levels. No volatile organic compounds were detected in the groundwater sample. The Maui Lani development agreed to establish a 300-foot residential buffer to address concerns expressed by the DOH regarding the need for a buffer between proposed residential dwellings and the landfill. Similar to Maui Lani, the closest planned residential area within Wai'ale is situated approximately 300 feet distant from the Waikapū Landfill.

Former Agricultural Operations: This finding is considered a REC because there is a potential that agricultural chemicals exist in the soil at concentrations above the DOH action levels, and redevelopment of the subject property is planned. Therefore, soil samples will be collected to assess chemical impacts from historical agricultural operations.

Former Maui Sod Operations: BV considers this find to be a historical REC because there is potential for releases from past operations at the former Maui Sod facility. The applicant will conduct further investigation of this area to assess chemical impacts to the soil from historical operations.

To mitigate potential groundwater contamination, BMPs for the future use of the property will be implemented. Covenants will be imposed which inform potential homebuyers that activities at the property could impact the ~~ground water~~ groundwater beneath the property, requires compliance with all applicable environmental and other governmental laws, rules and regulations and requires efforts to ~~protect prevent ground water~~ protect prevent groundwater contamination from fertilizers, pesticides, metals, petroleum products, solvents and other contaminants. Industrial users will be required to ~~protect prevent~~ protect prevent groundwater contamination from metals, petroleum products, solvents and other contaminants, including runoff collection and treatment and to institute spill prevention containment and control programs. As recommended by DWS, the operators of proposed active parks and schools will be advised to implement Integrated Pest Management (management practices to ~~protect prevent ground water~~ protect prevent groundwater contamination from fertilizers and pesticides).

4.7 VISUAL RESOURCES

The property is situated within Central Maui. The slopes of Haleakalā (East Maui Mountains), Waikapū Valley, and Mauna Kahalawai (West Maui Mountains) are visible from the site. However, the property itself is not considered a scenic or unique scenic corridor or area, except for a large remnant of the Pu'u One sand dunes. Waikapū Stream borders the southern boundary of the property.

In 2006, Chris Hart Partners completed one of the *Draft Maui Island Plan's* technical studies, entitled: "Scenic Resources – Inventory and Mapping Methodology." This report was sanctioned by the County's Department of Planning in support of the *General Plan 2030* update ("*Maui Island Plan*"). Its purpose was to identify "scenic roadway corridors" based on an inventory and ranking of public views from major State and County roadways. The *Draft Maui Island Plan* includes a "Cultural Resources Overlay/Scenic Corridor Protection Map" which identifies "Scenic Corridors" throughout Maui. Of those "Scenic Corridors" identified, they are categorized as either "Exceptional," "High" or "Medium." The only roadway that abuts the property is Kuihelani Highway and it is not identified as a "Scenic Corridor." The closest "Scenic Corridor" is Honoapi'ilani Highway, and that portion of the highway closest to the property is categorized as "Medium."

POTENTIAL IMPACTS AND MITIGATION MEASURES

Wai'ale will change the visual character of the property from vacant lands to a master-planned community with residential, commercial, recreational and educational uses. Wai'ale will be extensively landscaped as part of the development improvements, to ensure visual buffering and softening of the built landscape. The master plan includes regional and neighborhood parks, greenways and open space. As previously noted, the closest "Scenic Corridor" (as identified in the *Draft Maui Island Plan*) is Honoapi'ilani Highway. That portion of the highway closest to the property is categorized as "Medium." The average distance between Honoapi'ilani Highway and the property is approximately 3,000 feet. Waikapū Village separates and provides a buffer from Honoapi'ilani Highway and the property. It is likely that those in vehicles travelling 30 to 45 miles per hour along Honoapi'ilani Highway will be focusing their attention on the car in front of them, Waikapū Village, Mauna Kahalawai and/or Haleakalā.

During the Draft EIS public review period, the Sierra Club Maui Group commented that: "Views are cultural resources. Kupuna refer to particular views carrying cultural knowledge and significance. One kupuna shared his thoughts of the alignment of sites on the various sand dunes in the Waiale project area. He pointed to the notches and pu'u (hills) visible along the ridge of Mauna Kahalawai to the west. As the seasons pass, he pointed out the setting sun moves along the mountain ridge, touching certain points. One must stand in a certain location, that offers its own unique viewplane to experience this. This knowledge was passed from generation to generation."

The property is located at a lower elevation than the nearest portion of Honoapi'ilani Highway. The proposed development of the property will not obstruct views of Haleakalā, 'Īao Valley, and the Mauna Kahalawai, or Waikapū Stream. During the Draft EIS public review period, Maui Tomorrow Foundation noted "...the cultural importance of these truly magnificent view planes." The approximately 28 acre remnant of the Pu'u One sand dunes will be preserved and will be visible from surrounding areas within and outside of the property.

The project design guidelines will specify that the project developer(s) will mitigate the potential impact of exterior lighting on "night sky" resources and avoid light pollution.

4.8 INFRASTRUCTURE AND UTILITIES

Austin, Tsutsumi & Associates, Inc. (ATA) prepared a Preliminary Engineering and Drainage Report for Wai'ale. This report is included in Appendix N. Key elements of the report are summarized in the following sections.

4.8.1 Water System

Since the property is currently undeveloped, there are no existing domestic waterlines servicing the property. The DWS provides water service within the vicinity of the project. DWS services the nearby Maui Lani development via an existing 12-inch waterline along South Kamehameha Avenue. To the west of the property, DWS services Waikapū, including the Waikapū Gardens development between Honoapi'ilani Highway and Wai'ale Road, from their 300,000-gallon Waikapū Reservoir. The Waikapū distribution system includes an existing 12-inch stub-out along East Waiko Road, and a 12-inch stub-out on Ha'awi Street.

The Consolidated Baseyards subdivision, which is a development adjacent to the property, has an existing private water system. The components of this system include two small groundwater wells, an on-site 350,000 gallon reservoir sized primarily for fire protection water storage, a domestic water package booster pump and a separate fire pump, and a private water distribution system consisting of 12-inch waterlines.

DWS has two transmission waterlines in the vicinity of the property. The 18-inch Kihei Water Development Project transmission line runs along Wai'ale Road then cuts through the property in a southeasterly direction towards Kihei. The 36-inch Central Maui Water Transmission System transmission lines cuts through the eastern portion of the property and head towards Kihei.

The following are existing DWS storage tanks in the vicinity of the property:

- Waikapū 300,000-gallon Concrete Reservoir;
- Kehalani Mauka 1.5 MG Mid-Level Tank;
- Wailuku Heights 20,000-gallon Steel Tank; and
- Wai'ale 3.0 MG Tank.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Water Demand

Based on ATA's calculations, the projected average daily water demand for the project is estimated to be 1.9 million gallons per day (MGD). In accordance with the DWS' Water System Standards (WSS), the maximum daily water demand is calculated as being 1.5 times the average daily demand, or 2.8 MGD. Also, the maximum fire demand will be 2,000 gallons per minute (gpm), which is applicable for schools, neighborhood businesses, small shopping centers, and light industrial.

During their review of the FEA/EISPN, the DWS wrote that: "There is currently no additional source available to accommodate new customers according to system standards on the Central Maui system." Therefore, at this time, the intent is to develop a new water source for Wai'ale. As recommended by the Commission on Water Resource Management (CWRM) in its FEA/EISPN and Draft EIS public review comments, the applicant will coordinate work with the County of Maui to incorporate ensure the Wai'ale project is incorporated into the County's Water Use and Development Plan.

New water storage facilities and transmission lines will also be required. The project's water system can be constructed as a private water system, or it can be constructed with the intent of dedicating the system to DWS for incorporation into DWS' water system.

Water Supply

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent, or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector, which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, needs to be developed. The need for these improvements is discussed in the County's Water Use and Development Plan and also the Maui Island Plan.

The applicant is exploring several potential drinking water source opportunities to serve the project. These include surface water treatment and new well sources in the Central Maui region. ~~The primary focus has been the development of a surface water treatment facility utilizing water from the West Maui ditch system.~~

Proposed Wai'ale Water Treatment Facility: The proposed Wai'ale Water Treatment Facility (WTF) is a collaborative effort of the applicant and DWS. The concept of utilizing surface water from West Maui evolved and was advanced from the DWS' pursuit of the East Maui Water Development Plan (EMWDP). The EMWDP proposed developing new water wells in East Maui to meet future water demands on the Central Maui water system.

However, opposition to the EMWDP ultimately resulted in a lawsuit, the settlement of which directed the County to pursue surface water treatment utilizing West Maui ditch water before resuming its exploration of East Maui well water. Surface water treatment technology is familiar to the County who has experience operating such facilities. The DWS operates treatment plants at Kama'ole Weir using water from East Maui Irrigation Company's (EMI) Wailoa Ditch, Pi'iholo on the Lower Kula System, Olinda on the Upper Kula system, the 'Iao Plant using 'Iao Stream water, and at Māhinahina above Lāhainā using water from the Honokōhau Ditch. DWS has qualified personnel to operate these treatment plants to produce drinking quality water.

The applicant acknowledges that the proposed WTF requires further discussion, review and approvals by various governmental agencies in order to proceed. An agreement with the County outlining the sharing of development costs for the proposed WTF, terms of use, the allocation of water and other matters will be required. This agreement will ultimately be subject to the review and approval of the Maui County Council. Also, the establishment of interim in-stream flow standards for the four streams which make up the Na Wai 'Eha, including Waihe'e Stream, will need to be resolved. In June 2010, the CWRM rendered its decision in the Na Wai 'Eha case by setting interim in-stream flow standards for the four streams that make up the Na Wai 'Eha. However, the CWRM's decision was subsequently appealed and is currently before the Hawaii Intermediate Court of Appeals.

The following is a description of the proposed WTF upon which detailed engineering was undertaken. It is acknowledged that the design and scale of the final WTF will be subject to other decisions and approvals, including the final interim in-stream flow standards for the streams which make up the Na Wai 'Eha, and that these decisions could result in a smaller treatment facility with lower capacity than currently planned.

The proposed WTF is planned to be located on about 3.5 acres near the upper Wai'ale Reservoir site in Wailuku, on lands owned by Alexander & Baldwin, Inc. The proposed WTF will treat surface water primarily from Waihe'e Stream utilizing membrane filtration. A total of three filter units are currently being proposed for the WTF, which would yield a sustained average production capacity of approximately nine MGD. As noted previously, this design capacity could be reduced pending decisions in other related matters. Detailed engineering design of the proposed WTF has been undertaken, including designs for piping connections to the County's Central Maui water system. The plant is about 80 percent designed. Over the past several years, about \$1,100,000 has been spent by the applicant on the engineering design and preparation of regulatory documents needed for the plant to proceed. The applicant continues to work with the County to address design and regulatory matters relating to the proposed WTF.

Proposed Wai'ale Water Treatment Facility and the Maui Water Use and Development Plan: The State Water Code (*Chapter 174C, Hawaii Revised Statutes*) and Maui County Code Chapter 14.02 require the preparation of a Water Use and Development Plan

(WUDP). The WUDP is the primary long range plan of the DWS. The WUDP directs the management of water resources in a manner that is a plan for management of water resources that is consistent with the County's land use plans and policies. The WUDP serves as a guideline for the use and commitment of water resources and funds. The DWS is in the process of updating the WUDP.

As part of the update process, a Central District: Final Candidate Strategies Report was prepared by Haiku Design & Analysis in June 2009. The report notes that water consumption for the Central District system is expected to grow from about 22 MGD in 2005 to about 34 MGD in 2030, an increase of about 12 MGD. To meet this increased demand, the report recommends proceeding with the Wai'ale WTF negotiations and approvals to the extent possible pending determination of assurance of long term water availability and price. The report further notes that the Wai'ale WTF is considered to be potentially the most cost effective solution to providing needed future water. The WUDP also considered other potential strategies, including new basal groundwater wells to the north of the existing Central District system (into the north half of the Waihe'e Aquifer and the Kahakuloa Aquifer). However, the anticipated costs of developing these wells and the related transmission system are high and the anticipated yields are uncertain. Other resource strategies examined included developing transmission lines eastward to the Ha'ikū Aquifer and the desalination of brackish water, however, both of these strategies entail substantial development and operational costs.

A&B Properties, Inc., on its own and in collaboration with other parties, is also pursuing other potential drinking water sources, including new water wells in Central Maui. Two wells have recently been constructed within the property. These wells, Wai'ale Well No. 1 (State No. 5129-04) and Wai'ale Well No. 2 (State Well No. 5129-05) are situated within the Kahului Aquifer. Pump tests of these wells indicated good water quality and capacity. The wells were each approved by the CWRM for a pumping capacity of 550 gpm. While water from these wells is not planned for use by this project, the wells demonstrate the potential for the development of drinking quality water within the Central Maui region. The applicant continues to examine the feasibility of other wells in the region.

The timing of completion of these potential source development alternatives will, in large part, determine the particular water source for Wai'ale. All source alternatives will require further discussion, review, and approval by applicable governmental agencies as the project proceeds.

Storage: New water storage reservoirs will be required to meet the storage requirements for Wai'ale. The reservoir capacity is based on the WSS Criterion 1 for reservoir capacity, which is to meet the maximum day consumption, with the reservoir full at the beginning of the 24-hour period with no source input to the reservoir. Based on this criterion, the required storage volume is 2.8 million gallons (MG). The recommendation is to construct two concrete reservoirs, each approximately 1.5 MG, rather than a single reservoir. Two reservoirs will allow for storage to be constructed as the demand increases, and will allow

for more flexibility during maintenance and repair should one of the reservoirs have to be taken out of service.

The following three alternatives are preliminary suggestions for the location of the storage reservoir(s). Further analysis of storage alternatives will be undertaken as part of the detailed engineering design process for this project.

Alternative 1:

Alternative 1 would be to construct the reservoir(s) off-site, at an approximate elevation of 440 feet above msl, which would allow for the entire project to be serviced by gravity from the reservoir. Wai'ale ranges in elevation from approximately 160 feet above msl at the northwest corner, to approximately 300 feet above msl at the western edge.

Alternative 2:

Alternative 2 would be to construct the reservoirs at a higher elevation, to "float" with DWS's existing 'Īao Tank. The 'Īao Tank has a bottom elevation of 506 feet, and maximum water level of 536.5 feet. The 'Īao Tank is servicing a portion of the nearby Maui Lani development, which has the same approximate elevations as Wai'ale.

Alternative 3:

Alternative 3 would be to construct one or two 1.5 MG reservoirs on the same site as the existing Kehalani Mauka 1.5 MG Mid-Level Tank. The existing tank could also possibly be used for storage. The new reservoir would have the same bottom and overflow elevations as the existing Kehalani Mauka 1.5 MG Mid-Level Tank, which are 670 feet msl and 690 feet msl, respectively.

For all three alternatives, water would most likely need to be pumped to the storage reservoirs from a lower source, e.g., the existing Wai'ale 3.0 MG Tank.

Transmission and Distribution:

DWS' existing 18-inch and 36-inch transmission and distribution lines will be utilized, to the extent possible, to convey water needed for Wai'ale. Any new transmission lines that will be needed will be sized to handle the maximum day demand for the project plus the maximum fire flow of 2,000 gpm. The waterlines will be of ductile iron and designed to meet the WSS for pipeline sizing.

On-site distribution waterlines will primarily be composed of 12-inch waterlines, with some 16-inch waterlines, and will be located within Wai'ale's internal roadways. The waterlines will be sized to provide water for drinking, irrigation and fire suppression purposes. The waterlines will also be sized to meet the pressure and velocity requirements of the WSS. Fire hydrants will be installed at a maximum of 250 foot intervals within the

property, per the WSS. Further analysis of the water transmission and distribution system will be undertaken as part of the detailed engineering design process for this project.

Water Conservation:

As recommended by the CWRM in its FEA/EISPN and Draft EIS public review comments, water efficient fixtures will be installed and water efficient practices will be implemented throughout Wai'ale, where feasible, to reduce the increased demand on the area's freshwater resources. Water demand can be reduced through low flow fixtures as required by Uniform Plumbing Code and through xeriscaping. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at <http://www.usgbc.org/leed>. A listing of fixtures certified by the EPA as having high water efficiency can be found at <http://www.epa.gov/watersense/pp/index.htm>. Xeriscaping is a concept of water conservation in the landscape. It preserves water and can reduce operational costs. The following xeriscaping principles will guide the landscape architectural design:

- Use lower water demand (“drought tolerant”) landscape materials;
- Use native or adaptive plant materials;
- Limit the extent of high water demand turf areas to a functional minimum and select appropriate turf species that require less water;
- Develop planting designs that group plant species in zones of similar water needs;
- Develop irrigation systems zoned for water delivery in accordance with plant and microclimatic requirements;
- Where feasible, use appropriate water-efficient irrigation methods (e.g., automated operation, drip irrigation, rainwater catchment systems, non-drinking quality water sources) to maximize efficiency;
- As feasible, use non-drinking quality water and/or R-1 quality recycled water for irrigation and assure that the salinity and quality of the water source can support the landscaping proposed for the project;
- Improve the soil to absorb and retain water;
- Provide an appropriate level of maintenance; and
- Consider pervious paving materials to decrease stormwater run-off.

Due to the climate of the region, automatic landscape irrigation will be accommodated for commercial, mixed-use and multi-family residential developments, utilizing non-drinking quality water (such as brackish water wells) and/or R-1 water sources as available. Appropriate methods of water application (such as drip systems) will be incorporated to conserve water and support optimum plant growth. Centrally-controlled irrigation systems and climate sensing devices such as rain and soil moisture sensors may also be utilized.

4.8.2 Wastewater System

The property currently generates no wastewater flow. There are two County sewer lines in the vicinity of the property. The first is an existing County 12-inch gravity line along South Kamehameha Avenue that services a portion of the Maui Lani development. The second is a County gravity line that runs through Waikapū Gardens, and then along Wai'ale Road, conveying wastewater to the Wailuku Wastewater Pump Station (WWPS). The Wailuku WWPS pumps the wastewater to the Kahului Wastewater Reclamation Facility for treatment.

Maui Tropical Plantation, Waikapū Gardens and Waiko Baseyard are all serviced by private wastewater collection systems. There are four private WWPS' within these areas – one for Maui Tropical Plantation, two for Waikapū Gardens, and one for Waiko Baseyard. These WWPS' pump the wastewater into the County's gravity line running through Waikapū Gardens. The Consolidated Baseyards subdivision utilizes on-site individual wastewater treatment systems.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Based on ATA's calculations, the projected average daily wastewater flow is approximately 910,000 gallons per day (gpd), and the design average flow, which includes dry weather infiltration, is approximately 980,000 gpd.

During their review of the FEA/EISPN and Draft EIS, the County's Department of Environmental Management (DEM) Wastewater Reclamation Division (WRD) wrote that: "The development of this project and others (planned and/or in construction) will exceed the remaining allocation capacity of the Kahului Wastewater Reclamation Facility. Therefore, in our opinion this project needs to include the development of a regional treatment plan to service this project and others in the adjacent area (e.g. Maui Tropical Plantation 1500+ dwelling units, etc.)." As a follow up to the DEM's comments, a representative of the applicant met with the Director of the DEM. The Director indicated that any regional sewage treatment plant solution should be properly advanced and pursued by the DEM.

During the Draft EIS public review period, the State Department of Health, Wastewater Branch wrote: "The subject project is located in a critical wastewater disposal area as determined by the Maui Wastewater Advisory Committee. If the project is located within or near the vicinity of a public sewer system as determined by the Director of Health, the project shall connect to the existing public sewer. If it is determined that a public sewer connection is not available, a wastewater system may be constructed in accordance with our Hawaii Administrative Rules (HAR), Chapter 11-62, 'Wastewater Systems.'"

The plant design capacity of the Kahului Wastewater Reclamation Facility (WWRF) is 7.9 MGD, and the cumulative wastewater flow that has been allocated, as of December 31, 2010, is 7.028 MGD. Therefore, the available capacity is 0.872 MGD. However, in recent

discussions with the County's Wastewater Reclamation Division, the County has indicated that there is probably not enough capacity at the Kahului WWRF for even initial flows from the proposed Wai'ale project, since treatment capacity is allocated on a first come first served basis, and they already have multiple requests for capacity allocation. The County also stated that there may be room to upgrade the Kahului WWRF, but a study needs to be conducted on whether expansion is possible.

During the Draft EIS public review period, the County DEM's WRD wrote that: "Although wastewater system capacity is currently available as of 6/16/11, the developer should be informed that wastewater system capacity cannot be ensured until the issuance of building permit." If Wai'ale is allowed to connect to the County's wastewater system, the following will apply:

- Wastewater contribution calculations are required before building permit is issued.
- The developer will pay assessment fees for treatment plant expansion costs in accordance with ordinance setting forth such fees (Wailuku Sewer Service Area)."
- The developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.
- Show or list minimum slope of new sewer laterals.
- Plans should show the installation of a single service lateral and advanced riser for each lot.
- Indicate on the plans the ownership of each easement (in favor of which party). (Note: County will not accept sewer easements that traverse private property).
- Commercial kitchen facilities within the Wai'ale project will comply with pre-treatment requirements (including grease interceptors, sample boxes, screens, etc.).
- Non-contact cooling water and condensate should not drain to the wastewater system.

Based on the comments received from the DEM concerning the limited capacity of the Kahului WWRF, the applicant has planned for an on-site treatment facility. Plans for any regional plant to serve other future projects would require specific information concerning these other projects (location, unit counts, development schedules and financial commitment) in order to commence any preliminary engineering analysis. The applicant has had discussions with representatives of the planned Maui Tropical Plantation project, however their anticipated development schedule is not consistent with Wai'ale's. In the absence of such commitments to participate, the applicant is prepared to address Wai'ale's wastewater requirements with an on-site treatment plant.

Therefore, there are two alternatives for treating the wastewater generated by Wai'ale. The first alternative involves constructing an on-site wastewater treatment plant (WWTP) for treatment of the wastewater generated by Wai'ale only. This alternative would require

effluent reuse and/or disposal, options for which are also discussed. The second alternative involves conveying the wastewater from Wai'ale to the Kahului WWRF, in the event that there is capacity available to treat the flows, either with or without future expansion of the Kahului WWRF.

Off-Site Wastewater Treatment:

For this alternative, the wastewater would be conveyed to the existing Kahului WWRF for treatment and disposal. The closest existing sewer line is a 12-inch gravity line in Kamehameha Avenue that services parts of the Maui Lani development and the planned Pōmaika'i Elementary School. An on-site sewer system will be installed to provide wastewater collection service to all proposed lots. The wastewater from the northwest portion of the project would be conveyed, via gravity flow, to the 12-inch sewer line in Kamehameha Avenue.

The wastewater from the majority of Wai'ale would be conveyed, via gravity flow, to a wastewater pump station (WWPS) in the northeastern portion of the project. One option may be for the WWPS to pump the flow to a discharge manhole near the community center. The wastewater would then flow by gravity to Kamehameha Avenue. Another option may be to pump the wastewater along Kuihelani Highway to a different connection point within the County system. Further analysis of the existing and proposed wastewater collection systems will be undertaken as part of the detailed engineering design process for Wai'ale. In addition, the County will be consulted to discuss what improvements to the existing County collection system may be needed to accommodate the flows from the project.

On-Site Wastewater Treatment Plant:

Based on the design average flow for Wai'ale of 980,000 gpd, the on-site WWTP would be designed to treat approximately 1.0 MGD of wastewater. The on-site WWTP would be designed to produce R-1 water, which could then be reused, mainly for irrigation purposes. The treatment process would consist of secondary treatment followed by filtration and disinfection. Approximately five acres of land is expected to be required for the on-site WWTP alternative.

The proposed location for the on-site WWTP alternative is in the north central portion of the project near the Consolidated Baseyards subdivision. Other possible locations for the WWTP include sites across Kuihelani Highway on lands owned by the applicant. An on-site sewer system would be installed to provide wastewater collection service to all proposed lots. The wastewater from the southern half of the project would be conveyed, via gravity flow, directly to the WWTP. The wastewater from the northern half of the project would be conveyed, via gravity flow, to the northeastern portion of the project, where a wastewater pump station (WWPS) would be used to pump the flow to the on-site WWTP.

Per the State Department of Health, Wastewater Branch's comments during the Draft EIS public review period, all wastewater plans will conform to applicable provisions of the Chapter 11-62, HAR. Further per the Branch's comments, the State Department of Health Wastewater Branch reserves the right to review the detailed wastewater plans for conformance to applicable rules.

The sizes of the pipes for the wastewater collection system were estimated based on preliminary design peak flow calculations for the contributing area. The sewer pipes will range in size from a minimum of eight inches to a maximum of 21 inches. The pipe material for both the gravity pipes and the force main will be polyvinyl chloride (PVC).

If a WWTP is necessary to treat the wastewater generated by Wai'ale, then effluent reuse and/or disposal will be necessary. The primary method of effluent reuse would be landscape irrigation. The WWTP/wastewater reclamation facility would produce approximately 980,000 gpd of R-1 water quality effluent, which would allow for irrigation reuse with minimal restrictions. The estimated irrigation demand, based on the County of Maui's Water System Standards, is approximately 200,000 gpd. Therefore, if all of the R-1 water quality effluent can be utilized, it will reduce the drinking quality water demand that would be used for irrigation by about 200,000~~980,000~~ gpd. Possible on-site areas for irrigation reuse are the parks, open space areas, playing fields associated with a proposed middle school site and community center, and roadway landscaping. The reuse of effluent for on-site irrigation would be implemented in consultation with all applicable parties. Separate distribution irrigation waterlines will be required to convey the R-1 water to the irrigation reuse areas. During the Draft EIS public review period, the State Department of Health, Safe Drinking Water Branch (SDWB) wrote:

All projects which propose the use of dual water systems or the use of a non-potable water system in proximity to an existing drinking water system to meet irrigation or other needs must be carefully designed, and operated to prevent the cross-connection of these systems, and prevent the possibility of backflow of water from the non-potable system to the drinking water system. The two systems must be clearly labeled and physically separated by air gaps or reduced pressure principle backflow prevention devices to avoid contaminating the drinking water supply. In addition, backflow devices must be tested periodically to assure their proper operation. Further, all non-potable spigots and irrigated areas should be clearly labeled with warning sirens to prevent the inadvertent consumption of non-potable water. Compliance with HAR Title 11, Chapter 21, entitled "Cross-Connection and Backflow Control" is required.

The total area of the parks and buffers is approximately 116 acres. Assuming an average irrigation rate of 5/16 inches per day, the average irrigation demand would be approximately 990,000 gpd. Effluent may also be used for roadway landscaping areas. The irrigated area for roadway landscaping is approximately 17 acres. Based on an average irrigation rate of 5/16 inches per day, the average irrigation demand would be approximately 140,000 gpd. Thus, the total irrigation for the parks, buffer areas and

roadway landscaping would be approximately 1,130,000 gpd. This irrigation demand may vary depending on weather conditions. However, the expectation is that all of the effluent produced by the WWTP will be used for irrigation, except during significant rain events.

As a back-up to disposal of treated effluent via project irrigation, injection wells will be installed. The boundary between non-drinking water aquifers and underground sources of drinking water is generally referred to as the "UIC Line". Restrictions on injection wells differ, depending on whether the area is inland (mauka) or seaward (makai) of the UIC line. The UIC Map for Maui shows that Wai'ale is located seaward of the UIC line. The effluent injection wells would be located more than ¼ mile from any existing potable water wells, as required by the State Department of Health. Therefore, the injection wells are not expected to adversely impact any existing potable water wells.

4.8.3 Drainage System

The property slopes generally in an east or northeasterly direction. Besides an irrigation ditch, there are no on-site drainage-ways or stormdrain systems that carry concentrated stormwater runoff. Any runoff coming from the property is generally widely dispersed and sheet flow in nature.

The portion of the property south of East Waiko Road drains east to Kuihelani Highway where an existing swale on the mauka side of the roadway intercepts runoff. Kuihelani Highway has a high point near the center of the southern portion of the property. The southern section of the Kuihelani Highway swale drains into Waikapū Stream. The north section of the highway swale drains north and through a drainline under East Waiko Road where the runoff continues in a northerly direction. There are also two cross culverts under Kuihelani Highway that carry flow to the makai sugar cane fields. Ultimately runoff flows into either the Waikapū Stream or the Waihe'e Irrigation Ditch. Both drainage-ways flow south to Kealia Pond and Mā'alaea Bay. Runoff from the portion of the property south of East Waiko Road is calculated to be 50 cubic feet per second (cfs).

The portion of the property north of East Waiko Road drains northeasterly to Kuihelani Highway, the Waihe'e Irrigation Ditch, and adjacent to the Maui Lani development. Along Kuihelani Highway, runoff is intercepted by the existing swale on the mauka side of the highway. The first portion of the swale discharges runoff into the Waihe'e Irrigation Ditch while the lower portion of the swale continues north along Kuihelani Highway. A small portion of the property also flows directly into the Waihe'e Irrigation Ditch. The majority of the north property, however, does not get intercepted by the Waihe'e Irrigation Ditch and instead flows north toward the Maui Lani development. No open channels are evident in this area and runoff is likely to infiltrate before it becomes concentrated. Overall runoff from the portion of the property north of East Waiko Road is calculated to be 339 cfs.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Wai'ale will contain a mix of residential, commercial, and light industrial uses, as well as a proposed middle school site. Runoff will be collected by open swales and stormdrain systems and will be routed to one of several detention basins.

Prior to retention, the southern portion of the property will produce a 100-year runoff of 459 cfs and the northern portion of the property will produce a 100-year runoff of 1,526 cfs. With the installation of the proposed detention basins, the southern portion of the property runoff will be limited to 45 cfs and the northern portion runoff will be limited to 72 cfs. This represents a significant decrease in runoff from existing conditions. The 208.5 acre-foot (ac-ft) of detention storage capacity more than offsets the runoff volume increase. The Waikapū Stream and Kealia Pond drainage systems will be protected from any peak flow increases.

In addition to reducing peak flow rates, the proposed stormwater management system will provide water quality treatment to reduce the discharge of pollutants to the maximum extent practicable. Instead of just managing the infrequent peak storm events, the more common smaller storms will be targeted for treatment. The goal will be to provide water quality treatment for 90 percent of the average annual rainfall.

Wai'ale will incorporate stormwater BMPs to control water quality. Examples of stormwater BMPs that will be employed include:

Grass Swales

Surface stormwater runoff from developed areas will be directed to grass swales and landscaped areas where practical. The grasses and other vegetation provide natural filtration while allowing percolation into the underlying soil.

Open Space/ Reduced Impervious Coverage

Approximately 25 percent of Wai'ale will be reserved as park areas, cultural preserves, or other open spaces. Important natural and cultural features will remain undisturbed. A buffer strip will be maintained along Waikapū Stream. Open space and park areas will be maintained with grass or other native vegetative cover. Reducing impervious coverage where possible promotes infiltration and maintains the natural hydrologic cycle.

Stormwater Retention/ Infiltration

The bottom 1 to 2 feet of the stormwater basins will be reserved for retention of the water quality volume. The water quality runoff and potential pollutants will be mitigated from flowing to downstream areas such as Waikapū Stream. Stormwater will be held for an extended period allowing suspended solids to settle out. Water will infiltrate into the soils gradually over 24 to 48 hours and recharge groundwater. Since the project will not contain stormwater "hotspot" uses such as heavy industrial, car salvage, or fueling sites, stormwater infiltration is considered acceptable.

While the County does not specifically require water quality treatment of stormwater, the USGBC (through LEED) and EPA accept the above methods of stormwater quality control as stormwater BMPs that reduce the pollutant loads associated with stormwater runoff.

A maintenance plan will be developed for managing the BMPs for Wai'ale by one or more community associations to be established by the applicant. The plan will include requirements for the community association(s) for removing accumulated sediments and debris, maintaining vegetation, and performing regular inspections so that the BMPs operate effectively into the future.

4.8.4 Internal Roadways

The property includes existing cane haul roads and unimproved dirt roads, and is divided and accessed via East Waiko Road. As previously described, East Waiko Road is an east-west, two-way, two-lane, undivided collector road with a posted speed limit of 20 mph. East Waiko Road currently serves residential and industrial land uses, while also providing connectivity (via Wai'ale Road) to the Waikapū Gardens subdivision and areas further north of it, including Wailuku via Wai'ale Road. Through the Waikapū region, the 20-foot wide East Waiko Road is currently narrow and winding; the road appears to offer limited sight distance around some of its curves, and is stop-controlled approximately 650 feet east of its intersection with Wai'ale Road.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Wai'ale will include the construction of new internal east-west and north-south roadways that will run parallel and perpendicular to Kuihelani Highway. Access will be provided via the property's proposed internal collector roadways' connections with Kuihelani Highway, East Waiko Road, Kamehameha Avenue, and Kuikahi Drive (See Figure 4-2).

In addition, Kamehameha Avenue will be extended from its existing terminus near Pōmaika'i Elementary School to approximately 1,400 feet south of East Waiko Road and serve as an alternate (to Kuihelani Highway) north-south connection between Wai'ale and Kahului. This road will consist of a two-lane travelway, turning medians, and a pedestrian/bike path. Roads A through E are collector roads that will consist of a two-lane travelway, turning medians, and a pedestrian/bike pathway. The design of the roadways will be based on standards set forth by the County.

The alignment and spacing of Wai'ale's proposed internal roadways will provide greater connectivity to and from Wai'ale, as well as the adjoining Maui Lani development. Greater connectivity will permit the extension of the County's bus transit system, and provide great transportation and mobility options for those who can and cannot drive.

4.8.5 Solid Waste

The County provides residential curbside refuse pick up and disposal services in six major districts: Central Maui (including Wailuku, Kahului and South Maui), Makawao (including Kula, Pukalani, Pā'ia and Ha'ikū), Lāhainā (West Maui), Hāna, Lāna'i and Moloka'i. The Central Maui Landfill - Refuse & Recycling Center is located near the intersection of Pulehu Road and Hansen Road in Pu'unēnē, Maui. This facility accepts refuse from commercial and residential customers as well as provides recycling services.

According to the County Solid Waste Facilities Plan, the

"...Central Maui Landfill has six phases of development. Phases I and II were operational from 1987 through November 2005, after which disposal operations were moved to Phase IV-A. Phases I and II were closed and capped during 2006. Phase III is not currently planned to be constructed, and the area is being used for cocomposting of biosolids and green waste, and production of biodiesel fuel from fats, oil and grease.

Ameron Corporation's rock quarry and crushing operation had mined an area that is now used for Phase IV. Special Use Permit Number SP97390 covers 29.034 acres of which approximately 11 acres are used for entrance and other ancillary facilities while 18 acres are being developed for disposal facilities. Phase IV-A disposal began in 2005 and consists of approximately 10 acres. Phase IV-B began construction in October 2006 on approximately eight acres and, in February 2007, an initial section of Phase IV-B was completed, allowing disposal operations to begin."

POTENTIAL IMPACTS AND MITIGATION MEASURES

According to the EPA, in 2006, individuals recycled 1.5 pounds of our individual waste generation rate of 4.6 pounds per day, for a net waste generation amount of 3.1 pounds per day. Assuming an average household size of 3.0 persons, at full build-out, the solid waste generated by the project is estimated to average approximately 23,715 pounds per day.

The construction of Wai'ale has the potential to impact the County's solid waste disposal operations. Coordination with the County and its Central Maui Landfill - Refuse & Recycling Center for the disposal/recycling of construction debris may be required. Disposal would be in accordance with appropriate regulations and standards.

A solid waste management plan (See Appendix Q) will be coordinated with the County's Department of Environmental Management Solid Waste Division for the disposal of on-site and construction-related waste material, and A&B Properties, Inc. will work with contractors to minimize the amount of solid waste generated during the construction.

~~Waste from site preparation and construction will be stored, handled, and properly disposed so as to divert the maximum amount of waste material caused by the development away from the County's landfill. Wastes generated by site preparation will primarily consist of vegetation, rocks, and debris from clearing, grubbing, and grading. As much as practical, soil and rocks displaced from grading and clearing will be used as fill within the site. Green waste from grubbing will either be chipped into mulch for use on site or will be taken to green waste recycling centers. There are three green waste recycling centers within Central Maui: Maui Eko Systems, Inc., Maui Earth Compost & Soil Mixes, and Campaign Recycle Maui. Phasing of the project will minimize the amount of green waste generated at any one time. Construction waste will consist of waste lumber, concrete, and other building materials. Very little demolition material is expected, as the site is primarily vacant lands.~~

A&B Properties, Inc. will work with contractors to minimize the amount of solid waste generated during the construction.

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Wastes generated by site preparation will primarily consist of vegetation, rocks, and debris from clearing, grubbing, and grading. As much as practical, soil and rocks displaced from grading and clearing will be used as fill within the site. This will include proposed open space and park areas.

Green waste from grubbing will either be chipped into mulch for use on site or will be taken to green waste recycling centers. Currently there are three green waste recycling centers on Maui: Maui Eko Systems, Inc., Maui Earth Compost & Soil Mixes, and Campaign Recycle Maui. All of these are located in Central Maui.

Phasing of the project will minimize the amount of green waste generated at any one time. In addition, if large amounts of green waste are expected from an individual phase, delivery will be coordinated with the green waste recycling centers to ensure that there is adequate capacity among the centers to accept the anticipated amount of vegetation.

Construction waste will consist of waste lumber, concrete, and other building materials. Very little demolition material is expected, as the site is primarily vacant lands. The project will develop and implement a waste management and recycling program to maintain clean construction sites, maximize material recycling, and minimize disposal truck traffic impacts. This recycling program will incorporate the "Three Rs" of effective construction waste management:

- Reduce: by preventing waste before it happens through efficient design
- Reuse: by using materials removed during demolition (such as rocks and concrete) on site
- Recycling: by separating recyclable materials from non-recyclable materials and supplying these recyclable materials to a recycler for use as new products

During construction, a job-site recycling plan will be developed and, as much as possible, construction and demolition waste will be recycled. Separate containers will be provided for separate types of construction waste, which will be separated from municipal solid waste. Maui Scrap Metal accepts cardboard and metal for recycling. Maui Earth Compost & Soil Mixes accepts drywall. Maui Eko Systems, Inc., and Campaign Recycle Maui accept clean, untreated lumber. Remaining types of wastes may be recycled if a local recycling vendor is available. Otherwise, non-recyclable construction wastes will be disposed in the construction and demolition landfill near Mā'alaea.

After construction, A&B Properties, Inc. will implement strategies from the County's Integrated Solid Waste Management Plan (2009) for diverting solid waste from landfills by providing options for recycling. The goal for waste management is to appropriately reduce, reuse and recycle materials, to minimize generation of solid waste and achieve diversion from landfills. As such, in conformance with Chapter 344-4(2), HRS, Wai'ale will promote the optimal use of solid wastes through programs of waste prevention, energy resource recovery, and recycling.

~~According to the EPA, in 2006, individuals recycled 1.5 pounds of our individual waste generation rate of 4.6 pounds per day, for a net waste generation amount of 3.1 pounds per day. Assuming an average household size of 3.0 persons, at full build-out, the solid waste generated by the project is estimated to average approximately 23,715 pounds per day.~~

In the *Public Facilities Assessment Update County of Maui (2007)*, R.M. Towill Corporation projected that the Central Maui Landfill (CML) would have adequate capacity to accommodate commercial and residential waste through the year 2025. This projection was arrived at by multiplying the County's de facto population projections by an estimate of pounds per person per day of waste generated and assumes that solid waste generated by industrial and commercial growth will be captured by a corresponding trend in projected population growth. The County of Maui's Integrated Solid Waste Management Plan (ISWMP) (February 2009) indicates that the majority of the County's waste goes to the Central Maui Landfill which is projected to reach capacity in the year 2026. However, as proposed under the ISWMP, through various initiatives, including the increased diversion of waste materials through recycling and composting, the landfill capacity could be extended to the year 2042.

During the Draft EIS public review period, the DEM's Solid Waste Division wrote that it had no comments.

4.8.6 *Electrical System*

Maui Electric Company's (MECO) facilities currently consist of a steel pole-line supported 69 kilovolt (kV) transmission circuit along Kuihelani Highway. The pole line crosses Kuihelani Highway and continues south in the sugar cane fields then turns west and generally parallels East Waiko Road. MECO's primary distribution circuits are available in the Maui Lani development located north of Wai'ale. MECO intends to extend these circuits to Wai'ale to serve as backups.

POTENTIAL IMPACTS AND MITIGATION MEASURES

According to Hawai'i Energy (a ratepayer-funded conservation and efficiency program administered by Science Applications International Corporation under contract with the Hawaii Public Utilities Commission serving the islands of Hawai'i, Lāna'i, Maui, Moloka'i and O'ahu), the typical Hawai'i residence utilizes approximately 20.0 kilowatt hours per day. The proposed 2,550 residences (including the 300 unit County Housing project) would generate a demand for approximately 51 megawatts (MW) of electricity per day.

According to the Hawai'i Clean Energy Initiative, "Maui is served by the Maui Electric Company, which has about 260 megawatts of capacity. Maui has significant local renewable energy resources, as well as energy-efficiency potential. An aggressive program to retrofit inefficient buildings and increase the efficiency of new buildings could flatten Maui's load growth over the next 20 years... Two large renewable energy projects—a 30-megawatt wind farm (the state's largest) and a 16-megawatt biomass power plant burning bagasse at a commercial sugar operation—already provide Maui with about 20% renewable energy generation. Maui also has a few megawatts of hydroelectric generation, and rooftop PV distributed across the island currently contributes approximately 1 megawatt to the island's renewable energy portfolio... Technical assessments show that Maui has significant additional resource potential, including: Wind energy – 67 megawatts, Biomass energy – 25 megawatts, Geothermal energy – 140 megawatts, Solar thermal energy (exact capacity to be determined)... Proposed renewable generation projects include 42 megawatts of wind energy, 6 megawatts of biomass power, and 10 megawatts of geothermal... Although ocean energy technologies are not yet proven on a commercial scale, Maui is at the forefront of ocean energy research. The island is planning to help test and demonstrate a wave project off its north coast in the near future." This appears to demonstrate that Maui has significant additional resource potential to meet the estimated demand from the proposed project.

The applicant's electrical engineering subconsultant met with MECO staff to discuss the estimated electrical demand and what improvements will be required so that service can be provided on a timely basis. No indication was given that MECO anticipates any generating or transmission capacity constraints may arise as a result of the proposed project and other projects planned for the region. MECO has plans to construct a Kuihelani Substation which will be located east of the intersection of Kuihelani Highway

and Maui Lani Parkway, approximately 2,800 feet north of Wai'ale. Construction of the substation is expected to be completed in 2013. MECO indicated that electrical service for Wai'ale will be obtained from Kuihelani Substation. It is proposed that electrical power for Wai'ale will be obtained from the proposed substation by extending primary distribution circuits underground to the property along Kuihelani Highway. State Department of Transportation (DOT) approval will be required for this underground line extension.

The back-up circuits for Wai'ale will be extended from existing MECO facilities along Kamehameha Avenue from Maui Lani Parkway. A new duct line will be required to be installed for this purpose. The duct lines will form a loop with the ducts originating at Kuihelani Substation.

New primary and secondary distribution lines within Wai'ale will be placed underground. The distribution system will include primary and secondary cables in a concrete-encased duct system within the streets and sidewalks and with handholes in the sidewalk area, manholes in streets, primary pad-mounted switchgear, and pad-mounted transformers.

During the Draft EIS public review period, MECO wrote: "In reviewing our records and the information received, Maui Electric Company has no additional comments to the subject project at this time."

4.8.7 Communication Facilities

Hawaiian Telcom's (HTCOM) facilities currently consist of underground cables installed in a duct and manhole/hand-hole system on Kamehameha Avenue in the Maui Lani development to the north of Wai'ale. Spare ducts are stubbed out for extension at the end of Kamehameha Avenue at Pōmaika'i Elementary School.

Oceanic Time Warner Cable (OTWC) provides cable TV (CATV), data and telephone services, and has facilities at the Maui Lani development near the north-west corner of the property, with fiber optic (FO) cables installed on Maui Lani Parkway to serve the Maui Lani Development. OTWC's duct line and FO cables are available on Kamehameha Avenue at Pōmaika'i Elementary School.

POTENTIAL IMPACTS AND MITIGATION MEASURES

HTCOM has facilities on Kamehameha Avenue at Pōmaika'i Elementary School that will be extended to serve Wai'ale. HTCOM plans to provide FO cable for each service instead of copper cables as they have in the past. This will allow the telephone company customer to obtain telephone, data and CATV services.

OTWC plans to install pedestal-mounted equipment for providing cable service. These will be required for each group of approximately 125 homes.

4.9 SOCIO-ECONOMIC CHARACTERISTICS

ACM Consultants, Inc. (ACM) prepared an in-depth market study and assessment of economic and fiscal impacts for Wai'ale. Key findings of the analysis along with other social-economic information are summarized below. Appendices O and P contains the complete studies.

4.9.1 *Community Character*

In June 2006, the County's Department of Planning published the *"Socio-Economic Forecast, The Economic Projections for the Maui County General Plan 2030."* In this report, it described the Wailuku-Kahului Community Plan area (where the property is located) as follows:

This area remains the economic and population center of the island. In the 1990s this area saw significant increases in trade, transportation, communications and utilities, and government jobs. With a new hotel and hotel renovations proposed for Kahului, the area could see new visitor activity. (Kahului Harbor is already the port through which most cruise ship visitors reach Maui.) SMS forecasts that the Wailuku-Kahului area will grow faster than other parts of Maui Island as former C.Brewer sugar lands are developed with residential subdivisions. It is expected to continue as home to over a third of Maui's households...

According to Exhibit 4 of the *Socio-Economic Forecast* (June 2006), the Wailuku-Kahului is clearly the most desirable area for island residents with nearly 90 percent of the residential sales between 2004 to 2005 attributed to residents (as opposed to offshore buyers). Only Makawao approaches the desirability of Wailuku-Kahului (with approximately 80 percent island residents).

POTENTIAL IMPACTS AND MITIGATION MEASURES

As noted in the *Socio-Economic Forecast* (June 2006), because Wailuku-Kahului is the economic and population center of the island, it is expected to continue as home to over a third of Maui's households. Wai'ale is consistent with the long-term pattern of settlement on the island of Maui, and is consistent with the *Draft Maui Island Plan's* vision of future development (expansion of residential development from Wailuku, through Maui Lani, into the property).

4.9.2 *Population*

The County of Maui is the third most populous of the four counties of Hawai'i, with a total resident population of ~~128,241~~ 154,924 (~~2000~~ 2010 Census and a change of ~~27.6~~ 20.8 percent since ~~1990~~ 2000). The County consists of the islands of Maui, Moloka'i, Lāna'i, and Kaho'olawe. ~~90~~ 93 percent (~~90~~93%) of the County's residents live on Maui; the ~~2000~~

2010 U.S. Census of Population reported ~~7,404~~ 7,345 residents on Moloka'i and ~~3,193~~ 3,135 on Lāna'i.

To put population into perspective, the *Draft Maui Island Plan* noted that it is appropriate to compare the island of Maui's population growth to the other major islands in the Hawaiian chain throughout the recent past. It is evident that while O'ahu experienced the most dramatic population increase during the 1950s, the outer islands, including Maui, were impacted by the steepest increase in population between 1970 and 1990. From 1990 through 2008, Maui's population was steadily growing, although ACM notes that it now appears to be growing at a decreasing rate.²⁷

Some demographic trends noted in the *Socio-Economic Forecast* (June 2006) were consistent with the current projections. These include, but were not limited to, the following:

- The population is aging; the median age increased from 34.1 to 36.2 years between 1990 and 2000.
- Households are becoming smaller over time; the County average declined from 2.99 persons per household in 1990 to 2.85 persons per household in 2005 while Maui's household size is projected to decline from 2.94 persons per household in 2000 to 2.66 persons per household in 2030.

POTENTIAL IMPACTS AND MITIGATION MEASURES

According to Resident Population Projections, by County: 2005 to 2035 (*State of Hawai'i Data Book 2009, Table 1.28*), the projected population of the County is expected to be 189,300 by 2030 and 198,727 by the year 2035. The 2030 and 2035 estimates represent ~~47.8~~ 31 and ~~55.4~~ 38 percent increases over the 2000 census numbers, respectively.

Slightly more conservative population projections were published in the *Draft Maui Island Plan*, which projected the island's resident population to grow from 129,471 in 2005 to 176,687 in 2030. This is a 1.46% annual growth rate which equates to a 36.5 percent increase in population over the 25 year period. These projections indicate a population increase of 16 percent between 2010 and 2020, and an increase of 12 percent between 2020 and 2030. According to the *Socio-Economic Forecast*, the total population is not expected to increase equally throughout the island of Maui; rather, there are specific regions where population growth is more likely to occur. One of these regions is Wailuku-Kahului, where the population is expected to grow by 20,939 persons between the years 2005 to 2030; an increase of nearly 45 percent over a 25 year period.

According to the *Socio-Economic Forecast*, the Wailuku-Kahului population is expected to grow by 8,989 persons between 2015 to 2025, an increase of nearly 16 percent, and over about the same time period as Wai'ale. The County's projected increase in population will result in an increase in demand for housing and jobs.

ACM estimated that approximately 6,767 residents would be living within Wai'ale once the project was fully complete and in full operation. ACM assumed that 95 percent of Wai'ale's residents would be from residents already living on Maui, with the remaining 5 percent, or about 338 residents, being in-migrant residents.

4.9.3 Housing

Residential real estate can be divided into three broad categories (single-family homes, condominiums and residential lots) and four important geographic regions. As a result, ACM notes that there are eight subsections of the market that have proven capable of moving up and down with relatively little correlation with the others. Upcountry has virtually no condominium properties; and two other subsections, South Maui and Central Maui, have few leasehold condominiums. Only West Maui has all three types.

Several neighborhoods have virtually all luxury housing, such as the resort communities of Kapalua, Kā'anapali, and Wailea. Meanwhile, urban areas such as Kahului, Wailuku, Kihei and Lāhainā consist primarily of workforce housing, with some pockets of luxury housing. Rural residential areas tend to have a mix.

Owner-occupied housing on Maui runs about 56 percent of all occupied housing units. The total housing stock has been growing at a rate of about 1,000 units a year in the 1980's. The total accelerated to 1,500-2,000 new units in the late 1980's, well short of demand. According to the *Socio-Economic Forecast* (June 2006), the housing demand in the Wailuku-Kahului Community Plan region grew from 10,647 in 1990 to 13,528 in 2000, an increase of 27 percent. The Maui population has expanded tremendously for the past 10 to 12 years, but housing was not being built at the same pace as the 1980s. As a result, demand for housing during that period outpaced supply and homes prices and rents rose dramatically.

The lack of affordable housing continues to be a concern within the County of Maui. Maui is one of the most expensive counties for single-family home buyers. A record high median price of \$780,000 was set in July 2006 for a single-family home. Since then, the median single-family price has continued to fall, with an average monthly median sales price of \$498,708 in 2009, down from \$574,760 in 2008 and \$627,137 in 2007. According to the latest State of Hawai'i Data Book, eight percent of the houses are overcrowded on Maui and 41.4 percent of the households pay more than the recommended limit of 30 percent of their income on housing. In fact, 27 percent pay more than 40 percent on housing.

The continued concern by the County resulted in the passage of Ordinance 3418 on December 5, 2006, under which all proposed developments are subject to review if they are to contain five or more units or lots. Under this ordinance, if the average sales price is projected to be less than \$600,000, 40 percent of the total units must be priced to meet the various affordable categories. If the average sales price in the project is \$600,000 or

more, then 50 percent of the units must be affordably priced. An alternative to providing the affordable units is to pay an in-lieu fee equal to 30 percent of the average projected sales price of the market rate units multiplied by the number of affordable units required in the development. Or, the owner may elect to provide land which is equal in value to the in-lieu fee.

In an effort to stimulate residential construction, the Ordinance 3418 was revised by the County Council on February 26, 2010, as Ordinance No. 3719, reducing the amount of required affordable housing units built on site to 25 percent, provided the average sales price of the market units is projected to be less than \$600,000. If the average sales price in the project is \$600,000 or more, then 50 percent of the units must be affordably priced. The new law also clarified the calculation of required affordable units built off site; based on 50 percent of the total number of on-site market units, regardless of their projected average sales price. Time will tell if this latest version of the ordinance will help to achieve its intended goal.

The water availability ordinance is another law that has made an impact on the development community. On December 14, 2007, the County of Maui passed into law Ordinance 3502. As a result, the DWS is presently restricting the issuance of meters for all uses in the central and south Maui service areas and this bill restricts issuance of any building permits until the DWS can issue a meter consistent with the provisions of the bill. In order to do so, the DWS director needs to provide verifiable, long-term supply of water to the property. Landowners and professionals in the development community have been openly critical of the ordinance, some calling it a de facto moratorium on housing. Not surprisingly, sales of vacant development lands have been impacted.

POTENTIAL IMPACTS AND MITIGATION MEASURES

According to the *Socio-Economic Forecast* (June 2006), the housing demand in Wailuku-Kahului population is expected to grow by 4,869 homes between the years 2015 to 2025, an increase of nearly 22 percent over the 10-year period. Wai'ale is poised to address the housing demand resulting from that projected growth of population within the Wailuku-Kahului Community Plan region in an orderly and master-planned manner.

On a larger scale, the overall lack of new projects starts within the past few years has some economists foreseeing a potential shortfall in housing upon recovery of the economy. Many real estate analysts are of the opinion that it has become too difficult to feasibly create new housing projects since the passage of ordinances linked to development. Builders and developers have chosen to withdraw from the Maui market, looking for less costly and time consuming opportunities. Recent housing starts have been about 80 percent less than in the robust years. Due to these factors, there may be less competitive inventory when Wai'ale's housing units become available. The development will primarily target the workforce market segment, which has seen consistently high demand.

Central Maui has historically housed the largest percentage of the island’s workforce population as well as its primary employment base. This is attributed to many factors. First, Kahului Airport and Kahului Harbor are Maui’s primary shipping and transportation venues. Furthermore, Kahului has the largest concentration of retail centers, including Ka’ahumanu Center, Maui Mall, Kahului Shopping Center, and the Maui Marketplace. The Maui Community College is also situated in Kahului. Meanwhile, Wailuku is the seat of County government, as well as being home to the State Building and Hoapili Hale, the island’s main judicial building. Not coincidentally, most of Hawai’i’s major financial institutions all have their primary branch in Central Maui.

Due to these factors, there has always been more demand for workforce housing in Central Maui than in other regions. However, the overall lack of affordable housing in Central Maui has created the need for many residents to commute daily from outlying areas. This is especially true for Upcountry and South Maui, but also, to some extent, from West Maui.

Wai’ale proposes approximately 2,550 single-family and multi-family residential units. Of this total, approximately 300 residential units are attributed to the affordable housing component for Maui Business Park, Phase II. Additionally, on-site affordable housing units will also be developed for Wai’ale in compliance with the Chapter 2.96, Maui County Code (MCC), Residential Workforce Housing Policy.

In addition to single-family residential areas and multi-family residential areas, Wai’ale will feature areas of village mixed-use, commercial, business/light industrial, park, cultural preserve, as well as a regional park, a community center, an intermediate school site with associated recreation fields, greenway paths and roadways.

According to the County’s Department of Planning “Directed Growth Areas Listing and Units” table, dated October 1, 2009, the forecasted demand of units to 2030 for each region on Maui is as follows:

Table 4-1: Forecasted Demand of Units to 2030

REGION	2030 DEMAND UNITS
Central Maui	5,073
West Maui	3,456
South Maui	1,482
North Maui	119
Upcountry Maui	824
East Maui	200
Source: County of Maui, Department of Planning (2009)	

Although Central Maui demand to 2030 was forecasted to be 5,073 housing units, the long-term supply was estimated to be only 4,850 housing units, including approximately 2,550 units from Wai'ale. Based on these figures, even if all of the future supply units were built in Central Maui, there would still be a regional shortfall of 222 housing units by 2030. This factor could contribute to a faster rate of unit absorption.

Based on the aforementioned factors, Wai'ale is expected to be well received by the market, over the long-term, with especially strong interest foreseen for the affordable units. A residential unit absorption range of approximately 200 to 300 units per year is anticipated for Wai'ale. Furthermore, Wai'ale's addition to the island's supply of housing may help to stabilize housing prices if other products are available at the same time.

As shown on Figure O-1 of the Draft EIS, both County Housing parcels (30 acres plus 10 acres) are located within a quarter mile (walking distance) of proposed mixed use areas. Portions of the larger, 30-acre parcel would be located within a quarter mile of the proposed Maui Lani Village Mixed-Use area. The proximity of the 30-acre County Housing project provides an additional market for the commercial components of the Maui Lani Village Mixed-Use area. The smaller, 10-acre parcel would be located within a quarter mile of the proposed Wai'ale Village Mixed-Use area.

There are locational benefits to both County Housing sites. As previously mentioned, the larger of the two is within walking/biking distance of the proposed Maui Lani Village Mixed-Use area which will provide both shopping and employment opportunities. Additional employment opportunities will be located across the street at the proposed Light Industrial area, and it is likely that the County bus service can be extended to the front of this County Housing site. The larger County Housing parcel also surrounds a proposed County park, abuts a proposed area for the expansion of the Maui Lani Regional Park and through these parks provides an unobstructed, traffic-free, safe route to/from Pōmaika'i Elementary School.

The smaller of the two County Housing sites is within walking distance of the Wai'ale Village Mixed-Use area where shopping and employment opportunities will be available. It will also be within walking distance of Pōmaika'i Elementary School, a proposed middle school site, a proposed community center site and the proposed Wai'ale Regional Park. It is likely that the County bus service can be extended to the front of this County Housing site as well. Both County Housing sites will be "livable communities," permitting walkable, live, work, play, shop and study opportunities for residents, who won't have to rely on expensive-to-operate, personal vehicle ownership for the sole means of transportation.

The Wai'ale master plan has sought to incorporate the open space buffer between Maui Lani and Wai'ale as articulated in the *Draft Maui Island Plan*. Within the Wai'ale master plan, areas designated for park space and planned cultural preserves seek to provide that open space buffer. However, the rationale for designating a portion of lands within the

northern portion of Wai'ale for planned County Housing is in part based on County Ordinance No. 3559. The County of Maui via Ordinance No. 3559 (Maui Business Park Phase II-Change in Zoning) required in part that A&B dedicate 50 acres to the County for affordable housing (40 acres), community center (7 acres) and park (3 acres). The specific location of these lands was described as being "...at the approximate location of the terminus of Kamehameha Avenue, near the new Maui Lani Park and Pomaikai Elementary School". This location in the northern portion of the property, is where infrastructure and roadway connections to Maui Lani would be the closest, cheapest and the fastest to build. Additionally, in order for these areas to be zoned and utilized for recreational park purposes, they must be situated within the Urban Growth Boundary (UGB) so that appropriate zoning can be eventually obtained through the County's zoning process (per Maui County Code Section 19.615.040 which states that regional parks must be situated either in the State Land Use "Urban" or "Rural" Districts).

During the Draft EIS public review period, the State Hawai'i Housing Finance and Development Corporation wrote: "The proposed project, and in particular residential use, appears to be consistent with the affordable housing policy set forth in the Hawai'i State Plan of increasing homeownership and rental housing opportunities and choices in terms of quality, location, cost densities, style and size of housing."

4.9.4 Economy

According to the *Socio-Economic Forecast* (June 2006), the island of Maui had a total of 75,483 civilian jobs, of which 33,554 (or 44 percent) were located in the Wailuku-Kahului Community.

The unemployment rate on Maui had been on a decline since 1992 when unemployment was at 8.0 percent. In 2007, the unemployment rate was 2.8 percent. For 2008, this rate rose to 4.5 percent, after seeing month-over-month gains beginning May 2008. This trend continued in 2009, with the average unemployment rate jumping to 8.7 percent. The unemployment rate was 8.7 percent in March 2010; however, in March 2011 the unemployment declined to 7.8 percent.

Household income figures have also been increasing. The estimated median annual household income for Maui in 2010 is \$76,000, a rise of approximately 53 percent over the 1999 median household income of \$49,489, and a 96 percent increase over the 1989 figure of \$38,771. During the 12 year period from 1999 to 2010, this represented an average increase of over four percent per year.

Presently the property is used for pasture (cattle and horses), a cattle feed lot, an orchid farm, a construction base yard, and sand stockpiling. These uses provide rental income to the applicant and some employment opportunities for Maui residents.

POTENTIAL IMPACTS AND MITIGATION MEASURES

According to the *Socio-Economic Forecast* (June 2006), the number of civilian jobs in Wailuku-Kahului population is expected to grow by 5,043 jobs between the years 2015 to 2025, an increase of nearly 13 percent, and over about the same timeframe as Wai'ale. Wai'ale is a proposed mixed-use project with commercial, industrial, and educational land uses.

As the construction of Wai'ale is phased on the property, existing lessees will be relocated within the property and/or eventually relocated off-site, taking the associated jobs with them, but the loss of current on-site jobs will be off-set by the number of jobs generated during the construction and operation of Wai'ale.

ACM was retained by A&B Properties, Inc. to assess the potential economic and fiscal impacts related to Wai'ale. In particular, ACM studied economic trends and demographics, in addition to supply and demand factors for residential property, which includes single-family house lots and residences.

The objectives of the economic and fiscal impact assessment were as follows: (1) to define and delineate the subject and its market area; (2) to identify and analyze potential economic impacts with regard to the project; and (3) identify and analyze potential fiscal impacts with regard to the project.

Economic Impacts Related to Development (Construction) Activities

Direct and Indirect Employment During Construction

New job opportunities created by Wai'ale will start with the design and entitlement process, employing architects, engineers, surveyors, and land use planners. Site work, road work and the installation of utility and drainage lines typically utilize heavy equipment operators, tractor-trailer drivers and utility personnel. Vertical construction of the housing units, commercial buildings, village mixed-use projects and light industrial facilities will employ masons, carpenters, sheet metal workers, roofers, drywall installers, plumbers, electricians and painters. Finish work will require cabinet makers, carpet and tile installers, interior decorators, and landscapers. Using State economic multipliers, ACM forecasted an annual average of 293 jobs directly related to the construction of this development.

The increase in construction will also create the need for supplementary companies to strengthen their labor force. These jobs may be from building supply companies, hardware stores, equipment rental companies, and shipping/warehousing companies. In addition, the construction laborers and their families will patronize local goods and services providers. Grocers, restaurants, service stations, auto repair shops, financial institutions, recreational venues, medical facilities and personal care businesses could be considered potential companies that would need to bolster their employee count. Based on State

economic multipliers, indirect jobs on Maui were forecasted by ACM to average approximately 300 jobs annually, resulting in an estimated annual average of approximately 593 Maui jobs directly and indirectly tied to the development of the project. Meanwhile, indirect employment on O'ahu could possibly add an average of approximately 158 jobs per year. ACM estimated that employment attributed to the development would total approximately 7,500 direct and indirect jobs over the term of the project.

Direct and Indirect Payroll During Construction

Payroll directly related to the development of Wai'ale was estimated by ACM to be \$17,132,000 per annum, based on statistics gleaned from the State Department of Labor and Industrial Relations (DLIR) and job counts determined in the previous section. ACM noted that most construction positions are expected to be filled by Maui laborers.

Indirect Maui payroll came out to about \$11,358,000 per year, while indirect O'ahu payroll was near \$6,754,000 annually. Total direct and indirect payroll attributed to the development of the subject was forecasted by ACM to be close to \$352,443,000 during the construction of the project.

County Revenue Related to Development Activities

The County typically accumulates revenue from developments in the form of fees, such as for building permits and impacts attributed to the development. Fee revenue would be generated from the construction of Wai'ale's infrastructure, as well as from the subsequent development of the individual project lots.

State Revenue Related to Development Activities

Excise tax is based on two rates, 4.166 percent for final sales and 0.5 percent for intermediate sales. The cumulative tax expectancy for final sales could amount to about \$41,806,000, while intermediate sales would be close to \$5,403,000. The estimated excise tax attributed to Wai'ale totals approximately \$47,209,000.

Economic Impacts At Full Build-Out

Long-Term Employment After Full Project Build-Out

In addition to construction-related employment, the proposed commercial and industrial components of Wai'ale provide will provide long-term employment opportunities. ACM estimate that at full build-out that this could result in approximately 1,000 jobs. It is recognized that not all of these jobs would be new, since existing Maui businesses could be relocating to the property.

County Revenues and Expenditures After Full Project Build-Out

At full build-out, County revenue would primarily be generated in the form of real property taxes. ACM estimated that the net (real property) taxable value of the project to be about \$278,036,000. The total estimated annual real property tax attributed to the

residential portion of the project is estimated at \$1,111,000 per year at full build-out. In comparison, the applicant currently pays approximately \$10,000 per year in property taxes for these parcels. This amount was deducted from the estimated annual real property tax revenues at full build-out, as the County will no longer receive this income. It should be noted that the project will be built in phases. However, no breakdown could be calculated, so the current tax obligation for the entire parcel was subtracted from the total estimated annual real property tax revenue.

Although ACM estimated that the County will receive \$1,101,000 more per year of real property taxes at full build-out from the property than it currently receives, County revenues are offset by its expenditures. The County's annual expenditures include general services, infrastructure maintenance and public safety. This would also include upkeep of public recreational facilities, such as the parks to be provided by the project. Assuming that the majority of the Wai'ale's future residents already live on Maui, some of these expenses would be incurred by the County no matter where they live. As such, there would not necessarily be an additional cost to the County for *each* resident moving into Wai'ale.

Based on demographic statistics for Central Maui, ACM estimated that Wai'ale will have approximately 6,767 residents once the project is fully complete and the project is in full operation. ACM assumed that 95 percent of Wai'ale residents will be already living on Maui, with the remaining 5 percent, or about 338 residents, being in-migrant residents. Based on a per capita estimate of governmental expenditures, the additional cost to the County attributed to these in-migrant residents was estimated to be \$841,000 per year, plus an estimated debt service of \$68,000 per year.

Thus, the net revenue to the County attributed to the project, at full build-out, was estimated to be approximately \$192,000 per year. It should be noted that since Wai'ale will consist mostly of owner-occupant workforce housing units, its property tax base is significantly reduced by the homeowner exemptions. Furthermore, the County's property tax system is structured in a way that owner-occupant subdivisions such as the subject are essentially subsidized by revenue received from other property classes. The majority of the County's property tax revenue is generated by time share, hotel/resort, industrial and commercial properties, which have substantially higher tax rates.

State Revenues and Expenditures After Full Project Build-Out

At full build-out, State revenue would be generated by Personal Income Tax, Excise Tax, and Other Revenues. Since it is assumed that 95 percent of Wai'ale residents will be already living on Maui, ACM estimated that the Excise Tax to be received from project in-migrant residents to be approximately \$226,000 per year.

Annual expenditures to the State were expected to be from the ongoing operation of the proposed middle school, in addition to other services to residents, and debt service attributed to general improvements. It is estimated that the Wai'ale Community will have

338 in-migrant residents, in addition to 58 in-migrant students. At full build-out, the additional students are estimated to increase costs to the DOE by about \$712,000 per year. At the same time, annual expenditure for services from in-migrant residents was forecasted at approximately \$1,457,000 and annual general improvement debt service came out to close to around \$125,000. Examples of services to residents include operation of civic, health and social services; as well as maintenance to highways, parks and recreational areas. General improvement debt service was based on typical per-capita figures currently carried by residents in Hawai'i. ACM estimated that the total annual expenditure at full build-out attributed to in-migrant residents to be approximately \$2,294,000. When deducted from ACM's estimated total annual excise tax revenues, the net annual revenue at full build-out is forecasted to be negative \$2,067,000.

The negative net annual revenue at full build-out was primarily attributed to the household income levels within Wai'ale. Since the project will be geared toward the workforce market segment, annual household income is expected to be on the lower side of the range. As excise tax estimates were based on percentages of household income, ACM observed that it is not surprising that total annual revenues were outpaced by total annual expenditures. In general, State services to workforce residential communities are subsidized by revenues received from the visitor industry, businesses and communities with higher annual household incomes.

Furthermore, as previously discussed, this assessment has not considered all of the potential impacts from the commercial, village mixed-use and industrial areas upon full build-out. There will need to be a significant number of employees for these areas, which would increase State's personal income tax revenues. Granted, many of these positions would be filled by those already in the workforce, yet those coming of working age and transplants from off-island would also be potential employees. With regard to general excise tax, some sales generated by the Wai'ale's commercial, village mixed-use and industrial areas may take away from sales of existing businesses. However, new sales will also contribute to the amount of general excise tax collected by businesses.

Also, it should be remembered that ACM estimated that the State will collect approximately \$47,209,000 in excise taxes during construction.

During the Draft EIS public review period, the State Department of Labor and Industrial Relations wrote: The Department of Labor and Industrial Relations has no comments, and we foresee no impact on our existing or proposed programs.

4.10 PUBLIC SERVICES AND FACILITIES

4.10.1 Schools

The DOE operates two high schools, two intermediate schools, and four elementary schools in the Wailuku-Kahului region, these include:

- Henry P. Baldwin High School;
- Maui High School;
- 'Īao Intermediate School;
- Maui Waena Intermediate School;
- Kahului Elementary School;
- Lihikai Elementary School;
- Wailuku Elementary School; and
- Pōmaika'i Elementary School.

Pōmaika'i Elementary School recently opened in 2007 and is situated just north of Wai'ale along Kamehameha Avenue in Maui Lani development. University of Hawai'i - Maui College, a branch of the University of Hawai'i system, is the primary higher education institution serving the island of Maui.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The estimated breakdown of single family versus multi-family units is approximately 1,240 single family units and approximately 1,010 multi-family units. As noted in the last paragraph of Section 4.9.2 of the Draft EIS, ACM estimated that approximately 6,767 residents would be living within Wai'ale once the project was fully built out. For estimation purposes, of that amount, approximately 17 percent or 1,150 residents were estimated to be students. The amount of in-migrant students was estimated at approximately 58 students or 5 percent of the total. The estimated annual cost to the DOE of these new additional students was estimated at approximately \$12,276 per student or \$712,000 per year.

To accommodate the educational needs of children living in Wai'ale and the surrounding neighborhoods, it is estimated that a middle school will be needed within Wai'ale. A&B Properties, Inc. has been coordinating with the DOE regarding a proposed site for the middle school within the Wai'ale conceptual master plan (See Figure O-1). The final configuration and design of the proposed middle school will need to be confirmed by the DOE.

The DOE has established a school impact fee district for Central Maui and Wai'ale would be subject to such school impact fees. We understand that applicable assumptions concerning student generation rates for Central Maui are included in the school impact fee formula.

As noted in Section 4.4 of this Final EIS, the State Board of Education (BOE) has stated that schools should not be located at sites where exterior noise levels exceed 65 dBA L₁₀. The exterior noise level would not exceed the BOE standard. In addition, Wai'ale would need to comply with the State Department of Education (DOE) *Educational Specifications (EDSPECS) for Middle/Intermediate Schools* that state that interior noise levels in general school spaces should not exceed 50 dBA L_{eq} and the noise level in libraries and reading rooms should not exceed 45 dBA L_{eq}. Detailed site plans were not available to complete an interior noise level analysis. It is assumed that interior noise levels could exceed the State standards. Therefore, without noise control, Wai'ale could result in an adverse effect related to school land use compatibility.

To mitigate the impact of construction noise on the proposed middle school, the noise consultant suggests that all educational classrooms be designed in compliance with the DOE *Educational Specifications (EDSPECS) for Middle/Intermediate Schools*. In accordance with the guidelines, general school space shall meet a background ambient noise level of 45 dBA L_{eq} and libraries and main reading rooms shall meet a background ambient noise level of 50 dBA L_{eq}. Prior to occupancy, an acoustical engineer shall demonstrate that the applicable noise standards have been achieved in classrooms.

4.10.2 Police

The County's Police Department (MPD) Wailuku Patrol District provides police protection services to Wai'ale. There are approximately 115 uniformed patrol officers and other personnel that serve this division.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Residents and visitors of Wai'ale are likely to require police protective services at some time. As the County's population grows, there will be a need for the County to allocate resources necessary to adequately fund police services. These additional funds could potentially be allotted from the increased tax revenues resulting from Wai'ale. During the FEA/EISPN public review period, the Maui Police Department wrote that: "...the focus from the police perspective will be upon the safety of pedestrian and vehicular movement." The Police Department staff also noted that: "...further review and comments will be made once the TIAR is completed."

During the Draft EIS public review period, the County Police Department wrote: "There are no objections to the progression of this project at this time, from the police standpoint, in regards to pedestrian and vehicular movement. However, consideration is requested for sufficient lighting to be installed for not only the safety of vehicular and pedestrian movement, but for crime prevention and deterrence as well."

4.10.3 Fire

The County's Department of Fire and Public Safety Control (MFD) provides fire protective services to Wai'ale. The Kahului Fire Station is located on Dairy Road. In 2009, there were approximately 48 fire fighters and other personnel in the Kahului District.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Residents and visitors of Wai'ale are likely to require fire protective services at some time. As the County's population grows, there will be a need for the County to allocate resources necessary to adequately fund fire prevention and emergency services. These additional funds could potentially be allotted from the increased tax revenues resulting from Wai'ale.

During the Draft EIS public review period, the County Department of Fire and Public Safety provided information on its requirements for various types of subdivisions. Wai'ale and all related structures will be designed and built in compliance with all fire protection requirements. Fire apparatus access roads and water supply for fire protection will comply with the Uniform Fire Code.

4.10.4 Medical

The Maui Memorial Hospital, located in Kahului, is the only major medical facility on the island of Maui. Acute, general, and emergency care services are provided by the 194-bed facility.

Non-emergency health care is provided by clinics and offices throughout Wailuku-Kahului, such as Kaiser Permanente, which operates facilities in Wailuku and Maui Lani.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Wai'ale residents at some time may require health care and emergency medical services. Medical services are available in the region.

Wai'ale's commercial areas will provide the opportunity for medical services, such as doctors' offices and/or a medical clinic, to be developed within Wai'ale to serve the community and neighboring areas.

4.10.5 Public Transportation

The County of Maui currently operates a public bus system that provides service in and between various Central, South, West, Ha'ikū, and Upcountry Maui communities.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Wai'ale's internal roadways will be designed and built to meet County standards and should be able to accommodate the County's public bus transit service. It is hoped that when there is sufficient demand that either the Kahului Loop or Wailuku Loop bus routes can be extended into the property, as a means of reducing private vehicular trips on area roads and highways (promoting transportation energy savings), and to provide better transportation and mobility options for those who can and cannot drive.

4.10.6 Recreational Facilities

Diverse recreational opportunities are available in the Wailuku-Kahului region. Numerous recreational parks and facilities are located in close proximity to the Wai'ale property. These include:

- Honoli'i Park;
- Kahului Community Center & Pool;
- Lihikai Park;
- Mokuhaui Park;
- Pōmaika'i Park;
- Wai'ale Neighborhood Park;
- War Memorial Complex & Keopuolani Regional Park; and
- Wells Community Complex.

POTENTIAL IMPACTS AND MITIGATION MEASURES

During the Draft EIS public review period, the County Department of Parks and Recreation wrote that it: "...wishes to withhold comment until County Council has completed its review of the Maui Island General Plan 2030. The Department is not in agreement with the Regional Park area designated in the Central Maui Regional Park map in the Directed Growth Plan section of the Island Plan, as it does not provide adequate area needed to accommodate a Regional Park." Wai'ale includes lands reserved for active regional and neighborhood parks, greenways and open space. The provision of lands for park purposes will be undertaken in consultation with the County's Department of Parks and Recreation (DPR) to ensure that park and playground assessment requirements are appropriately addressed.

5.0 LAND USE CONFORMANCE



5.0 LAND USE CONFORMANCE

State of Hawai'i and Maui County land use plans, policies, and ordinances relevant to Wai'ale are described below.

5.1 STATE OF HAWAI'I

5.1.1 Chapter 343, Hawai'i Revised Statutes

Compliance with Chapter 343, HRS is required as described in Section 1.5. This EIS was prepared in compliance with Chapter 343, HRS.

5.1.2 State Land Use Law, Chapter 205, Hawai'i Revised Statutes

The State Land Use Law (Chapter 205, HRS), establishes the State LUC and authorizes this body to designate all lands in the State into one of four Districts: Urban, Rural, Agricultural, or Conservation.

The property is in the Agricultural District and will require a State Land Use District Boundary Amendment from the Agricultural District to the Urban District. A petition to amend the property's land use district boundary has been filed with the State LUC.

5.1.3 Coastal Zone Management Act, Chapter 205A, Hawai'i Revised Statutes

The State oversees protection of natural, cultural, and economic resources within the coastal zone, which is defined as all lands of the State and the area extending seaward from the shoreline to the limit of the State's police power and management authority, including the United States territorial sea. As such, Wai'ale lies within the CZM Area.

The relevant objectives and policies of the Hawai'i CZM Program, along with a detailed discussion of how Wai'ale conforms with these objectives and policies, is discussed below.

Table 5-1: Coastal Zone Management Act, Chapter 205A, Hawai'i Revised Statutes

COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
Recreational Resources			
Objective: Provide coastal recreational opportunities accessible to the public.			
Policies:			
(A) Improve coordination and funding of coastal recreational planning and management; and			X
(B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:			X
(i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;			X

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)		S	N/S	N/A
(ii)	Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;			X
(iii)	Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;			X
(iv)	Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;			X
(v)	Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;			X
(vi)	Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;	X		
(vii)	Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and			X
(viii)	Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.			X

Discussion: Wai'ale is not located on the coastline; therefore, policies regarding shoreline recreation resources are not applicable; however, Wai'ale will adopt water quality standards that comply with State and Federal regulations regarding point and nonpoint source pollution, to protect the recreational value of coastal waters. Measures to mitigate stormwater runoff from the project will be implemented.

Historic Resources

Objective: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Policies:

(A) Identify and analyze significant archaeological resources;	X		
(B) Maximize information retention through preservation of remains and artifacts or salvage operations; and	X		
(C) Support state goals for protection, restoration, interpretation, and display of historic resources.	X		

Discussion: An archaeological inventory survey of the property was undertaken and subsequently reviewed and accepted by the SHPD. Several previous archaeological investigations have occurred on portions of the property and are described in the AIS. These investigations have led to the documentation of burials, a terrace, and several historic-period sites. Full-time archaeological monitoring shall occur during future ground altering disturbance at the property which contain natural, sandy matrices that are relatively undisturbed. Precautionary archaeological monitoring is recommended for portions of the property which contain natural, sandy matrices that are relatively

COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<p>undisturbed. To address burials identified at the site, including those within the former Hawaiian Cement sand mining area, a Final Burial Site Component of a Data Recovery Plan and Preservation Plan for State Sites Nos. 50-50-04-5504 and -6679 has been prepared. The preservation plan was reviewed by the Maui/Lanai Islands Burial Council and subsequently accepted by the SHPD. A&B Properties, Inc. and its <u>archaeological</u> contractors will comply with all State and County laws and rules regarding the preservation of archaeological and historic sites.</p>			
Scenic and Open Space Resources			
Objective: <i>Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.</i>			
Policies:			
(A) <i>Identify valued scenic resources in the coastal zone management area;</i>			X
(B) <i>Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;</i>	X		
(C) <i>Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and</i>			X
(D) <i>Encourage those developments that are not coastal dependent to locate in inland areas.</i>	X		
<p>Discussion: Wai'ale is not a coastal dependent development, is not located on the coastline, and is not in the SMA; however, as discussed in Section 4.7, Wai'ale will not impinge upon any significant public scenic view corridors, and Wai'ale will have no significant impacts on views of Haleakalā, ʻĪao Valley, and the Mauna Kahalawai, or Waikapū Stream.</p>			
Coastal Ecosystems			
Objective: <i>Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.</i>			
Policies:			
(A) <i>Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;</i>			X
(B) <i>Improve the technical basis for natural resource management;</i>	X		
(C) <i>Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;</i>			X
(D) <i>Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and</i>	X		
(E) <i>Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.</i>	X		

COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<p>Discussion: The applicant is exploring several potential drinking water source opportunities to serve the project. These include surface water treatment and new well sources in the Central Maui region. The primary focus has been the development of a surface water treatment facility utilizing water from the West Maui ditch system.</p> <p>Runoff will be collected by open swales and stormdrain systems and will be routed to one of several detention basins. The bottom one to two feet of the stormwater basins will be reserved for retention of the water quality volume. The water quality runoff and potential pollutants will be mitigated from flowing to downstream areas such as Waikapū Stream.</p>			
Economic Uses			
Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.			
Policies:			
(A) Concentrate coastal dependent development in appropriate areas;			X
(B) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and			X
(C) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:			X
(i) Use of presently designated locations is not feasible;			X
(ii) Adverse environmental effects are minimized; and			X
(iii) The development is important to the State's economy.			X
<p>Discussion: Wai'ale is not a coastal dependent development, is not located on the coastline, and is not in the SMA; therefore, these policies are not applicable.</p>			
Coastal Hazards			
Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.			
Policies:			
(A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;	X		
(B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards;	X		
(C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and	X		
(D) Prevent coastal flooding from inland projects.	X		

COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<p>Discussion: According to the FIRM, most of the property is designated Zone X, which denotes areas determined to be outside both the 500-year and 100-year flood plains (See Figure 3-5). In addition, Wai'ale is located outside of the FIRM-tsunami inundation zone. Wai'ale will not exacerbate any hazard conditions. Potential damage caused by earthquakes and hurricanes will be mitigated, as all structures will be constructed in compliance with the County Building Code.</p>			
Managing Development			
<p>Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.</p>			
Policies:			
(A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;			X
(B) Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and			X
(C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.	X		
<p>Discussion: Wai'ale is not a coastal development; however, this EIS discusses potential impacts and mitigation measures of Wai'ale. Public comments will be received on this EIS and public comments were received on the <u>FEA/EISPN</u> that was circulated in advance of this EIS.</p> <p>Since 2005, Wai'ale representatives have met with concerned individuals, community organizations, private groups, and government agencies. This extensive process has resulted in a plan that is responsive to concerns and reflects community values.</p>			
Public Participation			
<p>Objective: Stimulate public awareness, education, and participation in coastal management.</p>			
Policies:			
(A) Promote public involvement in coastal zone management processes;	X		
(B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and	X		
(C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.	X		
<p>Discussion: Since 2005, Wai'ale representatives have met with concerned individuals, community organizations, private groups, and government agencies. This extensive process has resulted in a plan that is responsive to concerns and reflects community values.</p> <p>Public comments will be received on this EIS and public comments were received on the <u>FEA/EISPN</u> that was circulated in advance of this EIS.</p>			

COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
Beach Protection			
Objective: Protect beaches for public use and recreation.			
Policies:			
(A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;			X
(B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and			X
(C) Minimize the construction of public erosion-protection structures seaward of the shoreline.			X
Discussion: Wai'ale is not a coastal dependent development, is not located on the coastline, and is not in the SMA; therefore, these policies are not applicable.			
Marine Resources			
Objective: Promote the protection, use, and development of marine and coastal resources to assure their sustainability.			
Policies:			
(A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;			X
(B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;			X
(C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;			X
(D) Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and			X
(E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.			X
Discussion: Wai'ale is not a coastal dependent development, is not located on the coastline, and is not in the SMA; therefore, these policies are not applicable.			

5.1.4 Hawai'i State Plan, Chapter 226, Hawai'i Revised Statutes

The Hawai'i State Plan (Chapter 226, HRS), establishes a set of goals, objectives and policies that serve as long-range guidelines for the growth and development of the State. The Plan is divided into three parts: Part I (Overall Theme, Goals, Objectives and Policies); Part II (Planning, Coordination and Implementation); and Part III (Priority Guidelines). Part II elements of the State Plan pertain primarily to the administrative structure and implementation process of the Plan. As such, comments regarding the applicability of Part II to Wai'ale are not appropriate. The sections of the Hawai'i State Plan directly applicable to Wai'ale, along with a discussion of how Wai'ale conforms to the State Plan are included below.

Table 5-2: Hawai'i State Plan, Chapter 226, Hawai'i Revised Statutes

HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
HRS § 226-1: Findings and Purpose			
HRS § 226-2: Definitions			
HRS § 226-3: Overall Theme			
HRS § 226-4: State Goals. <i>In order to guarantee, for the present and future generations, those elements of choice and mobility that insure that individuals and groups may approach their desired levels of self-reliance and self-determination, it shall be the goal of the State to achieve:</i>			
<i>(1) A strong, viable economy, characterized by stability, diversity and growth that enables fulfillment of the needs and expectations of Hawaii's present and future generations.</i>			
<i>(2) A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.</i>			
<i>(3) Physical, social and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring and of participation in community life.</i>			
Discussion: Wai'ale contributes to attaining these three goals by 1) providing direct employment opportunities for present and future residents of Maui; 2) generating increased State and County fiscal revenues; 3) contributing to the stability, diversity, and growth of local and regional economies; and 4) protecting the archaeological, historic, and natural features of the property.			
HRS § 226-5: Objectives and policies for population.			
Objective: <i>It shall be the objective in planning for the State's population to guide population growth to be consistent with the achievement of physical, economic and social objectives contained in this chapter.</i>			
Policies:			
<i>(1) Manage population growth statewide in a manner that provides increased opportunities for Hawaii's people to pursue their physical, social and economic aspirations while recognizing the unique needs of each County.</i>	X		
<i>(2) Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.</i>	X		
<i>(3) Promote increased opportunities for Hawaii's people to pursue their socio-economic aspirations throughout the islands.</i>	X		
<i>(4) Encourage research activities and public awareness programs to foster an</i>			X

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>understanding of Hawaii's limited capacity to accommodate population needs and to address concerns resulting from an increase in Hawaii's population.</i>			
(5) <i>Encourage federal actions and coordination among major governmental agencies to promote a more balanced distribution of immigrants among the states, provided that such actions do not prevent the reunion of immediate family members.</i>			X
(6) <i>Pursue an increase in federal assistance for states with a greater proportion of foreign immigrants relative to their state's population.</i>			X
(7) <i>Plan the development and availability of land and water resources in a coordinated manner so as to provide for the desired levels of growth in each geographic area.</i>	X		

Discussion: The *Draft Maui Island Plan* projects the island of Maui's resident population to grow from 129,471 in 2005 to 176,687 in 2030. This is a 1.46% annual growth rate which equates to a 36.5 percent increase in population over the 25 year period. According to the *Socio-Economic Forecast*, the total population is not expected to increase equally throughout the island of Maui; rather, there are specific regions where population growth is more likely to occur. One of these regions is Wailuku-Kahului, where the population is expected to grow by 20,939 persons between the years 2005 to 2030; an increase of nearly 45 percent over a 25 year period.

According to the *Socio-Economic Forecast*, the number of civilian jobs in Wailuku-Kahului population is expected to grow by 5,043 jobs between the years 2015 to 2025, an increase of nearly 13 percent, and over about the same timeframe as Wai'ale.

Wai'ale will be a master planned community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways.

HRS § 226-6: Objectives and policies for the economy in general.

Objectives: *Planning for the State's economy in general shall be directed toward achievement of the following objectives:*

(1) <i>Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaii's people.</i>	X		
(2) <i>A steadily growing and diversified economic base that is not overly dependent on a few industries, and includes the development and expansion of industries on the neighbor islands.</i>	X		

Policies:

(1) <i>Expand Hawaii's national and international marketing, communication, and organizational ties, to increase the State's capacity to adjust to and capitalize upon economic changes and opportunities occurring outside the State.</i>			X
(2) <i>Promote Hawaii as an attractive market for environmentally and socially sound investment activities that benefit Hawaii's people.</i>			X
(3) <i>Seek broader outlets for new or expanded Hawaii business investments.</i>			X
(4) <i>Expand existing markets and penetrate new markets for Hawaii's products and</i>			X

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>services.</i>			
(5) <i>Assure that the basic economic needs of Hawaii's people are maintained in the event of disruptions in overseas transportation.</i>			X
(6) <i>Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.</i>	X		
(7) <i>Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawaii's small scale producers, manufacturers, and distributors.</i>			X
(8) <i>Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.</i>			X
(9) <i>Foster greater cooperation and coordination between the government and private sectors in developing Hawaii's employment and economic growth opportunities.</i>			X
(10) <i>Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.</i>	X		
(11) <i>Maintain acceptable working conditions and standards for Hawaii's workers.</i>	X		
(12) <i>Provide equal employment opportunities for all segments of Hawaii's population through affirmative action and nondiscrimination measures.</i>			X
(13) <i>Encourage businesses that have favorable financial multiplier effects within Hawaii's economy.</i>			X
(14) <i>Promote and protect intangible resources in Hawaii, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.</i>	X		
(15) <i>Increase effective communication between the educational community and the private sector to develop relevant curricula and training programs to meet future employment needs in general, and requirements of new, potential growth industries in particular.</i>			X
(16) <i>Foster a business climate in Hawaii--including attitudes, tax and regulatory policies, and financial and technical assistance programs--that is conducive to the expansion of existing enterprises and the creation and attraction of new business and industry.</i>			X

Discussion: New job opportunities created by Wai'ale will start with the design and entitlement process, employing architects, engineers, surveyors, and land use planners. Site work, road work and the installation of utility and drainage lines typically utilize heavy equipment operators, tractor-trailer drivers and utility personnel. Vertical construction of the housing units, commercial buildings, village mixed-use projects and light industrial facilities will employ masons, carpenters, sheet metal workers, roofers, drywall installers, plumbers, electricians and painters. Finish work will require cabinet makers, carpet and tile installers, interior decorators, and landscapers. Using State economic multipliers, ACM forecasted an annual average of 293 jobs directly related to the construction of this development.

The increase in construction will also create the need for supplementary companies to strengthen their labor force. Based on State economic multipliers, indirect jobs on Maui were forecasted by ACM to average approximately 300 jobs annually, resulting in an estimated annual average of approximately 593 Maui jobs directly and indirectly tied to the development of the project. Meanwhile, indirect employment on O'ahu could

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
possibly add an average of approximately 158 jobs per year. ACM estimated that employment attributed to the development would total approximately 7,500 direct and indirect jobs over the term of the project.			
ACM estimates that at full build-out, the commercial and industrial components of Wai'ale could result in approximately 1,000 jobs.			
HRS § 226-7: Objectives and policies for the economy - agriculture			
Objectives: Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:			
(1) Viability of Hawaii's sugar and pineapple industries.			X
(2) Growth and development of diversified agriculture throughout the State.			X
(3) An agriculture industry that continues to constitute a dynamic and essential component of Hawaii's strategic, economic, and social well-being.			X
Policies:			
(1) Establish a clear direction for Hawaii's agriculture through stakeholder commitment and advocacy.			X
(2) Encourage agriculture by making best use of natural resources.			X
(3) Provide the governor and the legislature with information and options needed for prudent decision making for the development of agriculture.			X
(4) Establish strong relationships between the agricultural and visitor industries for mutual marketing benefits.			X
(5) Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawaii's economy.			X
(6) Seek the enactment and retention of federal and state legislation that benefits Hawaii's agricultural industries.			X
(7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawaii's producers and consumer markets locally, on the continental United States, and internationally.			X
(8) Support research and development activities that provide greater efficiency and economic productivity in agriculture.			X
(9) Enhance agricultural growth by providing public incentives and encouraging private initiatives.			X
(10) Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs.			X
(11) Increase the attractiveness and opportunities for an agricultural education and livelihood.			X
(12) Expand Hawaii's agricultural base by promoting growth and development of flowers, tropical fruits and plants, livestock, feed grains, forestry, food crops, aquaculture, and other potential enterprises.			X
(13) Promote economically competitive activities that increase Hawaii's agricultural self-sufficiency.			X
(14) Promote and assist in the establishment of sound financial programs for diversified agriculture.			X
(15) Institute and support programs and activities to assist the entry of displaced agricultural workers into alternative agricultural or other employment.			X
(16) Facilitate the transition of agricultural lands in economically nonfeasible agricultural production to economically viable agricultural uses.			X

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<p>Discussion: The agricultural impact of Wai'ale is near negligible when taken in the context of recent trends on Maui. In the last 30 years, the closures of Wailuku Sugar and Pioneer Mill have taken significant acreages out of active sugar cultivation. More recently, Maui Land & Pineapple's shutdown of its pineapple operations has also added to the availability of agricultural acreage on Maui. These actions have greatly increased the supply of non-sugar based agricultural lands. Much of these lands of the former plantations continue to remain fallow and provide opportunities for future agricultural use. Rather than the availability of land, limiting factors to the growth of diversified agriculture include the market demand and profitability of the various agricultural crops and the availability of water. Wai'ale will involve the use of approximately 545 acres of land, which represents approximately 0.2 percent of the roughly 246,000 acres of State Agricultural district lands on the island of Maui.</p>			
HRS § 226-8: Objectives and policies for the economy – visitor industry			
<i>Objectives: Planning for the State's economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawaii's economy.</i>			
Policies:			
(1) Support and assist in the promotion of Hawaii's visitor attractions and facilities.			X
(2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people.			X
(3) Improve the quality of existing visitor destination areas.			X
(4) Encourage cooperation and coordination between the government and private sectors in developing and maintaining well-designed, adequately serviced visitor industry and related developments which are sensitive to neighboring communities and activities.			X
(5) Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawaii's people.			X
(6) Provide opportunities for Hawaii's people to obtain job training and education that will allow for upward mobility within the visitor industry.			X
(7) Foster a recognition of the contribution of the visitor industry to Hawaii's economy and the need to perpetuate the aloha spirit.			X
(8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawaii's cultures and values.			X
<p>Discussion: Wai'ale is not targeting the visitor industry, and transient vacation rentals or time shares will not be allowed developed within Wai'ale; therefore, these objectives and policies are not applicable. <u>The proposed County zoning would not allow for the development of transient vacation rentals or timeshare units.</u></p>			
HRS § 226-9: Objective and policies for the economy – federal expenditures			
<i>Objective: Planning for the State's economy with regard to federal expenditures shall be directed towards achievement of the objective of a stable federal investment base as an integral component of Hawaii's economy.</i>			
Policies:			

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
(1) Encourage the sustained flow of federal expenditures in Hawaii that generates long-term government civilian employment.			X
(2) Promote Hawaii's supportive role in national defense.			X
(3) Promote the development of federally supported activities in Hawaii that respect state-wide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawaii's environment.			X
(4) Increase opportunities for entry and advancement of Hawaii's people into federal government service.			X
(5) Promote federal use of local commodities, services, and facilities available in Hawaii.			X
(6) Strengthen federal-state-county communication and coordination in all federal activities that affect Hawaii.			X
(7) Pursue the return of federally controlled lands in Hawaii that are not required for either the defense of the nation or for other purposes of national importance, and promote the mutually beneficial exchanges of land between federal agencies, the State, and the counties.			X
<p>Discussion: Wai'ale is not anticipated to use federal funds or federal lands; therefore, this objective and these policies are not applicable.</p>			
<p>HRS § 226-10: Objectives and policies for the economy – potential growth activities.</p>			
<p>Objective: Planning for the State's economy with regard to potential growth activities shall be directed towards achievement of the objective of development and expansion of potential growth activities that serve to increase and diversify Hawaii's economic base.</p>			
<p>Policies:</p>			
(1) Facilitate investment and employment in economic activities that have the potential for growth such as diversified agriculture, aquaculture, apparel and textile manufacturing, film and television production, and energy and marine-related industries.			X
(2) Expand Hawaii's capacity to attract and service international programs and activities that generate employment for Hawaii's people.			X
(3) Enhance and promote Hawaii's role as a center for international relations, trade, finance, services, technology, education, culture, and the arts.			X
(4) Accelerate research and development of new energy- related industries based on wind, solar, ocean, and underground resources and solid waste.			X
(5) Promote Hawaii's geographic, environmental, social, and technological advantages to attract new economic activities into the State.			X
(6) Provide public incentives and encourage private initiative to attract new industries that best support Hawaii's social, economic, physical, and environmental objectives.			X
(7) Increase research and the development of ocean-related economic activities such as mining, food production, and scientific research.			X
(8) Develop, promote, and support research and educational and training programs that will enhance Hawaii's ability to attract and develop economic activities of benefit to Hawaii.			X
(9) Foster a broader public recognition and understanding of the potential benefits of new, growth-oriented industry in Hawaii.			X
(10) Encourage the development and implementation of joint federal and state initiatives to attract federal programs and projects that will support Hawaii's			X

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>social, economic, physical, and environmental objectives.</i>			
(11) Increase research and development of businesses and services in the telecommunications and information industries.			X
<p>Discussion: Wai'ale is not aimed at increasing the State's potential growth activities that serve to increase and diversify Hawai'i's economic base (although Wai'ale will provide significant positive economic benefits); therefore, this objective and these policies are not applicable.</p>			
HRS § 226-10.5: Objectives and policies for the economy – information industry			
Objective: Planning for the State's economy with regard to the information industry shall be directed toward the achievement of the objective of positioning Hawaii as the leading dealer in information businesses and services in the Pacific Rim.			
Policies:			
(1) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawaii to accommodate future growth in the information industry;			X
(2) Facilitate the development of new business and service ventures in the information industry which will provide employment opportunities for the people of Hawaii;			X
(3) Encourage greater cooperation between the public and private sectors in developing and maintaining a well- designed information industry;			X
(4) Ensure that the development of new businesses and services in the industry are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people;			X
(5) Provide opportunities for Hawaii's people to obtain job training and education that will allow for upward mobility within the information industry;			X
(6) Foster a recognition of the contribution of the information industry to Hawaii's economy; and			X
(7) Assist in the promotion of Hawaii as a broker, creator, and processor of information in the Pacific.			X
<p>Discussion: Wai'ale is not related to the information industry; therefore, this objective and these policies are not applicable.</p>			
HRS § 226-11: Objectives and policies for the physical environment – land-based, shoreline, and marine resources.			
Objectives: Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaii's scenic assets, natural beauty, and multi-cultural/historical resources.			
(1) Prudent use of Hawaii's land-based, shoreline, and marine resources.	X		
(2) Effective protection of Hawaii's unique and fragile environmental resources.	X		
Policies:			
(1) Exercise an overall conservation ethic in the use of Hawaii's natural resources.	X		
(2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.	X		
(3) Take into account the physical attributes of areas when planning and designing activities and facilities.	X		

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
(4) <i>Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.</i>	X		
(5) <i>Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.</i>	X		
(6) <i>Encourage the protection of rare or endangered plant and animal species and habitats native to Hawaii.</i>	X		
(7) <i>Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion.</i>	X		
(8) <i>Pursue compatible relationships among activities, facilities, and natural resources.</i>	X		
(9) <i>Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.</i>	X		

Discussion: While Wai'ale will alter how the land is currently used, the proposed improvements are relatively insignificant compared to the overall geological character of the region. Construction activities, such as grading, will alter the topography of the property to accommodate Wai'ale. While most of the property has been heavily "~~decimated,~~" disturbed, there is a large portion of the site (approximately 28 acres) where there ~~is a~~ are relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the proposed cultural preserves (and where the highest concentration of burials reside). Appropriate engineering, design and construction measures will be implemented to minimize potential erosion due to grading of soils during construction.

The endangered Blackburn's sphinx moth has been seen on property in the egg and larval stages of growth. The applicant, in cooperation with the U.S. Fish and Wildlife Service, will develop an appropriate mitigation plan for the Blackburn's sphinx moth at the property. No other endangered or threatened flora or fauna species were identified on the property.

HRS § 226-12: Objectives and policies for the physical environment – scenic, natural beauty, and historic resources.

Objective: *Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaii's scenic assets, natural beauty, and multi-cultural/historical resources.*

Policies:

(1) <i>Promote the preservation and restoration of significant natural and historic resources.</i>	X		
(2) <i>Provide incentives to maintain and enhance historic, cultural, and scenic amenities.</i>	X		
(3) <i>Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.</i>	X		
(4) <i>Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.</i>	X		
(5) <i>Encourage the design of developments and activities that complement the natural beauty of the islands.</i>	X		

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<p>Discussion: Wai'ale will change the visual character of the property from primarily vacant lands to a master-planned community with residential, commercial, recreational and educational uses. Wai'ale will be extensively landscaped as part of the development improvements, to ensure visual buffering and softening of the built landscape. The master plan includes regional and neighborhood parks, greenways and open space.</p> <p>The closest "Scenic Corridor" (as identified in the <i>Draft Maui Island Plan</i>) is Honoapi'ilani Highway. The portion of the highway closest to the property is categorized as "Medium." The average distance between Honoapi'ilani Highway and the property is approximately 3,000 feet. Waikapū Village separates and provides a buffer from Honoapi'ilani Highway and the property. It is likely that those in vehicles travelling 30 to 45 miles per hour along Honoapi'ilani Highway will be focusing their attention on the car in front of them, Waikapū Village, Mauna Kahalawai and/or Haleakalā.</p> <p>The property is located at a lower elevation than the nearest portion of Honoapi'ilani Highway. The proposed development of the property will not obstruct views of Haleakalā, Īao Valley, and the Mauna Kahalawai, or Waikapū Stream. The approximately 28 acre remnant of the Pu'u One sand dunes will be preserved and will be visible from surrounding areas within and outside of the property.</p>			
HRS § 226-13: Objectives and policies for the physical environment – land, air, and water quality.			
<i>Objectives: Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives:</i>			
(1) Maintenance and pursuit of improved quality in Hawaii's land, air, and water resources.	X		
(2) Greater public awareness and appreciation of Hawaii's environmental resources.	X		
Policies:			
(1) Foster educational activities that promote a better understanding of Hawaii's limited environmental resources.	X		
(2) Promote the proper management of Hawaii's land and water resources.	X		
(3) Promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters.	X		
(4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawaii's people.	X		
(5) Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.	X		
(6) Encourage design and construction practices that enhance the physical qualities of Hawaii's communities.	X		
(7) Encourage urban developments in close proximity to existing services and facilities.	X		
(8) Foster recognition of the importance and value of the land, air, and water resources to Hawaii's people, their cultures and visitors.	X		

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<p>Discussion: Implementation of air quality and noise control measures in both the short-term and long-term would ensure compliance with State rules and regulations, and reduce the noise effects to less than adverse.</p> <p>The Wai'ale community will not exacerbate any hazard conditions. Potential damage caused by earthquakes and hurricanes will be mitigated, as all structures will be constructed in compliance with the County Building Code.</p> <p>Existing residential and industrial land uses can be found in close proximity to the property. To the north, and adjacent to the property, is the master planned Maui Lani community including residential, commercial, recreational and educational uses. An 18-hole championship golf course, The Dunes at Maui Lani, is also located within Maui Lani. To the west of Wai'ale are light industrial uses including the Wailuku Agribusiness Company, Inc., and Maui Scrap Metal Company, Inc., as well as the County's closed Waikapū landfill. Beyond these uses are Wai'ale Drive and Waikapū Village (residential).</p>			
HRS § 226-14: Objective and policies for facility systems – in general			
Objective: <i>Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.</i>			
Policies:			
(1) <i>Accommodate the needs of Hawaii's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.</i>			X
(2) <i>Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.</i>			X
(3) <i>Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.</i>			X
(4) <i>Pursue alternative methods of financing programs and projects and cost-saving techniques in the planning, construction, and maintenance of facility systems.</i>			X
<p>Discussion: Wai'ale does not involve planning for the State's facility systems; therefore, this objective and these policies are not applicable.</p>			
HRS § 226-15: Objectives and policies for facility systems – solid and liquid wastes.			
Objectives: <i>Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:</i>			
(1) <i>Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.</i>	X		
(2) <i>Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.</i>	X		
Policies:			
(1) <i>Encourage the adequate development of sewerage facilities that complement planned growth.</i>	X		
(2) <i>Promote re-use and recycling to reduce solid and liquid wastes and employ a</i>	X		

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<i>conservation ethic.</i>			
(3) <i>Promote research to develop more efficient and economical treatment and disposal of solid and liquid wastes.</i>	X		
<p>Discussion: The applicant is considering two alternatives for treating the wastewater generated by Wai'ale. The first alternative involves constructing an on-site wastewater treatment plant (WWTP) for treatment of the wastewater generated by Wai'ale only. This alternative would require effluent reuse and/or disposal, <u>options for which are also discussed</u>. The second alternative involves conveying the wastewater from Wai'ale to the Kahului WWRF, in the event that there is capacity available to treat the flows, either with or without future expansion of the Kahului WWRF.</p> <p>The goal for solid waste management is to appropriately reduce, reuse and recycle materials, to minimize generation of solid waste and achieve diversion from landfills. As such, in conformance with Chapter 344-4(2), HRS, Wai'ale will promote the optimal use of solid wastes through programs of waste prevention, energy resource recovery, and recycling.</p>			
HRS § 226-16: Objectives and policies for facility systems – water.			
Objective: <i>Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities.</i>			
Policies:			
(1) <i>Coordinate development of land use activities with existing and potential water supply.</i>	X		
(2) <i>Support research and development of alternative methods to meet future water requirements well in advance of anticipated needs.</i>	X		
(3) <i>Reclaim and encourage the productive use of runoff water and wastewater discharges.</i>	X		
(4) <i>Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.</i>	X		
(5) <i>Support water supply services to areas experiencing critical water problems.</i>	X		
(6) <i>Promote water conservation programs and practices in government, private industry, and the general public to help ensure adequate water to meet long-term needs.</i>	X		
<p>Discussion: The applicant is exploring several potential drinking water source opportunities to serve the project. These include surface water treatment and new well sources in the Central Maui region. The primary focus has been the development of a surface water treatment facility utilizing water from the West Maui ditch system.</p> <p>Water demand can be reduced through low flow fixtures as required by Uniform Plumbing Code and through xeriscaping. Automatic landscape irrigation will be accommodated for commercial, mixed-use and multi-family residential developments, utilizing non-drinking quality water (such as brackish water wells) and/or R-1 water</p>			

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
sources as available. Appropriate methods of water application (such as drip systems) will be incorporated to conserve water and support optimum plant growth. Centrally-controlled irrigation systems and climate sensing devices such as rain and soil moisture sensors may also be utilized.			
HRS § 226-17: Objectives and policies for facility systems – transportation.			
Objective: <i>Planning for the State's facility systems with regard to energy transportation shall be directed toward the achievement of the following objectives, giving due consideration to all:</i>			
(1) <i>An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods.</i>			X
(2) <i>A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.</i>			X
Policies:			
(1) <i>Design, program, and develop a multi-modal system in conformance with desired growth and physical development as stated in this chapter;</i>			X
(2) <i>Coordinate state, county, federal, and private transportation activities and programs toward the achievement of statewide objectives;</i>			X
(3) <i>Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties;</i>			X
(4) <i>Provide for improved accessibility to shipping, docking, and storage facilities;</i>			X
(5) <i>Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs;</i>	X		
(6) <i>Encourage transportation systems that serve to accommodate present and future development needs of communities;</i>	X		
(7) <i>Encourage a variety of carriers to offer increased opportunities and advantages to interisland movement of people and goods;</i>			X
(8) <i>Increase the capacities of airport and harbor systems and support facilities to effectively accommodate transshipment and storage needs;</i>			X
(9) <i>Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification;</i>			X
(10) <i>Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawaii's natural environment;</i>			X
(11) <i>Encourage safe and convenient use of low-cost, energy-efficient, non-polluting means of transportation;</i>	X		
(12) <i>Coordinate intergovernmental land use and transportation planning activities to ensure the timely delivery of supporting transportation infrastructure in order to accommodate planned growth objectives; and</i>			X
(13) <i>Encourage diversification of transportation modes and infrastructure to promote alternate fuels and energy efficiency.</i>			X
Discussion: By the year 2022, the Wailuku-Waikapū region is anticipated to experience significant growth, both in its residential population and commercial/industrial/business land uses. Traffic along Kuihelani Highway and other roadways are expected to increase even if Wai'ale is not built. Wai'ale will contribute to regional traffic improvements that will address the impacts of general regional traffic growth, as well as impacts specifically related to Wai'ale. The design of the internal roadways will be based on standards set			

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
forth by the County, and will be able to accommodate the extension of the Maui Public Bus Transit System onto and through the property.			
Wai'ale is also part of the new “smart growth” planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Kuihelani Highway, since many establishments providing for residents’ day-to-day needs will be within walking and biking distance. Therefore, unlike in a conventional subdivision, Wai'ale is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing trips to outside areas and reducing congestion.			
HRS § 226-18: Objectives and policies for facility systems – energy.			
Objectives: Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all:			
(1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;	X		
(2) Increased energy self-sufficiency where the ratio of indigenous to imported energy use is increased;	X		
(3) Greater energy security in the face of threats to Hawaii's energy supplies and systems; and	X		
(4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use.	X		
Policies:			
(1) Support research and development as well as promote the use of renewable energy sources;			X
(2) Ensure that the combination of energy supplies and energy-saving systems is sufficient to support the demands of growth;			X
(3) Base decisions of least-cost supply-side and demand-side energy resource options on a comparison of their total costs and benefits when a least-cost is determined by a reasonably comprehensive, quantitative, and qualitative accounting of their long-term, direct and indirect economic, environmental, social, cultural, and public health costs and benefits;			X
(4) Promote all cost-effective conservation of power and fuel supplies through measures including:	X		
(A) Development of cost-effective demand-side management programs;			X
(B) Education; and			X
(C) Adoption of energy-efficient practices and technologies;	X		
(5) Ensure to the extent that new supply-side resources are needed, the development or expansion of energy systems utilizes the least-cost energy supply option and maximizes efficient technologies;			X
(6) Support research, development, and demonstration of energy efficiency, load management, and other demand-side management programs, practices, and technologies;	X		
(7) Promote alternate fuels and energy efficiency by encouraging diversification of transportation modes and infrastructure;	X		
(8) Support actions that reduce, avoid, or sequester greenhouse gases in utility,	X		

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>transportation, and industrial sector applications; and</i>			
(9) <i>Support actions that reduce, avoid, or sequester Hawaii's greenhouse gas emissions through agriculture and forestry initiatives.</i>			X
<p>Discussion: A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale and will implement, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, and environmental stewardship, consistent with the standards and guidelines promulgated by the Building Industry Association of Hawaii, the U.S. Green Building Council, the Hawaii Commercial Building Guidelines for Energy Star, and Green Communities into the design and construction of Wai'ale. A&B Properties, Inc. will also provide information to home purchasers regarding energy conservation measures that may be undertaken by individual homeowners.</p> <p>The design and construction of energy systems for residential units will seek to meet applicable Energy Star requirements established by the U.S. Environmental Protection Agency (EPA) in effect at the time of construction. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.</p>			
HRS § 226-18.5: Objectives and policies for facility systems—telecommunications.			
Objective: <i>Planning for the State's telecommunications facility systems shall be directed towards the achievement of dependable, efficient, and economical statewide telecommunications systems capable of supporting the needs of the people.</i>			
Policies:			
(1) <i>Facilitate research and development of telecommunications systems and resources;</i>			X
(2) <i>Encourage public and private sector efforts to develop means for adequate, ongoing telecommunications planning;</i>			X
(3) <i>Promote efficient management and use of existing telecommunications systems and services; and</i>			X
(4) <i>Facilitate the development of education and training of telecommunications personnel.</i>			X
<p>Discussion: Coordination with the various communication companies will be undertaken; however Wai'ale is not involved with the planning of the State's telecommunications facility systems. Therefore, this objective and these policies are not applicable.</p>			
HRS § 226-19: Objectives and policies for socio-cultural advancement – housing.			
Objectives: <i>Planning for the State's socio-cultural advancement with regard to housing shall be directed toward the achievement of the following objectives:</i>			
(1) <i>Greater opportunities for Hawaii's people to secure reasonably priced, safe, sanitary, and livable homes, located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals, through collaboration and cooperation between government and nonprofit and for-profit</i>	X		

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES	S	N/S	N/A
<i>(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)</i>			
<i>developers to ensure that more affordable housing is made available to very low-, low- and moderate-income segments of Hawaii's population.</i>			
<i>(2) The orderly development of residential areas sensitive to community needs and other land uses.</i>	X		
<i>(3) The development and provision of affordable rental housing by the State to meet the housing needs of Hawaii's people.</i>	X		
Policies:			
<i>(1) Effectively accommodate the housing needs of Hawaii's people.</i>	X		
<i>(2) Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income, and gap-group households.</i>	X		
<i>(3) Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.</i>	X		
<i>(4) Promote appropriate improvement, rehabilitation, and maintenance of existing housing units and residential areas.</i>			X
<i>(5) Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas.</i>	X		
<i>(6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.</i>	X		
<i>(7) Foster a variety of lifestyles traditional to Hawaii through the design and maintenance of neighborhoods that reflect the culture and values of the community.</i>	X		
<i>(8) Promote research and development of methods to reduce the cost of housing construction in Hawaii.</i>	X		

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<p>Discussion: Wai'ale will help to address the housing demand of a growing population by providing homes in the Wailuku and Waikapū region and will include homes priced for a range of consumer groups, including the workforce market segment in compliance with Chapter 2.96, Maui County Code (MCC), Residential Workforce Housing Policy. Wai'ale's market-rate homes will be comparable with other Maui communities and are expected to attract purchasers from the same market segments. This inclusionary design provides for a community with social diversity, a mix of ages, and a range of life experiences. The market assessment prepared for Wai'ale concludes that there is sufficient demand for the range of homes within Wai'ale within the on-island workforce market segment.</p> <p>Wai'ale will create a socially integrated community with a "unique" sense of identity and character, capitalizing on its location and natural features. Wai'ale is envisioned as a community that makes both residents and visitors feel "welcome".</p> <p>Wai'ale's mix of land uses is an essential component to providing alternatives to driving such as walking or biking. The location of commercial and retail establishments throughout Wai'ale provide for greater interaction, economic activity, and quality of life for residents and visitors. Wai'ale's open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, protection of important habit and natural features, and an overall setting of enhanced environmental quality and community health.</p> <p><u>During the Draft EIS public review period, the State Hawai'i Housing Finance and Development Corporation wrote: "The proposed project, and in particular residential use, appears to be consistent with the affordable housing policy set forth in the Hawai'i State Plan of increasing homeownership and rental housing opportunities and choices in terms of quality, location, cost densities, style and size of housing."</u></p>			
HRS § 226-20: Objectives and policies for socio-cultural advancement – health			
Objectives: <i>Planning for the State's socio-cultural advancement with regard to health shall be directed towards achievement of the following objectives:</i>			
(1) <i>Fulfillment of basic individual health needs of the general public.</i>			X
(2) <i>Maintenance of sanitary and environmentally healthful conditions in Hawaii's communities.</i>			X
Policies:			
(1) <i>Provide adequate and accessible services and facilities for prevention and treatment of physical and mental health problems, including substance abuse.</i>			X
(2) <i>Encourage improved cooperation among public and private sectors in the provision of health care to accommodate the total health needs of individuals throughout the State.</i>			X
(3) <i>Encourage public and private efforts to develop and promote statewide and local strategies to reduce health care and related insurance costs.</i>			X

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(4) Foster an awareness of the need for personal health maintenance and preventive health care through education and other measures.			X
(5) Provide programs, services, and activities that ensure environmentally healthful and sanitary conditions.			X
(6) Improve the State's capabilities in preventing contamination by pesticides and other potentially hazardous substances through increased coordination, education, monitoring, and enforcement.			X
<p>Discussion: Wai'ale does not plan for the State's socio-cultural advancement with regard to health; therefore, these objectives and policies are not applicable.</p>			
<p>HRS § 226-21: Objectives and policies for socio-cultural advancement – education.</p>			
<p>Objectives: Planning for the State's socio-cultural advancement with regard to education shall be directed towards achievement of the objective of the provision of a variety of educational opportunities to enable individuals to fulfill their needs, responsibilities, and aspirations.</p>			
<p>Policies:</p>			
(1) Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups.	X		
(2) Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.	X		
(3) Provide appropriate educational opportunities for groups with special needs.			X
(4) Promote educational programs which enhance understanding of Hawaii's cultural heritage.			X
(5) Provide higher educational opportunities that enable Hawaii's people to adapt to changing employment demands.			X
(6) Assist individuals, especially those experiencing critical employment problems or barriers, or undergoing employment transitions, by providing appropriate employment training programs and other related educational opportunities.			X
(7) Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning.			X
(8) Emphasize quality educational programs in Hawaii's institutions to promote academic excellence.			X
(9) Support research programs and activities that enhance the education programs of the State.			X
<p>Discussion: To accommodate the educational needs of children living in Wai'ale and the surrounding neighborhoods, it is estimated that a middle school will be needed within Wai'ale. A&B Properties, Inc. has been coordinating with the DOE regarding a proposed site for the middle school within the Wai'ale conceptual master plan. The final configuration and design of the proposed middle school will need to be confirmed by the DOE.</p>			
<p>HRS § 226-22: Objective and policies for socio-cultural advancement – social services</p>			
<p>Objective: Planning for the State's socio-cultural advancement with regard to social services shall be directed towards the achievement of the objective of improved public and private social services and activities that enable individuals, families, and groups to become more self-reliant and confident to improve their well-being.</p>			

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
Policies:			
(1) Assist individuals, especially those in need of attaining a minimally adequate standard of living and those confronted by social and economic hardship conditions, through social services and activities within the State's fiscal capacities.			X
(2) Promote coordination and integrative approaches among public and private agencies and programs to jointly address social problems that will enable individuals, families, and groups to deal effectively with social problems and to enhance their participation in society.			X
(3) Facilitate the adjustment of new residents, especially recently arrived immigrants, into Hawaii's communities.			X
(4) Promote alternatives to institutional care in the provision of long-term care for elder and disabled populations.			X
(5) Support public and private efforts to prevent domestic abuse and child molestation, and assist victims of abuse and neglect.			X
(6) Promote programs which assist people in need of family planning services to enable them to meet their needs.			X
Discussion: Wai'ale does not plan for the State's socio-cultural advancement with regard to social services; therefore, these objectives and policies are not applicable.			
HRS § 226-23: Objectives and policies for socio-cultural advancement – leisure.			
Objective: Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.			
Policies:			
(1) Foster and preserve Hawaii's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.	X		
(2) Provide a wide range of activities and facilities to fulfill the cultural, artistic, and recreational needs of all diverse and special groups effectively and efficiently.	X		
(3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.	X		
(4) Promote the recreational and educational potential of natural resources having scenic, open space, cultural, historical, geological, or biological values while ensuring that their inherent values are preserved.	X		
(5) Ensure opportunities for everyone to use and enjoy Hawaii's recreational resources.	X		
(6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.	X		
(7) Provide adequate and accessible physical fitness programs to promote the physical and mental well-being of Hawaii's people.	X		
(8) Increase opportunities for appreciation and participation in the creative arts, including the literary, theatrical, visual, musical, folk, and traditional art forms.			X
(9) Encourage the development of creative expression in the artistic disciplines to enable all segments of Hawaii's population to participate in the creative arts.			X
(10) Assure adequate access to significant natural and cultural resources in public ownership.	X		

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<p>Discussion: Wai'ale will be a master planned community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways. Wai'ale will also feature cultural preserve areas dedicated to the preservation of archaeological features and lithified sand dunes. Wai'ale will also include lands reserved for active regional and neighborhood parks, and open space. Wai'ale's open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, protection of important habitat and natural features, and an overall setting of enhanced environmental quality and community health.</p> <p>The provision of lands for park purposes will be undertaken in consultation with the DPR to ensure that park and playground assessment requirements are appropriately addressed.</p>			
<p>HRS § 226-24: Objective and policies for socio-cultural advancement – individual rights and personal well-being.</p>			
<p>Objective: <i>Planning for the State's socio-cultural advancement with regard to individual rights and personal well-being shall be directed towards achievement of the objective of increased opportunities and protection of individual rights to enable individuals to fulfill their socio-economic needs and aspirations.</i></p>			
<p>Policies:</p>			
(1) <i>Provide effective services and activities that protect individuals from criminal acts and unfair practices and that alleviate the consequences of criminal acts in order to foster a safe and secure environment.</i>			X
(2) <i>Uphold and protect the national and state constitutional rights of every individual.</i>			X
(3) <i>Assure access to, and availability of, legal assistance, consumer protection, and other public services which strive to attain social justice.</i>			X
(4) <i>Ensure equal opportunities for individual participation in society.</i>			X
<p>Discussion: Wai'ale does not plan for the State's socio-cultural advancement with regard to individual rights and personal well-being; therefore, this objective and these policies are not applicable.</p>			
<p>HRS § 226-25: Objectives and policies for socio-cultural advancement – culture.</p>			
<p>Objective: <i>Planning for the State's socio-cultural advancement with regard to culture shall be directed toward the achievement of the objective of enhancement of cultural identities, traditions, values, customs, and arts of Hawaii's people.</i></p>			
<p>Policies:</p>			
(1) <i>Foster increased knowledge and understanding of Hawaii's ethnic and cultural heritages and the history of Hawaii.</i>			X
(2) <i>Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawaii's people and which are sensitive and responsive to family and community needs.</i>			X
(3) <i>Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawaii.</i>			X
(4) <i>Encourage the essence of the aloha spirit in people's daily activities to promote harmonious relationships among Hawaii's people and visitors.</i>			X

HAWAII STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<p>Discussion: Wai'ale does not plan for the State's socio-cultural advancement with regard to culture; therefore, this objective and these policies are not applicable. However, Wai'ale will feature cultural preserve areas dedicated to the preservation of archaeological features and lithified sand dunes.</p>			
HRS § 226-26: Objectives and policies for socio-cultural advancement – public safety.			
Objectives: Planning for the State's socio-cultural advancement with regard to public safety shall be directed towards the achievement of the following objectives:			
(1) Assurance of public safety and adequate protection of life and property for all people.			X
(2) Optimum organizational readiness and capability in all phases of emergency management to maintain the strength, resources, and social and economic well-being of the community in the event of civil disruptions, wars, natural disasters, and other major disturbances.			X
(3) Promotion of a sense of community responsibility for the welfare and safety of Hawaii's people.			X
Policies related to public safety:			
(1) Ensure that public safety programs are effective and responsive to community needs.			X
(2) Encourage increased community awareness and participation in public safety programs.			X
Policies related to criminal justice:			
(1) Support criminal justice programs aimed at preventing and curtailing criminal activities.			X
(2) Develop a coordinated, systematic approach to criminal justice administration among all criminal justice agencies.			X
(3) Provide a range of correctional resources which may include facilities and alternatives to traditional incarceration in order to address the varied security needs of the community and successfully reintegrate offenders into the community.			X
Policies related to emergency management:			
(1) Ensure that responsible organizations are in a proper state of readiness to respond to major war-related, natural, or technological disasters and civil disturbances at all times.			X
(2) Enhance the coordination between emergency management programs throughout the State.			X
<p>Discussion: Wai'ale does not include State public safety programs; therefore, these objectives and policies are not applicable.</p>			
HRS § 226-27: Objectives and policies for socio-cultural advancement – government.			
Objectives: Planning the State's socio-cultural advancement with regard to government shall be directed towards the achievement of the following objectives:			
(1) Efficient, effective, and responsive government services at all levels in the State.			X
(2) Fiscal integrity, responsibility, and efficiency in the state government and county governments.			X

HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
Policies:			
(1) Provide for necessary public goods and services not assumed by the private sector.			X
(2) Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.			X
(3) Minimize the size of government to that necessary to be effective.			X
(4) Stimulate the responsibility in citizens to productively participate in government for a better Hawaii.			X
(5) Assure that government attitudes, actions, and services are sensitive to community needs and concerns.			X
(6) Provide for a balanced fiscal budget.			X
(7) Improve the fiscal budgeting and management system of the State.			X
(8) Promote the consolidation of state and county governmental functions to increase the effective and efficient delivery of government programs and services and to eliminate duplicative services wherever feasible.			X
Discussion: Planning the State's socio-cultural advancement with regard to government is not relevant to Wai'ale; therefore, these objectives and policies are not applicable.			

PART III. PRIORITY GUIDELINES

The purpose of this part of the Hawai'i State Plan is to establish overall priority guidelines to address areas of statewide concern. The Hawai'i State Plan notes that the State shall strive to improve the quality of life for Hawai'i's present and future population through the pursuit of desirable courses of action in five major areas of statewide concern which merit priority attention: 1) economic development; 2) population growth and land resource management; 3) affordable housing; 4) crime and criminal justice; and 5) quality education (§226-102). The priority guidelines applicable to Wai'ale are discussed below:

HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
HRS § 226-101: Purpose. <i>The purpose of this part is to establish overall priority guidelines to address areas of statewide concern.</i>			
HRS § 226-102: Overall direction. <i>The State shall strive to improve the quality of life for Hawaii's present and future present and future population through the pursuit of desirable courses of action in five major areas of statewide concern which merit priority attention: economic development, population growth and land resource management, affordable housing, crime and criminal justice, and quality education.</i>			
HRS § 226-103: Economic priority guidelines.			
<i>(a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawaii's people and achieve a stable and diversified economy:</i>			
(1) Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.			X
(A) Encourage investments which:			X
(i) Reflect long term commitments to the State;			X
(ii) Rely on economic linkages within the local economy;			X

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HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>(iii) Diversify the economy;</i>			X
<i>(iv) Reinvest in the local economy;</i>			X
<i>(v) Are sensitive to community needs and priorities; and</i>			X
<i>(vi) Demonstrate a commitment to provide management opportunities to Hawaii residents.</i>			X
<i>(2) Encourage the expansion of technological research to assist industry development and support the development and commercialization of technological advancements.</i>			X
<i>(3) Improve the quality, accessibility, and range of services provided by government to business, including data and reference services and assistance in complying with governmental regulations.</i>			X
<i>(4) Seek to ensure that state business tax and labor laws and administrative policies are equitable, rational, and predictable.</i>			X
<i>(5) Streamline the building and development permit and review process, and eliminate or consolidate other burdensome or duplicative governmental requirements imposed on business, where public health, safety and welfare would not be adversely affected.</i>			X
<i>(6) Encourage the formation of cooperatives and other favorable marketing or distribution arrangements at the regional or local level to assist Hawaii's small-scale producers, manufacturers, and distributors.</i>			X
<i>(7) Continue to seek legislation to protect Hawaii from transportation interruptions between Hawaii and the continental United States.</i>			X
<i>(8) Provide public incentives and encourage private initiative to develop and attract industries which promise long-term growth potentials and which have the following characteristics:</i>			X
<i>(A) An industry that can take advantage of Hawaii's unique location and available physical and human resources.</i>			X
<i>(B) A clean industry that would have minimal adverse effects on Hawaii's environment.</i>			X
<i>(C) An industry that is willing to hire and train Hawaii's people to meet the industry's labor needs at all levels of employment.</i>			X
<i>(D) An industry that would provide reasonable income and steady employment.</i>			X
<i>(9) Support and encourage, through educational and technical assistance programs and other means, expanded opportunities for employee ownership and participation in Hawaii business.</i>			X
<i>(10) Enhance the quality of Hawaii's labor force and develop and maintain career opportunities for Hawaii's people through the following actions:</i>			X
<i>(A) Expand vocational training in diversified agriculture, aquaculture, information industry, and other areas where growth is desired and feasible.</i>			X
<i>(B) Encourage more effective career counseling and guidance in high schools and post-secondary institutions to inform students of present and future career opportunities.</i>			X
<i>(C) Allocate educational resources to career areas where high employment is expected and where growth of new industries is desired.</i>			X
<i>(D) Promote career opportunities in all industries for Hawaii's people by encouraging firms doing business in the State to hire residents.</i>			X
<i>(E) Promote greater public and private sector cooperation in determining industrial training needs and in developing relevant curricula and on- the-job training opportunities.</i>			X
<i>(F) Provide retraining programs and other support services to assist entry of displaced workers into alternative employment.</i>			X

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HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>(b) Priority guidelines to promote the economic health and quality of the visitor industry:</i>			
<i>(1) Promote visitor satisfaction by fostering an environment which enhances the Aloha Spirit and minimizes inconveniences to Hawaii's residents and visitors.</i>			X
<i>(2) Encourage the development and maintenance of well-designed, adequately serviced hotels and resort destination areas which are sensitive to neighboring communities and activities and which provide for adequate shoreline setbacks and beach access.</i>			X
<i>(3) Support appropriate capital improvements to enhance the quality of existing resort destination areas and provide incentives to encourage investment in upgrading, repair, and maintenance of visitor facilities.</i>			X
<i>(4) Encourage visitor industry practices and activities which respect, preserve, and enhance Hawaii's significant natural, scenic, historic, and cultural resources.</i>			X
<i>(5) Develop and maintain career opportunities in the visitor industry for Hawaii's people, with emphasis on managerial positions.</i>			X
<i>(6) Support and coordinate tourism promotion abroad to enhance Hawaii's share of existing and potential visitor markets.</i>			X
<i>(7) Maintain and encourage a more favorable resort investment climate consistent with the objectives of this chapter.</i>			X
<i>(8) Support law enforcement activities that provide a safer environment for both visitors and residents alike.</i>			X
<i>(9) Coordinate visitor industry activities and promotions to business visitors through the state network of advanced data communication techniques.</i>			X
<i>(c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:</i>			
<i>(1) Provide adequate agricultural lands to support the economic viability of the sugar and pineapple industries.</i>			X
<i>(2) Continue efforts to maintain federal support to provide stable sugar prices high enough to allow profitable operations in Hawaii.</i>			X
<i>(3) Support research and development, as appropriate, to improve the quality and production of sugar and pineapple crops.</i>			X
<i>(d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:</i>			
<i>(1) Identify, conserve, and protect agricultural and aquacultural lands of importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquacultural uses of such lands.</i>			X
<i>(2) Assist in providing adequate, reasonably priced water for agricultural activities.</i>			X
<i>(3) Encourage public and private investment to increase water supply and to improve transmission, storage, and irrigation facilities in support of diversified agriculture and aquaculture.</i>			X
<i>(4) Assist in the formation and operation of production and marketing associations and cooperatives to reduce production and marketing costs.</i>			X
<i>(5) Encourage and assist with the development of a waterborne and airborne freight and cargo system capable of meeting the needs of Hawaii's agricultural community.</i>			X
<i>(6) Seek favorable freight rates for Hawaii's agricultural products from interisland and overseas transportation operators.</i>			X
<i>(7) Encourage the development and expansion of agricultural and aquacultural activities which offer long-term economic growth potential and employment opportunities.</i>			X
<i>(8) Continue the development of agricultural parks and other programs to assist small independent farmers in securing agricultural lands and loans.</i>			X
<i>(9) Require agricultural uses in agricultural subdivisions and closely monitor the uses in these subdivisions.</i>			X

HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
(10) Support the continuation of land currently in use for diversified agriculture.			X
<i>(e) Priority guidelines for water use and development:</i>			
(1) Maintain and improve water conservation programs to reduce the overall water consumption rate.	X		
(2) Encourage the improvement of irrigation technology and promote the use of nonpotable water for agricultural and landscaping purposes.	X		
(3) Increase the support for research and development of economically feasible alternative water sources.	X		
(4) Explore alternative funding sources and approaches to support future water development programs and water system improvements.	X		
<i>(f) Priority guidelines for energy use and development:</i>			
(1) Encourage the development, demonstration, and commercialization of renewable energy sources.			X
(2) Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.			X
(3) Provide incentives to encourage the use of energy conserving technology in residential, industrial, and other buildings.			X
(4) Encourage the development and use of energy conserving and cost-efficient transportation systems.			X
<i>(g) Priority guidelines to promote the development of the information industry:</i>			
(1) Establish an information network that will serve as the catalyst for establishing a viable information industry in Hawaii.			X
(2) Encourage the development of services such as financial data processing, a products and services exchange, foreign language translations, telemarketing, teleconferencing, a twenty-four-hour international stock exchange, international banking, and a Pacific Rim management center.			X
(3) Encourage the development of small businesses in the information field such as software development, the development of new information systems and peripherals, data conversion and data entry services, and home or cottage services such as computer programming, secretarial, and accounting services.			X
(4) Encourage the development or expansion of educational and training opportunities for residents in the information and telecommunications fields.			X
(5) Encourage research activities, including legal research in the information and telecommunications fields.			X
(6) Support promotional activities to market Hawaii's information industry services.			X

Discussion: As discussed in Section 4.8.1, the applicant is exploring several potential drinking water source opportunities to serve Wai'ale. These include surface water treatment and new well sources in the Central Maui region. ~~The primary focus has been the development of a surface water treatment facility utilizing water from the West Maui ditch system.~~

As discussed in Section 4.8.2, there are two alternatives for treating the wastewater generated by Wai'ale. The first alternative involves constructing an on-site wastewater treatment plant (WWTP) for treatment of the wastewater generated by Wai'ale only. This alternative would require effluent reuse and/or disposal, options for which are also discussed. The second alternative involves conveying the wastewater from Wai'ale to the Kahului WWRF, in the event that there is capacity available to treat the flows, either with

HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
or without future expansion of the Kahului WWRF.			
HRS § 226-104: Population growth and land resources priority guidelines.			
<i>(a) Priority guidelines to effect desired statewide growth and distribution:</i>			
<i>(1) Encourage planning and resource management to insure that population growth rates throughout the State are consistent with available and planned resource capacities and reflect the needs and desires of Hawaii's people.</i>	X		
<i>(2) Manage a growth rate for Hawaii's economy that will parallel future employment needs for Hawaii's people.</i>	X		
<i>(3) Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State.</i>	X		
<i>(4) Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.</i>			X
<i>(5) Explore the possibility of making available urban land, low-interest loans, and housing subsidies to encourage the provision of housing to support selective economic and population growth on the neighbor islands.</i>			X
<i>(6) Seek federal funds and other funding sources outside the State for research, program development, and training to provide future employment opportunities on the neighbor islands.</i>			X
<i>(7) Support the development of high technology parks on the neighbor islands.</i>			X
<i>(b) Priority guidelines for regional growth distribution and land resource utilization:</i>			
<i>(1) Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures, and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles.</i>			X
<i>(2) Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.</i>			X
<i>(3) Restrict development when drafting of water would result in exceeding the sustainable yield or in significantly diminishing the recharge capacity of any groundwater area.</i>			X
<i>(4) Encourage restriction of new urban development in areas where water is insufficient from any source for both agricultural and domestic use.</i>			X
<i>(5) In order to preserve green belts, give priority to state capital-improvement funds which encourage location of urban development within existing urban areas except where compelling public interest dictates development of a noncontiguous new urban core.</i>			X
<i>(6) Seek participation from the private sector for the cost of building infrastructure and utilities, and maintaining open spaces.</i>			X
<i>(7) Pursue rehabilitation of appropriate urban areas.</i>			X
<i>(8) Support the redevelopment of Kakaako into a viable residential, industrial, and commercial community.</i>			X
<i>(9) Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.</i>			X
<i>(10) Identify critical environmental areas in Hawaii to include but not be limited to the following: watershed and recharge areas; wildlife habitats (on land and in the ocean); areas with endangered species of plants and wildlife; natural streams and water bodies; scenic and recreational shoreline resources; open space and natural areas; historic and cultural sites; areas particularly sensitive to reduction in water and air quality; and scenic resources.</i>			X
<i>(11) Identify all areas where priority should be given to preserving rural character and lifestyle.</i>			X

HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
(12) Utilize Hawaii's limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations.			X
(13) Protect and enhance Hawaii's shoreline, open spaces, and scenic resources.			X
<p>Discussion: The <i>Draft Maui Island Plan</i> projects the island of Maui's resident population to grow from 129,471 in 2005 to 176,687 in 2030. This is a 1.46% annual growth rate which equates to a 36.5 percent increase in population over the 25 year period. These projections indicate a population increase of 16 percent between 2010 and 2020, and an increase of 12 percent between 2020 and 2030. According to the <i>Socio-Economic Forecast</i>, the total population is not expected to increase equally throughout the island of Maui; rather, there are specific regions where population growth is more likely to occur. One of these regions is Wailuku-Kahului, where the population is expected to grow by 20,939 persons between the years 2005 to 2030; an increase of nearly 45 percent over a 25 year period.</p> <p>According to the <i>Socio-Economic Forecast</i>, the Wailuku-Kahului population is expected to grow by 8,989 persons between 2015 to 2025, an increase of nearly 16 percent, and over about the same time period as Wai'ale. The County's projected increase in population will result in an increase in demand for housing and jobs.</p>			
HRS § 226-105: Crime and criminal justice.			
<i>Priority guidelines in the area of crime and criminal justice:</i>			
(1) Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.			X
(2) Target state and local resources on efforts to reduce the incidence of violent crime and on programs relating to the apprehension and prosecution of repeat offenders.			X
(3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.			X
(4) Reduce overcrowding or substandard conditions in correctional facilities through a comprehensive approach among all criminal justice agencies which may include sentencing law revisions and use of alternative sanctions other than incarceration for persons who pose no danger to their community.			X
(5) Provide a range of appropriate sanctions for juvenile offenders, including community-based programs and other alternative sanctions.			X
(6) Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization.			X
<p>Discussion: The priority guidelines for crime and criminal justice are not applicable to Wai'ale.</p>			
HRS § 226-106: Affordable housing.			
<i>Priority guidelines for the provision of affordable housing:</i>			
(1) Seek to use marginal or nonessential agricultural land and public land to meet housing needs of low- and moderate-income and gap-group households.	X		
(2) Encourage the use of alternative construction and development methods as a			X

HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>means of reducing production costs.</i>			
(3) <i>Improve information and analysis relative to land availability and suitability for housing.</i>			X
(4) <i>Create incentives for development which would increase home ownership and rental opportunities for Hawaii's low- and moderate-income households, gap-group households, and residents with special needs.</i>	X		
(5) <i>Encourage continued support for government or private housing programs that provide low interest mortgages to Hawaii's people for the purchase of initial owner- occupied housing.</i>			X
(6) <i>Encourage public and private sector cooperation in the development of rental housing alternatives.</i>	X		
(7) <i>Encourage improved coordination between various agencies and levels of government to deal with housing policies and regulations.</i>			X
(8) <i>Give higher priority to the provision of quality housing that is affordable for Hawaii's residents and less priority to development of housing intended primarily for individuals outside of Hawaii.</i>	X		
<p>Discussion: As discussed in Section 4.9.3, Wai'ale will include homes priced for a range of consumer groups, including the workforce market segment in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). All workforce market segment homes will be priced and subject to restrictions in accordance with the requirements of Chapter 2.96, MCC to ensure they remain both available and affordable for full-time Maui residents.</p>			
HRS § 226-107: Quality education.			
<i>Priority guidelines to promote quality education:</i>			
(1) <i>Pursue effective programs which reflect the varied district, school, and student needs to strengthen basic skills achievement;</i>			X
(2) <i>Continue emphasis on general education "core" requirements to provide common background to students and essential support to other university programs;</i>			X
(3) <i>Initiate efforts to improve the quality of education by improving the capabilities of the education work force;</i>			X
(4) <i>Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision-making responsibilities;</i>			X
(5) <i>Increase and improve the use of information technology in education by the availability of telecommunications equipment for:</i>			X
(A) <i>The electronic exchange of information;</i>			X
(B) <i>Statewide electronic mail; and</i>			X
(C) <i>Access to the Internet.</i>			X
<i>Encourage programs that increase the public's awareness and understanding of the impact of information technologies on our lives;</i>			X
(1) <i>Pursue the establishment of Hawaii's public and private universities and colleges as research and training centers of the Pacific;</i>			X
(2) <i>Develop resources and programs for early childhood education;</i>			X
(3) <i>Explore alternatives for funding and delivery of educational services to improve the overall quality of education; and</i>			X
(4) <i>Strengthen and expand educational programs and services for students with special needs.</i>			X

HAWAII STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<p>Discussion: Wai'ale will not directly establish education programs. Therefore, these priority guidelines are not applicable. However, as discussed in Section 4.10.1, to accommodate the educational needs of children living in Wai'ale and the surrounding neighborhoods, it is estimated that a middle school will be needed within Wai'ale. A&B Properties, Inc. has been coordinating with the DOE regarding a proposed site for the middle school within the Wai'ale conceptual master plan. The final configuration and design of the proposed middle school will need to be confirmed by the DOE.</p>			
HRS § 226-108: Sustainability			
<i>Priority guidelines and principles to promote sustainability</i>			
<i>(1) Encouraging balanced economic, social, community, and environmental priorities;</i>			X
<i>(1) Encouraging planning that respects and promotes living within the natural resources and limits of the State;</i>	X		
<i>(2) Promoting a diversified and dynamic economy;</i>	X		
<i>(3) Encouraging respect for the host culture;</i>	X		
<i>(4) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations</i>	X		
<i>(5) Considering the principles of the ahupuaa system; and</i>	X		
<i>(6) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawaii.</i>			X
<p>Discussion: A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale and will implement, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, and environmental stewardship, consistent with the standards and guidelines promulgated by the Building Industry Association of Hawaii, the U.S. Green Building Council, the Hawaii Commercial Building Guidelines for Energy Star, and Green Communities into the design and construction of Wai'ale. A&B Properties, Inc. will also provide information to home purchasers regarding energy conservation measures that may be undertaken by individual homeowners.</p>			

5.1.5 State Functional Plans

The Hawai'i State Plan directs State agencies to prepare functional plans for their respective program areas. There are 14 state functional plans that serve as the primary implementing vehicle for the goals, objectives, and policies of the Hawai'i State Plan. The functional plans applicable to Wai'ale, along with each plan's applicable objectives, policies, and actions, are discussed below.

Table 5-3: State Functional Plans

HAWAI'I STATE FUNCTIONAL PLANS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
AGRICULTURE FUNCTIONAL PLAN			
Objective A: <i>Achievement of increased agricultural production and growth through cultural and management practices.</i>			X
Objective B: <i>Achievement of an orderly agricultural marketing system through product promotion and industry organization.</i>			X
Objective C: <i>Achievement of increased consumption of and demand for Hawaii's agricultural products through consumer education and product quality.</i>			X
Objective D: <i>Achievement of optimal contribution by agriculture to the State's economy.</i>			X
Objective E: <i>Achievement of adequate capital, and knowledge of its proper management, for agricultural development.</i>			X
Objective F: <i>Achievement of increased agricultural production and growth through pest and disease controls.</i>			X
Objective G: <i>Achievement of effective protection and improved quality of Hawaii's land, water, and air.</i>			X
Objective H: <i>Achievement of productive agricultural use of lands most suitable and needed for agriculture.</i>			X
Objective I: <i>Achievement of efficient and equitable provision of adequate water for agricultural use.</i>			X
Objective J: <i>Achievement of maximum degree of public understanding and support of agriculture in Hawaii.</i>			X
Objective K: <i>Achievement of adequate supply of properly trained labor for agricultural needs.</i>			X
Objective L: <i>Achievement of adequate transportation services and facilities to meet agricultural needs.</i>			X
Objective M: <i>Achievement of adequate support services and infrastructure to meet agricultural needs.</i>			X

HAWAII STATE FUNCTIONAL PLANS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<p>Discussion: The agricultural impact of Wai'ale is near negligible when taken in the context of recent trends on Maui. In the last 30 years, the closures of Wailuku Sugar and Pioneer Mill have taken significant acreages out of active sugar cultivation. More recently, Maui Land & Pineapple's shutdown of its pineapple operations has also added to the availability of agricultural acreage on Maui. These actions have greatly increased the supply of non-sugar based agricultural lands. Much of these lands of the former plantations continue to remain fallow and provide opportunities for future agricultural use. Rather than the availability of land, limiting factors to the growth of diversified agriculture include the market demand and profitability of the various agricultural crops and the availability of water. Wai'ale will involve the use of approximately 545 acres of land, which represents approximately 0.2 percent of the roughly 246,000 acres of State Agricultural district lands on the island of Maui.</p>			
CONSERVATION LANDS FUNCTIONAL PLAN			
Objective IA: <i>Establishment of data bases for inventories of existing lands and resources.</i>			X
Objective IB: <i>Establishment of criteria for management of land and natural resources.</i>			X
Objective IIA: <i>Establishment of plans for natural resources and land management.</i>			X
Objective IIB: <i>Protection of fragile or rare natural resources.</i>	X		
Objective IIC: <i>Enhancement of natural resources.</i>	X		
Objective IID: <i>Appropriate development of natural resources.</i>	X		
Objective IIE: <i>Promotion and marketing of appropriate natural resources designated for commercial development.</i>			X
Objective IIF: <i>Increase enforcement of land and natural resource use laws and regulations.</i>			X
Objective IIIA: <i>Develop and implement conservation education programs for the general public and visitors.</i>			X
Objective IIIB: <i>Increase access to land and natural resource data by the public and increase cooperation between agencies by making access to land and natural resource information more efficient.</i>			X
<p>Discussion: While most of the property has been obliterated by human activities, Wai'ale will feature cultural preserve areas dedicated to the preservation of archaeological features and lithified sand dunes. Also, the applicant, in cooperation with the U.S. Fish and Wildlife Service, will develop an appropriate mitigation plan for the endangered Blackburn's sphinx moth that was identified on the property.</p>			
EDUCATION FUNCTIONAL PLAN			
Objective A(1): Academic Excellence. <i>Emphasize quality educational programs in Hawaii's institutions to promote academic excellence.</i>			X
Objective A(2): Basic Skills. <i>Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning. Pursue effective programs which reflect the varied district, school, and student needs to strengthen basic skills achievement.</i>			X

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

HAWAII STATE FUNCTIONAL PLANS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
Objective A(3): Education Workforce. Initiate efforts to improve the quality of education by improving the capabilities of the education workforce.			X
Objective A(4): Services and Facilities. Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.			X
Objective B(1): Alternatives for Funding and Delivery. Explore alternatives for funding and delivery of educational services to improve the overall quality of education.			X
Objective B(2): Autonomy and flexibility. Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision-making responsibilities.			X
Objective B(3): Increased Use of Technology. Increase and improve the use information technology in education and encourage programs which increase the public's awareness and understanding of the impact of information technologies on our lives.			X
Objective B(4): Personal Development. Support education programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups.			X
Objective B(5): Students with Special Needs. Provide appropriate educational opportunities for groups with special needs.			X
Objective C(1): Early Childhood Education. Develop resources and programs for early childhood education.			X
Objective C(2): Hawaii's Cultural Heritage. Promote educational programs which enhance understanding of Hawaii's cultural heritage.			X
Objective C(3): Research Programs and [Communication] Activities. Support research programs and activities that enhance the education programs of the State.			X
<p>Discussion: As discussed in Section 4.10.1, to accommodate the educational needs of children living in Wai'ale and the surrounding neighborhoods, it is estimated that a middle school will be needed within Wai'ale. A&B Properties, Inc. has been coordinating with the DOE regarding a proposed site for the middle school within the Wai'ale conceptual master plan. The final configuration and design of the proposed middle school will need to be confirmed by the DOE.</p>			
EMPLOYMENT FUNCTIONAL PLAN			
Objective A: Improve the qualifications of entry-level workers and their transition to employment.			X
Objective B: Develop and deliver education, training and related services to ensure and maintain a quality and competitive workforce.			X
Objective C: Improve labor exchange.			X
Objective D: Improve the quality of life for workers and families.	X		
Objective E: Improve planning of economic development, employment and training activities			X
<p>Discussion: Wai'ale will improve the quality of life for workers and families by providing: 1) workforce market segment homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy); and 2) homes near regional employment centers, thereby</p>			

HAWAII STATE FUNCTIONAL PLANS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
decreasing commuting and increasing quality of life and environmental stewardship.			
ENERGY FUNCTIONAL PLAN			
Objective A: <i>Moderate the growth in energy demand through conservation and energy efficiency.</i>	X		
Objective B: <i>Displace oil and fossil fuels through alternate and renewable energy resources.</i>	X		
Objective C: <i>Promote energy education and legislation.</i>			X
Objective D: <i>Support and develop an integrated approach to energy development and management.</i>			X
Objective E: <i>Ensure State's abilities to implement energy emergency actions immediately in event of fuel supply disruptions. Ensure essential public services are maintained and provisions are made to alleviate economic and personal hardships which may arise.</i>			X
<p>Discussion: As discussed in Sections 2.6, A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale and will implement, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, and environmental stewardship, consistent with the standards and guidelines promulgated by the Building Industry Association of Hawaii, the U.S. Green Building Council, the Hawaii Commercial Building Guidelines for Energy Star, and Green Communities into the design and construction of Wai'ale. A&B Properties, Inc. will also provide information to home purchasers regarding energy conservation measures that may be undertaken by individual homeowners.</p> <p>The design and construction of energy systems for residential units will seek to meet applicable Energy Star requirements established by the U.S. Environmental Protection Agency (EPA) in effect at the time of construction. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.</p>			
HEALTH FUNCTIONAL PLAN			
Objective 1: <i>Health promotion and disease prevention. Reduction in the incidence, morbidity and mortality associated with preventable and controllable conditions.</i>			X
Objective 2: <i>Prevention and control of communicable diseases. Reduction in the incidence, morbidity, and mortality associated with infectious and communicable diseases.</i>			X
Objective 3: <i>Health needs of special populations with impaired access to health care. Increased availability and accessibility of health services for groups with impaired access to health care programs.</i>			X
Objective 4: <i>Community hospitals system. Development of a community hospital system which is innovative, responsive and supplies high quality care to the constituencies it serves.</i>			X

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

HAWAII STATE FUNCTIONAL PLANS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
Objective 5: <i>Environmental programs to protect and enhance the environment. Continued development of new environmental protection and health services programs to protect, monitor, and enhance the quality of life in Hawaii.</i>			X
Objective 6: <i>DOH leadership. To improve the Department of Health's ability to meet the public health need of the State of Hawaii in the most appropriate, beneficial and economical way possible.</i>			X
Discussion: Wai'ale does not include the creation of medical or health programs; therefore, the Health Functional Plan is not applicable.			
HIGHER EDUCATION FUNCTIONAL PLAN			
Objective A: <i>A number and variety of postsecondary education institutions sufficient to provide the diverse range of programs required to satisfy individual and societal needs and interests.</i>			X
Objective B: <i>The highest level of quality, commensurate with its mission and objectives, of each educational, research, and public service program offered in Hawaii by an institution of higher education.</i>			X
Objective C: <i>Provide appropriate educational opportunities for all who are willing and able to benefit from postsecondary education.</i>			X
Objective D: <i>Provide financing for postsecondary education programs sufficient to ensure adequate diversity, high quality, and wide accessibility.</i>			X
Objective E: <i>Increase program effectiveness and efficiency through better coordination of educational resources.</i>			X
Discussion: Wai'ale does not include the creation of higher education programs; therefore, the Higher Education Functional Plan is not applicable.			
HISTORIC PRESERVATION FUNCTIONAL PLAN			
Objective A: <i>Identification of historic properties.</i>	X		
Objective B: <i>Protection of historic properties.</i>	X		
Objective C: <i>Management and treatment of historic properties.</i>	X		
Objective D: <i>Provision of adequate facilities to preserve historic resources.</i>	X		
Objective E: <i>The establishment of programs to collect and conserve historic records, artifacts, and oral histories and to document and perpetuate traditional arts, skills, and culture.</i>	X		
Objective F: <i>Provision of better access to historic information.</i>			X
Objective G: <i>Enhancement of skills and knowledge needed to preserve historical resources.</i>			X
Discussion: An archaeological inventory survey of the property was undertaken and subsequently reviewed and accepted by the SHPD. Several previous archaeological investigations have occurred on portions of the property and are described in the AIS. These investigations have led to the documentation of burials, a terrace, and several historic-period sites. <u>Full-time archaeological monitoring shall occur during future ground altering disturbance at</u> Precautionary archaeological monitoring is recommended for portions of the property which contain natural, sandy matrices that are relatively			

HAWAII STATE FUNCTIONAL PLANS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
undisturbed. To address burials identified at the site, including those within the former Hawaiian Cement sand mining area, a Final Burial Site Component of a Data Recovery Plan and Preservation Plan for State Sites Nos. 50-50-04-5504 and -6679 has been prepared. The preservation plan was reviewed by the Maui/Lanai Islands Burial Council and subsequently accepted by the SHPD. A&B Properties, Inc. and its <u>archaeological</u> contractors will comply with all State and County laws and rules regarding the preservation of archaeological and historic sites.			
HOUSING FUNCTIONAL PLAN			
Objective A: <i>Homeownership for at least sixty percent, or roughly 248,500 households by the year 2000.</i>			X
Objective B: <i>Sufficient amount of affordable rental housing units by the year 2000 so as to increase the State's rental vacancy rate to at least 3%, with priority given to increasing the supply of units affordable to very low and lower income households.</i>			X
Objective C: <i>Increased development of rental housing units for the elderly and other special need groups to afford them an equal access to housing.</i>			X
Objective D: <i>Preservation of existing public and private housing stock.</i>			X
Objective E: <i>Acquire and designate land suitable for housing development in sufficient amount to locate the deficit in housing units by the year 2000.</i>			X
Objective F: <i>Maintain a statewide housing data system for use by public and private agencies engaged in the provision of housing.</i>			X
<p>Discussion: Although Wai'ale does not directly relate to the Housing Functional Plan's objectives, Wai'ale will help to address the housing demand of a growing population by providing homes in the Wailuku-Kahului region priced for a wide range of consumer groups, including workforce market segment homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy).</p> <p><u>During the Draft EIS public review period, the State Hawai'i Housing Finance and Development Corporation wrote: "The proposed project, and in particular residential use, appears to be consistent with the affordable housing policy set forth in the Hawai'i State Plan of increasing homeownership and rental housing opportunities and choices in terms of quality, location, cost densities, style and size of housing."</u></p>			
HUMAN SERVICES FUNCTIONAL PLAN			
Objective A: <i>To sustain and improve current elder abuse and neglect services.</i>			X
Objective B: <i>To increase cost-effective, high quality home and community based services.</i>			X
Objective C: <i>To increase home-based services to keep children in their homes and to increase placement resources for those children who must be temporarily or permanently removed from their homes, due to abuse or neglect.</i>			X
Objective D: <i>To address factors that contribute to child abuse and other forms of family violence.</i>			X
Objective E: <i>To provide affordable, accessible, and quality child care.</i>			X

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

HAWAII STATE FUNCTIONAL PLANS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
Objective G: <i>To provide AFDC recipients with a viable opportunity to become independent of the welfare system.</i>			X
Objective H: <i>To facilitate client access to human services.</i>			X
Objective I: <i>To eliminate organizational barriers which limit client access to human services.</i>			X
<p>Discussion: Wai'ale does not include the creation of human service programs; therefore, the Human Services Functional Plan is not applicable. In their Draft EIS public review comments, the State Department of Human Services wrote: "...we do not foresee any negative impact from this project on child care services in the community."</p>			
RECREATION FUNCTIONAL PLAN			
Objective I.A: <i>Address the problem of saturation of the capacity of beach parks and nearshore waters.</i>			X
Objective I.B: <i>Reduce the incidence of ocean recreation accidents.</i>			X
Objective I.C: <i>Resolve conflicts between different activities at heavily used ocean recreation areas.</i>			X
Objective I.D: <i>Provide adequate boating facilities. Balance the demand for boating facilities against the need to protect the marine environment from potential adverse impacts.</i>			X
Objective II.A: <i>Plan, develop, and promote recreational activities and facilities in mauka and other areas to provide a wide range of alternatives.</i>	X		
Objective II.B: <i>Meet special recreation needs of the elderly, the disabled, woman, single-parent families, immigrants, and other groups.</i>			X
Objective II.C: <i>Improve and expand the provision of recreation facilities in urban areas and local communities.</i>	X		
Objective III.A: <i>Prevent the loss of access to shoreline and upland recreation areas due to new developments.</i>			X
Objective III.B: <i>Resolve the problem of landowner liability that seriously hampers public access over private lands.</i>			X
Objective III.C: <i>Increase access to State Forest Reserve lands over federal property, leased State lands, and other government lands.</i>			X
Objective III.D: <i>Acquire, develop, and manage additional public accessways.</i>	X		
Objective IV.A: <i>Promote a conservation ethic in the use of Hawaii's recreational resources.</i>	X		
Objective IV.B: <i>Prevent degradation of the marine environment.</i>	X		
Objective IV.C: <i>Improve the State's enforcement capabilities.</i>			X
Objective IV.D: <i>Mitigate adverse impacts of tour helicopters on the quality of recreational experiences in wilderness areas.</i>			X
Objective V.A: <i>Properly maintain existing parks and recreation areas.</i>	X		
Objective V.B: <i>Promote interagency coordination and cooperation to facilitate sharing of resources, joint development efforts, clarification of responsibilities and jurisdictions, and improvements in enforcement capabilities.</i>			X
Objective V.C: <i>Assure adequate support for priority outdoor recreation programs and facilities.</i>			X
Objective VI.A: <i>Increase recreational access and opportunities in Hawaii's wetlands.</i>			X
Objective VI.B: <i>Develop an adequate information base to assist the County planning departments and other regulatory agencies in make decisions</i>			X

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

HAWAII STATE FUNCTIONAL PLANS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>regarding wetlands.</i>			
Objective VI.C: <i>Assure the protection of the most valuable wetlands in the state.</i>			X
<p>Discussion: Wai'ale's mix of land uses is an essential component to providing alternatives to driving such as walking or biking. Wai'ale's open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, protection of important habit and natural features, and an overall setting of enhanced environmental quality and community health.</p>			
TOURISM FUNCTIONAL PLAN			
Objective I.A: <i>Development, implementation and maintenance of policies and actions which support the steady and balanced growth of the visitor industry.</i>			X
Objective II.A: <i>Development and maintenance of well-designed visitor facilities and related developments which are sensitive to the environment, sensitive to neighboring communities and activities, and adequately serviced by infrastructure and support services.</i>			X
Objective III.A: <i>Enhancement of respect and regard for the fragile resources which comprise Hawaii's natural and cultural environment. Increased preservation and maintenance efforts.</i>			X
Objective IV.A: <i>Support of Hawaii's diverse range of lifestyles and natural environment.</i>			X
Objective IV.B: <i>Achievement of mutual appreciation among residents, visitors, and the visitor industry.</i>			X
Objective V.A: <i>Development of a productive workforce to maintain a high quality visitor industry.</i>			X
Objective V.B: <i>Enhancement of career and employment opportunities in the visitor industry.</i>			X
Objective VI.A: <i>Maintenance of a high customer awareness of Hawaii as a visitor destination in specific desired market segments.</i>			X
<p>Discussion: Wai'ale is not targeting the visitor industry; therefore, the Tourism Functional Plan is not applicable.</p>			
TRANSPORTATION FUNCTIONAL PLAN			
Objective I.A: <i>Expansion of the transportation system.</i>			X
Objective I.B: <i>Reduction of travel demand through zoning and decentralization initiatives.</i>			X
Objective I.C: <i>Management of existing transportation systems through a program of transportation systems management (TSM).</i>			X
Objective I.D: <i>Identification and reservation of lands and rights-of-way required for future transportation improvements.</i>			X
Objective I.E: <i>Planning and designing State highways to enhance inter-regional mobility.</i>			X
Objective I.F: <i>Improving and enhancing transportation safety.</i>			X
Objective I.G: <i>Improved transportation maintenance programs.</i>			X
Objective I.H: <i>Ensure that transportation facilities are accessible to people with disabilities.</i>			X

WAI'ALE ~~Draft-Final~~ Environmental Impact Statement

HAWAII STATE FUNCTIONAL PLANS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
Objective II.A: <i>Development of a transportation infrastructure that supports economic development initiatives.</i>	X		
Objective III.B: <i>Expansion of revenue bases for transportation improvements.</i>			X
Objective IV.A: <i>Providing educational programs.</i>			X
<p>Discussion: Although Wai'ale does not directly relate to the Transportation Functional Plan's objectives, as discussed in Section 4.4, Wai'ale will contribute to a wide-range of traffic-related improvements that will not only address traffic impacts specifically related to the creation of Wai'ale, but will also address traffic impacts that would be necessary because of general regional population growth.</p>			
WATER RESOURCES DEVELOPMENT FUNCTIONAL PLAN			
Objective A: <i>Enunciate State water policy and improve management framework.</i>			X
Objective B: <i>Maintain the long-term availability of freshwater supplies, giving consideration to the accommodation of important environmental values.</i>			X
Objective C: <i>Improve management of floodplains.</i>			X
Objective D: <i>Assure adequate municipal water supplies for planned urban growth.</i>			X
Objective E: <i>Assure the availability of adequate water for agriculture.</i>			X
Objective F: <i>Encourage and coordinate with other water programs the development of self-supplied industrial water and the production of water-based energy.</i>	X		
Objective G: <i>Provide for the protection and enhancement of Hawaii's freshwater and estuarine environment.</i>	X		
Objective H: <i>Improve State grant and loan procedures for water program and projects.</i>			X
Objective I: <i>Pursue water resources data collection and research to meet changing needs.</i>	X		
<p>Discussion: As discussed in Section 4.8.1, the applicant is exploring several potential drinking water source opportunities to serve Wai'ale. These include surface water treatment and new well sources in the Central Maui region. The primary focus has been the development of a surface water treatment facility utilizing water from the West Maui ditch system.</p> <p>As discussed in Section 4.8.2, there are two alternatives for treating the wastewater generated by Wai'ale. The first alternative involves constructing an on-site wastewater treatment plant (WWTP) for treatment of the wastewater generated by Wai'ale only. This alternative would require effluent reuse and/or disposal, options for which are also discussed. The second alternative involves conveying the wastewater from Wai'ale to the Kahului WWRF, in the event that there is capacity available to treat the flows, either with or without future expansion of the Kahului WWRF.</p>			

5.2 COUNTY OF MAUI

County-specific land use plans and ordinances pertaining to Wai'ale include the *Countywide Policy Plan*, *Draft Maui Island Plan*, and the *Wailuku-Kahului Community Plan*.

5.2.1 Countywide Policy Plan

The *Countywide Policy Plan* was adopted in March 2010 and is a comprehensive policy document for the islands of Maui County to the year 2030. The plan replaces the *General Plan of the County of Maui 1990 Update* and provides the policy framework for the development of the forthcoming *Maui Island Plan* as well as for updating the nine detailed Community Plans.

The *Countywide Policy Plan* provides broad goals, objectives, policies and implementing actions that portray the desired direction of the County's future. Goals are intended to describe a desirable condition of the County by the year 2030 and are intentionally general. Objectives tend to be more specific and may be regarded as milestones to achieve the larger goals. Policies are not intended as regulations, but instead provide a general guideline for County decision makers, departments, and collaborating organizations toward the attainment of goals and objectives. Implementing actions are specific tasks, procedures, programs, or techniques that carry out policy.

Discussion of how Wai'ale conforms to the relevant goals, objectives, policies, and implementing actions of the *Countywide Policy Plan* is provided below.

Table 5-4: Countywide Policy Plan

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
A. PROTECT THE NATURAL ENVIRONMENT			
Goal: <i>Maui County's natural environment and distinctive open spaces will be preserved, managed, and cared for in perpetuity.</i>			
Objective:			
<i>(1) Improve the opportunity to experience the natural beauty and native biodiversity of the islands for present and future generations.</i>	X		
Policies:			
<i>(a) Perpetuate native Hawaiian biodiversity by preventing the introduction of invasive species, containing or eliminating existing noxious pests, and protecting critical habitat areas.</i>	X		
<i>(b) Preserve and reestablish indigenous and endemic species' habitats and their connectivity.</i>	X		
<i>(c) Restore and protect forests, wetlands, watersheds, and stream flows, and guard against wildfires, flooding, and erosion.</i>	X		
<i>(d) Protect baseline stream flows for perennial streams, and support policies that ensure adequate stream flow to support Native Hawaiian aquatic species, traditional kalo cultivation, and self-sustaining ahupua'a.</i>			X
<i>(e) Protect undeveloped beaches, dunes, and coastal ecosystems, and restore natural</i>	X		

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>shoreline processes.</i>			
<i>(f) Protect the natural state and integrity of unique terrain, valued natural environments, and geological features.</i>	X		
<i>(g) Preserve and provide ongoing care for important scenic vistas, view planes, landscapes, and open-space resources.</i>	X		
<i>(h) Expand coordination with the State and nonprofit agencies and their volunteers to reduce invasive species, replant indigenous species, and identify critical habitat.</i>	X		
Implementing Actions:			
<i>(a) Develop island-wide networks of greenways, watercourses, and habitat corridors.</i>	X		
<p>Discussion: While most of the property has been impacted by human activities, there is a large portion of the site (approximately 28 acres) where there is a <u>are</u> relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the proposed cultural preserves (and where the highest concentration of burials reside).</p> <p>Wai'ale will be extensively landscaped as part of the development improvements, to ensure visual buffering and softening of the built landscape. The master plan includes regional and neighborhood parks, greenways and open space. As previously noted, the closest "Scenic Corridor" (as identified in the <i>Draft Maui Island Plan</i>) is Honoapi'ilani Highway. That portion of the highway closest to the property is categorized as "Medium." The average distance between Honoapi'ilani Highway and the property is approximately 3,000 feet. Waikapū Village separates and provides a buffer from Honoapi'ilani Highway and the property. It is likely that those in vehicles travelling 30 to 45 miles per hour along Honoapi'ilani Highway will be focusing their attention on the car in front of them, Waikapū Village, Mauna Kahalawai and/or Haleakalā. The property is located at a lower elevation than the nearest portion of Honoapi'ilani Highway. The proposed development of the property will not obstruct views of Haleakalā, 'Īao Valley, and the Mauna Kahalawai, or Waikapū Stream.</p> <p>The endangered Blackburn's sphinx moth has been seen on property in the egg and larval stages of growth. The applicant, in cooperation with the U.S. Fish and Wildlife Service, will develop an appropriate mitigation plan for the Blackburn's sphinx moth at the property. No other endangered or threatened flora or fauna species were identified on the property.</p>			
Objective:			
<i>(2) Improve the quality of environmentally sensitive, locally valued natural resources and native ecology of each island.</i>	X		
Policies:			
<i>(a) Protect and restore nearshore reef environments and water quality.</i>	X		
<i>(b) Protect marine resources and valued wildlife.</i>	X		
<i>(c) Improve the connection between urban environments and the natural landscape, and incorporate natural features of the land into urban design.</i>	X		
<i>(d) Utilize land-conservation tools to ensure the permanence of valued open spaces.</i>	X		
<i>(e) Mitigate the negative effects of upland uses on coastal wetlands, marine life, and</i>	X		

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>coral reefs.</i>			
<i>(f) Strengthen coastal-zone management, re-naturalization of shorelines, where possible, and filtration or treatment of urban and agricultural runoff.</i>	X		
<i>(g) Regulate the use and maintenance of stormwater-treatment systems that incorporate the use of native vegetation and mimic natural systems.</i>	X		
<i>(h) Advocate for stronger regulation of fishing, boating, cruise ship, and ecotourism activities.</i>			X
<i>(i) Restore watersheds and aquifer-recharge areas to healthy and productive status, and increase public knowledge about the importance of watershed stewardship, water conservation, and groundwater protection.</i>			X
Implementing Actions:			
<i>(a) Develop regulations to minimize runoff of pollutants into nearshore waters and reduce nonpoint and point source pollution.</i>			X
<p>Discussion: The creation of Wai'ale will not involve alteration of the shoreline or offshore environments, as Wai'ale is not located near the shoreline.</p> <p>Drainage from Wai'ale is not expected to have a significant adverse effect on groundwater, downstream properties, or marine waters. All drainage improvements will be designed so that there will be no increase in the peak rate of storm water runoff leaving the property compared to existing conditions. Runoff will be stored in detention basins located throughout the property. The use of detention basins, debris basins, and natural swales or channels will store and filter the stormwater, removing pollutants (via percolation) prior to exiting the property.</p>			
Objective:			
<i>(3) Improve the stewardship of the natural environment.</i>	X		
Policies:			
<i>(a) Preserve and protect natural resources with significant scenic, economic, cultural, environmental, or recreational value.</i>	X		
<i>(b) Improve communication, coordination, and collaboration among government agencies, nonprofit organizations, communities, individuals, and land owners that work for the protection of the natural environment.</i>	X		
<i>(c) Evaluate development to assess potential short-term and long-term impacts on land, air, aquatic, and marine environments.</i>	X		
<i>(d) Improve efforts to mitigate and plan for the impact of natural disasters, human influenced emergencies, and global warming.</i>	X		
<i>(e) Regulate access to sensitive ecological sites and landscapes.</i>	X		
<i>(f) Reduce air, noise, light, land, and water pollution, and reduce Maui County's contribution to global climate change.</i>	X		
<i>(g) Plan and prepare for and educate visitors and residents about the possible effects of global warming.</i>			X
<i>(h) Provide public access to beaches and shorelines for recreational and cultural purposes where appropriate.</i>			X
<i>(i) Educate the construction and landscape industries and property owners about the use of best management practices to prevent erosion and nonpoint source pollution.</i>	X		
<i>(j) Support the acquisition of resources with scenic, environmental, and recreational value, and encumber their use.</i>			X

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
(k) <i>Improve enforcement activities relating to the natural environment.</i>	X		
(l) <i>For each shoreline community, identify and prioritize beach-conservation objectives, and develop action plans for their implementation.</i>			X
Implementing Actions:			
(a) <i>Document, record, and monitor existing conditions, populations, and locations of flora and fauna communities.</i>	X		
(b) <i>Implement Federal and State policies that require a reduction of greenhouse-gas emissions.</i>			X
(c) <i>Establish a baseline inventory of available natural resources and their respective carrying capacities.</i>	X		
<p>Discussion: A&B Properties, Inc. is proposing an open space buffer along Waikapū Stream that will also include interpretive signage and environmental design features to filter soil-laden runoff from entering Waikapū Stream during storm events. This area will also be re-vegetated with native plant materials.</p> <p>Wai'ale is committed to limiting energy consumption. The design and construction of energy systems for residential units will seek to meet applicable Energy Star requirements established by the U.S. Environmental Protection Agency (EPA) in effect at the time of construction. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.</p> <p>Other energy-saving concepts and devices will be encouraged in the design of Wai'ale. Design standards will specify low-impact lighting and encourage energy-efficient building design and site development practices.</p>			
Objective:			
(4) <i>Educate residents and visitors about responsible stewardship practices and the interconnectedness of the natural environment and people.</i>	X		
Policies:			
(a) <i>Expand education about native flora, fauna, and ecosystems.</i>	X		
(b) <i>Align priorities to recognize that the health of the natural environment and the health of people are inextricably linked.</i>	X		
(c) <i>Promote programs and incentives that decrease greenhouse-gas emissions and improve environmental stewardship.</i>	X		
<p>Discussion: The applicant, in cooperation with the U.S. Fish and Wildlife Service, will develop an appropriate mitigation plan for the endangered Blackburn's sphinx moth at the property. A&B Properties, Inc. is proposing an open space buffer along Waikapū Stream that will also include interpretive signage and environmental design features to filter soil-laden runoff from entering Waikapū Stream during storm events. This area will also be re-vegetated with native plant materials.</p>			
B. PRESERVE LOCAL CULTURES AND TRADITIONS			
Goal: <i>Maui County will foster a spirit of pono and protect, perpetuate, and reinvigorate its residents' multi-</i>			

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>cultural values and traditions to ensure that current and future generations will enjoy the benefits of their rich island heritage.</i>			
Objective:			
(1) <i>Perpetuate the Hawaiian culture as a vital force in the lives of residents.</i>	X		
Policies:			
(a) <i>Protect and preserve access to mountain, ocean, and island resources for traditional Hawaiian cultural practices.</i>	X		
(b) <i>Prohibit inappropriate development of cultural lands and sites that are important for traditional Hawaiian cultural practices, and establish mandates for the special protection of these lands in perpetuity.</i>	X		
(c) <i>Promote the use of ahupua'a and moku management practices.</i>	X		
(d) <i>Encourage the use of traditional Hawaiian architecture and craftsmanship.</i>			X
(e) <i>Promote the use of the Hawaiian language.</i>	X		
(f) <i>Recognize and preserve the unique natural and cultural characteristics of each ahupua'a or district.</i>	X		
(g) <i>Encourage schools to promote broader incorporation of Hawaiian and other local cultures' history and values lessons into curriculum.</i>			X
(h) <i>Ensure the protection of Native Hawaiian rights.</i>	X		
(i) <i>Promote, encourage, and require the correct use of traditional place names, particularly in government documents, signage, and the tourism industry.</i>	X		
Implementing Actions:			
(a) <i>Establish alternative land use and overlay zoning designations that recognize and preserve the unique natural and cultural characteristics of each ahupua'a or district.</i>			X
(b) <i>Develop requirements for all County applicants to perpetuate and use proper traditional place names in all applications submitted.</i>			X
<p>Discussion: An archaeological inventory survey of the property was undertaken and subsequently reviewed and accepted by the SHPD. Several previous archaeological investigations have occurred on portions of the property and are described in the AIS. These investigations have led to the documentation of burials, a terrace, and several historic-period sites. <u>Full-time archaeological monitoring shall occur during future ground altering disturbance at</u> Precautionary archaeological monitoring is recommended for portions of the property which contain natural, sandy matrices that are relatively undisturbed. To address burials identified at the site, including those within the former Hawaiian Cement sand mining area, a Final Burial Site Component of a Data Recovery Plan and Preservation Plan for State Sites Nos. 50-50-04-5504 and -6679 has been prepared. The preservation plan was reviewed by the Maui/Lanai Islands Burial Council and subsequently accepted by the SHPD. A&B Properties, Inc. and its <u>archaeological</u> contractors will comply with all State and County laws and rules regarding the preservation of archaeological and historic sites.</p>			
Objective:			
(2) <i>Emphasize respect for our island lifestyle and our unique local cultures, family, and natural environment.</i>	X		
Policies:			
(a) <i>Acknowledge the Hawaiian culture as the host culture, and foster respect and</i>	X		

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<i>humility among residents and visitors toward the Hawaiian people and their practices.</i>			
<i>(b) Perpetuate a respect for diversity, and recognize the historic blending of cultures and ethnicities.</i>			X
<i>(c) Encourage the perpetuation of each culture's unique cuisine, attire, dance, music, and folklore, and other unique island traditions and recreational activities.</i>			X
<i>(d) Recognize the interconnectedness between the natural environment and the cultural heritage of the islands.</i>	X		
<i>(e) Protect and prioritize funding for recreational activities that support local cultural practices, such as surfing, fishing, and outrigger-canoe paddling.</i>			X
<p>Discussion: While the majority of the sand dunes with the property limits have been obliterated by human activities, there is a large portion of the site (approximately 28 acres) where there is a <u>are</u> relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the areas being proposed as a cultural preserve (and where the highest concentration of burials resides). There are opportunities to include appropriate interpretive signage concerning the geological, historical and cultural significance of the Pu'u One sand dune complex.</p> <p>A&B Properties, Inc. is proposing an open space buffer along Waikapū Stream that will also include interpretive signage and environmental design features to filter soil-laden runoff from entering Waikapū Stream during storm events. This area will also be re-vegetated with native plant materials.</p>			
Objective:			
<i>(3) Preserve for present and future generations the opportunity to know and experience the arts, culture, and history of Maui County.</i>	X		
Policies:			
<i>(a) Foster teaching opportunities for cultural practitioners to share their knowledge and skills.</i>			X
<i>(b) Support the development of cultural centers.</i>			X
<i>(c) Broaden opportunities for public art and the display of local artwork.</i>			X
<i>(d) Foster the Aloha Spirit by celebrating the Hawaiian host culture and other Maui County cultures through support of cultural-education programs, festivals, celebrations, and ceremonies.</i>			X
<i>(e) Support the perpetuation of Hawaiian arts and culture.</i>	X		
<i>(f) Support programs and activities that record the oral and pictorial history of residents.</i>	X		
<i>(g) Support the development of repositories for culture, history, genealogy, oral history, film, and interactive learning.</i>			X
Implementing Actions:			
<i>(a) Establish incentives for the display of public art.</i>			X
<i>(b) Establish centers and programs of excellence for the perpetuation of Hawaiian arts and culture.</i>			X
<p>Discussion: There are opportunities for interpretive signage concerning the geological, historical, and cultural significance of the Pu'u One sand dune complex and Waikapū</p>			

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
Stream. A&B Properties, Inc. will continue to consult with knowledgeable cultural practitioners, concerning cultural-related activities identified by Hana Pono in the CIA.			
Objective:			
(4) <i>Preserve and restore significant historic architecture, structures, cultural sites, cultural districts, and cultural landscapes.</i>	X		
Policies:			
(a) <i>Support the development of island-wide historic, archaeological, and cultural resources inventories.</i>	X		
(b) <i>Promote the rehabilitation and adaptive reuse of historic sites, buildings, and structures to perpetuate a traditional sense of place.</i>	X		
(c) <i>Identify a sustainable rate of use and set forth specific policies to protect cultural resources.</i>	X		
(d) <i>Protect and preserve lands that are culturally or historically significant.</i>	X		
(e) <i>Support programs that protect, record, restore, maintain, provide education about, and interpret cultural districts, landscapes, sites, and artifacts in both natural and museum settings.</i>	X		
(f) <i>Perpetuate the authentic character and historic integrity of rural communities and small towns.</i>			X
(g) <i>Seek solutions that honor the traditions and practices of the host culture while recognizing the needs of the community.</i>	X		
(h) <i>Support the development of an Archaeological District Ordinance.</i>			X
(i) <i>Protect summits, slopes, and ridgelines from inappropriate development.</i>			X
(j) <i>Support the registering of important historic sites on the State and Federal historic registers.</i>			X
(k) <i>Provide opportunities for public involvement with restoration and enhancement of all types of cultural resources.</i>	X		
(l) <i>Foster partnerships to identify and preserve or revitalize historic and cultural sites.</i>	X		
Implementing Actions:			
(a) <i>Identify, develop, map, and maintain an inventory of locally significant natural, cultural, and historical resources for protection.</i>	X		
(b) <i>Prepare, continually update, and implement a cultural-management plan for cultural sites, districts, and landscapes, where appropriate.</i>	X		
(c) <i>Enact an Archaeological District Ordinance.</i>			X
(d) <i>Nominate important historic sites to the State and Federal historic registers.</i>			X
<p>Discussion: An archaeological inventory survey of the property was undertaken and subsequently reviewed and accepted by the SHPD. Several previous archaeological investigations have occurred on portions of the property and are described in the AIS. These investigations have led to the documentation of burials, a terrace, and several historic-period sites. <u>Full-time archaeological monitoring shall occur during future ground altering disturbance at</u> Precautionary archaeological monitoring is recommended for portions of the property which contain natural, sandy matrices that are relatively undisturbed. To address burials identified at the site, including those within the former Hawaiian Cement sand mining area, a Final Burial Site Component of a Data Recovery Plan and Preservation Plan for State Sites Nos. 50-50-04-5504 and -6679 has been prepared. The preservation plan was reviewed by the Maui/Lanai Islands Burial Council</p>			

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<p>and subsequently accepted by the SHPD. A&B Properties, Inc. and its <u>archaeological</u> contractors will comply with all State and County laws and rules regarding the preservation of archaeological and historic sites.</p> <p>While the majority of the sand dunes with the property limits have been obliterated by human activities, there is a large portion of the site (approximately 28 acres) where there is a <u>are</u> relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the areas being proposed as a cultural preserve (and where the highest concentration of burials resides).</p> <p>There are opportunities for interpretive signage concerning the geological, historical, and cultural significance of the Pu'u One sand dune complex and Waikapū Stream. A&B Properties, Inc. will continue to consult with knowledgeable cultural practitioners, concerning cultural-related activities identified by Hana Pono in the CIA.</p>			
C. IMPROVE EDUCATION			
Goal: Residents will have access to lifelong formal and informal educational options enabling them to realize their ambitions.			
Objective:			
(1) Encourage the State to attract and retain school administrators and educators of the highest quality.			X
Policies:			
(a) Encourage the State to provide teachers with nationally competitive pay and benefit packages.			X
(b) Encourage the State to ensure teachers will have the teaching tools and support staff needed to provide students with an excellent education.			X
(c) Explore Maui County district- and school-based decision making in public education.			X
<p>Discussion: Wai'ale will not directly establish education programs, and therefore this objective and these policies are not directly applicable. However, as discussed in Section 4.10.1, to accommodate the educational needs of children living in Wai'ale and the surrounding neighborhoods, it is estimated that a middle school will be needed within Wai'ale. A&B Properties, Inc. has been coordinating with the DOE regarding a proposed site for the middle school within the Wai'ale conceptual master plan.</p>			
Objective:			
(2) Provide nurturing learning environments that build skills for the 21st century.			X
Policies:			
(a) Expand professional-development opportunities in disciplines that support the economic-development goals of Maui County.			X
(b) Plan for demographic, social, and technological changes in a timely manner.	X		
(c) Encourage collaborative partnerships to improve conditions of learning environments.			X
(d) Promote development of neighborhood schools and educational centers.			X

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(e) Integrate schools, community parks, and playgrounds, and expand each community's use of these facilities.	X		
(f) Support coordination between land use and school-facility planning agencies.			X
(g) Encourage the upgrade and ongoing maintenance of public-school facilities.			X
(h) Encourage the State Department of Education to seek reliable, innovative, and alternative methods to support a level of per-pupil funding that places Hawai'i among the top tier of states nationally for its financial support of public schools.			X
(i) Encourage the State to promote healthier, more productive learning environments, including by providing healthy meals, more physical activity, natural lighting, and passive cooling.			X
(j) Encourage the State to support the development of benchmarks to measure the success of Hawai'i's public-education system and clarify lines of accountability.			X
(k) Design school and park facilities in proximity to residential areas.	X		
(l) Support technology- and natural-environment-based learning.			X
(m) Encourage the State to support lower student-teacher ratios in public schools.			X
(n) Encourage alternative learning and educational opportunities.			X
Implementing Actions:			
(a) Develop safe walking and bicycling programs for school children.	X		
<p>Discussion: While Wai'ale will not directly establish education programs, as discussed in Section 4.10.1, To accommodate the educational needs of children living in Wai'ale and the surrounding neighborhoods, it is estimated that a middle school will be needed within Wai'ale. A&B Properties, Inc. has been coordinating with the DOE regarding a proposed site for the middle school within the Wai'ale conceptual master plan.</p> <p>The <i>Draft Maui Island Plan</i> projected the island's resident population to grow from 129,471 in 2005 to 176,687 in 2030. This is a 1.46% annual growth rate which equates to a 36.5 percent increase in population over the 25 year period. These projections indicate a population increase of 16 percent between 2010 and 2020, and an increase of 12 percent between 2020 and 2030. According to the <i>Socio-Economic Forecast</i>, the total population is not expected to increase equally throughout the island of Maui; rather, there are specific regions where population growth is more likely to occur. One of these regions is Wailuku-Kahului, where the population is expected to grow by 20,939 persons between the years 2005 to 2030; an increase of nearly 45 percent over a 25 year period.</p> <p>According to the <i>Socio-Economic Forecast</i>, the Wailuku-Kahului population is expected to grow by 8,989 persons between 2015 to 2025, an increase of nearly 16 percent, and over about the same time period as Wai'ale. The County's projected increase in population will result in an increase in demand for housing and jobs.</p> <p>Wai'ale is also part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Kuihelani Highway, since many establishments providing for residents' day-to-day needs will be within walking and</p>			

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
biking distance. Therefore, unlike in a conventional subdivision, Wai'ale is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing trips to outside areas and reducing congestion.			
Objective:			
(3) Provide all residents with educational opportunities that can help them better understand themselves and their surroundings and allow them to realize their ambitions.			X
Policies:			
(a) Encourage the State to improve Maui Community College as a comprehensive community college that will serve each community.			X
(b) Broaden the use of technology and telecommunications to improve educational opportunities throughout the County.			X
(c) Attract graduate-level research programs and institutions.			X
(d) Promote the teaching of traditional practices, including aquaculture; subsistence agriculture; Pacific Island, Asian, and other forms of alternative health practices; and indigenous Hawaiian architecture.			X
(e) Integrate cultural and environmental values in education, including self-sufficiency and sustainability.			X
(f) Foster a partnership and ongoing dialogue between business organizations, formal educational institutions, and vocational training centers to tailor learning and mentoring programs to County needs.			X
(g) Ensure teaching of the arts to all ages.			X
(h) Expand and develop vocational learning opportunities by establishing trade schools.			X
(i) Encourage the State to integrate financial and economic literacy in elementary, secondary, and higher-education levels.			X
Implementing Actions:			
(a) Encourage the State to establish a four-year university, and support the development of other higher-education institutions to enable residents to obtain bachelor degrees and postgraduate degrees in Maui County.			X
Discussion: While Wai'ale will not directly establish education programs, and therefore this objective and these policies are not directly applicable.			
Objective:			
(4) Maximize community-based educational opportunities.			X
Policies:			
(a) Encourage the State and others to expand pre-school, after-school, and homebased (parent-child) learning.			X
(b) Support public-private partnerships to develop youth-internship, -apprenticeship, and -mentoring programs.	X		
(c) Support the development of a wide range of informal educational and cultural programs for all residents.	X		
(d) Improve partnerships that utilize the skills and talents at Hawai'i's colleges and universities to benefit the County.			X
(e) Support career-development and job-recruitment programs and centers.			X

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(f) <i>Attract learning institutions and specialty schools to diversify and enhance educational opportunities.</i>			X
(g) <i>Expand education of important life skills for the general public.</i>			X
(h) <i>Support community facilities such as museums, libraries, nature centers, and open spaces that provide interactive-learning opportunities for all ages.</i>			X
<p>Discussion: Wai'ale will provide educational opportunities by: 1) providing access to the cultural preserves dedicated to the preservation of archaeological features and lithified sand dunes; and 2) establishing interpretive signage concerning the geological, historical and cultural significance of Waikapū Stream and the cultural preserve areas.</p>			
D. STRENGTHEN SOCIAL AND HEALTHCARE SERVICES			
Goal: <i>Health and social services in Maui County will fully and comprehensively serve all segments of the population.</i>			
Objective:			
(1) <i>In cooperation with the Federal and State governments and nonprofit agencies, broaden access to social and healthcare services and expand options to improve the overall wellness of the people of Maui County.</i>			X
Policies:			
(a) <i>Work with other levels of government and the nonprofit sector to expand services to address hunger, homelessness, and poverty.</i>			X
(b) <i>Support the improvement of opportunities for disadvantaged youth, encourage the tradition of hanai relatives, and support expanded opportunities for foster care.</i>			X
(c) <i>Support expanded long-term-care options, both in institutions and at home, for patients requiring ongoing assistance and medical attention.</i>			X
(d) <i>Encourage the expansion and improvement of local hospitals, facilitate the establishment of new healthcare facilities, and facilitate prompt and high-quality emergency- and urgent-care services for all.</i>			X
(e) <i>Support broadened access to affordable health insurance and health care, and recognize the unique economic challenges posed to families when healthcare services are provided off-island.</i>			X
(f) <i>Encourage equal access to social and healthcare services through both technological and traditional means.</i>			X
<p>Discussion: Wai'ale does not include the creation of health or social services; therefore, this objective and these policies are not directly applicable. However, as discussed in Section 4.10.4, Wai'ale's commercial areas will provide the opportunity for medical services, such as doctors' offices and/or a medical clinic, to be developed within Wai'ale to serve the community and neighboring areas.</p>			
Objective:			
(2) <i>Encourage the Federal and State governments and the private sector to improve the quality and delivery of social and healthcare services.</i>			X
Policies:			
(a) <i>Strengthen partnerships with government, nonprofit, and private organizations to provide funding and to improve counseling and other assistance to address substance abuse, domestic violence, and other pressing social challenges.</i>			X
(b) <i>Encourage the State to improve the quality of medical personnel, facilities, services,</i>			X

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>and equipment.</i>			
<i>(c) Encourage investment to improve the recruitment of medical professionals and the quality of medical facilities and equipment throughout Maui County.</i>			X
<i>(d) Promote the development of continuum-of-care facilities that provide assisted living, hospice, home-care, and skilled-nursing options allowing the individual to be cared for in a manner congruent with his or her needs and desires.</i>			X
<i>(e) Support improved social, healthcare, and governmental services for special needs populations.</i>			X
<i>(f) Plan for the needs of an aging population and the resulting impacts on social services, housing, and healthcare delivery.</i>			X
<i>(g) Improve coordination among the police, the courts, and the public in the administration of social and healthcare services.</i>			X
<i>(h) Support programs that address needs of veterans.</i>			X
<i>(i) Support programs that address the needs of immigrants.</i>			X
Implementing Actions:			
<i>(a) Invest in programs designed to improve the general welfare and quality of life of Native Hawaiians.</i>			X
<i>(b) Assist and facilitate the State Department of Public Safety and others in efforts to strengthen programs and facilities that will improve the mental and social health of incarcerated people and assist in prison inmates' successful transition back into Maui County communities.</i>			X
<i>(c) Develop and maintain a comprehensive index that will measure the health and wellness needs of families.</i>			X
<i>(d) Provide heliports countywide for emergency health and safety purposes.</i>			X
<p>Discussion: Wai'ale does not include the creation of health or social services; therefore, this objective and these policies are not directly applicable. However, as discussed in Section 4.10.4, Wai'ale's commercial areas will provide the opportunity for medical services, such as doctors' offices and/or a medical clinic, to be developed within Wai'ale to serve the community and neighboring areas.</p>			
Objective:			
<i>(3) Strengthen public-awareness programs related to healthy lifestyles and social and medical services.</i>			X
Policies:			
<i>(a) Expand public awareness about personal safety and crime prevention.</i>			X
<i>(b) Encourage residents to pursue education and training for careers in the healthcare, social services, and community-development fields.</i>			X
<i>(c) Expand public awareness and promote programs to achieve healthy eating habits and drug-free lifestyles.</i>			X
<p>Discussion: Wai'ale does not include the creation of health or social services; therefore, this objective and these policies are not directly applicable. However, Wai'ale will promote healthy lifestyles by: 1) making walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian recreation ways throughout the community; 2) providing homes near regional employment centers, thereby decreasing commuting time</p>			

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and increasing quality of life and environmental stewardship; and 3) providing parks, open space, and other recreational amenities.			
E. EXPAND HOUSING OPPORTUNITIES FOR RESIDENTS			
Goal: <i>Quality, island-appropriate housing will be available to all residents.</i>			
Objective:			
(1) <i>Reduce the affordable housing deficit for residents.</i>	X		
Policies:			
(a) <i>Ensure that an adequate and permanent supply of affordable housing, both new and existing units, is made available for purchase or rental to our resident and/or workforce population, with special emphasis on providing housing for low- to moderate-income families, and ensure that all affordable housing remains affordable in perpetuity.</i>	X		
(b) <i>Seek innovative ways to lower housing costs without compromising the quality of our island lifestyle.</i>	X		
(c) <i>Seek innovative methods to secure land for the development of low- and moderate-income housing.</i>	X		
(d) <i>Provide the homeless population with emergency and transitional shelter and other supportive programs.</i>			X
(e) <i>Provide for a range of senior-citizen and special needs housing choices on each island that affordably facilitates a continuum of care and services.</i>			X
(f) <i>Support the Department of Hawaiian Home Lands' development of homestead lands.</i>			X
(g) <i>Manage property-tax burdens to protect affordable resident homeownership.</i>			X
(h) <i>Explore taxation mechanisms to increase and maintain access to affordable housing.</i>			X
(i) <i>Improve awareness regarding available affordable homeowner's insurance.</i>			X
(j) <i>Redevelop commercial areas with a mixture of affordable residential and business uses, where appropriate.</i>			X
(k) <i>Ensure residents are given priority to obtain affordable housing units developed in their communities, consistent with all applicable regulations.</i>	X		
(l) <i>Establish pricing for affordable housing that is more reflective of Maui County's workforce than the United States Housing and Urban Development's median-income estimates for Maui County.</i>			X
(m) <i>Develop neighborhoods with a mixture of accessible and integrated community facilities and services.</i>	X		
(n) <i>Provide alternative regulatory frameworks to facilitate the use of Kuleana lands by the descendants of Native Hawaiians who received those lands pursuant to the Kuleana Act of 1850.</i>			X
(o) <i>Work with lending institutions to expand housing options and safeguard the financial security of homeowners.</i>			X
(p) <i>Promote the use of the community land trust model and other land-lease and land-financing options.</i>			X
(q) <i>Support the opportunity to age in place by providing accessible and appropriately designed residential units.</i>	X		
Discussion: Wai'ale will offer a mix of single-family and multi-family housing types for a range of consumer groups and will emphasize community development with single-family and multi-family units complemented with village-mixed uses primarily serving the residents of the community. As part of the mix of housing types, Wai'ale will include a			

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significant number of workforce market segment homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). All workforce market segment homes will be priced and subject to restrictions in accordance with the requirements of Chapter 2.96, MCC to ensure they remain both available and affordable for full-time Maui residents.			
Objective:			
(2) Increase the mix of housing types in towns and neighborhoods to promote sustainable land use planning, expand consumer choice, and protect the County's rural and small town character.	X		
Policies:			
(a) Seek innovative ways to develop 'ohana cottages and accessory-dwelling units as affordable housing.			X
(b) Design neighborhoods to foster interaction among neighbors.	X		
(c) Encourage a mix of social, economic, and age groups within neighborhoods.	X		
(d) Promote infill housing in urban areas at scales that capitalize on existing infrastructure, lower development costs, and are consistent with existing or desired patterns of development.	X		
(e) Encourage the building industry to use environmentally sustainable materials, technologies, and site planning.	X		
(f) Develop workforce housing in proximity to job centers and transit facilities.	X		
(g) Provide incentives to developers and owners who incorporate green building practices and energy-efficient technologies into their housing developments.	X		
Implementing Actions:			
(a) Revise laws to support neighborhood designs that incorporate a mix of housing types that are appropriate for island living.			X
<p>Discussion: Wai'ale will be a master-planned community embracing "smart growth" principles such as diverse residential opportunities, village mixed uses, on-site recreational amenities, and integrated bicycle and pedestrian paths. Objectives of Wai'ale include: 1) Provide homes for a variety of income ranges, ages, and lifestyles. If so desired, a resident can grow-up and spend their entire lives in the community with the appropriate housing types available; 2) Plan for needed community facilities to meet the region's current and future needs; and 3) Provide walkable mixed-use neighborhoods.</p> <p>As discussed in Section 4.9.3, as part of the mix of housing types, Wai'ale will include a significant number of workforce market segment homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). All workforce market segment homes will be priced and subject to restrictions in accordance with the requirements of Chapter 2.96, MCC to ensure they remain both available and affordable for full-time Maui residents.</p> <p>A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale and will implement, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, and environmental stewardship, consistent with the standards and guidelines promulgated by the Building Industry Association of Hawaii, the U.S. Green Building Council, the Hawaii Commercial Building Guidelines for Energy Star,</p>			

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<p>and Green Communities into the design and construction of Wai'ale. A&B Properties, Inc. will also provide information to home purchasers regarding energy conservation measures that may be undertaken by individual homeowners.</p> <p>The design and construction of energy systems for residential units will seek to meet applicable Energy Star requirements established by the U.S. Environmental Protection Agency (EPA) in effect at the time of construction. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems. Other energy-saving concepts and devices will be encouraged in the design of Wai'ale. Design standards will specify low-impact lighting and encourage energy-efficient building design and site development practices.</p>			
Objective:			
(3) <i>Increase and maintain the affordable housing inventory.</i>	X		
Policies:			
(a) <i>Recognize housing as a basic human need, and work to fulfill that need.</i>	X		
(b) <i>Prioritize available infrastructure capacity for affordable housing.</i>	X		
(c) <i>Improve communication, collaboration, and coordination among housing providers and social-service organizations.</i>			X
(d) <i>Study future projected housing needs, monitor economic cycles, and prepare for future conditions on each island.</i>			X
(e) <i>Develop public-private and nonprofit partnerships that facilitate the construction of quality affordable housing.</i>	X		
(f) <i>Streamline the review process for high-quality, affordable housing developments that implement the goals, objectives, and policies of the General Plan.</i>			X
(g) <i>Minimize the intrusion of housing on prime, productive, and potentially productive agricultural lands and regionally valuable agricultural lands.</i>	X		
(h) <i>Encourage long-term residential use of existing and future housing to meet residential needs.</i>	X		
Implementing Actions:			
(a) <i>Develop policies to even out the peaks and valleys in Maui County's construction-demand cycles.</i>			X
<p>Discussion: Wai'ale will help to address the housing demand of a growing population by providing homes in the Wailuku-Waikapū region. Objectives of Wai'ale include: 1) Provide homes for a variety of income ranges, ages, and lifestyles. If so desired, a resident can grow-up and spend their entire lives in the community with the appropriate housing types available; and 2) Plan for needed community facilities to meet the region's current and future needs.</p> <p>Wai'ale will include workforce market segment homes in compliance with Chapter 2.96, MCC (Residential Workforce Housing Policy). All workforce market segment homes will be priced and subject to restrictions in accordance with the requirements of Chapter 2.96, MCC to ensure they remain both available and affordable for full-time Maui residents.</p>			

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<p>Wai'ale will not reduce the inventory of agriculturally significant lands. As discussed in Section 3.3, the majority of the property is rated "E", with a small portion of the property designated as "C" under the LSB classification system and is classified as "Other" under the ALISH classification system.</p> <p>The agricultural impact of this project is near negligible when taken in the context of recent trends on Maui. In the last 30 years, the closures of Wailuku Sugar and Pioneer Mill have taken significant acreages out of active sugar cultivation. More recently, Maui Land & Pineapple's shutdown of its pineapple operations has also added to the availability of agricultural acreage on Maui. These actions have greatly increased the supply of non-sugar based agricultural lands. Much of these lands of the former plantations continue to remain fallow and provide opportunities for future agricultural use. Rather than the availability of land, limiting factors to the growth of diversified agriculture include the market demand and profitability of the various agricultural crops and the availability of water. Wai'ale will involve the use of approximately 545 acres of land, which represents approximately 0.2 percent of the roughly 246,000 acres of State Agricultural district lands on the island of Maui.</p>			
Objective:			
(4) <i>Expand access to education related to housing options, homeownership, financing, and residential construction.</i>			X
Policies:			
(a) <i>Broaden access to information about County, State, and Federal programs that provide financial assistance to renters and home buyers.</i>			X
(b) <i>Expand access to information about opportunities for homeownership and self-help housing.</i>			X
(c) <i>Educate residents about making housing choices that support their individual needs, the needs of their communities, and the health of the islands' natural systems.</i>			X
(d) <i>Improve home buyers' education on all aspects of homeownership.</i>			X
<p>Discussion: Wai'ale does not directly expand access to education with regard to housing options, homeownership, financing and residential construction; therefore, this objective and these policies are not applicable.</p>			
F. STRENGTHEN THE LOCAL ECONOMY			
Goal: <i>Maui County's economy will be diverse, sustainable, and supportive of community values.</i>			
Objective:			
(1) <i>Promote an economic climate that will encourage diversification of the County's economic base and a sustainable rate of economic growth.</i>	X		
Policies:			
(a) <i>Support economic decisions that create long-term benefits.</i>	X		
(b) <i>Promote lifelong education, career development, and technical training for existing and emerging industries.</i>			X
(c) <i>Invest in infrastructure, facilities, and programs that foster economic diversification.</i>	X		
(d) <i>Support and promote locally produced products and locally owned operations and businesses that benefit local communities and meet local demand.</i>	X		

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
(e) Support programs that assist industries to retain and attract more local labor and facilitate the creation of jobs that offer a living wage.	X		
(f) Encourage work environments that are safe, rewarding, and fulfilling to employees.	X		
(g) Support home-based businesses that are appropriate for and in character with the community.	X		
(h) Encourage businesses that promote the health and well-being of the residents, produce value-added products, and support community values.	X		
(i) Foster an understanding of the role of all industries in our economy.			X
(j) Support efforts to improve conditions that foster economic vitality in our historic small towns.			X
(k) Support and encourage traditional host-culture businesses and indigenous agricultural practices.			X
(l) Support public and private entities that assist entrepreneurs in establishing locally operated businesses.			X
Implementing Actions:			
(a) Develop regulations and programs that support opportunities for local merchants, farmers, and small businesses to sell their goods and services directly to the public.			X
(b) Monitor the carrying capacity of the islands' social, ecological, and infrastructure systems with respect to the economy.	X		

Discussion: New job opportunities created by Wai'ale will start with the design and entitlement process, employing architects, engineers, surveyors, and land use planners. Site work, road work and the installation of utility and drainage lines typically utilize heavy equipment operators, tractor-trailer drivers and utility personnel. Vertical construction of the housing units, commercial buildings, village mixed-use projects and light industrial facilities will employ masons, carpenters, sheet metal workers, roofers, drywall installers, plumbers, electricians and painters. Finish work will require cabinet makers, carpet and tile installers, interior decorators, and landscapers. Using State economic multipliers, ACM forecasted an annual average of 293 jobs directly related to the construction of this development.

The increase in construction will also create the need for supplementary companies to strengthen their labor force. These jobs may be from building supply companies, hardware stores, equipment rental companies, and shipping/warehousing companies. In addition, the construction laborers and their families will patronize local goods and services providers. Grocers, restaurants, service stations, auto repair shops, financial institutions, recreational venues, medical facilities and personal care businesses could be considered potential companies that would need to bolster their employee count. Based on State economic multipliers, indirect jobs on Maui were forecasted by ACM to average approximately 300 jobs annually, resulting in an estimated annual average of approximately 593 Maui jobs directly and indirectly tied to the development of the project. Meanwhile, indirect employment on O'ahu could possibly add an average of approximately 158 jobs per year. ACM estimated that employment attributed to the development would total approximately 7,500 direct and indirect jobs over the term of the project.

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<p>Wai'ale will provide several substantial positive factors to the economy, including:</p> <ul style="list-style-type: none"> • Generating \$732,413,000 of direct capital investment in the Maui economy; • Providing 7,500 “worker years³” of direct on-site employment; • Yielding \$352,203,000 in employee wages; • Generating \$47,199,000 of estimated excise taxes; • Providing 1,000 jobs after the build-out period; and • Yielding \$1,100,000 in annual net real property tax revenue benefit (taxes less costs) to the County of Maui after the build-out period. 			
Objective:			
(2) <i>Diversify and expand sustainable forms of agriculture and aquaculture.</i>			X
Policies:			
(a) <i>Support programs that position Maui County's agricultural products as premium export products.</i>			X
(b) <i>Prioritize the use of agricultural land to feed the local population, and promote the use of agricultural lands for sustainable and diversified agricultural activities.</i>			X
(c) <i>Capitalize on Hawai'i's economic opportunities in the ecologically sensitive aquaculture industries.</i>			X
(d) <i>Assist farmers to help make Maui County more self-sufficient in food production.</i>			X
(e) <i>Support ordinances, programs, and policies that keep agricultural land and water available and affordable to farmers.</i>			X
(f) <i>Support a tax structure that is conducive to the growth of the agricultural economy.</i>			X
(g) <i>Enhance County efforts to monitor and regulate important agricultural issues.</i>			X
(h) <i>Support education, research, and facilities that strengthen the agricultural industry.</i>			X
(i) <i>Maintain the genetic integrity of existing food crops.</i>			X
(j) <i>Encourage healthy and organic farm practices that contribute to land health and regeneration.</i>			X
(k) <i>Support cooperatives and other types of nontraditional and communal farming efforts.</i>			X
(l) <i>Encourage methods of monitoring and controlling genetically modified crops to prevent adverse effects.</i>			X
(m) <i>Work with the State to ease the permitting process for the revitalization of traditional fish ponds.</i>			X
Implementing Actions:			
(a) <i>Redirect efforts in the Office of Economic Development to further facilitate the development of the agricultural section and to monitor agricultural legislation and issues.</i>			X
(b) <i>Publicly identify, with signage and other means, the field locations of all genetically modified crops.</i>			X
(c) <i>Create agricultural parks in areas distant from genetically modified crops.</i>			X

³ A “worker year” is defined as the amount of time one full-time worker can work in one year although one worker year (2,080 working hours) may be comprised of many employees involved in specialized tasks of shorter duration.

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<p>Discussion: Wai'ale will not reduce the inventory of agriculturally significant lands. As discussed in Section 3.3, the majority of the property is rated "E", with a small portion of the property designated as "C" under the LSB classification system and is classified as "Other" under the ALISH classification system.</p> <p>The agricultural impact of this project is near negligible when taken in the context of recent trends on Maui. In the last 30 years, the closures of Wailuku Sugar and Pioneer Mill have taken significant acreages out of active sugar cultivation. More recently, Maui Land & Pineapple's shutdown of its pineapple operations has also added to the availability of agricultural acreage on Maui. These actions have greatly increased the supply of non-sugar based agricultural lands. Much of these lands of the former plantations continue to remain fallow and provide opportunities for future agricultural use. Rather than the availability of land, limiting factors to the growth of diversified agriculture include the market demand and profitability of the various agricultural crops and the availability of water. Wai'ale will involve the use of approximately 545 acres of land, which represents approximately 0.2 percent of the roughly 246,000 acres of State Agricultural district lands on the island of Maui.</p>			
Objective:			
(3) Support a visitor industry that respects the resident culture and the environment.			X
Policies:			
(a) Promote traditional Hawaiian practices in visitor-related facilities and activities.			X
(b) Encourage and educate the visitor industry to be sensitive to island lifestyles and cultural values.			X
(c) Encourage a spirit of welcome for residents at visitor facilities, such as by offering kama`aina incentives and discount programs.			X
(d) Support the renovation and enhancement of existing visitor facilities.			X
(e) Support policies, programs, and a tax structure that redirect the benefits of the visitor industry back into the local community.			X
(f) Encourage resident ownership of visitor-related businesses and facilities.			X
(g) Develop partnerships to provide educational and training facilities to residents employed in the visitor industry.			X
(h) Foster an understanding of local cultures, customs, and etiquette, and emphasize the importance of the Aloha Spirit as a common good for all.			X
(i) Support the diversification, development, evolution, and integration of the visitor industry in a way that is compatible with the traditional, social, economic, spiritual, and environmental values of island residents.			X
(j) Improve collaboration between the visitor industry and the other sectors of Maui County's economy.			X
(k) Perpetuate an authentic image of the Hawaiian culture and history and an appropriate recognition of the host culture.			X
(l) Support the programs and initiatives outlined in the Maui County Tourism Strategic Plan 2006-2015.			X
(m) Promote water conservation, beach conservation, and open-space conservation in areas providing services for visitors.			X
(n) Recognize the important contributions that the visitor industry makes to the County's economy, and support a healthy and vibrant visitor industry.			X

COUNTYWIDE POLICY PLAN	S	N/S	N/A
(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)			
Discussion: Wai'ale is not targeting the visitor industry, and transient vacation rentals or time shares will not be allowed <u>developed</u> within Wai'ale; therefore, this objective and these policies are not directly applicable. <u>The proposed County zoning would not allow for the development of transient vacation rentals or timeshare units.</u>			
Objective:			
(4) Expand economic sectors that increase living-wage job choices and are compatible with community values.			X
Policies:			
(a) Support emerging industries, including the following: <ul style="list-style-type: none"> • Health and wellness industry; • Sports and recreation industry; • Film and entertainment industry; • Arts and culture industry; • Renewable-energy industry; • Research and development industry; • High-technology and knowledge-based industries; • Education and training industry; • Ecotourism industry; and • Agritourism industry. 			X
Discussion: Wai'ale is not directly aimed at expanding potential emerging industries that serve to increase and diversify Hawai'i's economic base (although Wai'ale will provide significant positive economic benefits); therefore, this objective and policy are not directly applicable.			
G. IMPROVE PARKS AND PUBLIC FACILITIES			
Goal: A full range of island-appropriate public facilities and recreational opportunities will be provided to improve the quality of life for residents and visitors.			
Objective:			
(1) Expand access to recreational opportunities and community facilities to meet the present and future needs of residents of all ages and physical abilities.	X		
Policies:			
(a) Protect, enhance, and expand access to public shoreline and mountain resources.	X		
(b) Expand and enhance the network of parks, multi-use paths, and bikeways.	X		
(c) Assist communities in developing recreational facilities that promote physical fitness.	X		
(d) Expand venue options for recreation and performances that enrich the lifestyles of Maui County's people.	X		
(e) Expand affordable recreational and after-school programs for youth.	X		
(f) Encourage and invest in recreational, social, and leisure activities that bring people together and build community pride.	X		
(g) Promote the development and enhancement of community centers, civic spaces, and gathering places throughout our communities.	X		
(h) Expand affordable access to recreational opportunities that support the local lifestyle.	X		
Implementing Actions:			
(a) Identify and reserve lands for cemeteries, and preserve existing cemeteries on all			X

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>islands, appropriately accommodating varying cultural and, faith-based traditions.</i>			
<p>Discussion: Wai'ale will contribute to a high quality of life for all Wai'ale residents. Objectives of Wai'ale include: 1) Provide homes for a variety of income ranges, ages, and lifestyles. If so desired, a resident can grow-up and spend their entire lives in the community with the appropriate housing types available; and 2) Plan for needed community facilities to meet the region's current and future needs. Wai'ale will include:</p> <ul style="list-style-type: none"> • Providing 65 acres of land to the County for a new regional park; • Providing eight acres of land to the County adjacent to the Maui Lani Regional Park to allow for its expansion into Wai'ale; • Providing seven acres of land to the County for a community center; and • Providing an additional 33 acres of privately maintained open space, landscaped buffers and parks (not including landscaped roadways). 			
Objective:			
(2) <i>Improve the quality and adequacy of community facilities.</i>	X		
Policies:			
(a) <i>Provide an adequate supply of dedicated shelters and facilities for disaster relief</i>			X
(b) <i>Provide and maintain community facilities that are appropriately designed to reflect the traditions and customs of local cultures.</i>	X		
(c) <i>Ensure that parks and public facilities are safe and adequately equipped for the needs of all ages and physical abilities to the extent reasonable.</i>	X		
(d) <i>Maintain, enhance, expand, and provide new active and passive recreational facilities in ways that preserve the natural beauty of their locations.</i>	X		
(e) <i>Redesign or retrofit public facilities to adapt to major shifts in environmental or urban conditions to the extent reasonable.</i>			X
<p>Discussion: Wai'ale's mix of open space, parks, cultural preserves, pedestrian/bike path, and community center will provide for different recreational needs, significant recreational benefits, protection of important habitat and natural features, and an overall setting of enhanced environmental quality and community health.</p>			
Objective:			
(3) <i>Enhance the funding, management, and planning of public facilities and park lands.</i>	X		
Policies:			
(a) <i>Identify and encourage the establishment of regulated and environmentally sound campgrounds.</i>			X
(b) <i>Manage park use and control access to natural resources in order to rest sensitive places and utilize the resources in a sustainable manner.</i>	X		
(c) <i>Provide public-recreational facilities that are clean and well-maintained.</i>	X		
(d) <i>Develop partnerships to ensure proper stewardship of the islands' trails, public lands, and access systems.</i>	X		
(e) <i>Ensure that there is an adequate supply of public restrooms in convenient locations.</i>			X
Implementing Actions:			

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(a) <i>Encourage the State to allow for overnight fishing along the shoreline in accordance with management plans and regulations.</i>			X
(b) <i>Develop and regularly update functional plans, including those relating to public facilities, parks, and campgrounds.</i>			X
(c) <i>Develop and adopt local level-of service standards for public facilities and parks.</i>			X
(d) <i>Identify, acquire, and develop lands for parks, civic spaces, and public uses.</i>	X		
<p>Discussion: Objectives of Wai'ale include: 1) Provide homes for a variety of income ranges, ages, and lifestyles. If so desired, a resident can grow-up and spend their entire lives in the community with the appropriate housing types available; and 2) Plan for needed community facilities to meet the region's current and future needs. Wai'ale will include:</p> <ul style="list-style-type: none"> • Providing 65 acres of land to the County for a new regional park; • Providing eight acres of land to the County adjacent to the Maui Lani Regional Park to allow for its expansion into Wai'ale; • Providing seven acres of land to the County for a community center; and • Providing an additional 33 acres of privately maintained open space, landscaped buffers and parks (not including landscaped roadways). 			
H. DIVERSIFY TRANSPORTATION OPTIONS			
Goal: <i>Maui County will have an efficient, economical, and environmentally sensitive means of moving people and goods.</i>			
Objective:			
(1) <i>Provide an effective, affordable, and convenient ground-transportation system that is environmentally sustainable.</i>	X		
Policies:			
(a) <i>Execute planning strategies to reduce traffic congestion.</i>	X		
(b) <i>Plan for the efficient relocation of roadways for the public benefit.</i>			X
(c) <i>Support the use of alternative roadway designs, such as traffic-calming techniques and modern roundabouts.</i>			X
(d) <i>Increase route and mode options in the ground-transportation network.</i>	X		
(e) <i>Ensure that roadway systems are safe, efficient, and maintained in good condition.</i>	X		
(f) <i>Preserve roadway corridors that have historic, scenic, or unique physical attributes that enhance the character and scenic resources of communities.</i>			X
(g) <i>Design new roads and roadway improvements to retain and enhance the existing character and scenic resources of the communities through which they pass.</i>	X		
(h) <i>Promote a variety of affordable and convenient transportation services that meet countywide and community needs and expand ridership of transit systems.</i>	X		
(i) <i>Collaborate with transit agencies, government agencies, employers, and operators to provide planning strategies that reduce peak-hour traffic.</i>	X		
(j) <i>Develop and expand an attractive, island-appropriate, and efficient public transportation system.</i>			X
(k) <i>Provide and encourage the development of specialized transportation options for the young, the elderly, and persons with disabilities.</i>			X
(l) <i>Evaluate all alternatives to preserve quality of life before widening roads.</i>			X
(m) <i>Encourage businesses in the promotion of alternative transportation options for</i>	X		

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>resident and visitor use.</i>			
<i>(n) Support the development of carbon-emission standards and an incentive program aimed at achieving County carbon-emission goals.</i>			X
Implementing Actions:			
<i>(a) Create incentives and implement strategies to reduce visitor dependence on rental cars.</i>			X
<i>(b) Establish efficient public-transit routes between employment centers and primary workforce residential areas.</i>	X		
<i>(c) Create attractive, island-appropriate, conveniently located park-and-ride and ride-share facilities.</i>	X		
<p>Discussion: Wai'ale is also part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Kuihelani Highway, since many establishments providing for residents' day-to-day needs will be within walking and biking distance. Therefore, unlike in a conventional subdivision, Wai'ale is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing trips to outside areas (promoting transportation energy savings) and reducing congestion.</p> <p>The Wailuku-Waikapū region is anticipated to experience significant growth, both in its residential population and commercial/industrial/business land uses. Traffic along Kuihelani Highway and other roadways is expected to increase even if Wai'ale is not built. Wai'ale will contribute to regional traffic improvements that will address the impacts of general regional traffic growth, as well as impacts specifically related to Wai'ale.</p>			
Objective:			
<i>(2) Reduce the reliance on the automobile and fossil fuels by encouraging walking, bicycling, and other energy-efficient and safe alternative modes of transportation.</i>	X		
Policies:			
<i>(d) Make walking and bicycling transportation safe and easy between and within communities.</i>	X		
<i>(e) Require development to be designed with the pedestrian in mind.</i>	X		
<i>(f) Design new and retrofit existing rights-of-way with adequate sidewalks, bicycle lanes, or separated multi-use transit corridors.</i>			X
<i>(g) Support the development of a countywide network of bikeways, equestrian trails, and pedestrian paths.</i>	X		
<i>(h) Support the reestablishment of traditional trails between communities, to the ocean, and through the mountains for public use.</i>	X		
<i>(i) Encourage educational programs to increase safety for pedestrians and bicyclists.</i>			X
Implementing Actions:			
<i>(a) Design, build, and modify existing bikeways to improve safety and separation from automobiles.</i>			X
<i>(b) Increase enforcement to reduce abuse of bicycle and pedestrian lanes by motorized vehicles.</i>			X
<i>(c) Identify non-motorized transportation options as a priority for new sources of funding.</i>			X

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<p>Discussion: Wai'ale is also part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Kuihelani Highway, since many establishments providing for residents' day-to-day needs will be within walking and biking distance. Therefore, unlike in a conventional subdivision, Wai'ale is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing trips to outside areas (promoting transportation energy savings) and reducing congestion.</p>			
Objective:			
(3) Improve opportunities for affordable, efficient, safe, and reliable air transportation.			X
Policies:			
(a) Discourage private helicopter and fixed-wing landing sites to mitigate environmental and social impacts.			X
(b) Encourage the use of quieter aircraft and noise-abatement procedures for arrivals and departures.			X
(c) Encourage the modernization and maintenance of air-transportation facilities for general-aviation activities.			X
(d) Encourage a viable and competitive atmosphere for air carriers to expand service and ensure sufficient intra-County flights and affordable fares for consumers.			X
(e) Continue to support secondary airports, and encourage the State to provide them with adequate funding.			X
(f) During Community Plan updates, explore the use of the smaller airports.			X
(g) Encourage the State to provide efficient, adequate, and affordable parking and transit connections within and around airports.			X
<p>Discussion: Wai'ale does not include facilities for air transportation; therefore, this objective and these policies are not applicable.</p>			
Objective:			
(4) Improve opportunities for affordable, efficient, safe, and reliable ocean transportation.			X
Policies:			
(a) Support programs and regulations that reduce the disposal of maritime waste and prevent spills into the ocean.			X
(b) Encourage the upgrading of harbors to resist damage from natural hazards and disasters.			X
(c) Encourage the State to study the use of existing harbors and set priorities for future use.			X
(d) Explore all options to protect the traditional recreational uses of harbors, and mitigate harbor-upgrade impacts to recreational uses where feasible.			X
(e) Encourage the upgrading of harbors and the separation of cargo and bulk materials from passenger and recreational uses.			X
(f) Encourage the State to provide for improved capacity at shipping, docking, and storage facilities.			X
(g) Encourage the State to provide adequate parking facilities and transit connections			X

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>within and around harbor areas.</i>			
<i>(h) Encourage the redevelopment and revitalization of harbors while preserving historic and cultural assets in harbor districts.</i>			X
<i>(i) Encourage the State to provide adequate facilities for small-boat operations, including small-boat launch ramps, according to community needs.</i>			X
<i>(j) Support the maintenance and cleanliness of harbor facilities.</i>			X
<i>(k) Support the redevelopment of harbors as pedestrian-oriented gathering places.</i>			X
<p>Discussion: Wai'ale is not located on the coastline and does not include facilities for ocean transportation; therefore, this objective and these policies regarding ocean transportation are not applicable.</p>			
Objective:			
<i>(5) Improve and expand the planning and management of transportation systems.</i>	X		
Policies:			
<i>(a) Encourage progressive community design and development that will reduce transportation trips.</i>	X		
<i>(b) Require new developments to contribute their pro rata share of local and regional infrastructure costs.</i>	X		
<i>(c) Establish appropriate user fees for private enterprises that utilize public transportation facilities for recreational purposes.</i>			X
<i>(d) Support the revision of roadway-design criteria and standards so that roads are compatible with surrounding neighborhoods and the character of rural areas.</i>			X
<i>(e) Plan for multi-modal transportation and utility corridors on each island.</i>			X
<i>(f) Support designing all transportation facilities, including airport, harbor, and mass-transit stations, to reflect Hawaiian architecture.</i>			X
<i>(g) Utilize transportation-demand management as an integral part of transportation planning.</i>	X		
<i>(h) Accommodate the planting of street trees and other appropriate landscaping in all public rights-of-way.</i>	X		
<p>Discussion: Wai'ale has been designed to accommodate the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Honoapi'ilani Highway and Kuihelani Highway, since many establishments providing for residents' day-to-day needs (live, work, play, study, shop) will be within walking and biking distance, and eventually County public bus transit service. Therefore, unlike in a conventional subdivision, Wai'ale is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing private vehicular trips to outside areas (promoting transportation energy savings) and reducing congestion.</p> <p>The Wailuku-Waikapū region is anticipated to experience significant growth, both in its residential population and commercial/industrial/business land uses. Traffic along Kuihelani Highway and other roadways is expected to increase even if Wai'ale is not built. Wai'ale will contribute to regional traffic improvements that will address the impacts</p>			

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of general regional traffic growth, as well as impacts specifically related to Wai'ale.			
I. IMPROVE PHYSICAL INFRASTRUCTURE			
Goal: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.			
Objective:			
(1) Improve water systems to assure access to sustainable, clean, reliable, and affordable sources of water.	X		
Policies:			
(a) Ensure that adequate supplies of water are available prior to approval of subdivision or construction documents.	X		
(b) Develop and fund improved water-delivery systems.	X		
(c) Ensure a reliable and affordable supply of water for productive agricultural uses.			X
(d) Promote the reclamation of gray water, and enable the use of reclaimed, gray, and brackish water for activities that do not require potable water.	X		
(e) Retain and expand public control and ownership of water resources and delivery systems.			X
(f) Improve the management of water systems so that surface-water and groundwater resources are not degraded by overuse or pollution.	X		
(g) Explore and promote alternative water-source-development methods.			X
(h) Seek reliable long-term sources of water to serve developments that achieve consistency with the appropriate Community Plans.	X		
Implementing Actions:			
(a) Develop a process to review all applications for desalination.			X
<p>Discussion: The applicant is exploring several potential drinking water source opportunities to serve the project. These include surface water treatment and new well sources in the Central Maui region. The primary focus has been the development of a surface water treatment facility utilizing water from the West Maui ditch system. Non-drinking quality water will be sought for landscape irrigation purposes. A&B Properties, Inc. is committed to water conservation strategies to reduce consumption, conserve resources and minimize water demands, and it will implement water conservation recommendations of the County of Maui Department of Water Supply.</p>			
Objective:			
(2) Improve waste-disposal practices and systems to be efficient, safe, and as environmentally sound as possible.	X		
Policies:			
(a) Provide sustainable waste-disposal systems and comprehensive, convenient recycling programs to reduce the flow of waste into landfills.	X		
(b) Support innovative and alternative practices in recycling solid waste and wastewater and disposing of hazardous waste.	X		
(c) Encourage vendors and owners of automobile, appliance, and white goods to participate in the safe disposal and recycling of such goods, and ensure greater accountability for large waste producers.			X
(d) Develop strategies to promote public awareness to reduce pollution and litter, and encourage residents to reduce, reuse, recycle, and compost waste materials.	X		

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COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>(e) Pursue improvements and upgrades to existing wastewater and solid-waste systems consistent with current and future plans and the County's Capital Improvement Program.</i>	X		
Implementing Actions:			
<i>(a) Establish recycling, trash-separation, and materials recovery programs and facilities to reduce the flow of waste into landfills.</i>	X		
<i>(b) Study the feasibility of developing environmentally safe waste-to-energy facilities.</i>			X
<i>(c) Utilize taxes and fees as means to encourage conservation and recycling.</i>			X
<i>(d) Implement and regularly update the Integrated Solid Waste Management Plan.</i>	X		
<i>(e) Phase out the use of injection wells.</i>	X		
<p>Discussion: There are two alternatives for treating the wastewater generated by Wai'ale. The first alternative involves constructing an on-site wastewater treatment plant (WWTP) for treatment of the wastewater generated by Wai'ale only. This alternative would require effluent reuse and/or disposal, options for which are also discussed. The second alternative involves conveying the wastewater from Wai'ale to the Kahului WWRF, in the event that there is capacity available to treat the flows, either with or without future expansion of the Kahului WWRF.</p> <p>If an on-site WWTP is necessary to treat the wastewater generated by Wai'ale, then effluent reuse and/or disposal will be necessary. Parks, open space areas, playing fields associated with a proposed middle school site and community center, and roadway landscaping are possible areas for irrigation use of R-1 water quality effluent.</p> <p>A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale by reducing solid waste. A solid waste management plan will be coordinated with the County's Department of Environmental Management Solid Waste Division for the disposal of on-site and construction-related waste material, and A&B Properties, Inc. will work with contractors to minimize the amount of solid waste generated during the construction. After construction, A&B Properties, Inc. will implement strategies from the County of Maui Integrated Solid Waste Management Plan (2009) for diverting solid waste from landfills by providing options for recycling.</p>			
Objective:			
<i>(3) Significantly increase the use of renewable and green technologies to promote energy efficiency and energy self-sufficiency.</i>	X		
Policies:			
<i>(a) Promote the use of locally renewable energy sources, and reward energy efficiency.</i>			X
<i>(b) Consider tax incentives and credits for the development of sustainable- and renewable-energy sources.</i>			X
<i>(c) Expand education about energy conservation and self-sufficiency.</i>	X		
<i>(d) Encourage small-scale energy generation that utilizes wind, sun, water, biowaste, and other renewable sources of energy.</i>			X
<i>(e) Expand renewable-energy production.</i>			X
<i>(f) Develop public-private partnerships to ensure the use of renewable energy and</i>			X

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<i>increase energy efficiency.</i>			
<i>(g) Require the incorporation of locally appropriate energy-saving and green building design concepts in all new developments by providing energy efficient urban design guidelines and amendments to the Building Code.</i>	X		
<i>(h) Encourage the use of sustainable energy to power vehicles.</i>			X
<i>(i) Promote the retrofitting of existing buildings and new development to incorporate energy-saving design concepts and devices.</i>	X		
<i>(j) Encourage green footprint practices.</i>	X		
<i>(k) Reduce Maui County's dependence on fossil fuels and energy imports.</i>	X		
<i>(l) Support green building practices such as the construction of buildings that aim to minimize carbon dioxide production, produce renewable energy, and recycle water.</i>	X		
<i>(m) Promote and support environmentally friendly practices in all energy sectors.</i>	X		
Implementing Actions:			
<i>(a) Adopt an energy-efficiency policy for Maui County government as a model for other jurisdictions.</i>			X
<i>(b) Adopt a Green Building Code, and support green building practices.</i>			X
<p>Discussion: A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale and will implement, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, and environmental stewardship, consistent with the standards and guidelines promulgated by the Building Industry Association of Hawaii, the U.S. Green Building Council, the Hawaii Commercial Building Guidelines for Energy Star, and Green Communities into the design and construction of Wai'ale. A&B Properties, Inc. will also provide information to home purchasers regarding energy conservation measures that may be undertaken by individual homeowners.</p> <p>The design and construction of energy systems for residential units will seek to meet applicable Energy Star requirements established by the U.S. Environmental Protection Agency (EPA) in effect at the time of construction. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.</p> <p>In addition, by locating commercial and retail establishments convenient to residential areas, walking and biking will be meaningful alternatives to driving within Wai'ale and, unlike residents in conventional residential subdivisions, Wai'ale residents will not have to drive outside of the community for all of their needs and services. In so doing, Wai'ale will reduce the use and dependence of its residents and guests on non-renewable energy sources.</p>			
Objective:			
<i>(4) Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.</i>	X		
Policies:			
<i>(a) Capitalize on existing infrastructure capacity as a priority over infrastructure expansion.</i>			X

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

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(b) <i>Planning for new towns should only be considered if a region's growth is too large to be directed into infill and adjacent growth areas.</i>			X
(c) <i>Utilize appropriate infrastructure technologies in the appropriate locations.</i>			X
(d) <i>Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner.</i>	X		
(e) <i>Support catchment systems and on-site wastewater treatment in rural areas and aggregated water and wastewater systems in urban areas if they are appropriately located.</i>	X		
Implementing Actions:			
(a) <i>Develop a streamlining system for urban infill projects.</i>			X
(b) <i>Identify appropriate areas for urban expansion of existing towns where infrastructure and public facilities can be provided in a cost-effective manner.</i>			X
<p>Discussion: As discussed in Section 4.8, A&B Properties, Inc. will be responsible for required infrastructure improvements for Wai'ale, including water source and system improvements for drinking quality and non-drinking quality water use and fire protection, drainage improvements, traffic-related improvements, wastewater system improvements, and utility upgrades, as determined by the appropriate governmental agencies and public utility companies.</p>			
Objective:			
(5) <i>Improve the planning and management of infrastructure systems.</i>	X		
Policies:			
(a) <i>Provide a reliable and sufficient level of funding to enhance and maintain infrastructure systems.</i>	X		
(b) <i>Require new developments to contribute their pro rata share of local and regional infrastructure costs.</i>	X		
(c) <i>Improve coordination among infrastructure providers and planning agencies to minimize construction impacts.</i>	X		
(d) <i>Maintain inventories of infrastructure capacity, and project future infrastructure needs.</i>	X		
(e) <i>Require social-justice and -equity issues to be considered during the infrastructure-planning process.</i>			X
(f) <i>Discourage the development of critical infrastructure systems within hazard zones and the tsunami-inundation zone to the extent practical.</i>	X		
(g) <i>Ensure that infrastructure is built concurrent with or prior to development.</i>	X		
(h) <i>Ensure that basic infrastructure needs can be met during a disaster.</i>	X		
(i) <i>Locate public facilities and emergency services in appropriate locations that support the health, safety, and welfare of each community and that minimize delivery inefficiencies.</i>	X		
(j) <i>Promote the undergrounding of utility and other distribution lines for health safety, and aesthetic reasons.</i>	X		
Implementing Actions:			
(a) <i>Develop and regularly update functional plans for infrastructure systems.</i>			X
(b) <i>Develop, adopt, and regularly update local or community-sensitive level-of service standards for infrastructure systems.</i>			X

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

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Discussion: As discussed in Section 4.8, A&B Properties, Inc. will be responsible for required infrastructure improvements for Wai'ale, including water source and system improvements for drinking quality and non-drinking quality water use and fire protection, drainage improvements, traffic-related improvements, wastewater system improvements, and utility upgrades, as determined by the appropriate governmental agencies and public utility companies.			
J. PROMOTE SUSTAINABLE LAND USE AND GROWTH MANAGEMENT			
Goal: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.			
Objective:			
(1) Improve land use management and implement a directed-growth strategy.	X		
Policies:			
(a) Establish, map, and enforce urban- and rural-growth limits.			X
(b) Direct urban and rural growth to designated areas.	X		
(c) Limit the number of visitor-accommodation units and facilities in Community Plan Areas.	X		
(d) Maintain a sustainable balance between the resident, part-time resident, and visitor populations.	X		
(e) Encourage redevelopment and infill in existing communities on lands intended for urban use to protect productive farm land and open-space resources.	X		
(f) Discourage new entitlements for residential, resort, or commercial development along the shoreline.			X
(g) Restrict development in areas that are prone to natural hazards, disasters, or sea-level rise.			X
(h) Direct new development in and around communities with existing infrastructure and service capacity, and protect natural, scenic, shoreline, and cultural resources.	X		
(i) Establish and maintain permanent open space between communities to protect each community's identity.	X		
(j) Support the dedication of land for public uses.	X		
(k) Preserve the public's rights of access to and continuous lateral access along all shorelines.			X
(l) Enable existing and future communities to be self-sufficient through sustainable land use planning and management practices.	X		
(m) Protect summits, slopes, and ridgelines from inappropriate development.			X
Implementing Actions:			
(a) Regularly update urban- and rural-growth boundaries and their maps.			X
(b) Establish transfer and purchase of development rights programs.			X
(c) Develop and adopt a green infrastructure plan.			X
(d) Develop studies to help determine a sustainable social, environmental, and economic carrying capacity for each island.			X
(e) Identify and define resort-destination areas.			X
Discussion: Wai'ale is consistent with the objectives and policies of the <i>Countywide Policy Plan</i> . In addition, Wai'ale is within the "urban growth boundary" of the current Directed Growth Maps of: 1) the Department of Planning; 2) the Maui Planning			

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<p>Commission; and 3) the General Plan Advisory Committee. Wai'ale realizes the vision for the property that has been formulated and refined in consultation with community leaders, the County of Maui administration and Maui residents.</p>			
<p>The objectives of Wai'ale are to:</p>			
<ul style="list-style-type: none"> • Create a new residential community consistent with the parameters and design concepts of the <i>Draft Maui Island Plan</i>. • Reflect community values to create a unique and compelling community in context with the Wailuku-Kahului region; • Emphasize community development and create a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village mixed uses primarily serving the residents of the community; • Integrate the recreational amenities with the different uses comprising the community; • Preserve the inherent beauty of the property by incorporating cultural preserves, parks, and open space, as well as through excellence in landscaping and design; • Make walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian pathways throughout the community; • Include buffer zones between residential areas and Kuihelani Highway; • Integrate natural and human-made boundaries and landmarks to craft a sense of place within a defined community; • Incorporate and preserve natural and cultural resources to maintain the physical and historic character of the property, thereby creating a distinctive community for generations; • Provide homes near regional employment centers, thereby decreasing commuting and increasing quality of life and environmental stewardship; and • Incorporate sustainability by design. 			
<p>Wai'ale will be extensively landscaped as part of the development improvements, to ensure visual buffering and softening of the built landscape. The master plan includes regional and neighborhood parks, greenways and open space. Wai'ale will not obstruct views of Haleakalā, 'Īao Valley, and the Mauna Kahalawai, or Waikapū Stream.</p>			
<p>As discussed in Section 4.8, A&B Properties, Inc. will be responsible for required infrastructure improvements for Wai'ale, including water source and system improvements for drinking quality and non-drinking quality water use and fire protection, drainage improvements, traffic-related improvements, wastewater system improvements, and utility upgrades, as determined by the appropriate governmental agencies and public utility companies.</p>			

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Objective:			
(2) <i>Improve planning for and management of agricultural lands and rural areas.</i>			X
Policies:			
(a) <i>Protect prime, productive, and potentially productive agricultural lands to maintain the islands' agricultural and rural identities and economies.</i>			X
(b) <i>Provide opportunities and incentives for self-sufficient and subsistence homesteads and farms.</i>			X
(c) <i>Discourage developing or subdividing agriculturally designated lands when non-agricultural activities would be primary uses.</i>			X
(d) <i>Conduct agricultural-development planning to facilitate robust and sustainable agricultural activities.</i>			X
Implementing Actions:			
(a) <i>Inventory and protect prime, productive, and potentially productive agricultural lands from competing non-agricultural land uses.</i>			X
<p>Discussion: Wai'ale will not reduce the inventory of agriculturally significant lands. As discussed in Section 3.3, the majority of the property is rated "E", with a small portion of the property designated as "C" under the LSB classification system and is classified as "Other" under the ALISH classification system.</p> <p>The agricultural impact of this project is near negligible when taken in the context of recent trends on Maui. In the last 30 years, the closures of Wailuku Sugar and Pioneer Mill have taken significant acreages out of active sugar cultivation. More recently, Maui Land & Pineapple's shutdown of its pineapple operations has also added to the availability of agricultural acreage on Maui. These actions have greatly increased the supply of non-sugar based agricultural lands. Much of these lands of the former plantations continue to remain fallow and provide opportunities for future agricultural use. Rather than the availability of land, limiting factors to the growth of diversified agriculture include the market demand and profitability of the various agricultural crops and the availability of water. Wai'ale will involve the use of approximately 545 acres of land, which represents approximately 0.2 percent of the roughly 246,000 acres of State Agricultural district lands on the island of Maui.</p>			
Objective:			
(3) <i>Design all developments to be in harmony with the environment and to protect each community's sense of place.</i>	X		
Policies:			
(a) <i>Support and provide incentives for green building practices.</i>			X
(b) <i>Encourage the incorporation of green building practices and technologies into all government facilities to the extent practicable.</i>			X
(c) <i>Protect and enhance the unique architectural and landscape characteristics of each Community Plan Area, small town, and neighborhood.</i>	X		
(d) <i>Ensure that adequate recreational areas, open spaces, and public-gathering places are provided and maintained in all urban centers and neighborhoods.</i>	X		
(e) <i>Ensure business districts are distinctive, attractive, and pedestrian-friendly</i>			X

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

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<i>destinations.</i>			
<i>(f) Use trees and other forms of landscaping along rights-of-way and within parking lots to provide shade, beauty, urban-heat reduction, and separation of pedestrians from automobile traffic in accordance with community desires.</i>	X		
<i>(g) Where appropriate, integrate public-transit, equestrian, pedestrian, and bicycle facilities, and public rights-of-way as design elements in new and existing communities.</i>	X		
<i>(h) Ensure better connectivity and linkages between land uses.</i>	X		
<i>(i) Adequately buffer and mitigate noise and air pollution in mixed-use areas to maintain residential quality of life.</i>	X		
<i>(j) Protect rural communities and traditional small towns by regulating the footprint, locations, site planning, and design of structures.</i>	X		
<i>(k) Support small-town revitalization and preservation.</i>			X
<i>(l) Facilitate safe pedestrian access, and create linkages between destinations and within parking areas.</i>	X		
Implementing Actions:			
<i>(a) Establish design guidelines and standards to enhance urban and rural environments.</i>	X		
<i>(b) Provide funding for civic-center and civic-space developments.</i>			X
<i>(c) Establish and enhance urban forests in neighborhoods and business districts.</i>			X

Discussion: Wai'ale will be a master planned community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways.

Wai'ale will not impinge upon any significant public scenic view corridors, and Wai'ale will have no significant impacts on views toward Haleakalā, 'Īao Valley, and the Mauna Kahalawai, or Waikapū Stream.

Wai'ale will be in character with surrounding uses and is consistent with the pattern of development as envisioned in the *Draft Maui Island Plan*. To mitigate environmental conflicts and enhance scenic amenities, Wai'ale will include buffer areas along Kuihelani Highway.

Wai'ale's open space, parks, cultural preservers, pedestrian/bicycle paths, and community center will provide for significant recreational benefits, protection of important habitat and natural features, and an overall setting of enhanced environmental quality and community health.

Wai'ale will be a complete community with village-mixed use areas comprised of commercial, residential, recreational, and community facilities serving the needs of Wai'ale residents and visitors. Wai'ale will integrate a system of pedestrian and bike paths along the community's roadways. This secondary circulation system of linked pedestrian/bicycle paths will provide another option for traveling through the community.

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<p>A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale and will implement, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, and environmental stewardship, consistent with the standards and guidelines promulgated by the Building Industry Association of Hawaii, the U.S. Green Building Council, the Hawaii Commercial Building Guidelines for Energy Star, and Green Communities into the design and construction of Wai'ale. A&B Properties, Inc. will also provide information to home purchasers regarding energy conservation measures that may be undertaken by individual homeowners.</p> <p>The design and construction of energy systems for residential units will seek to meet applicable Energy Star requirements established by the U.S. Environmental Protection Agency (EPA) in effect at the time of construction. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.</p>			
Objective:			
(4) <i>Improve and increase efficiency in land use planning and management.</i>	X		
Policies:			
(a) <i>Assess the cumulative impact of developments on natural ecosystems, natural resources, wildlife habitat, and surrounding uses.</i>	X		
(b) <i>Ensure that new development projects requiring discretionary permits demonstrate a community need, show consistency with the General Plan, and provide an analysis of impacts.</i>	X		
(c) <i>Encourage public and private partnerships to preserve lands of importance, develop housing, and meet the needs of residents.</i>	X		
(d) <i>Promote creative subdivision designs that implement best practices in land development, sustainable management of natural and physical resources, increased pedestrian and bicycle functionality and safety, and the principles of livable communities.</i>	X		
(e) <i>Coordinate with Federal, State, and County officials in order to ensure that land use decisions are consistent with County plans and the vision local populations have for their communities.</i>	X		
(f) <i>Enable greater public participation in the review of subdivisions.</i>	X		
(g) <i>Improve land use decision making through the use of land- and geographic information systems.</i>	X		
Implementing Actions:			
(a) <i>Institute a time limit and sunseting stipulations on development entitlements and their implementation.</i>			X
<p>Discussion: Wai'ale will complement the pattern of development in the Wailuku-Waikapū region in a way that is consistent with the <i>Draft Maui Island Plan</i>. In doing so, Wai'ale will help to satisfy the projected housing demand of a growing population and provide for a complete and vibrant community.</p> <p>This EIS assesses the cumulative impact of Wai'ale on natural ecosystems, natural resources, wildlife habitat, and surrounding uses. Specific sections of this EIS address</p>			

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<p>potential impacts on natural ecosystems (See Chapter 3.0 and Section 7.2).</p> <p>Wai'ale has undergone an extensive community planning process, including consultation with community leaders, the County of Maui administration and Maui residents. Public input was sought through four community meetings in August 2005.</p> <p>Through the community-based planning process, the following vision statement was developed:</p> <p style="padding-left: 40px;"><i>Create a socially integrated community with a “unique” sense of identity and character, capitalizing on its location and natural features. As an extension of Kahului “Dream City,” it will be a community that makes both visitors and residents feel “welcome” and plans for the long-range community and civic facilities to support the central Maui region.</i></p> <p>Some of the key community planning goals to achieve this vision includes:</p> <ul style="list-style-type: none"> • Provide walkable mixed-use neighborhoods. • Provide homes for a variety of income ranges, ages, and lifestyles. If so desired, a resident can grow-up and spend their entire lives in the community with the appropriate housing types available. • Plan for needed community facilities to meet the region’s current and future needs. • Include a multi-modal transportation system that accommodates walking, biking, jogging and driving. • Include commercial activities (including locally-owned stores and restaurants), schools, and other civic and recreational facilities. • Respect the natural, historical, and cultural significance of the land. • Capitalize on the views of Haleakalā (East Maui Mountains), the Mauna Kaha (West Maui Mountains) and other significant landmarks. <p>Subsequent to the community-based planning process that resulted in the 2005 conceptual master plan, there have been several developments which have resulted in modifications to the conceptual community master plan. These include:</p> <ul style="list-style-type: none"> • Recommendation of the County Department of Planning to limit the proposed development to the area north of Waikapū Stream within the 2030 planning horizon of the <i>Maui Island Plan</i>. Approximately 220 acres south of Waikapū Stream were not recommended for community growth at this time. • Zoning Ordinance that required A&B Properties, Inc. to contribute 50 acres to the County of Maui for Affordable Housing, Community Center, and Neighborhood Park. • The County’s public transportation system (“Maui Bus”) was started. The Maui Bus public transit service consists of 12 bus routes, all operated by Roberts 			

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<p>Hawaii. These routes are funded by the County and provide service in and between various Central, South, West, Ha'ikū and Upcountry Maui communities. All of the routes are operated seven days a week, including all holidays. All vehicles on the routes are ADA accessible. This results in a potentially positive impact to one of the key community planning goals of "Include a multi-modal transportation system..." by accommodating another alternative mode of transportation to cars.</p> <ul style="list-style-type: none"> Maui Lani has continued its development and expansion to the north of Wai'ale. The expansion includes village mixed uses, residential neighborhoods, Pōmaika'i Elementary School (opened in 2007) and a regional park, which provide opportunity to coordinate and connect this planned community with Wai'ale. 			
K. STRIVE FOR GOOD GOVERNANCE			
Goal: Government services will be transparent, effective, efficient, and responsive to the needs of residents.			
Objective:			
(1) Strengthen governmental planning, coordination, consensus building, and decision making.			X
Policies:			
(a) Plan and prepare for the effects of social, demographic, economic, and environmental shifts.			X
(b) Plan for and address the possible implications of Hawaiian sovereignty.			X
(c) Encourage collaboration among government agencies to reduce duplication of efforts and promote information availability and exchange.			X
(d) Expand opportunities for the County to be involved in and affect State and Federal decision making.			X
(e) Plan and prepare for large-scale emergencies and contingencies.			X
(f) Improve public awareness about preparing for natural hazards, disasters, and evacuation plans.			X
(g) Improve coordination among Federal, State, and County agencies.			X
Implementing Actions:			
(a) Develop policies, regulations, and programs to protect and enhance the unique character and needs of the County's various communities.			X
(b) Evaluate and if necessary, recommend modifications to the County Charter that could result in a possible change to the form of governance for Maui County.			X
(c) Study and evaluate the feasibility and implications of voting in Maui County Council elections.			X
(d) Study and evaluate the feasibility of authorizing town governments in Maui County.			X
<p>Discussion: Wai'ale will not directly develop government services; therefore, this objective and these policies are not applicable. However, Wai'ale will have a significant positive impact on the State and County economies and will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and income taxes. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to</p>			

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the public that may result will be effectively minimized.			
Objective:			
(2) Promote civic engagement.			X
Policies:			
(a) Foster consensus building through in-depth, innovative, and accessible public participatory processes.	X		
(b) Promote and ensure public participation and equal access to government among all citizens.			X
(c) Encourage a broad cross-section of residents to volunteer on boards and commissions.			X
(d) Encourage the State to improve its community-involvement processes.			X
(e) Support community-based decision making.			X
(f) Expand advisory functions at the community level.			X
(g) Expand opportunities for all members of the public to participate in public meetings and forums.	X		
(h) Facilitate the community's ability to obtain relevant documentation.	X		
(i) Increase voter registration and turnout.			X
Implementing Actions:			
(a) Implement two-way communication using audio-visual technology that allows residents to participate in the County's planning processes.			X
(b) Ensure and expand the use of online notification of County business and public meetings, and ensure the posting of all County board and commission meeting minutes.			X
(c) Explore funding mechanisms to improve participation by volunteers on boards and commissions.			X
(d) Develop a project-review process that mandates early and ongoing consultation in and with communities affected by planning and land use activities.	X		
<p>Discussion: Wai'ale will complement the pattern of development in the Wailuku-Waikapū region in a way that is consistent with the <i>Draft Maui Island Plan</i>. In doing so, Wai'ale will help to satisfy the projected housing demand of a growing population and provide for a complete and vibrant community.</p> <p>This EIS assesses the cumulative impact of Wai'ale on natural ecosystems, natural resources, wildlife habitat, and surrounding uses. Specific sections of this EIS address potential impacts on natural ecosystems (See Chapter 3.0 and Section 7.2).</p> <p>Wai'ale has undergone an extensive community planning process, including consultation with community leaders, the County of Maui administration and Maui residents. Public input was sought through four community meetings in August 2005.</p> <p>Through the community-based planning process, the following vision statement was developed:</p>			

COUNTYWIDE POLICY PLAN	S	N/S	N/A
(Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)			
<p><i>Create a socially integrated community with a “unique” sense of identity and character, capitalizing on its location and natural features. As an extension of Kahului “Dream City,” it will be a community that makes both visitors and residents feel “welcome” and plans for the long-range community and civic facilities to support the central Maui region.</i></p>			
<p>Some of the key community planning goals to achieve this vision includes:</p>			
<ul style="list-style-type: none"> • Provide walkable mixed-use neighborhoods. • Provide homes for a variety of income ranges, ages, and lifestyles. If so desired, a resident can grow-up and spend their entire lives in the community with the appropriate housing types available. • Plan for needed community facilities to meet the region’s current and future needs. • Include a multi-modal transportation system that accommodates walking, biking, jogging and driving. • Include commercial activities (including locally-owned stores and restaurants), schools, and other civic and recreational facilities. • Respect the natural, historical, and cultural significance of the land. • Capitalize on the views of Haleakalā (East Maui Mountains), the Mauna Kahalawai (West Maui Mountains) and other significant landmarks. 			
<p>Subsequent to the community-based planning process that resulted in the 2005 conceptual master plan, there have been several developments which have resulted in modifications to the conceptual community master plan. These include:</p>			
<ul style="list-style-type: none"> • Recommendation of the County Department of Planning to limit the proposed development to the area north of Waikapū Stream within the 2030 planning horizon of the <i>Maui Island Plan</i>. Approximately 220 acres south of Waikapū Stream were not recommended for community growth at this time. • Zoning Ordinance that required A&B Properties, Inc. to contribute 50 acres to the County of Maui for Affordable Housing, Community Center, and Neighborhood Park. • The County’s public transportation system (“Maui Bus”) was started. The Maui Bus public transit service consists of 12 bus routes, all operated by Roberts Hawaii. These routes are funded by the County and provide service in and between various Central, South, West, Ha’ikū and Upcountry Maui communities. All of the routes are operated seven days a week, including all holidays. All vehicles on the routes are ADA accessible. This results in a potentially positive impact to one of the key community planning goals of “Include a multi-modal transportation system...” by accommodating another alternative mode of transportation to cars. • Maui Lani has continued its development and expansion to the north of Wai’ale. The expansion includes village mixed uses, residential neighborhoods, 			

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COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
Pōmaika'i Elementary School (opened in 2007) and a regional park, which provide opportunity to coordinate and connect this planned community with Wai'ale.			
Objective:			
(3) <i>Improve the efficiency, reliability, and transparency of County government's internal processes and decision making.</i>			X
Policies:			
(a) <i>Use advanced technology to improve efficiency.</i>			X
(b) <i>Simplify and clarify the permitting process to provide uniformity, reliability, efficiency, and transparency.</i>			X
(c) <i>Improve communication with Lana'i and Moloka'i through the expanded use of information technologies, expanded staffing, and the creation and expansion of government-service centers.</i>			X
(d) <i>Ensure that laws, policies, and regulations are internally consistent and effectuate the intent of the General Plan.</i>			X
Implementing Actions:			
(a) <i>Update the County Code to be consistent with the General Plan.</i>			X
(b) <i>Identify and update County regulations and procedures to increase the productivity and efficiency of County government.</i>			X
(c) <i>Develop local level-of-service standards for infrastructure, public facilities, and services.</i>			X
(d) <i>Implement plans through programs, regulations, and capital improvements in a timely manner.</i>			X
(e) <i>Expand government online services.</i>			X
<p>Discussion: Wai'ale will not directly improve government processes, decision making and standards; therefore, this objective and these policies are not applicable. However, Wai'ale will have a significant positive impact on the State and County economies and will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and income taxes. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to the public that may result will be effectively minimized.</p>			
Objective:			
(4) <i>Adequately fund in order to effectively administer, implement, and enforce the General Plan.</i>			X
Policies:			
(a) <i>Adequately fund, staff, and support the timely update and implementation of planning policy, programs, functional plans, and enforcement activities.</i>			X
(b) <i>Ensure that the County's General Plan process provides for efficient planning at the County, island, town, and neighborhood level.</i>			X
(c) <i>Encourage ongoing professional development, education, and training of County employees.</i>			X
(d) <i>Encourage competitive compensation packages for County employees to attract and retain County personnel.</i>			X
(e) <i>Enable the County government to be more responsive in implementing our General Plan and Community Plans.</i>			X

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

COUNTYWIDE POLICY PLAN (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
<i>(f) Review discretionary permits for compliance with the Countywide Policy Plan.</i>			X
<i>(g) Strengthen the enforcement of County, State, and Federal land use laws.</i>			X
Implementing Actions:			
<i>(a) Establish penalties to ensure compliance with County, State, and Federal land use laws.</i>			X
<p>Discussion: Wai'ale will not directly improve government administration, programs, or plans; therefore, this objective and these policies are not applicable. However, Wai'ale will have a significant positive impact on the State and County economies and will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and income taxes. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to the public that may result will be effectively minimized.</p>			
Objective:			
<i>(5) Strive for County government to be a role model for implementing cultural and environmental policies and practices.</i>			X
Policies:			
<i>(a) Educate residents on the benefits of sustainable practices.</i>			X
<i>(b) Encourage the retention and hiring of qualified professionals who can improve cultural and environmental practices.</i>			X
<i>(c) Incorporate environmentally sound and culturally appropriate practices in government operations and services.</i>			X
<i>(d) Encourage all vendors with County contracts to incorporate environmentally sound and culturally appropriate practices.</i>			X
<p>Discussion: Wai'ale will not directly improve government policies and practices; therefore, this objective and these policies are not applicable. However, Wai'ale will have a significant positive impact on the State and County economies and will contribute to increased State and County revenues in the form of increased property taxes, general excise taxes, and income taxes. Should the State and County choose to allocate these additional tax revenues to fund more services to protect public health, welfare, and safety, any cost to the public that may result will be effectively minimized.</p>			

5.2.2 Maui Island Plan

The County of Maui is currently in the process of updating the *General Plan*, which will establish long-term planning guidelines for Maui County to the year 2030. The first step in this process involved the creation of a *Countywide Policy Plan*, which provides broad goals, objectives, policies and implementing actions used to develop the *Maui Island Plan* and Community Plans.

The *Draft Maui Island Plan* has not yet been adopted by the Maui County Council; however the backbone of the *Maui Island Plan* will be the Directed Growth Strategy, which will include Directed Growth Maps specifying “urban growth boundaries” for the Island of Maui. As of November 2010, Wai’ale is within the “urban growth boundary” of the Directed Growth Maps of put forth by: 1) the Department of Planning; 2) the Maui Planning Commission; and 3) the General Plan Advisory Committee. These are shown in Figures 5-1 to 5-3.

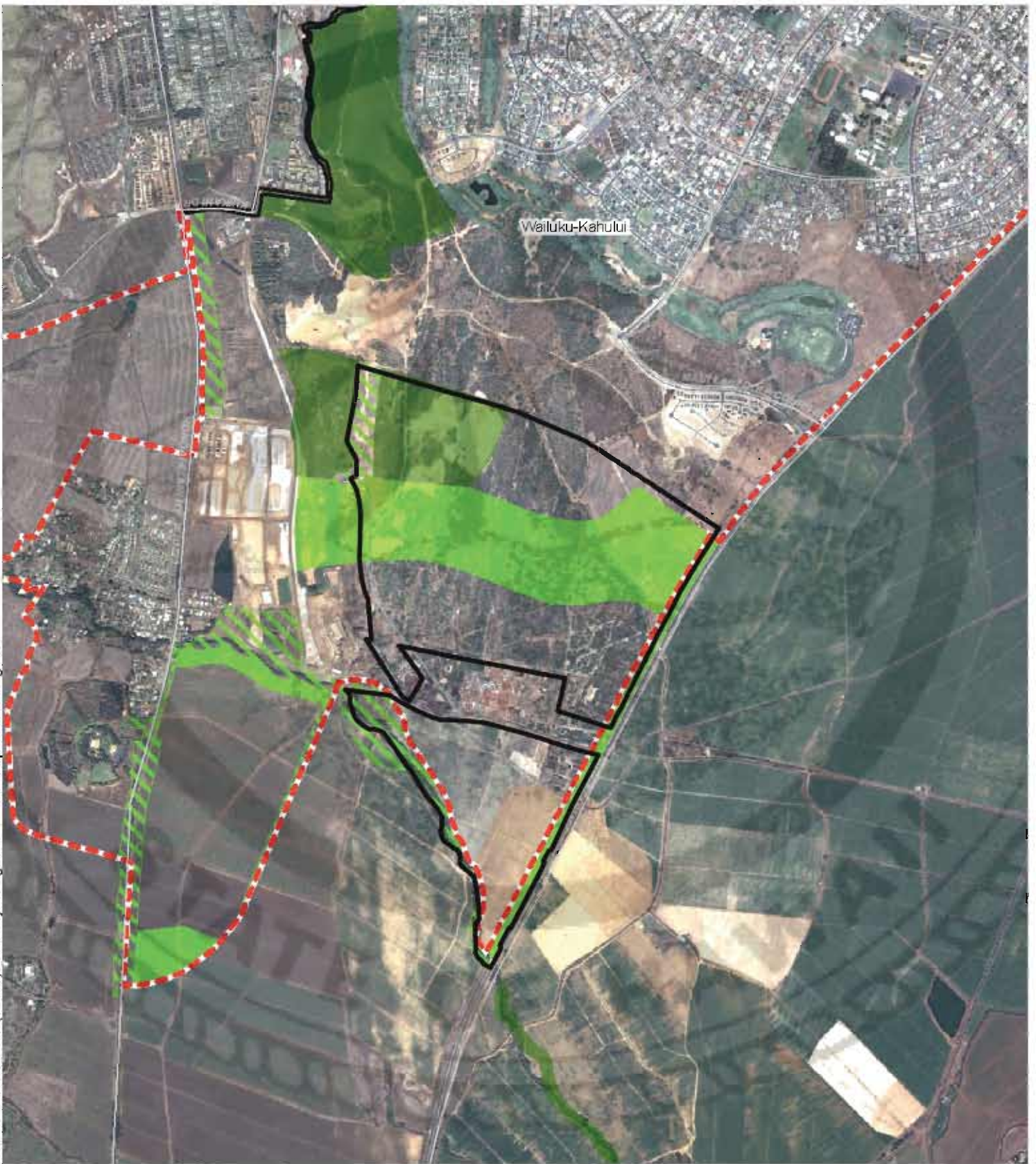
During the Draft EIS public review period, the County Planning Department’s Long Range Division wrote: “The Division supports the location of the Wai’ale master-planned community. The proposed project falls within the proposed Urban Growth Boundaries of the draft Maui Island Plan, and thus conforms to an island growth strategy that encourages development of land in proximity to major work and employment centers and existing infrastructure.”

The rationale behind the proposed Wai’ale master plan is to create a compact, mixed-use town with park land, open space, a middle school and commercial uses. Wai’ale will be located south of Maui Lani, and it is bounded on the west by various properties makai of Honoapi’ilani Highway, to the south by Waikapū Stream, and to the east by Kuihelani Highway. While proximate to Kahului, Wailuku, and Waikapū, the Wai’ale community will have a distinct community, clearly separate from, but connected to existing towns.

As recommended in the *Draft Maui Island Plan*, the proposed Wai’ale project will provide roughly 50% of the additional residential units needed in the Central Maui region and will help to address the housing needs of Maui residents. With a mix of both single-family and multi-family housing units, and a strong potential to provide workforce housing, the proposed Wai’ale project will provide housing options to address resident housing demand. The Wai’ale project is proximate to Wailuku and Kahului employment opportunities and infrastructure, has adequate highway access and transit connectivity, and has favorable topography.

To prevent sprawl and urbanization of prime agricultural resource land, the conceptual plan calls for compact walkable neighborhoods integrated with a network of greenbelts, open space, and parks. With the inclusion of a regional park and existing open spaces, the master plan achieves a buffer to surrounding urban development (along the southern, eastern, and northern boundaries). Where there is a desire to provide connectivity to the surrounding communities, the plan provides for circulation (automobile and pedestrian/

Path: Q:\Maui\Waiale (Waiko)\GIS\Project\Figure 5-1 - MIP Dept of Planning.mxd



LEGEND

Project Area

Growth Boundaries: Planning Dept.

Urban Growth Boundary

Rural Growth Boundary

Country Town

Rural Service Center

Urban Reserve

Other Land Use Elements

Land Use – Preservation

Land Use – Regional Park

Urban Form -- Greenbelt

Urban Form -- Greenway

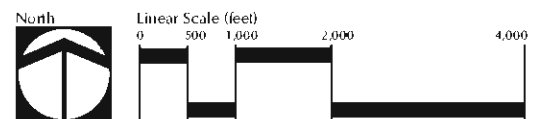
Sensitive Lands

Figure 5-1
Draft Maui Island Plan Directed Growth Map:
Department of Planning

W A I ' A L E

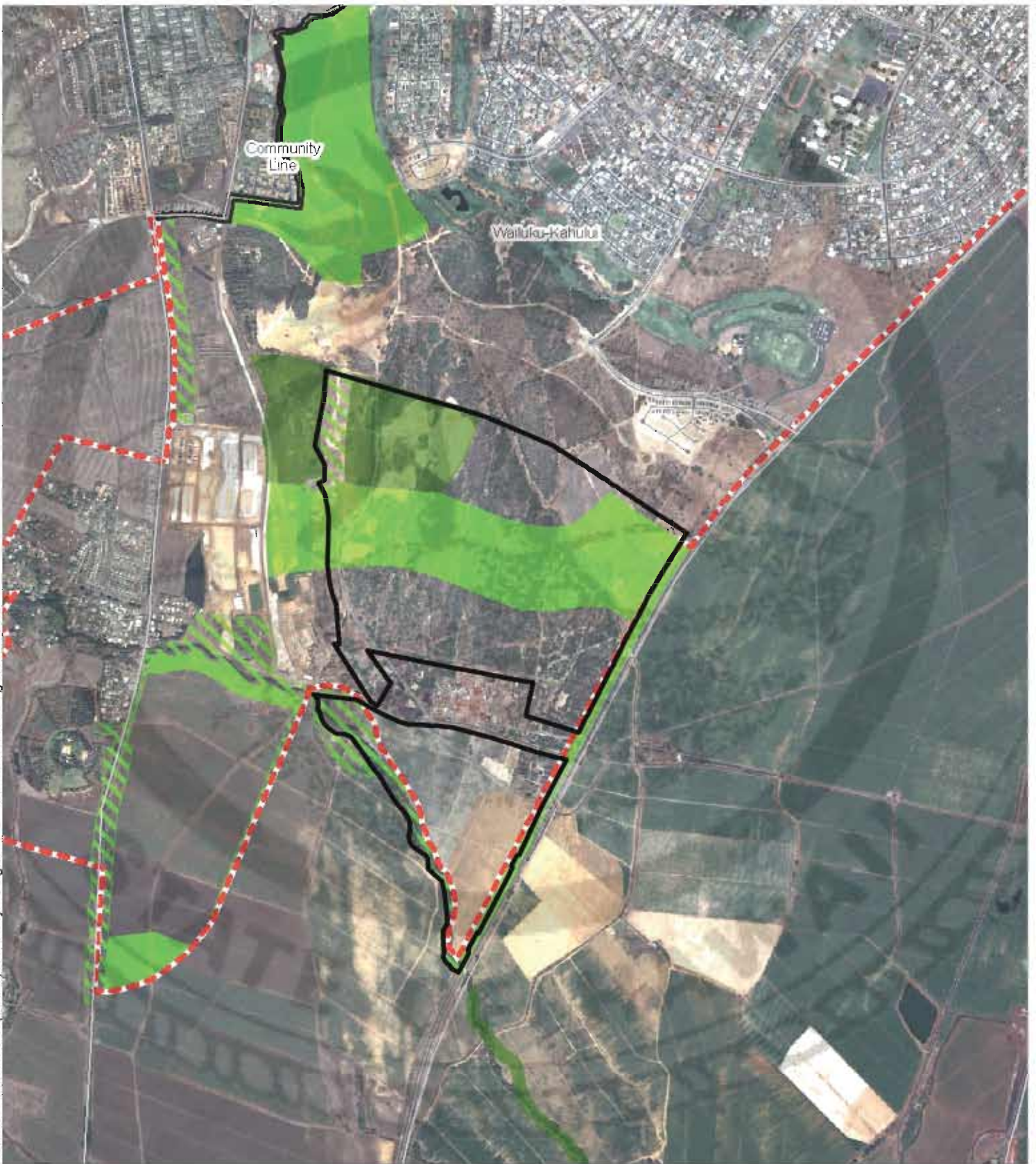
A&B PROPERTIES, INC.

KAHULUI, MAUI



Source: County of Maui - Maui Island Plan
Disclaimer: This graphic has been prepared for general planning purposes only.

Path: Q:\Maui\Waiale (Waiko)\GIS\Project\Figure 5-2 - MIP Maui Planning Comm.mxd



LEGEND

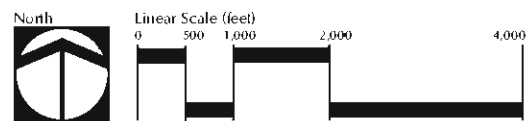
- Project Area
- Growth Boundaries: MPC**
- Urban Growth Boundary
- Rural Growth Boundary
- Country Town
- Rural Service Center
- Other Land Use Elements**
- Land Use -- Preservation
- Land Use -- Regional Park
- Urban Form -- Greenbelt
- Urban Form -- Greenway
- Sensitive Lands

Figure 5-2
Draft Maui Island Plan Directed Growth Map:
Maui Planning Commission

WAI'ALE

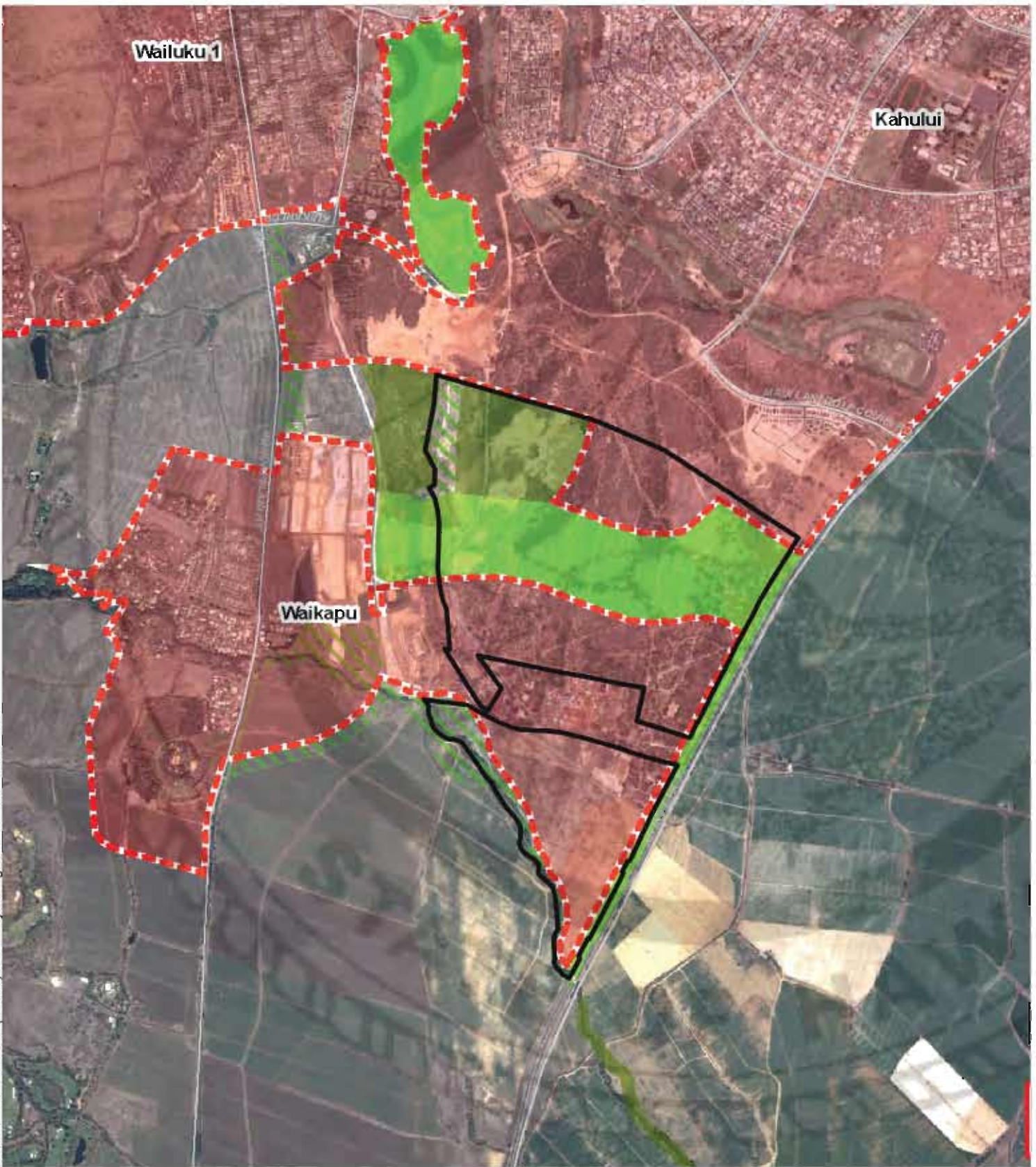
A&B PROPERTIES, INC.

KAHULUI, MAUI



Source: County of Maui - Maui Island Plan
Disclaimer: This graphic has been prepared for general planning purposes only.

Path: Q:\Maui\Waiale (Waiko)\GIS\Project\Figure 5-3 - MIP GPAC.mxd



LEGEND

Project Area

Growth Boundaries: GPAC Version

- Urban Town
- Country Town
- Rural Service Center
- Rural Residential
- Land Use -- Preservation
- Land Use -- Regional Park
- Urban Form -- Greenbelt
- Urban Form -- Greenway

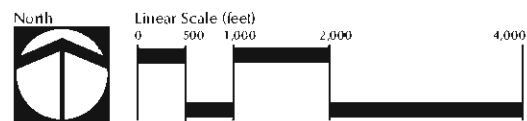
Source: County of Maui - Maui Island Plan
 Disclaimer: This graphic has been prepared for general planning purposes only.

Figure 5-3
 Draft Maui Island Plan Directed Growth Map:
 General Plan Advisory Committee

W A I ' A L E

A&B PROPERTIES, INC.

KAHULUI, MAUI



bicycle) and open space. Thus, the master plan provides a clear distinction between Maui Lani and the proposed Wai'ale project, and buffers Waikapū Stream with a linear greenway park. The Wai'ale project is currently bounded on the west and east by roads which help to define and provide access to the new community. Based on consultation with the County Department of Housing and Human Concerns, forty (40) acres comprised of two parcels in the northern portion of Wai'ale project would be provided to the County for workforce housing of approximately 300 units comprised of single and multi-family housing. The key attributes of these lands are readily available infrastructure and roadway connections to Maui Lani that would facilitate cost effective workforce housing that could be implemented in the early phase of the community. In addition, the Wai'ale project will also provide residential units that will be priced to meet the County workforce housing policy.

The proposed Wai'ale project's mix of land uses is an essential component to providing alternatives to driving such as walking or biking. The location of commercial and retail establishments throughout Wai'ale provide for greater interaction, economic activity, and quality of life for residents and visitors. The Wai'ale project's open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, and an overall setting of enhanced environmental quality and community health. Uses envisioned include commercial or civic facilities such as restaurants, schools, pharmacies, supermarkets, parks, libraries and/or bookstores, shops, and possibly theatres. Providing such facilities within the community will reduce the number of personal motorized vehicle trips and possibly the high costs of private car ownership.

The cultural preservation areas shown on the Wai'ale master plan reflect the actual cultural preservation areas approved by the DLNR SHPD in 2010. The cultural preservation areas were intended to be broadly defined in the *Draft Maui Island Plan*, which preceded the actual designation of these areas, until their specific location could be determined by archaeological inventory surveys approved by SHPD. The Wai'ale master plan has sought to incorporate the open space buffer between Maui Lani and Wai'ale as articulated in the *Draft Maui Island Plan*. Within the Wai'ale master plan, areas designated for park space and planned cultural preserves seek to provide that open space buffer. Also, the rationale for designating a portion of lands within the northern portion of Wai'ale for planned County Housing is in part based on County Ordinance No. 3559. The County of Maui via Ordinance No. 3559 (Maui Business Park Phase II-Change in Zoning) required in part that A&B dedicate 50 acres to the County for affordable housing (40 acres), community center (7 acres) and park (3 acres). The specific location of these lands was described as being "...at the approximate location of the terminus of Kamehameha Avenue, near the new Maui Lani Park and Pomaikai Elementary School". This location in the northern portion of the property is where infrastructure and roadway connections to Maui Lani would be the closest, cheapest and the fastest to build.

The *Maui Island Plan* is the guiding document for future growth on the island of Maui to the year 2030. The *Draft Maui Island Plan* notes that the development of additional water sources is crucial for the Central Maui water system. The plan includes a long range

implementation plan to address capital improvements, including water source development and related infrastructure. While there are sufficient amounts of groundwater resources to serve current and projected needs, the infrastructure to make this water available needs to be developed.

5.2.3 Wailuku-Kahului Community Plan

The *Wailuku-Kahului Community Plan* is one of nine community plans developed to address the unique aspects of each region. According to the *Wailuku-Kahului Community Plan* Land Use Map, the property is designated Agricultural (See Figure 2-4).

The community plan’s objectives and policies relevant to the Wai’ale are discussed below.

Table 5-5: Wailuku-Kahului Community Plan

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
ECONOMIC ACTIVITY			
Goal:			
<i>A stable and viable economy that provides opportunities for growth and diversification to meet long-term community and regional needs and in a manner that promotes agricultural activity and preserves agricultural lands and open space resources.</i>			
Objectives and Policies:			
<ul style="list-style-type: none"> • Support agricultural production so agriculture can continue to provide employment and contribute to the region’s economic well-being. 			X
<ul style="list-style-type: none"> • Support the revitalization of the Wailuku commercial core and adjacent areas by expanding the range of commercial services; improving circulation and parking; enhancing and maintaining the town’s existing character through the establishment of a Wailuku Town design district; redevelopment of the Wailuku Municipal Parking Lot with emphasis on additional public parking; establishing urban design guidelines; and providing opportunities for new residential uses. Improve Wailuku’s image and level of service as a commercial center for the region’s population. A combination of redevelopment and rehabilitation actions is necessary to meet the needs of a growing center. 			X
<ul style="list-style-type: none"> • Allow opportunities for hotel accommodations within the region at Kahului and Wailuku--at the existing hotel district by Kahului Harbor; near the Kahului Airport; and within the Wailuku Town core. 			X
<ul style="list-style-type: none"> • Provide industrial growth opportunities through the expansion of existing industrial centers associated with the airport and harbor, and in Wailuku and Kahului. Encourage the fee simple ownership of lots provided by private developers. 			X
<ul style="list-style-type: none"> • Recognize the importance of small businesses to the region’s economy. 	X		
<ul style="list-style-type: none"> • Encourage the development of affordable business incubator spaces with public subsidies or incentives, as necessary, similar in concept to that of the Maui Research and Technology Park. 			X
<ul style="list-style-type: none"> • Provide for the establishment of centralized business districts within the region, in order to minimize the extensive migration of commercial projects into light industrial developments. 			X
<ul style="list-style-type: none"> • Accommodate mixed use residential/commercial development as a “transition” 	X		

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<i>between residential districts and the civic center and business/commercial districts compatible with a residential scale and character and subject to a new zoning classification. Lands intended for this use shall be designated Service Business/Residential (SBR) on the Community Plan land use map.</i>			
<ul style="list-style-type: none"> • <i>Support the establishment of agricultural parks for truck farming, piggery operations, bee keeping and other diversified agricultural operations within larger unsubdivided agricultural parcels and in locations that are compatible with residential uses.</i> 			X
Implementing Actions			
1) <i>Place a high priority on the planning, design and construction of a multi-level parking facility at the Wailuku Municipal Parking Lot with potential opportunities for mixed use development, such as residential, commercial, park and other public uses.</i>			X
2) <i>Establish zoning regulations to implement a Service Business/Residential (SBR) land use designation provided for in the Community Plan policies.</i>			X
<p>Discussion: Wai'ale will be a master planned community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways.</p> <p>Wai'ale's mix of land uses is an essential component to providing alternatives to driving such as walking or biking. The location of commercial and retail establishments throughout Wai'ale provide for greater interaction, economic activity, and quality of life for residents and visitors. Wai'ale's open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, protection of important habit and natural features, and an overall setting of enhanced environmental quality and community health.</p>			
ENVIRONMENT			
Goal:			
<i>A clean and attractive physical and natural environment in which man-made developments or alterations to the natural environment relate to sound environmental and ecological practices, and important scenic and open space resources are maintained for public use and enjoyment.</i>			
Objectives and Policies:			
1) <i>Preserve agricultural lands as a major element of the open space setting that which borders the various communities within the planning region. The close relationship between open space and developed areas is an important characteristic of community form.</i>			X
2) <i>Protect nearshore waters by ensuring that discharges from waste disposal meet water quality standards. Continuous monitoring of existing and future waste disposal systems is necessary to ensure their efficient operation.</i>	X		
3) <i>Protect shoreline wetland resources and flood plain areas as valuable natural systems and open space resources. These natural systems are important for flood control, as habitat area for wildlife, and for various forms of recreation. Future development actions should emphasize flood prevention and protection of the natural landscape.</i>	X		

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
4) <i>Preserve the shoreline sand dune formations throughout the planning region. These topographic features are a significant element of the natural setting and should be protected from any actions which would detract from their scenic, environmental, and cultural value.</i>	X		
5) <i>Require that new shoreline development respect shoreline resources and maintain public access.</i>			X
a. <i>Existing dune formations are important elements of the natural setting and should remain intact.</i>			X
b. <i>Indigenous or endemic strand vegetation should remain undisturbed; new development and landscaping should treat such vegetation as given conditions.</i>			X
c. <i>Planning for new shoreline development, as well as redevelopment, shall consider the cyclic nature of beach processes. Setbacks shall be used to provide a sufficient buffer between the ocean and structures to allow for periodic and long-term accretion and erosion of the shoreline.</i>			X
d. <i>A Coastal Erosion Rate Analysis shall be developed. The planning commissions are encouraged to incorporate data from the analysis into planning decisions for shoreline areas, especially with respect to shoreline building setbacks.</i>			X
e. <i>In the interim period prior to the completion of the analysis, the planning commissions are further encouraged to utilize minimum setbacks for multi-family and hotel uses, and any undeveloped property, of 150 feet from any shoreline, or 25 percent of the average lot depth, whichever is greater. For other uses, including single family residences and 15 subdivisions along shoreline property, the Department of Planning staff and the Land Use and Codes Division Plans Examiners are encouraged to consult existing data on shoreline trends when discussing minimum shoreline setbacks with developers. Both episodic and long-term erosion rates should be disclosed to current or prospective purchasers of property to assist with the selection of an adequate shoreline setback.</i>			X
f. <i>Where shoreline erosion threatens existing structures or facilities, beach replenishment shall be the preferred means of controlling erosion, as opposed to sole reliance on seawalls or other permanent shoreline hardening structures.</i>			X
6) <i>Encourage the use of siltation basins and other erosion control features in the design of drainage systems.</i>	X		
7) <i>Mitigate potential hazards associated with oil storage tanks and the bulk containment of other toxic, corrosive or combustible substances.</i>	X		
8) <i>Minimize noise, water and air pollution from industrial uses, electric power generating facilities and wastewater treatment plants.</i>	X		
9) <i>Maintain coastal open space along the region's shoreline as a scenic amenity and public recreational area.</i>			X
10) <i>Monitor air quality in the planning district and enforce applicable standards with regular public reporting.</i>	X		
11) <i>Encourage joint government action in the investigation of seaweed build-up in Kahului Harbor and other affected areas and the implementation of coordinated clean-up and other mitigative actions.</i>			X
12) <i>Promote recycling programs to reduce solid waste disposal in landfills, including convenient drop-off points for recycled material.</i>	X		
13) <i>Support energy conservation measures, including the use of solar heating and photovoltaic systems, in conjunction with urban uses.</i>	X		

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
14) Promote the planting and maintenance of trees and other landscape planting to enhance the streetscapes and the built-environment.	X		
Implementing Actions			
1) Formulate and adopt a regional landscape planting master plan, including standards, for implementation in conjunction with public and private projects.			X
2) Establish and maintain a monitoring program for nearshore water quality.			X
3) Develop a master plan for a recreational coastline access.			X
4) Develop and implement a strategy for sand dune protection.			X
5) New studies should be commissioned that seek to better understand site-specific causes of coastal erosion.			X

Discussion: The creation of Wai'ale will not involve alteration of the shoreline or offshore environments, as Wai'ale is not located near the shoreline.

Drainage from Wai'ale is not expected to have a significant adverse effect on groundwater, downstream properties, or marine waters. All drainage improvements will be designed so that there will be no increase in the peak rate of storm water runoff leaving the property compared to existing conditions. Runoff will be stored in detention basins located throughout the property. The use of detention basins, debris basins, and natural swales or channels will store and filter the stormwater, removing pollutants (via percolation) prior to exiting the property.

While the majority of the sand dunes with the property limits have been obliterated by human activities, there is a large portion of the site (approximately 28 acres) where there ~~is a~~ are relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the areas being proposed as a cultural preserve (and where the highest concentration of burials resides).

Implementation of air quality and noise control measures in both the short-term and long-term would ensure compliance with State rules and regulations, and reduce the noise effects to less than adverse.

A Phase I ESA was conducted for the property, and included recommendations and mitigative measures for RECs in connection with the property. The applicant will continue to conduct further investigation and to undertake the mitigative measures identified in the Phase I ESA.

A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale by reducing solid waste. A solid waste management plan will be coordinated with the County's Department of Environmental Management Solid Waste Division for the disposal of on-site and construction-related waste material, and A&B Properties, Inc. will work with contractors to minimize the amount of solid waste generated during the construction. After construction, A&B Properties, Inc. will implement strategies from the County of Maui Integrated Solid Waste Management Plan (2009) for diverting solid

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<p>waste from landfills by providing options for recycling.</p> <p>A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale and will implement, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, and environmental stewardship, consistent with the standards and guidelines promulgated by the Building Industry Association of Hawaii, the U.S. Green Building Council, the Hawaii Commercial Building Guidelines for Energy Star, and Green Communities into the design and construction of Wai'ale. A&B Properties, Inc. will also provide information to home purchasers regarding energy conservation measures that may be undertaken by individual homeowners.</p> <p>The design and construction of energy systems for residential units will seek to meet applicable Energy Star requirements established by the U.S. Environmental Protection Agency (EPA) in effect at the time of construction. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.</p>			
CULTURAL RESOURCES			
<p>Goal: <i>Identification, protection, preservation, enhancement, and where appropriate, use of cultural practices and sites, historic sites and structures, and cultural landscapes and view planes that:</i></p>			
<p>1) <i>Provide a sense of history and define a sense of place for the Wailuku-Kahului region; and</i></p>	X		
<p>2) <i>Preserve and protect native Hawaiian rights and practices customarily and traditionally exercised for subsistence, cultural and religious purposes in accordance with Article XII, Section 7, of the Hawaii State Constitution, and the Hawaii Supreme Court's PASH opinion, 79 HAW. 425 (1995).</i></p>	X		
Objectives and Policies			
<p>1) <i>Provide a sense of history and define a sense of place for the Wailuku-Kahului region; and preserve and protect native Hawaiian rights and practices customarily and traditionally exercised for subsistence, cultural and religious purposes in accordance with Article XII, Section 7, of the Hawaii State Constitution, and the Hawaii Supreme Court's PASH opinion, 79 HAW. 425 (1995).</i></p>	X		
<p>2) <i>Recognize the importance of historically and archaeologically sensitive sites and encourage their preservation through development project review.</i></p>	X		
<p>3) <i>Protect and preserve historic, cultural and archaeological sites and resources through on-going programs to identify and register important sites, and encourage their restoration. This shall include structures and elements that are a significant and functional part of Hawaii's ethnic and cultural heritage.</i></p>	X		
<p>4) <i>Ensure that the proposed projects are compatible with neighboring historic, cultural, and archaeological sites or districts. Such projects should be reviewed by the Cultural Resources Commission, where appropriate.</i></p>	X		
<p>5) <i>Require development projects to identify all cultural resources located within the project area as part of initial project studies. Further, require that all proposed activity include recommendations to mitigate potential adverse impacts on cultural resources.</i></p>	X		

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
6) Support programs for the protection and preservation of historic and archaeological resources and foster an awareness of the diversity and importance of the region's ethnic, cultural, historic, and archaeological resources.	X		
7) Encourage community stewardship of historic buildings and cultural resources and educate private property owners about financial benefits of historic preservation in Maui County.			X
8) Preserve and restore historic roads, paths, and water systems as cultural resources, and support public access.			X
9) Recognize and respect family ancestral ties to certain sites including burial sites, and establish cultural and educational programs to perpetuate Hawaiian and other ethnic heritages.	X		
Implementing Actions			
1) The Cultural Resources Commission shall update, and the Council shall adopt, the County Cultural Resources Management Plan to further identify specific and significant cultural resources in the region and provide strategies for preservation and enhancement.			X
2) Require development projects to identify all cultural resources located within or adjacent to the project area and consult with individuals knowledgeable about such cultural resources prior to application as part of the County development review process. Further, require that all proposed activity include recommendations to mitigate potential adverse impacts on cultural resources including site avoidance, adequate buffer areas, and interpretation. Particular attention should be directed toward dune areas, known and probable precontact habitation areas, and other sites and areas listed in No. 5 below, with review by the Cultural Resources Commission, where appropriate.			X
3) Implement a historic and cultural overlay ordinance to provide protection for areas with significant archaeological, historical, and cultural resources.			X
4) Establish recognition of culturally sensitive areas such as Naniloa Bridge, Waiale Bridge, and burial and habitation sites along Lower Main Street and Kahului Beach Road.			X
5) Significant Wailuku-Kahului region sites and areas include the following: Wahi Pana (Significant Traditional Places)			X
a. Na Wai Eha (Waihe'e, Waiehu, Wailuku, Waikapu). b. Waihe'e Dunes Archaeological Complex. c. Waihe'e Church. d. Waihe'e Sugar Mill site. e. Haleki'i-Pihanakalani heiau. f. Waihe'e Dune complex. g. Taro lo'i in 'lao Valley. h. Traditional surfing sites. i. Kanaha Pond. j. Habitation and burial sites along Lower Main Street corridor. k. Waiale Bridge. l. Wailuku Civic Center Historic District. m. Kama Ditch, Spreckels Ditch, and Waihe'e Ditch. n. Ka'ahumanu Church. o. Hale Ho'ike'ike (Bailey House Museum). p. Alexander House (next to Ka'ahumanu Church). q. Waikapu Stone Church Site. r. Wailuku School. s. Pu'unene School.			X

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<p>t. Pu'u One Sand Dune Formation from Kahului Harbor to Waikapu. u. Coastal sand dunes from Kahului Airport to Baldwin Park. v. Kahului Railroad System sites (i.e., Roundhouse, Makaweli Rock Crusher Mill Foundation, etc.). w. Chee Kung Tong Society Hall site. x. Maui Jinsha Mission. y. Naval Air Station Kahului Airport (NASKA). z. Pu'unene Mill/Village. aa. Kahului Railroad Building and Old Kahului Store. bb. Buildings designed by C. W. Dickey-Wailuku Library, the Territorial Building in Wailuku, and the Baldwin Bank (Bank of Hawaii in Kahului). cc. Wailuku Union Church. dd. Church of the Good Shepherd. ee. 'Iao Theatre. ff. Plantation Manager's Residence in Wailuku. gg. St. Anthony's School. hh. Market Street from Main Street through Happy Valley. ii. Vineyard Street from Market Street to end. jj. 'Iao Stream.</p> <p><i>The above list is not comprehensive. It represents some of the well-known sites currently listed in the State inventory of Historic Places and on file with the State and National Registers of Historic Places. Many more sites have not yet been surveyed for historic, archaeological, and cultural significance. The Department of Planning has (or will obtain from the State Historic Preservation Division) maps indicating the general location of these sites. Planning Department staff will obtain, maintain, and update all pertinent maps, which will be consulted prior to development proposals affecting the above-mentioned areas.</i></p>			
<p>Discussion: A cultural impact assessment was prepared for the property to identify traditional customary practices within the property and in the vicinity of the property. Based on consultation with interviewees, the cultural impact assessment report concludes that “there are potential adverse effects to the remaining cultural resources extant on the property that can be mitigated with proper community consultation and proactive planning on the part of the developers. The CIA notes that A&B Properties, Inc. has done much in seeking to protect the known cultural resources on the property, creating approximately 33 acres of cultural preserves and minimizing the need for relocation of burials.”</p> <p><u>Reference to the “Pu'u One Sand Dune Formation from Kahului Harbor to Waikapu” within the Wailuku-Kahului Community Plan is acknowledged. As part of the Wai'ale master plan over 30 acres are proposed for cultural preserves. This is in addition to other open space areas planned within the project. This is a substantial commitment to preservation of the Pu'u One sand dune formation.</u></p> <p>Long-Term Preservation Measures – <u>The identification and implementation of long-term or permanent site protection measures provide for the continued protection of archaeological and cultural resources. The two typical categories of long-term</u></p>			

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
preservation are passive and active preservation, as described below:			
<ul style="list-style-type: none"> • Passive Preservation – Sites in this category do not undergo any interpretive development, occur in areas that can be avoided by development, and are left as is. This category is sometimes referred to as “data banking.” Most sites in this category are not intended to be permanently preserved, but are anticipated to undergo data recovery procedures in the future, presumably when improved data gathering techniques and refined analysis technologies are available or on large tracts of land where development is intended to take place in incremental phases; and • Active Preservation – Sites in this category are chosen for their interpretive potential. Their selection may be based on aesthetic, academic, or cultural representation values. Different levels of interpretive development may be undertaken, including: stabilization, partial or complete restoration, and/or reconstruction. Signs may be involved, and details regarding access and protocols need to be worked out. • Cultural Preserves - Approximately 33 acres are proposed to be set aside as cultural preserves where the greatest concentrations of burials occur. These areas are planned to be permanently preserved, and none of the burials within these cultural preserves are anticipated to undergo data recovery procedures in the future. These areas are intended to be kapu and only accessed by lineal and/or cultural descendants, recognized and/or acknowledged cultural practitioners and for periodic maintenance and/or fire protection. 			
INDIGENOUS			
<p>Goal: Reserve for future implementation provisions for indigenous architecture as may be adopted from time to time by the County Council and/or the County Cultural Resources Commission.</p>			
Objective and Policy			
1) To legitimize and amend County Building Codes to allow indigenous architecture as viable spaces for living, work, and recreation.			X
Implementing Actions			
1) Develop a County ordinance for indigenous architecture.			X
2) Adopt standards for indigenous architecture.			X
<p>Discussion: Wai’ale does not involve the planning for the region’s future implementation of indigenous architecture; therefore, this objective and policy are not applicable.</p>			
HOUSING			
<p>Goal: A sufficient supply and choice of attractive, sanitary and affordable housing accommodations for the broad cross section of residents, including the elderly.</p>			
Objective and Policy			
1) Utilize a project district planning approach for major housing expansion areas which will allow flexibility in project planning. This will provide for flexible development standards and a mix of housing types which can result in more	X		

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<i>efficient site utilization and potential reductions in housing development costs.</i>			
2) <i>Provide sufficient land areas for new residential growth which relax constraints on the housing market and afford variety in type, price, and location of units. Opportunities for the provision of housing are presently constrained by a lack of expansion areas. This condition should be relieved by a choice of housing in a variety of locations, both rural and urban in character.</i>	X		
3) <i>Seek alternative residential growth areas within the planning region, with high priority given to the Wailuku and Kahului areas. This action should recognize that crucial issues of maintaining important agricultural lands, achieving efficient patterns of growth, and providing adequate housing supply and choice of price and location must be addressed and resolved.</i>	X		
4) <i>Encourage the creation of elderly housing communities in various parts of the region that address the range of specialized needs for this population group.</i>			X
5) <i>Encourage the formulation of an elderly needs assessment study for Maui County by the State Department of Health, including recommendations for elderly housing projects, facilities and programs.</i>			X
6) <i>Coordinate the planning, design and construction of public infrastructure improvements with major residential projects that have an affordable housing component.</i>			X
7) <i>Plan, design and construct off-site public infrastructure improvements (i.e. water, roads, sewer, drainage, police and fire protection, and solid waste) in anticipation of residential, commercial and industrial developments defined in the Community Plan.</i>	X		
8) <i>Promote efficient housing designs in order to reduce residential home energy and water consumption.</i>	X		
Implementing Actions			
1) <i>Develop a comprehensive housing strategy for low and moderate income groups involving government and private industry cooperation that provides an adequate supply of housing for the various strata of income. This approach would combine the resources of Federal, State, County, and private enterprise to improve the availability of rental and ownership housing targeted to various need groups. Anti-speculation and specification of a percentage of low and moderate income units in major projects are tools which should be considered as part of an overall housing program.</i>			X
2) <i>Develop procedures and regulations to streamline government review and approval for housing projects. This should result in cost reductions by expediting the time required for implementation.</i>			X
3) <i>Develop programs to encourage housing rehabilitation in older residential areas. This would designate target areas where low interest loans, grants and flexible code regulations not related to public health, safety and welfare would be available to homeowners.</i>			X
4) <i>Revise zoning, building and housing codes to allow for specialized elderly housing projects.</i>			X
<p>Discussion: Wai'ale will be a master planned community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways. Wai'ale will also feature cultural preserve areas dedicated to the preservation of archaeological features and lithified sand dunes.</p>			

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<p>Wai'ale will create a socially integrated community with a "unique" sense of identity and character, capitalizing on its location and natural features. Wai'ale is envisioned as a community that makes both residents and visitors feel "welcome".</p> <p>Wai'ale's mix of land uses is an essential component to providing alternatives to driving such as walking or biking. The location of commercial and retail establishments throughout Wai'ale provide for greater interaction, economic activity, and quality of life for residents and visitors. Wai'ale's open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, protection of important habit and natural features, and an overall setting of enhanced environmental quality and community health.</p> <p>Wai'ale will help to address the housing demand of a growing population by providing homes in the Wailuku and Waikapū region and will include homes priced for a range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, Maui County Code (MCC), Residential Workforce Housing Policy. Wai'ale's market-rate homes will be comparable with other Maui communities and are expected to attract purchasers from the same market segments. This inclusionary design provides for a community with social diversity, a mix of ages, and a range of life experiences. The market assessment prepared for Wai'ale concludes that there is sufficient demand for the range of homes within Wai'ale.</p>			
SOCIAL INFRASTRUCTURE			
Goal:			
<i>Develop and maintain an efficient and responsive system of public services which promotes a safe, healthy and enjoyable lifestyle, accommodates the needs of young, elderly, disabled and disadvantaged persons, and offers opportunities for self-improvement and community well-being.</i>			
Objectives and Policies			
1) Provide park and recreation areas as an integral part of project district specifications which will accommodate the needs of population growth.	X		
2) Ensure adequate public access to shoreline recreation resources by pursuing access ways identified by the County.			X
3) Provide access for persons with disabilities at all park facilities.	X		
4) Provide for a major regional multi-purpose center for the planning district to accommodate resident needs for banquet and meeting facilities with adequate parking.			X
5) Investigate the need for an additional community center facility in Kahului.			X
6) Place high priority on utilizing the 'Iao Theatre as a multi-purpose community facility and develop the adjoining property in a manner that retains the integrity of the town core.			X
7) Place high priority on implementation of Keopuolani Park, including enhancement of the Kahului Harbor shoreline.			X
8) Expand shoreline recreation opportunities by extending Kanaha Beach Park and establishing park areas along Spreckelsville, Waiehu and Waihe'e shorelines.			X
9) Enhance existing parks by improving maintenance and expanding the range of facilities provided.			X

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
10) Maintain lands acquired or designated for recreational purposes exclusively for those uses.			X
11) Provide for additional municipal golf courses.			X
12) Maintain existing recreational uses at the Kahului harbor for canoe club activities. When development occurs, provide alternate sites for canoe club activities at the Kahului Bay area.			X
13) Establish a linear park with bikeways and pedestrian routes along the shoreline between Waihe'e and Pa'ia.			X
14) Establish a permanent fairground site that encourages year-round use as an inter-regional community center and meeting facility.			X
15) Establish a linear park, with bicycle and pedestrian facilities where practical, from the Paukukalo oceanfront along 'Iao Stream to Kepaniwai Park.			X
16) Ensure that adequate regional/community park facilities are provided to service new residential developments.	X		
17) Ensure that the development of the North Shore greenway project is done in a manner that respects the dune system and cultural sensitivity of the area.			X
18) Specifically, the project should:			
a. minimize the excavating, grading, and grubbing for the project, and instead use minimal fill (as necessary to meet engineering standards), especially in the area near Baldwin Beach Park;			X
b. provide appropriate protection to prevent unnecessary traversing of the dune system mauka-makai;	X		
c. use the greenway as an opportunity to interpret the significant cultural and historic sites in the area; and	X		
d. have the archaeological inventory survey and the design plans for the project reviewed by the Cultural Resources Commission prior to the issuance of the necessary development permits.			X
Implementing Actions			
1) Undertake a site selection study for a permanent fairgrounds site that encourages year-round use.			X
2) Undertake a regional park master plan study to identify the needs and potential sites for expanded passive and active recreational uses in the planning region.			X
3) Prepare and implement, as soon as possible, a plan for a major regional multipurpose center to service the entire planning district. Also, investigate the need for an additional community center in Kahului and/or the upgrading and expansion of the existing Kahului Community Center.			X
4) Continue to implement the plan for Keopuolani Park.			X
<p>Discussion: Wai'ale will be a master planned community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways. Wai'ale will also feature cultural preserve areas dedicated to the preservation of archaeological features and lithified sand dunes. Wai'ale will also include lands reserved for active regional and neighborhood parks, and open space. Wai'ale's mix of open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, protection of important habit and natural features, and an overall setting of enhanced environmental quality and community health.</p>			

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<p>The provision of lands for park purposes will be undertaken in consultation with the DPR to ensure that park and playground assessment requirements are appropriately addressed.</p>			
<p>SOCIAL SERVICES/HEALTH</p>			
<p>Objectives and Policies</p>			
<p>1) Support the expansion of services and facilities at the Maui Memorial Medical Center, the major primary care facility on the island, including the construction of a multi-level parking facility and a second roadway access.</p>			X
<p>2) Plan for the expansion of community services facilities, such as the Cameron Center.</p>			X
<p>3) Expand social services for young and elderly persons.</p>			X
<p>4) Continue to assess the social needs in the community and facilitate a coordinated response in the delivery of social services and programs for young, elderly, disabled and disadvantaged persons.</p>			X
<p>5) Support the formulation of an elderly needs assessment study for Maui County by the State Department of Health and lobby for the implementation of needed programs and projects.</p>			X
<p>6) Coordinate the provision of long-term care facilities and programs with other providers, such as Hale Makua and Hale Mahaolu.</p>			X
<p>Implementing Actions</p>			
<p>1) Acquire a minimum of 10 acres of land for expansion of Maui Memorial Medical Center as soon as possible.</p>			X
<p>2) Provide a second roadway access to Maui Memorial Medical Center. As noted in the section on transportation, this access should precede or be concurrent with the extension of Mahalani Street.</p>			X
<p>Discussion: Wai'ale does not include the creation of health or social services; therefore, this objective and these policies are not directly applicable. However, as discussed in Section 4.10.4, Wai'ale's commercial areas will provide the opportunity for medical services, such as doctors' offices and/or a medical clinic, to be developed within Wai'ale to serve the community and neighboring areas.</p>			
<p>PUBLIC SAFETY</p>			
<p>Objectives and Policies</p>			
<p>1) Maintain adequate police and fire protection services in the region.</p>	X		
<p>2) Encourage communities to establish Neighborhood Crime Watch Programs.</p>			X
<p>Implementing Actions</p>			
<p>1) Study the feasibility of establishing fire and police protection facilities in the proposed Project Districts within the region.</p>			X
<p>Discussion: Residents and visitors of Wai'ale are likely to require police and fire protective services at some time. As the County's population grows, there will be a need for the County to allocate resources necessary to adequately fund fire prevention and emergency services. These additional funds could potentially be allotted from the increased tax revenues resulting from Wai'ale.</p>			

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
EDUCATION			
Objectives and Policies			
1) <i>Allocate sufficient land areas as part of residential project district specifications to meet future school site needs.</i>	X		
2) <i>Encourage the Department of Education to provide recreation facilities for schools, thus expanding opportunities for public use of presently shared facilities.</i>			X
3) <i>Coordinate the development of school facilities with the State Department of Education in conjunction with planned residential projects.</i>	X		
4) <i>Support the establishment of a four-year university on Maui.</i>			X
5) <i>Encourage apprenticeship or work study programs, in conjunction with higher educational or technical/vocational studies.</i>			X
6) <i>Support efforts to expand the Maui Community College facilities and incorporate desired elements of Hawaiian architectural design.</i>			X
7) <i>Support the improvement and maintenance of existing school facilities.</i>			X
8) <i>Encourage the development of child care and pre-school facilities, in conjunction with major centers of employment.</i>			X
Implementing Actions			
1) <i>Where possible during the zoning process, ensure that applicants contribute to the development, funding, and/or construction of school facilities on a fair-share basis as determined by and to the satisfaction of the State Department of Education. Terms of the contribution shall be agreed upon by the applicant and the State Department of Education prior to the applicant applying for building permits.</i>			X
<p>Discussion: To accommodate the educational needs of children living in Wai'ale and the surrounding neighborhoods, it is estimated that a middle school will be needed within Wai'ale. A&B Properties, Inc. has been coordinating with the DOE regarding a proposed site for the middle school within the Wai'ale conceptual master plan. The final configuration and design of the proposed middle school will need to be confirmed by the DOE.</p> <p>In their Draft EIS public review comments, the State Department of Human Services wrote: "...we do not foresee any negative impact from this project on child care services in the community."</p>			
GOVERNMENT			
Goal: <i>Government that demonstrates the highest standards of fairness; responsiveness to the needs of the community; fiscal integrity; effectiveness in planning and implementation of programs and projects; a fair and equitable approach to taxation and regulation; and efficient, results-oriented management.</i>			
Objectives and Policies			
1) <i>Utilize the County's budgeting process as a means of carrying out the policies and priorities of the Community Plan.</i>			X
2) <i>Utilize the County's real property tax assessment function as both a means to carry out the policies and priorities of the Community Plan and a mechanism for monitoring and updating the Community Plan.</i>			X
3) <i>Streamline the land use, building permit and subdivision approval processes.</i>			X
4) <i>Monitor the implementation of and compliance with the Community Plan.</i>			X

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
5) <i>Ensure that adequate infrastructure is or will be available to accommodate planned development.</i>			X
6) <i>Support public and private partnerships to fund the planning and construction of infrastructure.</i>			X
7) <i>Encourage students within Maui County to participate in Maui County governmental affairs through such means as the submittal of testimony and resolutions on issues and concerns related to community affairs.</i>			X
8) <i>Encourage cooperation and coordination between agencies, boards and commissions charged with land use planning and urban design and development within Wailuku Town.</i>			X
Implementing Actions			
1) <i>Streamline the land use, building permit and subdivision processes through means such as consolidated public hearings and concurrent processing of applications.</i>			X
2) <i>Adopt a beach-mountain access dedication ordinance pursuant to Chapter 46, Hawaii Revised Statutes. This should be done as part of an islandwide comprehensive mountain and beach access study.</i>			X
3) <i>Evaluate and modify present zoning and subdivision ordinances to incorporate the land use and design guidelines as well as other recommendations incorporated herein.</i>			X
4) <i>Establish an additional government complex with adequate public parking in a central location.</i>			X
5) <i>Maintain the War Memorial Complex for public parking and recreational uses only.</i>			X
6) <i>Facilitate public access to information through the use of computers, microfiche/microfilm readers, and other tutorial services in County agencies.</i>			X
7) <i>Re-evaluate the composition, role and boundaries of the Wailuku Redevelopment Agency to support its mission for the revitalization and enhancement of this district and explore ways to coordinate planning for Wailuku Town.</i>			X
8) <i>Formulate special plans and studies to implement recommendations of the Community Plan. These would include water development and distribution, housing, local and regional circulation, drainage, solid waste and recycling, sewage disposal and treatment, human services, recreation, public safety and other special plans and studies as required.</i>			X
9) <i>Prepare a progress report five years after the adoption of this plan for review by the public and Maui County Council describing the status of General and Community Plan implementation and actions taken to comply with same.</i>			X
Discussion: Wai'ale does not involve the planning for the region's future implementation of government; therefore, this objective and policy are not applicable.			
LAND USE			
Goal: <i>An attractive, well-planned community with a mixture of compatible land uses in appropriate areas to accommodate the future needs of residents and visitors in a manner that provides for the social and economic well-being of residents and the preservation and enhancement of the region's environmental resources and traditional towns and villages.</i>			
Objective and Policies			
1) <i>Ensure that adequate lands are available to support the region's present and</i>	X		

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<i>future agricultural activities.</i>			
2) <i>Identify prime or productive agricultural lands, and develop appropriate regulations for their protection.</i>	X		
3) <i>The direct and cumulative impacts of agricultural subdivisions and the impacts on the community shall be assessed and considered.</i>			X
4) <i>Establish administrative procedures and standards within both the Department of Public Works and Waste Management and the Department of Planning, to ensure that agricultural subdivisions shall not be approved unless their uses are expressly permitted by Chapter 205, Hawaii Revised Statutes.</i>			X
5) <i>Encourage traditional Hawaiian agriculture, such as taro cultivation, within the agricultural district, in areas which have been historically associated with this cultural practice.</i>			X
6) <i>Establish an adequate supply of urban land use designations to meet the needs of the community over the next 20 years.</i>	X		
7) <i>The Community Plan map shall define the urban growth limits for the region.</i>			X
8) <i>Maintain a project district approach for the major residential growth areas adjacent to Wailuku, Kahului, and Waiehu to allow flexibility in master planning.</i>	X		
9) <i>Maintain the existing Kahului Airport district boundaries, as defined in the Community Plan Land Use Map and continue to evaluate the air transportation needs of the County to determine future air transportation facility requirements. Create a direct control overlay district in and around Kahului Airport due to the public investment and the economic importance of the facility. The boundaries of this district shall be generally defined by the 60 Ldn isoline (60 decibels, daynight average) of the FAA-approved noise contour map for the airport. The intent of this district shall be to establish specific guidelines for development within the area which would define uses compatible with the airport and appropriate design standards, particularly with respect to noise attenuation to reduce interior noise levels to the 45 Ldn level or less. Total closure of structures, as well as air-conditioning, are generally required for this purpose. Residential uses should be discouraged within the 60 Ldn isoline.</i>			X
10) <i>All zoning applications and/or proposed land uses and developments shall conform with the planned use designations, as specified in the adopted Community Plan Land Use Map, and be consistent with the Community Plan policies.</i>			X
11) <i>The subdivision ordinance should be revised to provide for public review of projects with significant impacts. Subdivision approval should consider environmental, economic, and social impacts of the project, including impacts on archaeological, historical and cultural resources.</i>			X
12) <i>Establish a Wailuku Town Design District.</i>			X
13) <i>Within the Wailuku Town core, formulate and implement flexible land use guidance policies that enhance the various activity centers and maintain the traditional character of the town.</i>			X
a. <i>Civic Center District: This district defines the government office center and adjacent blocks of commercial use which are functionally related to the government center. This district is generally bounded by Main, South High, Kaohu, Napua, Uluwehi, South Church, Pakahi, South Market and Wells Streets.</i>			X
b. <i>Wailuku Historic District: Protection of this complex of historic structures in a park setting will continue under the provisions of the current Community Plan.</i>			X

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
c. <i>Commercial and Residential: The following comprise the commercial core, commercial areas, and surrounding residential uses:</i>			X
i. <i>Commercial Core. This area is generally situated along Central, Wells, Main, High, and Vineyard Streets. It should emphasize commercial uses oriented to serve the business and residential community. Ground floor activities should emphasize commercial retail with expansion of the variety and scope of offerings to serve residents.</i>			X
ii. <i>Mixed Use Areas. These occur in several blocks adjacent to the commercial core and act as a transition between the core and single family residential areas. The business residential mix should be retained with intensification to accommodate multifamily and business uses. Patterns of mixed use could allow vertical mixture (residences over ground floor business) or horizontal mixture (business frontage and residences behind), or residential and business uses on adjacent lots. Maintenance and rehabilitation of existing structures should be encouraged in a manner that respects the residential scale that now exists. Intensification of uses through new development would require consolidation of substandard lots. Performance criteria for rehabilitation and upgrading should be developed to permit more flexibility than present zoning and building code standards allow.</i>			X
iii. <i>Single Family Residential. These areas surround the commercial and mixed use areas. The emphasis should be on preserving and rehabilitating existing housing, providing adequate circulation, and encouraging home maintenance and rebuilding of deteriorating structures.</i>			X
iv. <i>Service Business/Single Family Residential. These uses occur primarily along the Waihe'e side of Kaohu Street, and along the mauka side of South Market Street to permit a mixture of single family and duplex dwellings, with small-scale service and neighborhood oriented businesses which are established in previously utilized residential dwellings or other existing structures. The business use should be compatible with the physical character of the residential neighborhood.</i>			X
14) <i>Maintain physical separation between traditional towns and villages in the region. Where possible, provide specific design or landscape elements, such as open space buffers or changes in streetscape, to clearly delineate the boundary between Kahului and Wailuku. Maintain open space around traditional rural areas, such as Waikapu and Waihe'e, to provide a sense of community and to prevent envelopment of these areas by urban expansion.</i>			X
15) <i>Provide a substantial greenway or greenbelt to serve as a buffer zone, line of demarcation, or definition between Wailuku and Waikapu, and between Waikapu and Ma'alaea, in order to prevent the continuation of urban sprawl. Changes in streetscapes could include landscaping and agricultural planting materials that reflect the character of each community, and are utilized to delineate a substantial boundary between Kahului and Wailuku.</i>			X
16) <i>Upon adoption of this plan, allow no further development unless infrastructure, public facilities, and services needed to service new development are available prior to or concurrent with the impacts of new development.</i>			X

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
Implementing Actions			
1) <i>Establish zoning regulations to implement the land use recommendations in the Community Plan, including but not limited to Service Business/Single Family Residential (SBR), Business/Multi-Family (BMF), and Business/Industrial (BI).</i>			X
<p>Discussion: The agricultural impact of Wai'ale is near negligible when taken in the context of recent trends on Maui. In the last 30 years, the closures of Wailuku Sugar and Pioneer Mill have taken significant acreages out of active sugar cultivation. More recently, Maui Land & Pineapple's shutdown of its pineapple operations has also added to the availability of agricultural acreage on Maui. These actions have greatly increased the supply of non-sugar based agricultural lands. Much of these lands of the former plantations continue to remain fallow and provide opportunities for future agricultural use. Rather than the availability of land, limiting factors to the growth of diversified agriculture include the market demand and profitability of the various agricultural crops and the availability of water. Wai'ale will involve the use of approximately 545 acres of land, which represents approximately 0.2 percent of the roughly 246,000 acres of State Agricultural district lands on the island of Maui.</p> <p>Wai'ale will be a master planned community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways. Wai'ale will also feature cultural preserve areas dedicated to the preservation of lithified sand dunes and archaeological features.</p> <p>Wai'ale will create a socially integrated community with a "unique" sense of identity and character, capitalizing on its location and natural features. Wai'ale is envisioned as a community that makes both residents and visitors feel "welcome".</p> <p>Wai'ale's mix of land uses is an essential component to providing alternatives to driving such as walking or biking. The location of commercial and retail establishments throughout Wai'ale provide for greater interaction, economic activity, and quality of life for residents and visitors. Wai'ale's mix of open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, protection of important habit and natural features, and an overall setting of enhanced environmental quality and community health.</p> <p>Wai'ale will help to address the housing demand of a growing population by providing homes in the Wailuku and Waikapū region and will include homes priced for a range of consumer groups, including workforce affordable homes in compliance with Chapter 2.96, Maui County Code (MCC), Residential Workforce Housing Policy. Wai'ale's market-rate homes will be comparable with other Maui communities and are expected to attract purchasers from the same market segments. This inclusionary design provides for a community with social diversity, a mix of ages, and a range of life experiences. The</p>			

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
market assessment prepared for Wai'ale concludes that there is sufficient demand for the range of homes within Wai'ale.			
INFRASTRUCTURE			
Goal: <i>Timely and environmentally sound planning, development and maintenance of infrastructure systems which serve to protect and preserve the safety and health of the region's residents, commuters and visitors through the provision of clean water, effective waste disposal and drainage systems, and efficient transportation systems which meet the needs of the community.</i>			
WATER AND UTILITIES			
Objectives and Policies			
1) <i>Coordinate water system improvement plans with growth areas to ensure adequate supply and a program to replace deteriorating portions of the distribution system. Future growth should be phased to be in concert with the service capacity of the water system.</i>	X		
2) <i>Improve the quality of domestic water.</i>	X		
3) <i>Promote water conservation and education programs.</i>	X		
4) <i>Protect water resources in the region from contamination, including protecting ground water recharge areas, and wellhead protection areas within a 1.25-mile radius from the wells.</i>	X		
5) <i>Coordinate the construction of all water and public roadway and utility improvements to minimize construction impacts and inconveniences to the public.</i>	X		
6) <i>Coordinate expansion of and improvements to the water system to coincide with the development of residential expansion areas.</i>	X		
7) <i>Promote conservation of potable water through the use of treated waste water effluent for irrigation.</i>	X		
8) <i>Encourage reasonable rates for water and public utility services.</i>	X		
9) <i>Ensure that proliferation of telecommunication towers does not negatively impact the natural beauty of Maui County and the comfort and health of its residents.</i>			X
Implementing Actions			
1) <i>Update the County's Water Use and Development Plan and estimated water use for the Wailuku-Kahului region.</i>			X
2) <i>Prepare or update a water improvement master plan for the Wailuku-Kahului region to be incorporated as a functional component of the Community Plan.</i>			X
3) <i>Plan and construct water system improvements, including additional source, transmission, and storage capabilities.</i>			X
4) <i>Provide incentives for water and energy conservation practices.</i>			X
5) <i>Coordinate the development of telecommunication towers by developing an ordinance governing telecommunication facilities.</i>			X
6) <i>Relocate the Kahului Power Generating Facility out of the tsunami zone.</i>			X
7) <i>Adopt a water allocation plan for the region and require that the use of water from the Central Maui Water System for future development shall be subject to the provisions of this water allocation plan.</i>			X
8) <i>Promote and implement programs for ground water and wellhead protection.</i>			X
Discussion: The applicant is exploring several potential drinking water source opportunities to serve the project. These include surface water treatment and new well sources in the Central Maui region. The primary focus has been the development of a			

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
surface water treatment facility utilizing water from the West Maui ditch system.			
<p>Water demand can be reduced through low flow fixtures as required by Uniform Plumbing Code and through xeriscaping. Automatic landscape irrigation will be accommodated for commercial, mixed-use and multi-family residential developments, utilizing non-drinking quality water (such as brackish water wells) and/or R-1 water sources as available. Appropriate methods of water application (such as drip systems) will be incorporated to conserve water and support optimum plant growth. Centrally-controlled irrigation systems and climate sensing devices such as rain and soil moisture sensors may also be utilized.</p>			
LIQUID AND SOLID WASTE			
Objectives and Policies			
1) Coordinate sewer system improvement plans with future growth requirements, as defined in the Community Plan.	X		
2) As part of a county-wide solid waste management study, address the needs of the planning region for disposal and transfer sites with more convenience to residential areas. The collection system and location of disposal sites need to be improved to better serve residential areas.			X
3) Reduce the disposal of solid waste in landfills through reducing the amount of material for disposal at the source (i.e. home composting of lawn or tree trimmings), reuse and recycling programs, bioconversion (i.e. composting) and the provision of convenient drop-off facilities.	X		
4) Reuse the treated effluent from the County's waste water treatment system for irrigation and other suitable purposes in a manner that is environmentally sound.	X		
Implementing Actions			
1) Develop and implement a comprehensive waste management and recycling plan for the region.			X
2) Explore feasibility of extending sewer service to unserved areas as part of comprehensive sewer system planning.			X
3) Investigate the feasibility of constructing a wastewater treatment facility for the 4) Central Maui area to service the future needs of population growth. Locations to be investigated include the airport area, the Pu'unene sugar mill area, and other areas east of Kuihelani Highway. Site conditions to be evaluated shall include, but not be limited to, potential odor problems with surrounding neighborhoods, corrosive environments, effluent disposal, groundwater contamination and project costs.			X
5) Relocate the Kahului Wastewater Treatment Plant out of the tsunami zone.			X
<p>Discussion: The applicant is considering two alternatives for treating the wastewater generated by Wai'ale. The first alternative involves constructing an on-site wastewater treatment plant (WWTP) for treatment of the wastewater generated by Wai'ale only. This alternative would require effluent reuse and/or disposal, <u>options for which are also discussed</u>. The second alternative involves conveying the wastewater from Wai'ale to the Kahului WWRF, in the event that there is capacity available to treat the flows, either with or without future expansion of the Kahului WWRF.</p>			

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<p>A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale by reducing solid waste. A solid waste management plan (See Appendix Q) will be coordinated with the County's Department of Environmental Management Solid Waste Division for the disposal of on-site and construction-related waste material, and A&B Properties, Inc. will work with contractors to minimize the amount of solid waste generated during the construction. After construction, A&B Properties, Inc. will implement strategies from the County of Maui Integrated Solid Waste Management Plan (2009) for diverting solid waste from landfills by providing options for recycling, such as collection systems and bin spaces, and promoting sound recycling practices among residents, guests, and construction and maintenance personnel. Section 4.8.5 contains the full discussion.</p>			
DRAINAGE			
Objectives and Policies			
1) <i>Establish a storm drain improvement program to alleviate existing problems; implement a continuing maintenance program, and ensure that improvements to the system will meet growth requirements. This addresses safety and property loss concerns as well as the need for comprehensive flood control planning.</i>	X		
a. <i>Design drainage systems that protect coastal water quality by incorporating best management practices to remove pollutants from runoff. Construct and maintain, as needed, sediment retention basins and other best management practices to remove sediments and other pollutants from runoff.</i>	X		
b. <i>Construct necessary drainage improvements in flood-prone areas. Where replacement drainage is required for flood protection, these systems shall be designed, constructed, and maintained using structural controls and best management practices to preserve the functions of the natural system that are beneficial to water quality. These functions include infiltration, moderation of flow velocity, reduced erosion, uptake of nutrients and pollutants by plants, filtering, and settlement of sediment particles. The use of landscaped swales and unlined channels shall be urged.</i>	X		
2) <i>Respect natural drainageways as part of good land development.</i>	X		
3) <i>Construct and maintain, as needed, desilting basins along major drainage channels.</i>	X		
4) <i>Ensure that storm water run-off and siltation from proposed development will not adversely affect the marine environment and nearshore and offshore water quality. Minimize the increase in discharge of storm water runoff to coastal waters by preserving flood storage capacity in low-lying areas, and encouraging infiltration of runoff.</i>	X		
5) <i>Encourage the incorporation of drainageways, setbacks, and flood protection areas into greenways consisting of open space, pedestrian way and bikeway networks.</i>	X		
Implementing Actions			
1) <i>Update and implement a drainage master plan for the planning region that considers the cumulative impacts of existing and planned development. The master plan shall guide future development while preventing flooding and providing guidance to reduce the degradation of coastal waters.</i>			X
2) <i>Establish a comprehensive program of improvements to the storm drainage</i>			X

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<i>system; implement a maintenance program; and ensure that safety, property loss, pollutant removal, and the need for comprehensive planning, are considered. Maintain current drainage ways, swales and spillways.</i>			
3) <i>Revise the County drainage rules to require that drainage system design shall not adversely affect downstream and coastal water quality.</i>			X
<p>Discussion: Drainage from Wai'ale is not expected to have a significant adverse effect on groundwater, downstream properties, or marine waters. All drainage improvements will be designed so that there will be no increase in the peak rate of storm water runoff leaving the property compared to existing conditions. Runoff will be stored in detention basins located throughout the property. The use of detention basins, debris basins, and natural swales or channels will store and filter the stormwater, removing pollutants (via percolation) prior to exiting the property.</p>			
ENERGY			
Objectives and Policies			
1) <i>Promote the use of alternative energy sources, such as biomass, wind and solar.</i>	X		
2) <i>Develop efficient circulation systems, public transportation and promote bicycle and pedestrian travel to reduce energy expenditures for travel.</i>	X		
3) <i>Promote energy conservation and awareness programs.</i>	X		
4) <i>Reduce domestic energy consumption.</i>	X		
5) <i>Expand efforts to utilize environmentally and cost effective renewable resources for energy production, such as solar, biomass, and wind energy.</i>	X		
6) <i>Encourage energy efficient building design and site development practices.</i>	X		
7) <i>Support energy conservation measures, including the use of solar heating and photovoltaic systems, in conjunction with urban uses.</i>	X		
8) <i>Promote recycling programs to reduce solid waste disposal in landfills.</i>	X		
9) <i>Promote competition among energy providers to increase options and decrease costs to Maui County residents and government facilities.</i>			X
Implementing Actions			
1) <i>Adopt standards and regulations for the use of solar heating, low flush toilets and other conservation fixtures in new building construction.</i>			X
2) <i>Develop and adopt an integrated energy functional plan for the County of Maui, including but not limited to, strategies for energy conservation, reuse of treated waste water, recycling, reduction in the use of fossil fuels, public education and awareness, and other strategies and actions related to transportation and utilities, housing, environment, urban design and economic activity.</i>			X
3) <i>Develop incentives and requirements for energy efficient building design and site development practices through various approaches, including modifications to building codes and zoning and subdivision ordinances.</i>			X
4) <i>Provide incentives to promote the use of alternative energy sources.</i>			X
5) <i>Develop, compile and disseminate information on new energy technologies, policies, and programs relevant to the community's economy and environment.</i>			X
6) <i>Identify energy-saving measures for all community buildings and facilities.</i>			X
7) <i>As part of a County-wide waste management study, pursue the feasibility of utilizing resource recovery systems.</i>			X
8) <i>Support reduction of entry barriers to distributed generation and other forms of alternative energy.</i>			X

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<p>Discussion: A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale and will implement, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, and environmental stewardship, consistent with the standards and guidelines promulgated by the Building Industry Association of Hawaii, the U.S. Green Building Council, the Hawaii Commercial Building Guidelines for Energy Star, and Green Communities into the design and construction of Wai'ale. A&B Properties, Inc. will also provide information to home purchasers regarding energy conservation measures that may be undertaken by individual homeowners.</p> <p>The design and construction of energy systems for residential units will seek to meet applicable Energy Star requirements established by the U.S. Environmental Protection Agency (EPA) in effect at the time of construction. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.</p> <p>A&B Properties, Inc. is committed to limiting the environmental impact of Wai'ale by reducing solid waste. A solid waste management plan will be coordinated with the County's Department of Environmental Management Solid Waste Division for the disposal of on-site and construction-related waste material, and A&B Properties, Inc. will work with contractors to minimize the amount of solid waste generated during the construction. After construction, A&B Properties, Inc. will implement strategies from the County of Maui Integrated Solid Waste Management Plan (2009) for diverting solid waste from landfills by providing options for recycling, such as collection systems and bin spaces, and promoting sound recycling practices among residents, guests, and construction and maintenance personnel. Section 4.8.5 contains the full discussion.</p>			
TRANSPORTATION			
Objectives and Policies			
<p>1) Enhance circulation by improving road maintenance; improving or providing traffic signals and turning lanes at congested intersections; and by providing street and destination signs. Important intersections include Lono and Papa Avenues, and intersections along Papa Avenue, Wakea Avenue, and North Market Street. Additional turning lanes, traffic signals and roadway improvements in the Wailuku Town core should be designed to facilitate safe traffic movement and be compatible with the traditional character of the area.</p>			X
<p>2) Provide bikeway and walkway systems in the Wailuku-Kahului area which offer safe and pleasant means of access, particularly along routes accessing residential districts, major community facilities and activity centers, school sites, and the shoreline between Kahului Harbor and Pa'ia.</p>	X		
<p>3) Expand parking facilities serving the civic and commercial centers of Wailuku. Parking improvements should include expanding the existing public parking facilities off Market Street and around the civic center, and improving controls over existing civic center parking to reserve it for short-term use. Explore the feasibility of a shuttle service for County employees to remote parking facilities.</p>			X
<p>4) Support private efforts to expand public transit service, with an emphasis on service to the Kahului Airport and Wailuku Civic Center. Future growth in</p>	X		

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<i>population will warrant an expanded public transportation system.</i>			
5) <i>For future residential development, prohibit direct lot access from primary roads.</i>	X		
6) <i>Accommodate bicycle and pedestrian ways within planned roadway improvements.</i>	X		
7) <i>Support the extension of the Kahului Airport runway, access road improvements, and other related facility improvements, including expansion of the adjacent shoreline area for public park uses.</i>			X
8) <i>Support the expansion of Kahului Harbor, the island's primary commercial harbor, to accommodate long-term needs. The State Department of Transportation should be encouraged to allow recreational uses by canoe clubs or provide an alternative site for such uses in its long range master plan. The harbor master plan should also incorporate safe bicycle and pedestrian access. Support the investigation of alternative sites for a second commercial harbor facility on the island of Maui. Further, the State Department of Transportation should be strongly encouraged to mitigate its traffic impacts prior to or in conjunction with the Harbor expansion, including, but not limited to, the following:</i>			X
a. <i>improve the intersections between Ka'ahumanu Avenue and Wharf Street and Hobron Avenue;</i>			X
b. <i>provide alternative and bypass routes for vehicular traffic, possibly including a direct route to Kahului Airport;</i>			X
c. <i>provide safe (possibly underpass) routes for pedestrian traffic;</i>			X
d. <i>acquire pockets of land for more efficient facility location within Kahului Harbor; and</i>			X
e. <i>work with the community to plan a second commercial harbor.</i>			X
9) <i>Support the extension of Waiale Drive to a new intersection with Honoapiilani Highway south of Waikapu Village.</i>	X		
10) <i>Preserve the Waiale Bridge and the significant subsurface archaeological sites in the Waiale Drive corridor, from the Mahalani Street intersection to Lower Main Street, by maintaining the existing roadway width.</i>			X
11) <i>Preserve the character of Honoapiilani Highway between Waikapu and Wailuku by maintaining two travel lanes and the existing trees.</i>			X
Implementing Actions			
1) <i>Establish ordinances to designate truck or other heavy vehicle weight commercial traffic routes to relieve traffic impacts on residential neighborhoods and the traditional town center.</i>			X
2) <i>Re-establish school bus routes and stops to minimize impacts on residential neighborhoods and provide sheltered stops where appropriate.</i>			X
3) <i>Study traffic patterns and circulation at intersections adjacent to school sites prior to road construction, to ensure safe access.</i>			X
4) <i>Study circulation patterns at school sites.</i>			X
5) <i>Implement the State Department of Transportation Bikeway Master Plan and the County Bikeway Plan.</i>			X
6) <i>Update and implement the Department of Transportation's Maui Long Range Planning Study: Islandwide Plan and other traffic master plans to implement the Community Plan. The improvements to the regional roadway network should include but not be limited to the following:</i>			X
a. <i>Maui Lani</i>			X
i. <i>Extend Lono Avenue, Kamehameha Avenue, and Onehee Street into the Maui Lani Project District.</i>			X
ii. <i>Provide interconnections with the Maui Lani roadway network</i>			X

WAI'ALE ~~Draft~~ Final Environmental Impact Statement

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<i>to Kuihelani Highway, Honoapiilani Highway, and Waiale Drive in order to provide maximum flexibility for the additional traffic to be generated by Maui Lani and to reduce its impact on adjoining existing neighborhoods.</i>			
<i>iii. The extension of Lono Avenue to Kuihelani Highway should precede the Kamehameha Avenue and Onehee Street extensions. If the Maui Lani project does not proceed in a timely manner, the County should move forward with the Lono Avenue extension.</i>			X
<i>iv. Upgrade Mahalani Street, Kamehameha Avenue, Onehee Avenue and Lono Avenue to County collector road standards.</i>			X
<i>v. Plan the Maui Lani Parkway as an arterial road.</i>			X
b. Kahului			
<i>i. Improve Dairy Road between Kuihelani Highway and Keolani Place.</i>			X
<i>ii. Improve major intersections to accommodate increased traffic volumes, including turning lanes, signals, and other improvements, including but not limited to the corridors of Kamehameha, Pu'unene and Wakea Avenues.</i>			X
<i>iii. Construct the planned Airport Access Road.</i>			X
<i>iv. Improve existing roadway systems within the Kahului Light Industrial area and accessing Kahului Airport to facilitate egress/ingress and to provide for the safe and convenient flow of traffic.</i>			X
<i>v. Improve Kahului Beach Road between Ka'ahumanu Avenue and Waiehu Beach Road/Lower Main Street.</i>			X
<i>vi. Improve Lower Main Street.</i>			X
c. Wailuku			
<i>i. Establish additional major routes between Kahului and Wailuku by utilizing the major road systems of the Maui Lani and C. Brewer Project Districts with connections to Honoapiilani and Kuihelani Highways and Waiale Road.</i>	X		
<i>ii. Extend Mahalani Street as a through connection between Ka'ahumanu Avenue and Waiale Road. The Mahalani extension should be preceded by, or constructed concurrently with, a second roadway access to Maui Memorial Hospital.</i>			X
<i>iii. Establish a new Wailuku through road connecting Honoapiilani and Kahekili Highways, utilizing the existing Waiale Road right-of-way, the old cane haul road, as well as the major roads in the Piihana Project District.</i>	X		
<i>iv. Establish a new access road to serve the existing and proposed golf courses to alleviate through traffic in Waihe'e town.</i>			X
<i>v. Provide left turn lanes on Lower Main Street between Mill Street and Waiale Drive.</i>			X
<i>vi. Facilitate or expedite the connection of Waiale Drive to Kuikahi Drive.</i>			X
<i>vii. Improve Waiale Drive and plan for a future connection to the Honoapiilani Highway south of Waikapu.</i>			X
d. Other			
<i>i. Improve Honoapiilani Highway south of Kuihelani Highway.</i>			X
<i>ii. Improve Kuihelani Highway from Pu'unene Avenue to the future</i>			X

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<i>Maui Lani Parkway and plan for the continuation of such improvements to Honoapiilani Highway.</i>			
<i>iii. Plan and construct a Pu'unene Bypass that would connect the Mokulele Highway and Kuihelani Highway and continue to Ka'ahumanu Avenue, via the future Maui Lani Parkway.</i>			X
<i>iv. Plan and implement improvements to Ka'ahumanu Avenue as soon as possible.</i>			X
<i>v. Acquire and maintain Waiko Road as a public vehicular right-of-way.</i>			X
<i>vi. In addition to other roadway improvements, implement other alternatives for improving traffic circulation in the region through signalization, one-way streets, prohibiting on-street parking and heavy-weight vehicles, and establishing time controls.</i>			X
<i>vii. Provide a second roadway access connecting to the Maui Memorial Medical Center. This access should precede, or be developed concurrently with, the extension of Mahalani Street.</i>			X

Discussion: Wai'ale will be a master planned community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways. The design of the internal roadways will be based on standards set forth by the County, and will be able to accommodate the extension of the Maui Public Bus Transit System onto and through the property.

Wai'ale is part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Kuihelani Highway, since many establishments providing for residents' day-to-day needs will be within walking and biking distance. Therefore, unlike in a conventional subdivision, Wai'ale is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing trips to outside areas and reducing congestion.

URBAN DESIGN

Goal:

An attractive and functionally integrated urban environment that enhances neighborhood character, promotes quality design, defines a unified landscape planting and beautification theme along major public roads and highways, watercourses and at major public facilities, and recognizes the historic importance and traditions of the region.

Objectives and Policies for the Wailuku-Kahului Region in General

<i>1) Enhance the appearance of major public roads and highways in the region.</i>	X		
<i>2) Maintain a design quality for commercial and public projects and large-scale master planned developments.</i>	X		
<i>3) Improve pedestrian and bicycle access within the region.</i>	X		
<i>4) Establish, expand and maintain parks, public facilities and public shoreline areas.</i>	X		

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
5) <i>Integrate stream channels and gulches into the region's open space system for purposes of safety, open space relief, greenways for public use and visual separation. Drainage channels and siltation basins should not be used for building sites, but rather for public open space. Drainage channel rights-of-way and easements may also be used for pedestrian and bikeway facilities.</i>	X		
6) <i>Promote a unified street tree planting program along major highways and streets.</i>	X		
7) <i>Buffer public and quasi-public facilities and light-heavy industrial/commercial type facilities from adjacent residential uses with appropriate landscape planting.</i>	X		
8) <i>Maintain shrubs and trees at street intersections for adequate sight distance.</i>	X		
9) <i>Save and incorporate healthy mature trees in the landscape planting plans of subdivisions, roads and other developments.</i>	X		
10) <i>Incorporate drought tolerant plant species and xeriscaping in future landscape planting.</i>	X		
11) <i>Use native Hawaiian plants for landscape planting in public projects to the extent practicable.</i>	X		
12) <i>Existing and future public rights-of-way along roads and parks shall be planted with appropriate trees, turfgrass and ground covers.</i>	X		
13) <i>Encourage neighborhoods and community organizations to upgrade and maintain streets and parks in accordance with the Maui County Planting Plan of the Arborist Committee.</i>			X
14) <i>Require all future subdivisions, construction projects and developments to comply with the adopted Maui County Planting Plan.</i>	X		
15) <i>Emphasize contrasting earth-tone color schemes for buildings and avoid bright or garish colors. Within Wailuku Town, require buildings that have bright or garish colors to comply with earth-tone color schemes.</i>	X		
16) <i>Encourage the review of architectural and landscape architectural plans for major government projects by the County's Urban Design Review Board.</i>	X		

Discussion: Wai'ale will be a master planned community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways. The design of the internal roadways will be based on standards set forth by the County, and will be able to accommodate the extension of the Maui Public Bus Transit System onto and through the property.

Wai'ale will be extensively landscaped as part of the development improvements, to ensure visual buffering and softening of the built landscape. The master plan includes regional and neighborhood parks, greenways and open space. A&B Properties, Inc. is proposing an open space buffer along Waikapū Stream that will also include interpretive signage and environmental design features to filter soil-laden runoff from entering Waikapū Stream during storm events. This area will also be re-vegetated with native plant materials.

Wai'ale is part of the new "smart growth" planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Kuihelani Highway, since

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
many establishments providing for residents' day-to-day needs will be within walking and biking distance. Therefore, unlike in a conventional subdivision, Wai'ale is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing trips to outside areas and reducing congestion.			
Objectives and Policies for Wailuku Town			
1) <i>Maintain the existing character of historic Wailuku Town.</i>			X
2) <i>Support the creation of a Wailuku Town Design District and the adoption of design guidelines for the town core, excluding properties designated for single family residential use. The objective is to integrate the design elements of multifamily, commercial and public properties in Wailuku Town and to retain the traditional town character. The design district boundaries should include the following areas, as depicted on the attached map:</i>			X
a. <i>the area bounded by High, Vineyard, Central and Main Streets, including the Wailuku Redevelopment District;</i>			X
b. <i>the area bounded by High, Main, North Market and Kaohu Streets, including the Civic District;</i>			X
c. <i>both sides of Main Street from Central Avenue to the Wailuku Bridge; and</i>			X
d. <i>both sides of Market Street from Vineyard Street to Piihana Road in Happy Valley.</i>			X
3) <i>Circulation and Parking.</i>			X
a. <i>Provide for the Waiale Drive bypass to Honoapiilani Highway and road connection from Lower Main Street across 'Iao Stream to Kahekili Highway.</i>			X
b. <i>Maintain the existing character of streets in the commercial core along Vineyard, Market, Central and Main Streets.</i>			X
c. <i>Expand public parking facilities at the Wailuku Municipal Parking Lot and provide for safe and convenient bicycle parking in Wailuku town.</i>			X
d. <i>Provide a continuous and pleasant pedestrian pathway connecting the Historic District, Civic Center, commercial office areas and park and public facilities.</i>			X
4) <i>Building Form and Character. The following design policies shall express the Council's intent as it relates to urban design for properties designated for commercial and business multi-family use along and bounded by Spreckels Ditch and Wells, High, and Vineyard Streets--Wailuku Town's commercial district. They shall serve as a supporting rationale during the development and adoption of design guidelines for the above area. They shall also serve as a reminder of the Council's intent as the guidelines are amended. (See Exhibit "D".)</i>			X
a. <i>Maintain the area's small-town profile and character to allow present land uses, and to allow mixed use zoning with residential uses above and in back of commercial properties. The identifying core and focus is the County seat with its present government building heights, with decreasing heights through the concepts of "Step Zoning" and "Stepping a Building" as one moves away from the streetscape. A mixture of one, two, three and four story heights is desirable because it will support the type of land use intensity that is needed to encourage investment and economic viability; yet it is compatible with the area's small-town profile</i>			X

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<i>and character.</i>			
<i>b. Where commercial areas abut residential blocks, a transition in height should be required to achieve compatibility with the residential scale.</i>			X
<i>c. Utilize architectural treatments such as facade and roof modulation to break up the mass and reduce the apparent size of the buildings.</i>			X
<i>d. Protect mauka (mountain) and makai (ocean) view planes.</i>			X
<i>e. Foster an interesting and active street scene by developing a community gathering place, providing historically sensitive street furniture and making streetscape enhancements.</i>			X
<i>f. Emphasize the continuity of commercial frontages along the main shopping streets, primarily on Market, Main and Vineyard Streets, by maintaining uniform building setbacks along the street frontages. Commercial displays should continue to emphasize and enhance the pedestrian experience. Interruptions, such as blank facades, should be avoided.</i>			X
<i>g. Emphasize continuity in architectural details and materials through the following facade treatments:</i>			X
<i>i. Second story balconies and recesses to create interest.</i>			X
<i>ii. Ground floor display windows to heighten visual interest.</i>			X
<i>iii. Compatibility in color by emphasizing earth tones and avoidance of bright or garish building colors which greatly contrast with their surroundings.</i>			X
<i>iv. A variety of signs which do not compete for attention or distract from the overall street appearance.</i>			X
<i>v. Awnings or canopies that provide shelter over sidewalk areas and protect store entrances.</i>			X
<i>5) Landscape Character: pending adoption of design guidelines for Wailuku Town, utilize the following interim guidelines in the review of projects.</i>			X
<i>a. Maintain the landscape character and open space of the Wailuku entry along South High Street by preserving mature vegetation.</i>			X
<i>b. Establish a unified street tree planting theme for streets within the commercial core which are to be pedestrian oriented.</i>			X
<i>c. Foster the development of mini-parks where appropriate and a community beautification program.</i>			X
<i>6) The Maui Redevelopment Agency (MRA) shall be encouraged to consult with the Cultural Resources Commission in the formulation of and/or amendments to the Wailuku Town Design Guidelines.</i>			X
Discussion: Wai'ale does not involve the planning for the region's future implementation of urban design in Wailuku Town; therefore, this objective and policy are not applicable.			
Objectives and Policies for Kahului			
<i>1) Within industrial subdivisions, encourage the establishment of design standards for individual projects, including a unified streetscape planting theme and program, in order to enhance the visual quality of industrial developments.</i>			X
<i>2) Circulation: provide and maintain sidewalks and bikeways for convenient and pleasant connections between activity centers, such as shopping centers, schools, Maui Community College and public parks. These pathways should have adequate separation from vehicular traffic for safety purposes.</i>			X

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
3) <i>Building Form and Character: maintain compatible scale relationships between the existing low-scale character of the area, adjacent public uses and higher buildings.</i>			X
a. <i>Building heights for the hotel-designated district fronting the ocean side of Ka'ahumanu Avenue shall not exceed ten stories in order to provide a dynamic skyline and identifiable hotel district.</i>			X
b. <i>The low-rise character of the central business area should be maintained. Higher building forms up to six stories should be sited in the central portion of commercial blocks.</i>			X
c. <i>Building heights along the perimeter of commercial blocks should provide a transition in scale to adjacent public and quasi-public uses.</i>			X
d. <i>Commercial uses along the perimeter of central business area blocks should be low-rise and provide sufficient setbacks to allow landscaped buffers along street frontages.</i>			X
4) <i>Landscape Character</i>			X
a. <i>A coordinated landscape theme should be established from the airport to Kahului, with landscape buffers established along Keolani Place, Hana Highway, and Ka'ahumanu Avenue.</i>			X
b. <i>Landscaping along Dairy Road between Keolani Place and Pu'unene Avenue should be established and coordinated with the landscaping of the airport-Kahului roadway approach routes.</i>			X
c. <i>Parkway character should be established along Ka'ahumanu Avenue, from Kahului to Wailuku. Keopuolani Park plans should be updated and made an integral part of the area's landscaping.</i>			X
d. <i>Open parking areas should be landscaped to provide visual screening and shade.</i>			X
e. <i>The perimeters of the central business area blocks should provide landscape buffers as part of a coordinated landscape theme to enhance their visual image.</i>			X
f. <i>The mature landscape character of Kahului's commercial areas should be preserved and incorporated into future development plans, subject to review by the County's Arborist Committee.</i>			X
g. <i>The landscape treatment along streets within the central business area should be extended along major collector roads serving adjacent residential neighborhoods, including Pu'unene, Kamehameha and Lono Avenues.</i>			X
Implementing Actions			
1) <i>Implement a unified landscape planting theme along Ka'ahumanu Avenue from Kahului to Wailuku and along other major public roadways.</i>			X
2) <i>Establish a Wailuku Town Design District with adopted design guidelines.</i>			X
3) <i>Implement related actions specified in the Transportation section of the Community Plan related to roadways, pedestrian and bikeway improvements.</i>			X
4) <i>Provide pedestrian and bicyclist amenities within Wailuku Town, including shaded rest stops, bicycle parking, trash receptacles and public restroom facilities.</i>			X
5) <i>Incorporate a landscape planting master plan in the update and implementation of the Keopuolani Park plan.</i>			X
6) <i>Amend the Public/Quasi-Public zoning standards to enable greater heights for</i>			X
7) <i>Public/Quasi-Public uses such as Maui Community College and the Maui Memorial Medical Center to permit facility expansion consistent with the</i>			X

PART III: POLICY RECOMMENDATIONS, IMPLEMENTING ACTIONS, AND STANDARDS FOR THE WAILUKU-KAHULUI REGION	S	N/S	N/A
<i>architectural parameters of existing facilities.</i>			
Discussion: Wai'ale does not involve the planning for the region's future implementation of urban design in Kahului; therefore, this objective and policy are not applicable.			

5.2.4 County of Maui Zoning

The property is designated as Agricultural. A Project District Phase I/Change in Zoning will be sought to redesignate the site from Agricultural to a Project District.

5.2.5 Special Management Area

The Wai'ale property is not located within the SMA (See Figure 2-5).

5.3 APPROVALS AND PERMITS

A listing of anticipated permits and approvals required for Wai'ale is presented below:

Table 5-6: Anticipated Permits and Approvals

PERMIT/APPROVAL	RESPONSIBLE AGENCY	STATUS
Chapter 343, HRS Compliance	State Land Use Commission	Final EIS is pending Pending public comments on EIS and acceptance by the State Land Use Commission.
State Land Use District Boundary Amendment	State Land Use Commission	Petition has been filed. Processing is on hold until the to commence after EIS (Chapter 343, HRS) process has been completed.
Community Plan Amendment	Maui Department of Planning	Application(s) to be submitted after successful processing of State Land Use District Boundary Amendment.
Project District Phase I/Change in Zoning	Maui Department of Planning	Application(s) to be submitted after successful processing of State Land Use District Boundary Amendment.
Project District Phase II	Maui Department of Planning	Application(s) to be submitted after Project District Phase I approval.
Project District Phase III/Subdivision Approval	Maui Department of Planning	Application(s) to be submitted after Project District Phase II approval.
Chapter 6E, HRS Compliance	State Historic Preservation Division	Application(s) to be submitted pending Project District Phase II approval.

PERMIT/APPROVAL	RESPONSIBLE AGENCY	STATUS
National Pollutant Discharge Elimination System Permit	State Department of Health	Application to be submitted prior to Grading/Building Permits.
Grading/Building Permits	Maui Department of Public Works	Application to be filed after Project District Phase II approval.
Grading and Grubbing	Maui Department of Public Works	Application to be filed after Project District Phase III approval.
Drainage Approval	Maui Department of Public Works	Application to be filed after Project District Phase III approval.
Permit to Perform Work within a State Right-of-Way (ROW)	State Department of Transportation	Application to be filed after Project District Phase III approval.
<u>Request for Access to State ROW</u>	<u>State Department of Transportation</u>	<u>Application to be filed after Project District Phase I approval.</u>
<u>Surface Water Use Permit</u>	<u>State Department of Land and Natural Resources, Commission on Water Resource Management</u>	<u>Application to be submitted after successful processing of State Land Use District Boundary Amendment.</u>
<u>New Raw Water Source</u>	<u>State Department of Health, Safe Drinking Water Branch</u>	<u>Application to be submitted after water source determined.</u>
<u>Capacity</u>	<u>State Department of Health, Safe Drinking Water Branch</u>	<u>Application to be submitted after water source determined.</u>
<u>Construction Plans</u>	<u>State Department of Health, Safe Drinking Water Branch</u>	<u>Application to be submitted after water source determined.</u>

6.0 ALTERNATIVES



6.0 ALTERNATIVES

Under HAR Title 11, DOH, Chapter 200, EIS Rules, Section 11-200-17(F), an ~~Draft~~ EIS must contain a section discussing alternatives that could attain the project objectives, regardless of cost, in sufficient detail to explain why the specific alternative was rejected. Alternatives to Wai'ale, along with reasons why each alternative was rejected are described below.

The objectives of Wai'ale are to:

- Create a new residential community consistent with the parameters and design concepts of the *Draft Maui Island Plan*.
- Reflect community values to create a unique and compelling community in context with the Wailuku-Kahului region;
- Emphasize community development and create a complete and vibrant community with a range of housing types, including single-family, multifamily, and workforce housing, complemented with village mixed uses primarily serving the residents of the community;
- Integrate the recreational amenities with the different uses comprising the community;
- Preserve the inherent beauty of the property by incorporating cultural preserves, parks, and open space, as well as through excellence in landscaping and design;
- Make walking and biking meaningful alternatives to driving by locating commercial and retail establishments convenient to residential areas and integrating bicycle/pedestrian pathways throughout the community;
- Include buffer zones between residential areas and Kuihelani Highway;
- Integrate natural and human-made boundaries and landmarks to craft a sense of place within a defined community;
- Incorporate and preserve natural and cultural resources to maintain the physical and historic character of the property, thereby creating a distinctive community for generations;
- Provide homes near regional employment centers, thereby decreasing commuting and increasing quality of life and environmental stewardship; and
- Incorporate sustainability by design.

6.1 NO ACTION ALTERNATIVE

Under the No Action alternative, Wai'ale would not be created and the property would remain as vacant lands, underutilized in terms of meeting the County's need for future housing (including affordable homes), a regional park and accompanying land uses (per the *Draft Maui Island Plan*).

The potential benefit of the No Action alternative is that while remaining mostly vacant, the property would provide open space. Implementation of this alternative will avoid: infrastructure impacts (solid waste, wastewater and additional stormwater runoff generated on-site); visual impacts (appearance of the property changing from mostly vacant to a master-planned village development); the loss of employment on the property from the new businesses; traffic impacts; and construction-related impacts (such as construction noise, construction equipment exhaust emissions, temporary traffic disruption, and the potential for fugitive dust and soil erosion).

If the property were to remain in its mostly vacant state, the projected demand for housing would go unmet and could result in the following scenarios or combinations thereof: 1) there would be more pressure for development in the other districts of Maui, including agricultural areas currently in cultivation, 2) development outside of Wailuku-Kahului would likely result in more and longer work related vehicular trips requiring greater energy consumption and transportation expenditures, 3) there could be a demand for higher density residential development in undeveloped areas such as Kīhei, at a density not experienced to date; 4) there would be more “doubling up” at existing residences, with higher numbers of persons and families residing under roof and increased demand for social services, 5) the cost of housing would rise due to a limited supply of future housing units, and 6) existing Maui residents not able to find suitable housing may choose to leave Maui and relocate elsewhere where housing costs are lower.

The No Action alternative was rejected because it is not consistent with the objectives of the proposed mixed-use development nor does it meet the objectives of the *Draft Maui Island Plan*.

6.2 ALTERNATIVE LOCATIONS

As noted in the *Socio-Economic Forecast* (June 2006), because Wailuku-Kahului is the economic and population center of the island, it is expected to continue as home to over a third of Maui's households. Wai'ale is consistent with the long-term pattern of settlement on the island of Maui, and is consistent with the *Maui Island Plan's* vision of future development (expansion of residential development from Wailuku, through Maui Lani, into the property). As noted in the *Draft Maui Island Plan*, Central Maui has the largest share of future housing units on the island, with 4,850 units planned. The largest component of future growth in Central Maui is Wai'ale, which, with 2,550 units proposed, accounts for over 50 percent of the planned units in Central Maui.

There are very few large parcels left on Maui that are also designated for new residential development on the *Draft Maui Island Plan*. While there are other undeveloped lands on Maui that do not have agricultural cultivation potential, these are not as conveniently located to the primary areas of employment in Kahului-Wailuku, Kīhei and Mā'alaea. Directing growth to the areas immediately surrounding Kahului and Wailuku reduces the pressure to develop in the rural and agricultural areas of Maui.

Alternative locations would also be required to provide needed public services and facilities to support future growth. The Wai'ale site is situated near existing police, fire, school, library, park, medical, commercial and government facilities and services. Infrastructure to support the development is within near proximity or can be reasonably provided to serve the project.

The potential benefit of this alternative is that while remaining largely underutilized, the property would provide open space. Implementation of this alternative will avoid: infrastructure impacts (solid waste, wastewater and additional stormwater runoff generated on-site); visual impacts (appearance of the property changing from vacant lands to a master-planned urban development); the loss of employment on the property from the lessees businesses (assuming they do not relocate elsewhere); traffic impacts; and construction-related impacts (such as construction noise, construction equipment exhaust emissions, temporary traffic disruption, and the potential for fugitive dust and soil erosion).

The alternative of implementing the proposed action elsewhere on Maui was rejected because it is not be consistent with the *Draft Maui Island Plan* and would not take advantage of the benefits of being located near Wailuku and Kahului (the employment center of the island).

6.3 ALTERNATIVE PROJECT DESIGN

The Wai'ale master plan has been designed largely in concert with the tenets of the updated *General Plan*, including the *Draft Maui Island Plan* and Directed Growth Strategy. Many planning factors and alternatives were considered and evaluated during the *Maui Island Plan* preparation process. These resulted in the regional planning concepts articulated in the *Draft Maui Island Plan* for the subject area. These planning concepts together with site specific studies such as archaeological inventory surveys, burial preservation plans, geotechnical and engineering analyses, which are essential to detailed site planning, were utilized in formulating the current Wai'ale master plan.⁷

Different designs could be applied to the project, and depending on the density and design capacity, would result in different environmental impacts. One alternative would be to set aside less open space and to spread out the community over a larger land area. This alternative would reduce the density (to some, a positive benefit) but consume more land, increasing the quantity of surface runoff, and requiring a much larger investment in grading and infrastructure. This alternative would make it slightly more difficult for residents to be served by bus. Implementation of this alternative will not avoid: infrastructure impacts (solid waste, wastewater and additional stormwater runoff generated on-site); visual impacts (appearance of the property changing from vacant lands to a master-planned urban development); the loss of employment on the property from the lessees businesses (assuming they do not relocate elsewhere); traffic impacts; and construction-related impacts (such as construction noise, construction equipment exhaust emissions, temporary traffic disruption, and the potential for fugitive dust and soil erosion).

This alternative was rejected because spreading out the development could make shared facilities less convenient by walking or bicycling, forcing future residents to rely more on cars (as in conventional subdivisions).

During the Draft EIS public review period, Maui Tomorrow Foundation suggested an “alternative of having less irrigated park space and more natural areas, such as the natural dune formations, should also be examined as a water conservation strategy.” Similarly, the Sierra Club Maui Group suggested “A larger contiguous preserve area, which includes as many remaining intact dunes as possible, should be discussed as one project alternative.” This alternative would be similar to the proposed project. The major difference is that Maui Tomorrow Foundation and the Sierra Club Maui Group are suggesting replacing some of the proposed active park space for more passive “park” space. The negative aspects of this alternative is that there would be less areas for exercise and active sports, and more areas that might attract illegal dumping and other activities, including brushfires. The positive aspects are that there would be more open spaces that do not require management costs, lower water demand, and less play noise, and preserving the remnant dunes desired by some.

A higher density project that kept the same residential unit count as proposed and recommended by the *Draft Maui Island Plan* (2,550 units) would reduce the buildable area (a positive benefit) and possibly reduce the quantity of surface runoff (a positive benefit). During the Draft EIS public review period, Maui Tomorrow Foundation suggested “an alternative where no community facilities are in proximity to the former landfill” – this would be achievable under a higher density project that would reduce the buildable area. Another potential benefit of this alternative is that it would likely be easier to serve by bus and correspondingly increase ridership. However, this alternative was rejected because the residential buildings would be larger and taller and at much higher densities. Moreover, tThis alternative would not result in as wide a range of residential product types. Implementation of this alternative will not avoid: infrastructure impacts (solid waste, wastewater and additional stormwater runoff generated on-site); visual impacts (appearance of the property changing from vacant lands to a master-planned development); the loss of employment on the property from the lessees businesses (assuming they do not relocate elsewhere); traffic impacts; and construction-related impacts (such as construction noise, construction equipment exhaust emissions, temporary traffic disruption, and the potential for fugitive dust and soil erosion).

Similar to Maui Tomorrow Foundation’s comments, the Sierra Club Maui Group wrote: “Alternative locations for the 30-acre maui county affordable housing land donation to move housing away from the former landfill and industrial noise and fumes.” Both proposed County Housing parcels (30 acres plus 10 acres) are located in the northern portion of the property, where infrastructure and roadway connections to Maui Lani would be the closest, cheapest and the fastest to build. If proximity to Maui Lani is important, then the proposed County Housing parcels could be relocated anywhere along the boundary with Maui Lani except for the proposed 28.4 acre cultural preserve. However, from other comments made by the Sierra Club Maui Group (“...the need

strongly supported by community members for a large continuous open space buffer area in the project plan...”), it would appear that the Sierra Club Maui Group would not prefer to relocate the proposed County Housing parcels along the boundary with Maui Lani. Alternative locations for the proposed County Housing parcels could be anywhere on the Wai’ale master plan (See Figure O-1) where either proposed “Multi-Family” or “Village Mixed-Use” are shown, but were rejected because: 1) the portion of the project north of East Waiko Road would likely be closer, cheaper and faster to build than the portion of the property south of East Waiko Road; And 2) the portion of the project north of East Waiko Road is closer to Pōmaika’i Elementary School and the proposed middle school site, as well as the proposed Regional Park.

Conversely, as suggested by Maui Tomorrow Foundation and the Sierra Club during the Draft EIS public review period, a significant decrease in units would result in different impacts. A significant reduction in housing units would result in the housing objectives articulated in the Directed Growth Strategy and the *Maui Island Plan* not being met. Wai’ale is being expected to provide the majority of needed housing units in Central Maui to the year 2030 (2,550 housing units of the total 5,073 housing units). This alternative was rejected because: 1) a reduction in housing units at Wai’ale would alternatively mean that other areas would need to be designated for future growth; 2) Given the extensive community review process undertaken to date this would appear an undesirable alternative; and 3) any reduction in total units would also reduce the amount of affordable units developed. A decrease in units would result in higher per unit development costs, as the cost of basic infrastructure (roadways and utilities) would still be incurred but prorated over fewer units. Such a scenario could jeopardize the project’s financial feasibility.

Actions of a significantly different nature, such as a significant increase/decrease in units would result in different impacts. The demand for safe drinking water and the quantities of wastewater, solid waste, and traffic generated would vary with different designs, depending on the number/quantity of residential units, schools, commercial square footage, irrigated landscape areas and roads.

During the Draft EIS public review period, the Sierra Club Maui Group requested that the alternative of a regional wastewater treatment plant be discussed as an alternative design. Plans for any regional plant to serve other future projects would require specific information concerning these other projects (location, unit counts, development schedules and financial commitment) in order to commence any preliminary engineering analysis. The applicant has had discussions with representatives of the planned Maui Tropical Plantation project, however their anticipated development schedule is not consistent with Wai’ale’s. The applicant also met with the Director of the DEM. The Director indicated that any regional sewage treatment plant solution should be properly advanced and pursued by the DEM. Accordingly, and as noted in Section 4.8.2, there are two alternatives for treating the wastewater generated by Wai’ale. The first alternative involves constructing an on-site wastewater treatment plant (WWTP) for treatment of the wastewater generated by Wai’ale only. This alternative would require effluent reuse and/or disposal, options for which are also discussed. The second alternative involves

conveying the wastewater from Wai'ale to the Kahului WWRF, in the event that there is capacity available to treat the flows, either with or without future expansion of the Kahului WWRF.

The proposed location for the on-site WWTP alternative is in the north central portion of the project near the Consolidated Baseyards subdivision. Other possible locations for the WWTP include sites across Kuihelani Highway on lands owned by the applicant. For the above reasons, the alternative of siting a regional wastewater treatment plant was rejected.

6.4 THE ALTERNATIVE OF POSTPONING ACTION PENDING FURTHER STUDY

Further study of any proposed development on the property would only be delaying what has long been proposed. As articulated in the Directed Growth Strategy and the *Maui Island Plan*, Wai'ale is being expected to provide the majority of needed housing units in Central Maui to the year 2030 (2,550 housing units of the total 5,073 housing units). A delay or loss of housing units at Wai'ale would alternatively mean that other areas on Maui would need to be relied upon for future growth, including development outside of Wailuku-Kahului that would likely result in more and longer work related vehicular trips requiring greater energy consumption and transportation expenditures. There would be more "doubling up" at existing residences, with higher numbers of persons and families residing under roof and increased demand for social services. The cost of housing would rise due to a limited supply of future housing units and existing Maui residents not able to find suitable housing may choose to leave Maui and relocate elsewhere where housing costs are lower. Therefore, this alternative was rejected, as it would not achieve the overall objectives for the project, which would provide needed housing and create a mixed-use community that will provide more employment opportunities to existing residents of the region, reducing the need for some residents to commute outside of Wailuku-Kahului to work. The potential benefit of this alternative (postponing action pending further study) is that while remaining underutilized, the site would provide open space. If the site were used for agricultural purposes, it could generate dust when portions of the site are graded, harvested and plowed. Implementation of this alternative will temporarily avoid: infrastructure impacts (solid waste, wastewater and water); visual impacts (appearance of the site changing from open fields to a master-planned urban development); the loss of employment on the site from the lessees businesses (assuming they do not relocate elsewhere); traffic impacts; and construction-related impacts (such as construction noise, construction equipment exhaust emissions, temporary traffic disruption, fugitive dust and soil erosion). Occasionally, however, agricultural cultivation, harvesting and plowing of the site will expose soils to the erosional forces of wind and rainfall.

7.0 CONTEXTUAL ISSUES



7.0 CONTEXTUAL ISSUES

This chapter presents key issues within the context of Wai'ale.

7.1 RELATIONSHIP BETWEEN THE SHORT-TERM USES OF ENVIRONMENTAL RESOURCES AND LONG-TERM PRODUCTIVITY

Short-term uses and long-term productivity consist of Wai'ale's short-term construction phases and the long-term benefits after construction. Short-term construction impacts can be mitigated while they occur. In the long-term, the creation of Wai'ale will contribute substantial positive community and economic benefits, as discussed throughout this EIS. Therefore, Wai'ale will contribute to the maintenance and enhancement of long-term productivity for Maui in general.

In the short-term, construction activities will impact the area. Grading and construction will be visible from Kuihelani and Honoapi'ilani highways, East Waiko Road, Wai'ale Road, and adjacent areas, such as parts of the Maui Lani development and parts of the Waikapū Gardens subdivision. Construction has the potential of impacting noise levels, however, as noted in Section 4.4, implementation of noise control measures would reduce the construction noise effects to less than adverse. Similarly, implementation of air quality control measures would reduce the construction air quality effects to less than adverse. Construction of the project has the potential of impacting the Blackburn's sphinx moth, but the landowner, with the U.S. Fish and Wildlife Service, will develop an appropriate mitigation plan for this species on the property. As discussed previously in this EIS, all of the foregoing construction-related impacts can be mitigated. At the same time, construction will also generate significant employment and economic benefits, including:

- \$732,413,000 of direct capital investment in the Maui economy;
- 7,500 "worker years"⁴ of direct on-site employment;
- \$352,203,000 in employee wages;
- \$47,199,000 of estimated excise taxes;
- 1,000 jobs after the build-out period; and
- \$1,100,000 in annual net real property tax revenue benefit (taxes less costs) to the County of Maui after the build-out period.

Over the long-term, as portions of Wai'ale become operational and construction activities decline, short-term impacts generated by construction activities will decrease and be replaced by the long-term impacts generated by increased human activity in the area, as discussed in Chapter 4.0.

⁴ A "worker year" is defined as the amount of time one full-time worker can work in one year although one worker year (2,080 working hours) may be comprised of many employees involved in specialized tasks of shorter duration.

The long-term productivity of Wai'ale will outweigh the short-term uses of the environment. Long-term community benefits include:

- Extending Kamehameha Avenue southward into the property;
- Providing approximately 33 acres of land (in six non-contiguous areas) for cultural preserves;
- Developing formal provisions regarding cultural resources, such as access to specific sites to be preserved, the manner and method of preservation of sites, and appropriate protocol for visitation to cultural sites;
- Providing 65 acres of land to the County for a new regional park;
- Providing eight acres of land to the County adjacent to the Maui Lani Regional Park to allow for its expansion into Wai'ale;
- Providing 43 acres of land to the County for affordable housing, including three acres for a neighborhood park;
- Providing seven acres of land to the County for a community center;
- Providing 18 acres of land to the DOE for a potential middle school site;
- Providing an additional 33 acres of privately maintained open space, landscaped buffers and park (not including landscaped roadways); and
- Providing for the logical expansion of Kahului-Wailuku, where the largest employment center on the island is located (in compliance with the *Countywide Policy Plan* (current *General Plan* and proposed "*Maui Island Plan*").

Long-term economic benefits include approximately 1,000 jobs after the build-out period; and approximately \$1,100,000 in annual net real property tax revenue benefit (taxes less costs) to the County of Maui after the build-out period.

The expenditure of both construction monies (for both materials and labor) and long-term operational employment into the island and state economies will have benefits that ripple through the economy with additional off-site, secondary, and indirect jobs on Maui and statewide. Income from real property, personal income, and excise taxes are expected to offset expenses associated with expanded public services to meet the requirements of Wai'ale and the redistribution of Maui residents from elsewhere on Maui to the property.

Long-term risks to health and safety are not expected (See Section 4.6). Wai'ale will comply with all natural hazard building codes, drainage regulations, water quality standards, and waste disposal requirements. The infrastructure improvements implemented will be in compliance with all health and safety standards (See Section 4.8).

The natural environment of the property will be altered from its present vacant state, but implementation of the proposed project will increase the inventory of workforce housing in Central Maui, which provides the greatest concentration of employment on the island, and where the University of Hawai'i – Maui College is located. The property's long-term productivity will be significantly enhanced, and simultaneously, the sustainability of Maui

will be enhanced as well. Native plants will be incorporated into the project landscaping. The landowner, with the U.S. Fish and Wildlife Service, will develop an appropriate mitigation plan for the Blackburn's sphinx moth ~~at~~ this property.

In terms of cultural resources, the applicant acknowledges that preserving in place is highly desirable over relocation. Should additional burials be inadvertently encountered during the construction activities, work will cease immediately in the immediate vicinity of the burial(s) and the burial(s) will be protected. The archaeological contractor shall immediately contact SHPD, which will assess the significance of the burial(s) and recommend appropriate mitigation measures, if necessary.

As noted in Hana Pono's recommendations, the applicant is already proposing an open space buffer along Waikapū Stream. While it is envisioned to be more actively used than the cultural preserves that contain burials, it too will contain interpretive signage. Wai'ale will also contain environmental design features to filter soil-laden runoff from entering Waikapū Stream during storm events, as well re-vegetated with native plant materials.

The applicant envisions opportunities for interpretation and education focusing on the Pu'u One sand dunes, Waikapū Stream, and the proposed Cultural Preserves. The applicant welcomes the opportunity to work with the kupuna and informants interviewed in the preparation of Hana Pono's CIA in helping to craft these educational and interpretive programs and products. The applicant will continue to consult with various cultural practitioners, including for the activities identified above by Hana Pono.

While most of the property has been heavily "~~decimated,~~" disturbed, there is a large portion of the site (approximately 28 acres) where there ~~is a~~ are relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the four areas being proposed as a cultural preserve (and where the highest concentration of burials resides).

Infrastructure improvements, such as drainage systems, water systems, and wastewater systems, will be designed to be self-sufficient and sustainable (See Section 4.8), and constructed by the applicant, without requiring any State or County revenues.

In addition, the proposed range of uses, types of development, quantity of open space, and mitigation measures for various environmental impacts will not foreclose future options for enhancement, expansion, or preservation of various environmental, cultural, and community facilities.

7.2 CUMULATIVE AND SECONDARY IMPACTS

Cumulative and secondary impacts are impacts that may result from other reasonably foreseeable actions within the area, regardless of who initiates the action. By the year 2022, the Wailuku/Waikapū area is anticipated to experience significant growth, both in

its residential population and commercial/industrial/business land uses, primarily as a result of the following developments:

- Waikapū Country Town (WCT) – currently in the planning phase; assumed to be completed by 2022.
- Maui Lani development – partially complete; Maui Lani development and the Maui Lani 100 VMX (Village Mixed Use) Affordable Housing Project were assumed to be completed by Year 2022 – and therefore the final segment of Maui Lani Parkway between Kuikahi Drive and Waiinu Street were assumed to be complete to support the development.
- Kehalani – partially complete; assumed to be complete by Year 2022.
- Pu'unani Residences – not started; assumed to be complete by Year 2022.

These projects, along with other smaller projects, combine to represent approximately 4,850 new dwelling units for Central Maui, as well as commercial, industrial, park, school, and other ancillary land uses.

Wai'ale will be part of the overall change and County-planned growth of the region. Cumulative and secondary impacts resulting from proposed projects are likely to include increased population and greater demands on public infrastructure systems and services. However, the population of the Central Maui region is projected to grow and the needs of a growing population relating to the need to accommodate workforce housing traffic, infrastructure, public services, and other issues will need to be addressed regardless if some or all of these projects are built. The challenge is to manage growth in a predictable and acceptable manner.

Regional traffic growth, including from the Waikapū Country Town, Maui Lani development, Kehalani and Pu'unani Residences projects is being taken into account as part of DOT's Long Range Land Transportation Plan (LRLTP), which is currently being updated in consideration of known proposed developments in the region and will serve as a guide for the development of major surface transportation facilities and programs to be implemented in the future.

Because the demand for homes in Central Maui are primarily from Maui residents (who are employed in Central Maui), the residents of the new homes being proposed as part of Wai'ale will result in a redistribution of the existing Maui population as opposed to an incremental increase. As a result, there will be relatively minor impacts related to increased population, such as an overall increase in the need for State and County services. In addition to providing land for County-developed affordable homes, the applicant will also provide land to the County in order to develop a long-planned regional park to meet the recreational needs of the workforce market segment housing residents.

Impacts to schools will be addressed by the applicant who is proposing to dedicate approximately 18 acres of land to the DOE for a middle school.

Of all the projects currently proposed within Central Maui, Wai'ale is notable for addressing cumulative and secondary impacts, and for addressing its fair share towards mitigating impacts in its land use plan. For example, Wai'ale will address the regional need for:

Transportation

- Extending Kamehameha Avenue southward into the property;
- Providing turning lanes at unsignalized intersections along East Waiko Road fronting the property; and
- Providing intersection improvements at Kuikahi Drive/Wai'ale Road, Kuikahi Drive/Maui Lani Parkway, Maui Lani Parkway/Kamehameha Avenue, East Waiko Road/Kamehameha Avenue, East Waiko Road/ Wai'ale Community Road B, and East Waiko Road/Kuihelani Highway (See Section 4.3).

Workforce Housing

- Providing 40 acres of land to the County for affordable housing, including three acres for a neighborhood park.

Public Education

- Providing 18 acres of land to the DOE for a potential middle school site.

Cultural Resources

- Providing approximately 33 acres of land for cultural preserves;
- Developing appropriate cultural education and interpretive programs; and
- Developing formal provisions regarding cultural resources, such as access to specific sites to be preserved, the manner and method of preservation of sites, and appropriate protocol for visitation to cultural sites.

Parks and Open Space

- Providing 65 acres of land to the County for a new regional park;
- Providing eight acres of land to the County adjacent to the Maui Lani Regional Park to allow for its expansion into Wai'ale;
- Providing three acres of land to the County for a neighborhood park.
- Providing seven acres of land to the County for a community center; and
- Providing an additional 33 acres of privately maintained open space, landscaped buffers and park (not including landscaped roadways).

County-Recognized Need for Housing in Central Maui

- Providing for the logical expansion of Kahului-Wailuku, where the largest employment center on the island is located (in compliance with the *Countywide Policy Plan* (current *General Plan* and proposed "*Maui Island Plan*").

In addition, Wai'ale will not rely upon or burden any public infrastructure facilities and will instead either contribute to planned County infrastructure improvements and/or develop water and wastewater systems. All infrastructure will be constructed concurrently with development thus ensuring that necessary facilities and services are in place. Further, the substantial tax revenues from Wai'ale are expected to mitigate the anticipated costs incurred by the State and County.

Regarding cumulative impacts of traffic, the TIAR prepared for Wai'ale (See Appendix J) accounted for increased traffic due to additional projects in the Central Maui region. Traffic on Kuihelani Highway and other roads are expected to increase even if Wai'ale is not built. As stated above, Wai'ale will be part of the regional traffic solution by:

- Extending Kamehameha Avenue southward into the property;
- Providing turning lanes at unsignalized intersections along East Waiko Road fronting the property; and
- Providing intersection improvements at Kuikahi Drive/Wai'ale Road, Kuikahi Drive/Maui Lani Parkway, Maui Lani Parkway/Kamehameha Avenue, East Waiko Road/Kamehameha Avenue, East Waiko Road/ Wai'ale Community Road B, and East Waiko Road/Kuihelani Highway (See Section 4.3).

Wai'ale has been designed to accommodate the new “smart growth” planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Honoapi'ilani Highway and Kuihelani Highway, since many establishments providing for residents' day-to-day needs (live, work, play, study, shop) will be within walking and biking distance, and eventually County public bus transit service. Therefore, unlike in a conventional subdivision, Wai'ale is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing private vehicular trips to outside areas (promoting transportation energy savings) and reducing congestion.

In mitigating cumulative impacts to human and environmental health, Wai'ale is committed to limiting energy consumption and reducing solid waste. The design and construction of energy systems for residential units will seek to meet applicable Energy Star requirements established by the U.S. Environmental Protection Agency (EPA) in effect at the time of construction. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems. Wai'ale will also implement strategies from the County of Maui Integrated Solid Waste Management Plan (2009) for diverting solid waste from landfills by providing options for recycling.

During the Draft EIS public review period, the Sierra Club Maui Group wrote: “The DEIS fails to address cumulative[sic] and secondary impacts to cultural resources if remaining sand dunes are allowed to be separated from their cultural context and destroyed. impacts

to traditional and customary Hawaiian rights are not adequately discussed and considered in the project's planning to be in compliance with Act 50 during the EIS process." Wai'ale will make lasting contributions to preserving the archaeological and cultural resources through the implementation of a series of short-term and long-term preservation measures, as described in Section 4.1.

Short-Term Preservation Measures – The identification and implementation of appropriate short-term or interim site protection measures, including an archaeological monitoring plan. These include:

- Prior to construction commencement a meeting shall be held to inform all pertinent parties regarding the locations and buffer zones for all sites slated for preservation in or near areas of potential effect;
- The erection of temporary construction fencing (orange plastic) or other visible markings defining no-encroachment buffer zones around the perimeter of sensitive areas;
- ~~Full-time~~Regular monitoring of preservation sites ~~during~~and construction activities; and
- Ensuring transition to permanent preservation measures following completion of construction.

Long-Term Preservation Measures – The identification and implementation of long-term or permanent site protection measures provide for the continued protection of archaeological and cultural resources. The two typical categories of long-term preservation are passive and active preservation, as described below:

- **Passive Preservation** – Sites in this category do not undergo any interpretive development, occur in areas that can be avoided by development, and are left as is. This category is sometimes referred to as “data banking.” Most sites in this category are not intended to be permanently preserved, but are anticipated to undergo data recovery procedures in the future, presumably when improved data gathering techniques and refined analysis technologies are available or on large tracts of land where development is intended to take place in incremental phases; and
- **Active Preservation** – Sites in this category are chosen for their interpretive potential. Their selection may be based on aesthetic, academic, or cultural representation values. Different levels of interpretive development may be undertaken, including: stabilization, partial or complete restoration, and/or reconstruction. Signs may be involved, and details regarding access and protocols need to be worked out.
- **Cultural Preserves** - Approximately 33 acres is proposed to be set aside as cultural preserves where the greatest concentrations of burials occur. These areas are planned to be permanently preserved, and none of the burials within these cultural preserves are anticipated to undergo data recovery procedures in

the future. This area is intended to be *kapu* and only accessed by lineal and/or cultural descendants, recognized and/or acknowledged cultural practitioners and for periodic maintenance and/or fire protection.

In addition, the applicant will continue to consult with various cultural practitioners, including for the activities identified by Hana Pono in its cultural impact assessment (See Section 4.2 and Appendix I).

The applicant is diligently exploring a number of alternatives for water source for this project. All source alternatives will require further discussion, review, and approval by applicable governmental agencies as the project proceeds. Additionally, Maui County Ordinance No. 3502, relating to water availability, insures that all new projects have a reliable source of water prior to development. The Ordinance provides that verification of a long term reliable supply of water be determined prior to any subdivision approval. In light of this requirement, cumulative impacts will be further addressed as new water sources are developed. Other proposed projects will be similarly required to meet the requirements of this Ordinance as their projects proceed through the development process.

There are two potential sources being considered for drinking water: treated surface water and groundwater. The Hawaii State Water Code (Chapter 174C, Hawaii Revised Statutes) and Maui County Code Chapter 14.02 require the preparation of a Water Use and Development Plan (WUDP). As noted in Sections 3.5 and 4.8.1, the WUDP is the primary long range plan of the County Department of Water Supply (DWS). The WUDP directs the management of water resources in a manner a plan for the management of water resources that is consistent with the County of Maui's land use plans and policies. ~~The WUDP and~~ serves as a guideline for the use and commitment of water resources and funds. ~~The DWS is in the process of updating the WUDP.~~

As part of ~~the an~~ update process for the WUDP, a "Central District: Final Candidate Strategies Report" was prepared by Haiku Design & Analysis in June 2009. The report notes that water consumption for the Central District system is expected to grow from about 22 MGD in 2005 to about 34 MGD in 2030, an increase of about 12 MGD. To meet this increased demand, the report recommends proceeding with the proposed Wai'ale Water Treatment Facility (WTF) negotiations and approvals to the extent possible pending determination of assurance of long term water availability and price. The report further notes that the Wai'ale WTF is considered to be potentially the most cost effective solution to providing needed future water. ~~The WUDP also considered other potential strategies, including new basal groundwater wells to the north of the existing Central District system (into the north half of the Waihe'e Aquifer and the Kahakuloa Aquifer).~~

~~The applicant acknowledges that the proposed Wai'ale WTF requires further discussion, review and approvals by various governmental agencies in order to proceed. An agreement with the County of Maui outlining the sharing of development costs for the~~

~~proposed WTF, terms of use, the allocation of water and other matters will be required. This agreement will ultimately be subject to the review and approval of the Maui County Council. Also, the establishment of interim in-stream flow standards for the four streams which make up the Na Wai 'Eha, including Waihe'e Stream, will need to be resolved.~~

~~The timing of completion of these potential source development alternatives will, in large part, determine the particular water source for the project. All source alternatives will require further discussion, review, and approval by applicable governmental agencies as the project proceeds. It is acknowledged that the proposed Wai'ale WTF would be subject to other decisions, as noted in Section 4.8.1., and that these decisions could result in a smaller treatment facility with lower capacity than currently planned. However, the proposed Wai'ale WTF would not involve a change to the status quo relative to the diversion of water from the Na Wai 'Eha streams. There will be no additional diversion. Since there will be no additional diversion of water, there would be no additional adverse impacts over the status quo.~~

~~The WUDP is the primary long range plan of the DWS. The WUDP directs the management of water resources in a manner that is consistent with the County's land use plans and policies and serves as a guideline for the use and commitment of water resources and funds. In turn, the *Maui Island Plan* is the guiding document for future growth on the island of Maui to the year 2030. The *Draft Maui Island Plan* notes that the development of additional water sources is crucial for the Central Maui water system. The plan includes a long range implementation plan to address capital improvements, including water source development and related infrastructure.~~

~~The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent, or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available needs to be developed. The need for these improvements is discussed in the WUDP and also the *Maui Island Plan*. Any new wells drilled in these aquifers would have to be permitted by the CWRM and thus will be within the allowable sustainable yields of the respective aquifers. This permitting process would insure that new wells do not result in adverse cumulative and secondary impacts to these aquifers.~~

~~Best management practices for the future use of the property will be implemented to mitigate potential groundwater contamination. These measures are described in Section 3.5. Any water well that ultimately does source the Wai'ale project, as with all public water systems, will include regular water sampling and reporting requirements that will need to be followed to insure water quality standards are met. This would include the preparation of periodic water quality reports as required by law, as well as oversight by~~

appropriate governmental agencies. This regulatory process is intended to insure that potential groundwater quality concerns are addressed.

During the Draft EIS public review period, the Sierra Club Maui Group wrote: "The DEIS fails to address cumulative and secondary impacts of sending an additional 1 mgd of sewage to Kahului WWTP or how that will comply with HAR 11-54-1.1 which defines an anti-degradation policy for state waters." The inference in the Sierra Club Maui Group's comments is that the group is concerned about the capacity of the Kahului WWTP to process wastewater from the proposed project without polluting nearshore waters. This is despite the fact that the Draft EIS stated that improvements may be needed at Kahului WWTP if the decision is made to accommodate treatment at the existing facility. It is one of the goals of the Maui Tomorrow Foundation to close the Kahului WWRF, and the foundation views a regional WWTP as not only servicing Wai'ale and the proposed Maui Tropical Garden project, but also the existing areas served by the Kahului WWRF, thus, eventually allowing for the latter's closure. This would be viewed by the Maui Tomorrow Foundation as a desirable impact of a new regional WWTP.

Wai'ale and the potential off-site surface water treatment and wastewater infrastructure improvements areAs noted in the Draft EIS, the final method of sanitary treatment of wastewater from the project has not been decided. However, an on-site treatment facility is not expected to cause cumulative or secondary impacts to marine water resources. Similarly, if the necessary improvements are made at the Kahului WWTP (including measures to mitigate impacts to nearshore waters) to accommodate wastewater from the Wai'ale project, no cumulative or secondary impacts are expected to nearshore waters.

By the year 2022, the Wailuku/Waikapū area is anticipated to experience significant growth, both in its residential population and commercial/industrial/business land uses, primarily as a result of the following developments: Waikapū Country Town; Maui Lani development; Kehalani; and Pu'unani Residences. These projects along with other smaller ones combine to represent approximately 4,850 new dwelling units for the Central Maui region, as well as commercial, industrial, park, school, and other ancillary land uses by year 2030. The traffic assessment accounted for this growth in the baseline conditions. The Maui Transportation Demand Forecasting Model and Trip Generation Methodology were used to project (via growth ratios) and assign the traffic generated by these and other Maui developments onto the roadway network. The result was an approximate 60 percent increase in demand along Honoapi'ilani Highway over existing conditions. Along Kuihelani Highway, the increase was an approximate 70 percent.

The proposed project and related projects would combine to increase long-term regional emissions in Maui. As previously discussed, Maui is a federal attainment area for all criteria pollutants. The only pollutant of concern that is monitored on Maui by the State Department of Health is particulate matter (PM_{2.5}). Project-related PM_{2.5} emissions would represent less than one percent of Statewide emissions. Based on this small percentage, the proposed project would not contribute to a cumulatively considerable impact.

Noise is a local effect that is generally limited to the immediate area surrounding the source. For this reason, project-related stationary noise would not be audible outside of the property and would not contribute to a cumulative impact. The proposed project would combine with related projects to increase mobile source noise levels on the roadway network. A 10-dBA increase is subjectively heard as a doubling in loudness and would cause a community response. As shown in Table 7-1, the greatest cumulative noise increase during morning peak hour would be 5.5 dBA L_{eq} along East Waiko Road between Kamehameha Avenue and Wai'ale Drive. As shown in Table 7-2, the greatest cumulative noise increase during evening peak hour would be 7.5 dBA L_{eq} along East Waiko Road between Kuihelani Highway and Kamehameha Avenue. Neither of these increases would exceed the 10-dBA noise criteria. Therefore, the proposed project would not contribute to a cumulatively considerable impact related to mobile source noise.

Table 7-1: Cumulative Mobile Source Noise Levels – AM Peak Hour

ROADWAY SEGMENT	ESTIMATED DBA, L_{eq}		
	EXISTING	FUTURE WITH PROJECT	CUMULATIVE IMPACT
Kuihelani Highway from East Waiko Road to Maui Lani Parkway	68.9	72.1	3.2
East Waiko Road from Kamehameha Avenue to Wai'ale Drive	61.5	67.0	5.5
East Waiko Road from Kuihelani Highway to Kamehameha Avenue	62.0	67.3	5.3
Maui Lani Parkway from Kuihelani Highway to Kamehameha Avenue	59.2	62.3	3.1
Maui Lani Parkway from Kamehameha Avenue to Kuikahi Drive	59.5	63.6	4.1
East Waiko Road from Wai'ale Drive to Honoapi'ilani Highway	58.4	62.8	4.4
Wai'ale Drive from East Waiko Road to Kuikahi Drive	61.1	66.3	5.2
Honoapi'ilani Highway from East Waiko Road to Kuikahi Drive	70.5	71.0	0.5

Source: Terry A. Hayes & Associates, LLC (2011)

Table 7-2: Cumulative Mobile Source Noise Levels – PM Peak Hour

ROADWAY SEGMENT	ESTIMATED DBA, L_{eq}		
	EXISTING	FUTURE WITH PROJECT	CUMULATIVE IMPACT
Kuihelani Highway from East Waiko Road to Maui Lani Parkway	69.9	73.3	3.4
East Waiko Road from Kamehameha Avenue to Wai'ale Drive	60.6	68.0	7.4
East Waiko Road from Kuihelani Highway to Kamehameha Avenue	60.6	68.1	7.5
Maui Lani Parkway from Kuihelani Highway to Kamehameha Avenue	59.6	63.7	4.1
Maui Lani Parkway from Kamehameha Avenue to Kuikahi Drive	59.6	64.8	5.2
East Waiko Road from Wai'ale Drive to Honoapi'ilani Highway	59.4	60.3	0.9
Wai'ale Drive from East Waiko Road to Kuikahi Drive	60.2	67.0	6.8
Honoapi'ilani Highway from East Waiko Road to Kuikahi Drive	70.4	72.1	1.7

Source: Terry A. Hayes & Associates, LLC (2011)

The predominant vibration source near the project site is heavy trucks traveling on the local roadways. Neither the proposed project nor related projects would substantially increase heavy-duty vehicle traffic near the project site and would not cause a substantial increase in heavy-duty trucks on local roadways. The proposed project would not contribute to a cumulatively considerable impact related to vibration.

7.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Creation of Wai'ale will involve the irreversible and irretrievable commitment of certain land and fiscal resources. Major resource commitments include the land and capital, construction materials, non-renewable resources, labor, and energy required for the community's completion.

Wai'ale will require that approximately three-quarters of the property be used for landscaped urban-like uses; however approximately one-quarter of the property also will be set aside for open space, including parks, cultural preserves, and open space buffers along Kuihelani Highway and along Waikapū Stream. The urban-like uses of Wai'ale are well-suited for the property because the property is: 1) contemplated in the *Draft Maui Island Plan*; 2) located contiguous to existing urban land uses (Maui Lani, Waikapū Village and Kehalani); 3) adjacent to Kuihelani Highway; and 4) in close proximity to the employment center of Maui (Wailuku and Kahului).-

The impacts represented by the commitment of resources should be weighed against the significant positive and recurring benefits that will be derived from Wai'ale versus the consequences of either taking no action or pursuing another less beneficial use of the property.

7.4 PROBABLE ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

Potential environmental impacts resulting from the creation of Wai'ale have been discussed throughout this EIS, and mitigation measures have been provided for adverse impacts. Probable adverse environmental effects that cannot be avoided are discussed below.

Land Use Character – Over the last several decades, land uses in the Wailuku-Kahului region have undergone a gradual change as the “gateway” to Maui. The *Wailuku-Kahului Community Plan* states:

In the years after World War II, Kahului began to take on its current role as the primary gateway to the island of Maui. The relocation of Maui's primary public airport from Pu'unene to the Naval Air Station at Kahului (Naska), the discontinuation of outlying shipping facilities (such as Kaanapali Landing) and the improvement of the roadway system, particularly Honoapiilani Highway, served to consolidate the island's transshipment and storage facilities in Kahului. The closing of regional pineapple canneries, such as Baldwin Packers in Lahaina and Libby McNeil in east Maui, centralized the island's pineapple processing at Maui Pineapple Company's Kahului cannery. Kahului also became an area of major population growth with A&B's development of “Dream City” in Kahului and the closing of many of the plantation camps in central and east Maui.

Wailuku-Kahului remains the island's shipping and industrial center. As the residential development of Kahului has run its course, new residential development has occurred, and likely will continue to occur in the lands around Wailuku. These expansion areas include Waiehu, the Wailuku-Waikapu corridor and at Maui Lani, which is located on lands between Kahului and Kuihelani Highway.

Creation of Wai'ale will change the visual appearance of the property from vacant land to a landscaped, master planned community. This change will be visible from Kuihelani Highway looking mauka across the property. However, Wai'ale will not obstruct views of Haleakalā, ʻĪao Valley, and the Mauna Kahalawai (West Maui Mountains), or Waikapū Stream. The large remnant of Pu'u One Sand Dunes will be preserved in place and will be visible from surrounding areas within and outside of the property.

Wai'ale will be in character with surrounding uses and will complement the pattern of development as envisioned in the *Draft Maui Island Plan*. Wai'ale will incorporate appropriate architecture, materials, colors, site design standards, and landscaping to create a community in context with the Wailuku-Kahului region. To ensure a consistent appearance for Wai'ale, design guidelines will be prepared and included in the Project District I application. The design guidelines will cover various aspects of Wai'ale's design with the overall goal of providing a framework so that a consistent character is achieved.

Traffic – Although the creation of Wai'ale will have an impact on traffic in the region, traffic on Kuihelani Highway and other roads is expected to increase even if Wai'ale is not built. Furthermore, Wai'ale will be part of the regional traffic solution by:

- Extending Kamehameha Avenue southward into the property;
- Providing turning lanes at unsignalized intersections along East Waiko Road fronting the property; and
- Providing intersection improvements at Kuikahi Drive/Wai'ale Road, Kuikahi Drive/Maui Lani Parkway, Maui Lani Parkway/Kamehameha Avenue, East Waiko Road/Kamehameha Avenue, East Waiko Road/ Wai'ale Community Road B, and East Waiko Road/Kuihelani Highway (See Section 4.3).

Wai'ale is also part of the new “smart growth” planning paradigm that provides an alternative to conventional suburban sprawl, with stores and services as an integral part of the community. This design will help to minimize car trips onto Kuihelani Highway, since many establishments providing for residents' day-to-day needs will be within walking and biking distance, and eventually County bus transit service. Therefore, unlike in a conventional subdivision, Wai'ale is designed to be a community with services and facilities to enable residents to meet many of their daily needs without using their cars; thus minimizing trips to outside areas and reducing congestion.

Solid Waste – As detailed in Section 4.8.5, there will be solid waste generated during and after construction of Wai'ale, but the applicant is committed to limiting the environmental impact of Wai'ale by reducing solid waste. A solid waste management plan (See Appendix

Q) will be coordinated with the County's Department of Environmental Management Solid Waste Division for the disposal of on-site and construction-related waste material, and the applicant will work with contractors to minimize the amount of solid waste generated during the construction. After construction, the applicant will implement strategies from the County of Maui Integrated Solid Waste Management Plan (2009) for diverting solid waste from landfills by providing options for recycling.

Electrical Power – When fully built-out, the peak forecasted electrical demand for the Wai'ale is estimated to be 18,010 kilovolt ampere (kVA). The applicant is committed to limiting the environmental impact of Wai'ale by reducing energy consumption. The design and construction of energy systems for residential units will seek to meet applicable Energy Star requirements established by the U.S. Environmental Protection Agency (EPA) in effect at the time of construction. Energy systems will include all hot water systems, roof and attic areas, outside walls, windows, air cooling systems, and heating systems.=

Air Quality – In the short term, construction of Wai'ale will unavoidably contribute to air pollutant concentrations due to fugitive dust releases at construction areas. However, mitigation measures, including frequent watering of exposed surfaces, will help to reduce and control such releases, and all construction activities will comply with the provisions of HAR, Chapter 11-60.1, Air Pollution Control, Section 11-60.1-33, "Fugitive Dust."

Over the long-term, the air quality modeling analysis prepared for Wai'ale (See Section 4.5 and Appendix L) concludes that: 1) establishment and implementation of air quality control measures would ensure compliance with State rules and regulations for construction emissions (according to TAHA, implementation of air quality control measures would reduce the construction air quality effects to less than adverse); and 2) Implementation of air quality control measures would reduce the operational air quality effects to less than adverse.

Noise – In the short term, construction of Wai'ale will generate temporary increases in ambient noise levels in the property on an intermittent basis. The highest noise levels are expected to occur during the grading/excavation and finishing phases of construction. Implementation of noise control measures would reduce the construction noise effects to less than adverse. Wai'ale will not result in adverse effects related to construction vibration, therefore, no noise control measures are required.

In the long-term, the noise study concludes that Wai'ale would not result in an adverse effect related to vehicular noise. Noise control measures are proposed for stationary noise impacts generated by ventilation and air conditioning systems. In addition, light industrial and commercial land uses may generate truck loading/unloading noise near residential land uses. Land uses within the property sensitive to vehicle and stationary noise sources include: residential, schools and park-type uses. The implementation of noise control measures would ensure compliance with State rules and regulations, ensure that new land uses would be compatible with ambient noise environments, and reduce the operational

noise effects to less than adverse. Wai'ale will not result in an adverse effect related to the operational vibration, therefore, no noise control measures are required.

7.4.1 Rationale for Proceeding with Wai'ale Notwithstanding Unavoidable Effects

In light of the above mentioned unavoidable effects, Wai'ale should proceed because the significant adverse impacts can be mitigated and are more than offset by substantial positive factors, including:

- Providing bus transit-ready, walkable, mixed-use neighborhoods, reducing vehicular trips (reducing traffic and air pollution).
- Providing additional housing to meet County-anticipated needs near the job center of Maui (Wailuku-Kahului).
- Planning for needed community facilities (affordable housing, parks and middle school) to meet the region's current and future needs.
- Including a multi-modal transportation system that accommodates walking, biking, jogging and bus transit.
- Including commercial uses (including locally-owned offices, stores, restaurants), a middle school, a community center and other civic and recreational facilities.
- Generating \$732,413,000 of direct capital investment in the Maui economy;
- Providing 7,500 "worker years"⁵ of direct on-site employment;
- Yielding \$352,203,000 in employee wages;
- Generating \$47,199,000 of estimated excise taxes;
- Providing 1,000 jobs after the build-out period;
- Yielding \$1,100,000 in annual net real property tax revenue benefit (taxes less costs) to the County of Maui after the build-out period; and
- Implements the concept of a new residential community in close proximity to Wailuku-Kahului, consistent with the *Draft Maui Island Plan*.

7.5 UNRESOLVED ISSUES

Water Supply – The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, need to be developed. The need for these improvements is discussed in the WUDP and also the *Maui Island Plan*.

⁵ A "worker year" is defined as the amount of time one full-time worker can work in one year although one worker year (2,080 working hours) may be comprised of many employees involved in specialized tasks of shorter duration.

The Maui Island Plan (MIP) is the guiding document for future growth on the island of Maui to the year 2030. Resident population estimates in the Draft MIP reflect 135,838 residents in year 2010, 157,390 residents in year 2020 and 176,687 residents in year 2030. The plan has designated the Wai'ale area for future residential growth, and is the largest component of future growth in the Central Maui region. The Draft MIP notes that the development of additional water sources is crucial for the Central Maui water system. The plan includes a long range implementation plan to address capital improvements, including water source development and related infrastructure.

Several potential drinking water source opportunities to serve Wai'ale are being considered. These include surface water treatment and new well sources in the Central Maui region. ~~The primary focus has been the development of a surface water treatment facility utilizing water from Maui's ditch system.~~

The proposed Wai'ale Water Treatment Facility (WTF) is a collaborative effort between A&B Properties, Inc. and DWS. The proposed WTF requires further discussion, review and approvals by various governmental agencies in order to proceed. An agreement with the County outlining the sharing of development costs for the proposed WTF, terms of use, the allocation of water and other matters will be required. This agreement will ultimately be subject to the review and approval of the Maui County Council. Also, the establishment of interim in-stream flow standards for the four streams which make up the Na Wai 'Eha, including Waihe'e Stream, will need to be resolved. It is acknowledged that these decisions could result in a smaller treatment facility with lower capacity than currently planned.

As noted previously, in Section 4.8.1, A&B Properties, Inc. is also pursuing other potential drinking water sources, including new water wells in Central Maui. The timing of completion of these potential source development alternatives will, in large part, determine the particular water source for Wai'ale the project. All source alternatives will require further discussion, review, and approval by applicable governmental agencies (County Department of Water Supply; State Department of Health, Safe Drinking Water Branch) as the project proceeds. Additionally, Maui County Ordinance No. 3502 requires in part that no subdivision shall be approved unless prior to submittal of subdivision construction plans the Director of the County's Department of Water Supply verifies a long-term reliable supply of water. The applicant expects to meet the requirements of this ordinance or subdivision approval will not be granted.

Wastewater Treatment – The applicant is considering two alternatives for treating the wastewater generated by Wai'ale. The first alternative involves constructing an on-site wastewater treatment plant (WWTP) for treatment of the wastewater generated by Wai'ale only. This alternative would require effluent reuse and/or disposal, options for which are also discussed in Section 4.8.2. The second alternative involves conveying the wastewater from the project to the Kahului WWRF, in the event that there is capacity available to treat

the flows, either with or without future expansion of the Kahului WWRF. The County will be consulted to discuss what improvements to the existing County collection system may be needed to accommodate the flows from the project.

As part of the engineering design process relating to wastewater treatment and disposal, the applicant and its engineering consultants expect to have ongoing consultations with the County Department of Environmental Management. At any time prior to filing any subdivision application, should it be confirmed that an on-site treatment plant will be required, the design of such a plant will be undertaken. Design of the plant will proceed in consultation with the State DOH, County Department of Public Works, County Department of Environmental Management, and County Department of Water Supply.

~~All wastewater treatment alternatives will require further discussion, review, and approval by applicable governmental agencies (as the project proceeds.~~

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8.0 CONSULTATION



8.0 CONSULTATION

8.1 INDIVIDUALS AND ORGANIZATIONS CONSULTED WITH PRIOR TO THE EIS PROCESS

This project has undergone an extensive community planning process, including consultation with community leaders, the County of Maui administration and Maui residents. Public input was sought through four community meetings in August 2005.

The first community meeting on August 11th provided an orientation of the project, the planning process, and the formulation of a vision statement for Wai'ale. In the planning workshop held on August 13th, residents had the opportunity to help develop the Wai'ale master plan. A community open house was held on August 20th to enable residents to provide additional input and refine the master plan. On August 25th, the preferred conceptual master plan was presented to the community. Additionally, the community contributed to the formulation of the vision statement for Wai'ale.

Various County and State governmental agencies have been consulted in the development of the Wai'ale master plan. The master plan has been prepared largely in concert with the tenets of the updated *General Plan*, including the *Draft Maui Island Plan* and Directed Growth Strategy.

8.2 INDIVIDUALS AND ORGANIZATIONS CONSULTED DURING THE EIS PROCESS

Various Federal, State, and County agencies, as well as organizations and members within the community, were consulted with or provided comments on the FEA/EISPN which aided in preparation of the Draft EIS (See Chapter 11.0). The Draft EIS will be distributed to the following agencies, organizations, and individuals. Comment letters received on the Draft EIS and responses will be included in the Final EIS.

State of Hawai'i

- Department of Accounting and General Services
- Department of Agriculture
- Department of Business, Economic Development & Tourism (DBEDT)
- DBEDT – Energy Division
- DBEDT – Office of Planning
- Department of Defense (DOD)
- DOD – State Civil Defense
- Department of Education
- Department of Hawaiian Home Lands
- Department of Health (DOH)
- DOH – Clean Air Branch
- DOH – Clean Water Branch

- DOH – Compliance Assistance Office
- DOH – Environmental Planning Office
- DOH – Hazard Evaluation and Emergency Response Office
- DOH – Indoor and Radiological Health Branch
- DOH – Maui District Health Office
- DOH – Safe Drinking Water Branch
- DOH – Sanitation Branch
- DOH – Solid and Hazardous Waste Branch
- DOH – Vector Control Branch
- DOH – Office of Environmental Quality Control
- Department of Human Services
- Department of Labor and Industrial Relations
- Department of Land & Natural Resources (DLNR)
- DLNR – State Historic Preservation Division (SHPD)
- SHPD – Maui Office
- Department of Transportation (DOT)
- DOT – Highway Planning Branch
- DOT – Maui Office
- DOT – Statewide Transportation Planning
- Hawaii Housing Finance and Development Corporation
- Land Use Commission
- Office of Hawaiian Affairs
- University of Hawai'i Environmental Center
- State Representative George Fontaine
- State Representative Gilbert Keith-Agaran
- State Representative Joseph Souki
- State Senator Shan Tsutsui

Federal

- U.S. Army Engineer Division
- U.S. Fish and Wildlife Service
- U.S. Department of Agriculture, Natural Resources Conservation Service

Maui County

- Civil Defense Agency
- County Council
- Department of Environmental Management
- Department of Fire and Public Safety
- Department of Housing and Human Concerns
- Department of Parks and Recreation
- Department of Planning
- Department of Public Works

- Department of Transportation
- Department of Water Supply
- Police Department
- Office of the Mayor
- Office of Economic Development

Private Organizations & Individuals

- Community Members
 - Clare Apana
 - Hōkūao Pellegrino
- Hawaiian Telcom
- Honolulu Star-Advertiser
- Maui Electric Company, Ltd.
- Maui/Lāna'i Islands Burial Council
- Maui Lani Development
- Maui News
- Maui Tomorrow Foundation, Inc.
- Oceanic Time Warner Cable of Hawaii
- Sierra Club Maui Group
- Waikapū Community Association

EIS Consulted Parties

Title 11, Chapter 200, HAR, §11-200-15, Consultation Prior to Filing a Draft EIS, states: "Upon publication of a preparation notice in the periodic bulletin, agencies, groups, or individuals shall have a period of thirty days from the initial issue date in which to request to become a consulted party and to make written comments regarding the environmental effects of the proposed action."

The following organizations and individuals requested to become a consulted party:

- Community Members
 - Clare Apana
 - Hōkūao Pellegrino
- Maui Tomorrow Foundation, Inc.
 - Irene Bowie
- Sierra Club Maui Group
 - Lucienne de Naie

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9.0 LIST OF PREPARERS



9.0 LIST OF PREPARERS

This EIS has been prepared by PBR HAWAII & Associates, Inc., 1001 Bishop Street, ASB Tower, Suite 650, Honolulu, Hawai'i 96813. The staff involved in the preparation of this document is listed below:

Table 9-1: List of Preparers

NAME	TITLE
Thomas Witten	President
Vincent Shigekuni	Vice President
Dacheng Dong	<u>Associate/Planner/GIS Analyst</u>
Michael Shibata	Project Manager/Planner
Randahl Matsuno	Planner/GIS Analyst
Robin Clark	Graphic Designer
<u>Dionne Talia</u>	<u>Executive Assistant/Office Manager</u>
Stevie-Lyn Kim	Administrative Assistant

Several key technical consultants were engaged to provide specific assessments of environmental factors for this project. These consultants and their specialty are listed below:

Table 9-2: List of Consultants

FIRM	AREA OF EXPERTISE
ACM Consultants, Inc.	Market Study
ACM Consultants, Inc.	Assessment of Economic & Fiscal Impacts
Archaeological Services Hawaii, LLC	Data Recovery Plan and Preservation Plan
Austin, Tsutsumi & Associates, Inc.	Preliminary Engineering and Drainage Report
Austin, Tsutsumi & Associates, Inc.	Traffic Impact Analysis Report
Bureau Veritas North America, Inc.	Phase I Environmental Site Assessment
Geolabs, Inc.	Geological Reconnaissance Survey
Hana Pono LLC	Cultural Impact Assessment
<u>PBR Hawaii & Associates, Inc.</u>	<u>Solid Waste Management Plan</u>
Robert W. Hobdy	Aquatic Resource Survey
Robert W. Hobdy	Flora and Fauna Survey
Scientific Consulting Services, Inc.	Archaeological Inventory Survey
Terry A. Hayes & Associates, LLC	Air Quality Study
Terry A. Hayes & Associates, LLC	Noise Study

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10.0 REFERENCES



10.0 REFERENCES

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11.0 FEA/EISPN COMMENTS AND RESPONSES



11.0 FEA/EISPN COMMENTS AND RESPONSES

The FEA/EISPN was sent to the following agencies, organizations, and individuals indicated below in the table with a (X). The FEA/EISPN was also available on the OEQC website. The public comment period on the FEA/EISPN was from October 8, 2010 to November 7, 2010. Where indicated (Comment Date), an agency, organization, or individual submitted comments.

Table 11-1: FEA/EISPN Comment Letters

AGENCY	FEA/EISPN SENT	COMMENT DATE
State		
Department of Agriculture	X	–
Department of Business, Economic Development and Tourism (DBEDT)	X	–
DBEDT – Strategic Industries Division	X	–
DBEDT – Office of Planning	X	11-16-2010
Department of Education	X	10-26-2010
Department of Health (DOH)	X	10-20-2010
DOH – Office of Environmental Quality Control	X	–
Department of Land & Natural Resources (DLNR)	X	11-08-2010
DLNR – State Historic Preservation Division	X	–
Department of Transportation	X	11-29-2010
Office of Hawaiian Affairs	X	10-27-2010
University of Hawai'i Environmental Center	X	–
Senator Gilbert Keith-Agaran	X	–
Senator Joe Bertram III	X	–
Senator Joseph Souki	X	–
Senator Shan Tsutsui	X	–
Federal		
U.S. Army Corps of Engineers	X	10-07-2010
U.S. Fish & Wildlife Service	X	–
County of Maui		
Department of Environmental Management	X	11-10-2010
Department of Fire & Public Safety	X	–
Department of Housing & Human Concerns	X	11-03-2010
Department of Parks & Recreation	X	10-15-2010
Department of Planning	X	–
Department of Public Works	X	11-10-2010
Department of Transportation	X	10-06-2010
Department of Water Supply	X	10-27-2010
Police Department	X	10-25-2010

AGENCY	FEA/EISPN SENT	COMMENT DATE
Office of the Mayor	X	–
Office of Economic Development	X	–
County Council Chair G. Danny Mateo	X	–
County Council Vice Chair Michael Molina	X	–
County Councilmember Gladys Coelho Baisa	X	–
County Councilmember Jo Anne Johnson	X	–
County Councilmember Sol Kaho'ohalahala	X	–
County Councilmember Bill Kauakea Medeiros	X	–
County Councilmember Wayne Nishiki	X	–
County Councilmember Joseph Pontanilla	X	–
County Councilmember Michael Victorino	X	–
Libraries, Private Companies, Organizations, and Individuals		
Kahului Public Library	X	–
Wailuku Public Library	X	–
Hawaiian Telcom	X	–
Maui Electric Company, Ltd.	X	10-06-2010
Maui/Lāna'i Islands Burial Council (Chair Keeaumoku Kapu)	X	–
Maui Lani Development (Leiane Paci)	X	–
Maui News	X	–
Maui Tomorrow Foundation, Inc. (Irene Bowie)	X	11-07-2010
Oceanic Time Warner Cable of Hawaii	X	–
Waikapū Community Association (Glenn Adolpho)	X	–
Hōkūao Pellegrino	–	11-06-2010
Sierra Club Maui Group (Lucienne de Naie)	–	11-07-2010 (Received)



DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM

LINDA LINGLE
DIRECTOR
THEODORE E. LIU
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Telephone: (808) 587-2846
FAX: (808) 587-2824

RECEIVED

Ref. No. P-13172

November 16, 2010

NOV 19 2010

A&B PROPERTIES-MAUI

Mr. Grant Chun
A&B Properties, Inc.
P.O. Box 156
Kahului, Hawaii 96732

Dear Mr. Chun,

Subject: LUC Docket No. A10-789, A&B Properties, Inc.
Waialeale Project
Environmental Impact Statement Preparation Notice
TKMS(s) (2) 3-8-005: 023 (por.) and 037, 3-8-007: 071, 101 (por.), and 104
Waialeale, Maui

Thank you for sending the Office of Planning (OP) an Environmental Impact Statement Preparation Notice (EISP/N) for the above referenced proposal, for which a petition to reclassify approximately 545.23 acres of land from the State Agricultural District to the State Urban District, has been filed with the State Land Use Commission (LUC). Waialeale is intended to be a master-planned residential community with approximately 2,530 residential units, village mixed use centers, commercial, business, and light industrial uses, associated infrastructure, parks and greenways, community support facilities, and cultural preserves.

OP will be coordinating the State's position before the LUC on areas of cross-cutting State concern. It is very important that the Draft Environmental Impact Statement (DEIS) fully identify and discuss potential impacts, including cumulative and secondary impacts of the proposed project, as well as recommendations for the mitigation of adverse impacts on the following areas of State concern.

1. **Groundwater and Surface Water Resources.** Water resource protection and water quality are critical State issues. The DEIS should discuss the water requirements of the proposed project and identify the proposed sources for potable and non-potable water to be used for the project, and what measures are proposed to reduce water demand and promote water reuse in the project. This discussion should identify whether the proposed water source is within a designated Water Management Area, the impact of the project on the sustainable yield of affected aquifers, and the impact of the project on projected water use and system improvements contained in the County's water use and development plan. The DEIS should also discuss the cumulative impacts of planned development in this region on the proposed potable and non-potable water sources.

The DEIS should include specific management measures that will be taken to ensure that Waikapu Stream is not adversely impacted by project development, project residents and users, and stormwater runoff from the project. Given the permeability of the site's sandy

Mr. Grant Chun
November 16, 2010
Page 2

soils, the DEIS should also describe any groundwater or aquifer(s) underlying the project area, potential impacts of the project on groundwater or aquifer(s), and recommended mitigation measures, if any

2. **Cultural, Archaeological, and Historic Resources.** The DEIS should include a complete inventory of archaeological and historic sites on the subject property, and discuss the status of any monitoring and preservation plans being prepared for or approved by the State Historic Preservation Division. The DEIS should identify and describe any cultural resources and cultural practices, including visual landmarks, if applicable, on the subject property and within the ahupua'a in which the property is situated. The DEIS should discuss the impact of the proposed project on identified cultural resources and practices, alternatives considered, and proposed mitigation measures

The inventory and DEIS should provide a complete description of resources at the project site and the extent of burials in the area, and discuss proposed mitigation measures in response to concerns raised by Clare Apana in her written testimony submitted to the LUC for its September 23, 2010 hearing. In particular, the DEIS should provide up-to-date information from monitoring reports prepared for sand mining operations permitted under a State Special Permit. A copy of Ms. Apana's testimony is attached.

3. **Agricultural Lands.** The DEIS should discuss the agricultural resource value of the land in the context of adjacent agricultural land of similar soil quality that was designated as Important Agricultural Lands by LUC in 2009. The DEIS should discuss how the urbanization of this agricultural land will impact the long-term protection of agricultural land in the region, and existing and future agricultural use of these lands. The DEIS should also discuss how the loss of the project's agricultural lands would be mitigated.

4. **Affordable Housing.** Increasing the supply of affordable housing is a critical State and County issue. The DEIS should specifically discuss how the Petitioner plans to meet the County affordable housing requirements, to include a description of how the project's proposed residential product types will be allocated among the market and various affordable housing target populations, and the expected price ranges for the different product types

5. **Impact on State Facilities and Resources.** The DEIS should include a discussion of anticipated short- and long-term project impacts on State-funded facilities, including schools, highways, harbors, and airports, and document discussions held with State agencies to discuss concerns related to their respective State facilities and resources. The DEIS should cite the measures proposed to mitigate the project's impacts on State facilities and resources.

6. **Coastal Zone Management (CZM).** The State oversees protection of natural, cultural, and economic resources within the coastal zone, which is defined as all lands of the State and the area extending seaward from the shoreline to the limit of the State's police power

and management authority, including the United States territorial sea (§205A-1, Hawaii Revised Statutes). The DEIS should note this definition of the coastal zone.

The DEIS should discuss the impact of the project on existing site and offsite hydrology, and how the project will manage stormwater and runoff, including how site runoff will be managed to avoid contributing to potential flooding along Waikapū Stream. OP recommends the use of green infrastructure in site design and development, specifically the use of low impact development design (LID) and other best management practices (BMPs) that promote onsite infiltration and minimize runoff from storm events. More information on LID and stormwater BMPs can be found at <http://hawaii.gov/dhcd/czm/initiative/lid.php>.

7. **Wastewater Treatment and Disposal.** The DEIS needs to identify the anticipated volume of wastewater to be generated by project users by type of user, as well as the proposed means of wastewater treatment and disposal. The DEIS should discuss the existing capacity and already allocated capacity of the County wastewater facility proposed to service the project, and identify whether any capacity or facility improvements would be required to accommodate additional wastewater generated within the service area, including the project. Should a private wastewater treatment plant be identified as the preferred option, the DEIS should discuss the type of plant to be provided, as well as plans and any permitting requirements for the reuse and/or disposal of treated effluent and waste solids.

8. **Energy Use and Impacts.** The DEIS should quantify the projected energy requirements of the project by type of user, and discuss measures to be taken to reduce energy demand, promote energy efficiency, and to promote use of alternative, renewable energy sources that would advance State efforts to increase energy efficiency and alternative energy use under the Hawaii Clean Energy Initiative. OP recommends the project's projected energy and resource use be evaluated with respect to the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) rating systems for new construction and neighborhood development. The DEIS should also identify any generating or transmission capacity constraints that may arise as a result of the proposed project and other projects planned for the region. The DEIS should also discuss the degree to which the project promotes transportation energy savings and reduces vehicular trips for project residents and users within the project and the region.

9. **Environmental Health Hazards.** The DEIS should discuss the potential for project users to generate hazardous materials or release possible contaminants to the air, soil, or water, as well as measures to be taken to protect environmental and public health and safety from potential releases. The DEIS should discuss how adjacent users will be protected from potential environmental health hazards from industrial users on other industrial lands within or adjacent to the project site.

The DEIS should identify and discuss any potential health and environmental threats that may be present due to contamination from past or current use of the site, including findings from Phase I or Phase II environmental site assessments conducted at the site.

OP recommends that an ASTM 1527-05 Phase I Environmental Site Assessment or equivalent be conducted for the Master Plan area, if one has not already been conducted. Should there be contaminants of concern identified at the project site, OP recommends that the applicant consult with the State Department of Health's (DOH) Hazard Evaluation and Emergency Response Office as to measures to be taken to address possible or actual contamination at the site.

10. **Solid Waste Management.** The DEIS should quantify the volume of solid waste likely to be generated by the project by types of users, and describe the impact the project will have on the County's existing and planned capacity for managing solid waste as represented in the County's solid waste management plan. The DEIS should discuss specific mitigation measures to be taken to reduce solid waste generation and ensure that recycling and reuse are incorporated within the project area by residential and commercial users.

11. **Biota.** The DEIS should include an inventory of flora and fauna, including invertebrates, found on or in proximity to the project. Flora and fauna of concern should not be limited to listed threatened or endangered species or those under consideration for listing. The applicant should also consult with the Database Manager at the Hawaii Biodiversity and Mapping Program, Center for Conservation Research and Training, University of Hawaii, (808) 956-8094, as to the potential for the presence of rare species in the project area. The DEIS should discuss measures to be taken to protect rare, threatened or endangered species, or ecosystems of concern. Consideration should be given to field observations in both wet and dry seasons to capture the fullest range of flora and fauna.

12. **Conformance with County Pao Designations and Urban Growth Boundaries.** Act 26, Session Laws of Hawaii 2008, reaffirmed LUC's duty to consider any proposed reclassification with respect to the Counties' adopted general, community, or development plans. Thus, the DEIS should discuss the proposed project's consistency with the County land use plans.

13. **Development Timetable.** LUC generally requires that projects seeking reclassification be substantially completed within ten years or seek incremental approvals. The DEIS should reference LUC rules (Section 15-15-50, Hawaii Administrative Rules), and provide a schedule for the entitlement and construction of the project, articulating each phase, and illustrate on the conceptual master plan the location and timing of the construction phases of project development. The development timetable/schedule will be critical for the review of the petition for the proposed district boundary amendment.

14. **Sustainability Analysis.** The adoption of sustainable building and development practices has long-term environmental, social, and economic benefits to Hawaii's residents and communities. The EIS process is extremely valuable as a means to identify and discuss the specific sustainable design and development practices, including green building practices, which will be incorporated in the proposed project. The Office of Environmental Quality Control's *Guidelines for Sustainable Building Design in Hawaii*,

and the USGBC's LEED programs for new construction and its program for neighborhood development (LEED-ND) offer guidelines and checklists for this purpose. The LEED-ND rating system, in particular, is especially useful in profiling how a project protects and enhances the overall health, natural environment, and quality of life of communities. The rating system provides a range of development features and strategies that promote efficient water, energy, and resource use, including waste reduction, as well as location and design elements to reduce transportation impacts.


OP recommends that the DEIS includes an analysis of the project with respect to the LEED-ND system, and provides a discussion of the LEED elements that will or could be incorporated into the project. This information would greatly aid agencies, decision-makers, and the public in reviewing the project application.

i5 Miscellaneous Comments.

- a. **Page 27, Solid Waste.** includes a statement that the project may ultimately yield anywhere from 1,705 to 3,015 units, but elsewhere reference is made to the project providing approximately 2,550 units, including the affordable housing on land being dedicated to the County. Please clarify the apparent discrepancy. The DEIS and its supporting studies should use the same unit count in projecting anticipated project demand and impacts.
- b. **Conceptual Master Plan.** OP fully supports smart growth principles and urban design that promote smart growth and the creation of walkable mixed use centers and communities, like the identification of landmark building sites. Creation of such communities, however, requires a robust and enduring community development program. It would be helpful to identify specific actions and strategies that will be taken in project development and implementation to ensure that the vision and design goals of Waialeale are achieved. The DEIS should also discuss any specific measures to be taken to ensure a safe mix of industrial and other vehicular traffic on roads that will be shared by industrial and residential users.
- c. Please send a copy of the DEIS with a request for comments to: (a) State Department of Defense, State Civil Defense; (b) U.S. Department of Agriculture, Natural Resources Conservation Service, Pacific Islands Area's Honolulu Office; and (c) the individual DOH Environmental Health Administration branches.

As a technical matter, OP recommends that pertinent information contained, cited, or mapped in the technical studies and appendices be included in the body or first volume of the DEIS. This eases the review of the DEIS/FEIS and reduces the need for the reviewer to search for information cited in the appendices, which may be in a separate document or disc.

OP looks forward to receiving the DEIS with the potential impacts and mitigation measures for the above issues addressed. If you have any questions, please call Ruby Edwards of the Land Use Division at (808) 587-2817.

Sincerely,

Abbey Seth Mayer
Director

Attachment

- c. Mr. Michael Shibata, PBR Hawaii
Mr. Orlando Davidson, LUC



May 19, 2011

PRINCIPALS
THOMAS WITTEN, ASIA
Principal

R. STAN VAN CAN, ASIA
Executive Vice President

RESHELL LUCHING FASHA, LEED® AP
Executive Vice President

VINCENT SHIGIKUNI
Vice President

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Senior Associate

RAYMOND T. HIGA, ASIA
Senior Associate

KEYVINK NISHIKAWA, ASIA
Associate

KIMI MIKAMI YUEN, LEED® AP
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SCOTT AIKUA ARRIGO, LEED® AP
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SCOTT MURAKAMI, ASIA, LEED® AP
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DACHUNG DONG, LEED® AP
Associate

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1001 Kamehaha Boulevard
Kapolei Building, Suite 313
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Fax: (808) 335-3103

Mr. Jesse Souki
SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE
May 19, 2011
Page 2.

Agricultural Lands

The Draft EIS will include discussion on the agricultural impacts of the Wai'ale project. The designation of Important Agricultural Lands in 2009 will also be discussed.

Affordable Housing

The Draft EIS will include discussion on how A&B Properties, Inc. plans to meet the County affordable housing requirements.

Impact on State Facilities and Resources

The Draft EIS will include a discussion of potential impacts on State-funded facilities such as schools and highways. The Draft EIS will also include a discussion of the measures proposed to mitigate the project's impacts on State facilities and resources.

Coastal Zone Management

The Draft EIS will include the State Office of Planning's definition of the Coastal Zone per the Coastal Zone Management Act, Chapter 205A, *Hawai'i Revised Statutes*.

The Draft EIS will discuss the potential impact of the project on existing site and offsite hydrology, and how the project will manage stormwater and runoff, including how site runoff will be managed to avoid contributing to potential flooding along Waikapū Stream.

Wastewater Treatment/Disposal

The Draft EIS will identify the anticipated volume of wastewater to be generated by project users by type of user, as well as the proposed means of wastewater treatment and disposal. The Draft EIS will discuss the existing capacity and already allocated capacity of the County wastewater facility proposed to service the project, and identify whether any capacity or facility improvements would be required to accommodate additional wastewater generated within the service area, including the project.

The alternative of a private wastewater treatment plant will be discussed in the Draft EIS.

Energy Use and Impacts

The Draft EIS will include a discussion on energy use and impacts, including measures to reduce energy demand and promote energy efficiency; whether there are any generating or transmission capacity constraints that may arise as a result of the proposed project and other projects planned for the region; and how the project's design and proximity to the employment center of Maui will reduce vehicular trips from work commuting (and consequently transportation energy savings).

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Mr. Souki:

We are in receipt of your Office's letter dated November 16, 2010 to Mr. Grant Chun of A&B Properties, Inc. regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISP/N). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to your comments:

Draft Environmental Impact Statement (EIS)

As recommended, the Draft EIS will be prepared to identify and discuss potential impacts, including potential cumulative and secondary impacts of the proposed project, as well as recommendations for the mitigation of adverse impacts of the State's concern.

Groundwater and Surface Water Resources

The Draft EIS will include a discussion on the anticipated water requirements for the Wai'ale project, potential water sources to meet the project's needs and proposed measures to reduce water demand and promote water reuse. Potential impacts to groundwater aquifers will also be discussed. The Draft EIS will include management measures to mitigate stormwater runoff and potential impacts to Waikapū Stream.

Cultural Archaeological and Historic Resources

An archaeological inventory survey and cultural impact assessment have been conducted and will be included in the Draft EIS.

Thank you for enclosing Ms. Clare Apana's written testimony to the State of Hawai'i (State) Land Use Commission (LUC) to your letter. We are aware of Ms. Apana's concerns, and the Draft EIS will provide a complete description of resources at the Wai'ale site and the extent of burials in the area. The Draft EIS will also include proposed mitigation measures to address concerns raised by Ms. Apana.

Mr. Jesse Souki

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

May 19, 2011

Page 3

Environmental Health Hazards

The Draft EIS will include discussion of the potential generation of hazardous materials or possible contaminants as a result of the Wai'ale project, as well mitigation measures to protect environmental and public health and safety from potential releases. The Draft EIS will also discuss how adjacent users will be protected from potential environmental health hazards from industrial uses on other industrial lands within or adjacent to the Wai'ale site.

The Draft EIS will include and summarize a Phase I Environmental Site Assessment conducted at the Wai'ale site, including a discussion of any potential health and environmental concerns due to contamination from past or current uses of the site.

Solid Waste Management

The Draft EIS will describe the potential impact the project will have on the County's solid waste disposal facilities. The Draft EIS will also discuss specific mitigation measures to be taken to reduce solid waste generation and ensure that recycling and reuse are incorporated within the project area by residential and commercial users.

Biota

The Draft EIS will include an inventory of flora and fauna, including invertebrates, found on or in proximity to the project. Field observations have been conducted in both wet and dry seasons to capture the fullest range of flora and fauna.

Conformance with County Plan Designations and Urban Growth Boundaries

The Draft EIS will include a discussion on Wai'ale's consistency with County land use plans.

Development Timetable

The Draft EIS will include an estimated schedule for the entitlement and development of the project.

Sustainability Analysis

The Draft EIS will include a discussion on the Leadership in Energy and Environmental Design (LEED) system.

Miscellaneous Comments

- a. We apologize for the apparent discrepancy; the Wai'ale project will provide approximately 2,550 units, including approximately 300 County affordable housing units on land to be dedicated to the County. The Draft EIS and its supporting technical studies will use the 2,550 unit count in projecting anticipated project demand and potential impacts, however, the market assessment and economic and

Mr. Jesse Souki

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

May 19, 2011

Page 4

fiscal impact assessment will use a 2,250 unit count (doesn't include the County's 300 units).

- b. The Draft EIS will include strategies that may be taken in project development and implementation to ensure that the vision and design goals of Wai'ale are achieved.
- c. The Draft EIS will be sent to: a) State Department of Defense, State Civil Defense; b) U.S. Department of Agriculture, Natural Resources Conservation Service, Pacific Islands Area's Honolulu Office; and c) the individual DOH Environmental Health Administration branches.

The Draft EIS will include pertinent information contained, cited, or mapped in the technical studies and appendices in the body of the Draft EIS document.

Thank you for reviewing the EISPN. Your comments will be included in the Draft EIS.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII



Michael Shibata
Project Manager/Planner



STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

October 26, 2010

Mr. Michael Shibata, Project Manager
PBR Hawaii
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Shibata:

Subject: Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Wai'ale Project, TMKs (2) 3-8-005:023 (por.) and 037, and (2) 3-8-007:071, 101 (por.), and 104, Waialae, Maui, Hawaii

The Department of Education (DOE) has reviewed the EISPN for the proposed Wai'ale project.

The DOE is proposing a school impact fee district in Central Maui. This project is in the boundaries of the proposed impact district. If the Board of Education adopts the impact district, this project will be subject to school impact fees.

The current estimated fees for this project, based on 2,550 units, split between 60 percent single-family units and 40 percent multi-family units, are 18.44 acres of land and \$4,225,277 in construction fees. Impact fee figures are subject to change.

The DOE notes that the Conceptual Community Master Plan for Wai'ale, Figure 3 of the EISPN, shows an 18-acre middle school site. However, it also shows the middle school site split between a 12-acre campus and six acres of fields. The configuration and design of any school site, including the amount of space to be used as playfields, will be decided by the DOE.

Thank you for the opportunity to comment. If you have any questions, please call Jeremy Kwock of the Facilities Development Branch at 377-8301.

Very truly yours,

Kathryn S. Matayoshi
Superintendent

KSM:jmb

- c: Randolph Moore, Assistant Superintendent, OSFSS
 - Bruce Anderson, CAS, Baldwin/Kekaulike/Maui Complex Areas Grant Chun, Vice President, A&B Properties, Inc.
 - Dan Davidson, Executive Officer, State of Hawaii's Land Use Commission
- AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER



PBR HAWAII
& ASSOCIATES, INC.

May 19, 2011

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Executive Vice President

RESSEL Y. CHONG FASHA, LEED AP
Executive Vice President

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Vice President

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Senior Associate

KYINK K. NISHIKAWA, ASLA
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KIMI MIKAMI YUKI, LEED AP
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SCOTT M. RAMAM, ASLA, LEED AP
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1001 Kamehale Boulevard
Kapolei Building, Suite 313
Kapolei, Hawaii 96707-2005
Tel: (808) 521-5631
Fax: (808) 335-3163

Ms. Kathryn S. Matayoshi, Superintendent
State of Hawaii's
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96804

Attn: Jeremy Kwock

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Ms. Matayoshi:

We are in receipt of your letter dated October 26, 2010 regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISPN). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to your comments:

We understand that the State of Hawaii's Department of Education (DOE) has successfully established a school impact fee district in Central Maui; and that Wai'ale would be subject to such school impact fees. The applicant has been in coordination with the DOE regarding the location of the proposed middle school site. We acknowledge that the configuration and design of any school site will be decided by your department.

Thank you for reviewing the EISPN. Your comments will be included in the Draft Environmental Impact Statement.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII

Michael Shibata
Project Manager/Planner

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STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801-3378

For copy please visit us at
EHD / CWB

10042PDCL.10

October 20, 2010

Mr. Michael Shibata
PBR HAWAII
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Shibata:

SUBJECT: Comments on Environmental Impact Statement Preparation Notice (EISP/N) for Wai'ale Waiuku, Island of Maui, Hawaii
TMKS: (2) 3-8-005:023 (por.) & 037 and (2) 3-8-007:071, 101 (por.), & 104

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your letter, dated October 1, 2010, requesting comments on the subject project. We have reviewed your letter and offer these comments on your project. Please note that our review is based solely on the information provided in your letter and its compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at <http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf>.

1. Any project and its potential impacts to State waters must meet the following criteria:

- a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
- b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
- c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

Mr. Michael Shibata
October 20, 2010
Page 2

10042PDCL.10

2. You may be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

- a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the start of the construction activities.
- b. Storm water associated with industrial activities.
- c. Hydroneusting effluent.

You must submit a separate NOI form for each type of discharge at least 30 calendar days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 calendar days before the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html>.

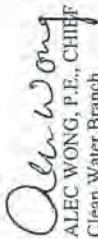
3. For types of wastewater not listed in Item 2 above or wastewater discharging into Class 1 or Class AA waters, you may need an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html>.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

Mr. Michael Shibata
October 20, 2010
Page 3

If you have any questions, please visit our website at
<http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>, or contact the
Engineering Section, CWB, at (808) 586-4309.

Sincerely,


ALEC WONG, P.E., CHIEF
Clean Water Branch

DCL.rml

c: DOH-EPO # I-3366 [via email only]
Mr. Grant Chiu, A&B Properties, Inc. [via fax (808) 871-7497 only]
Mr. Dan Davidson, State Land Use Commission (via fax 587-3827 only)

10042PDCL.10



May 19, 2011

PRINCIPALS
THOMAS WITTEN, ASIA
President

R. STAN BUNCAN, ASIA
Executive Vice President

RESHELL CHONG FASHA, LEED® AP
Executive Vice President

VINCENT SHIGEKUNI
Vice President

GRANT LAURAKAMI, ACP, LEED® AP
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Fax: (808) 385-3163

Mr. Alec Wong, P.E., Chief
Clean Water Branch
State of Hawai'i
Department of Health
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Mr. Wong:

Thank you for your letter dated October 20, 2010 (your reference number: EMD/CWB 10042PDCL.10) regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISP/N). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to your comments:

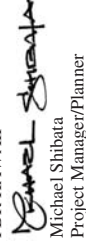
1. We acknowledge that Wai'ale and its potential impacts to State Waters must meet the following criteria:
 - a. Antidegradation policy (Section 11-54-1.1, Hawai'i Administrative Rules [HAR])
 - b. Designated uses (Section 11-54-3, HAR), as determined by the classification of the receiving State waters.
 - c. Water quality criteria (Sections 11-54-4 through 11-54-8, HAR)
2. We acknowledge that a National Pollutant Discharge Elimination System (NPDES) permit is required.
3. We acknowledge that an NPDES individual permit is required. At the appropriate time during the NPDES permit preparation process, the Clean Water Branch will be contacted and an NPDES individual permit application will be submitted at least 180 calendar days before the commencement of discharge.
4. We acknowledge that all discharges related to the project construction or operation activities must comply with the State's Water Quality Standards (Chapter 11-54, HAR) and permitting requirements (Chapter 11-55, HAR).

Thank you for reviewing the EISP/N. Your comments will be included in the Draft Environmental Impact Statement.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII


Michael Shibata
Project Manager/Planner

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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 5, 2010

MEMORANDUM

TO: DLNR Agencies:
 Div. of Aquatic Resources
 Div. of Boating & Ocean Recreation
 Div. of Engineering Division
 Div. of Forestry & Wildlife
 Div. of State Parks
 Commission on Water Resource Management
 Office of Conservation & Coastal Lands
 Land Division -

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Environmental Impact Statement Preparation Notice for Waialeale
LOCATION: Island of Maui
APPLICANT: PBR Hawaii on behalf of A&B Properties, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 5, 2010

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

() We have no objections.
(X) We have no comments.
() Comments are attached.

Signed: [Signature]
Date: _____

RECEIVED
LAND DIVISION
2010 OCT 13 P 3:06
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 8, 2010

A&B PROPERTIES-MAUI

A&B Properties, Inc.
Box 156
Kahului, Hawaii 96732

Attention: Mr. Grant Chun

Ladies and Gentlemen:

Subject: Environmental Impact Statement Preparation Notice for the Waialeale Project

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Division of Forestry & Wildlife, Commission on Water Resource Management, Division of Aquatic Resources, Division of State Parks, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Historic Preservation will be submitting comments through a separate letter. Should you have any questions, please feel free to call our office at 587-0414. Thank you.

Sincerely,
[Signature]
Russell Y. Tsuji
Administrator

Cc: PBR Hawaii
State Land use Commission



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 8, 2010

A&B PROPERTIES-MAUI

A&B Properties, Inc.
Box 156
Kahului, Hawaii 96732

Attention: Mr. Grant Chun

Ladies and Gentlemen:

Subject: Environmental Impact Statement Preparation Notice for the Waialeale Project

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Division of Forestry & Wildlife, Commission on Water Resource Management, Division of Aquatic Resources, Division of State Parks, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Historic Preservation will be submitting comments through a separate letter. Should you have any questions, please feel free to call our office at 587-0414. Thank you.

Sincerely,
[Signature]
Russell Y. Tsuji
Administrator

Cc: PBR Hawaii
State Land use Commission

RECEIVED
NOV 17 2010

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 5, 2010

MEMORANDUM

TO: DLNR Agencies:
 Div. of Aquatic Resources
 Div. of Boating & Ocean Recreation
 Engineering Division
 Div. of Forestry & Wildlife
 Div. of State Parks
 Commission on Water Resource Management
Office of Conservation & Coastal Lands
Land Division -

FROM: Charlotte Unoki, Assistant Administrator
SUBJECT: Environmental Impact Statement Preparation Notice for Waialea
LOCATION: Island of Maui
APPLICANT: PBR Hawaii on behalf of A&B Properties, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 5, 2010

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

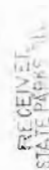
Attachments

- () We have no objections.
- () We have no comments.
- () Comments are attached.

Signed:
Date: 10/12/10

54343

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 5, 2010

MEMORANDUM

TO: DLNR Agencies:
 Div. of Aquatic Resources
 Div. of Boating & Ocean Recreation
 Engineering Division
 Div. of Forestry & Wildlife
 Div. of State Parks
 Commission on Water Resource Management
Office of Conservation & Coastal Lands
Land Division -

FROM: Charlotte Unoki, Assistant Administrator
SUBJECT: Environmental Impact Statement Preparation Notice for Waialea
LOCATION: Island of Maui
APPLICANT: PBR Hawaii on behalf of A&B Properties, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 5, 2010

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- () We have no objections.
- () We have no comments.
- () Comments are attached.

Signed:
Date: 10/12/10

LINDA LINGLE
GOVERNOR OF HAWAII



RECEIVED
LAND DIVISION

2010 OCT 20 P 2:55

DEPARTMENT OF LAND AND NATURAL RESOURCES
DEPT. COMMISSION ON WATER RESOURCE MANAGEMENT
NATURAL RESOURCES
STATE OF HAWAII
HONOLULU, HAWAII 96809

October 12, 2010

TO: Russell Y. Tsuji, Administrator
Land Division

FROM: Lenore N. Ohye, Acting Deputy Director
Commission on Water Resource Management

SUBJECT: Waialea Community Expansion (Maui) Change in SLUDBA, Zoning, Community Plan,
Project District - EIS Preparation Notice

FILE NO: N/A
TRK NO.: (2) 3-B-005 and 007 various

Thank you for this opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State. Therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the internet at <http://www.hawaii.gov/dnr/cwrmt>

Our comments related to water resources are checked off below

1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.

4. We recommend that water efficient features be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at <http://www.usgbc.org/leed>. A listing of features certified by the EPA as having high water efficiency can be found at <http://www.epa.gov/watersense/pdf/index.html>.

Russell Y. Tsuji, Administrator
Page 2

October 12, 2010

- 5 We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of this project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at <http://hawaii.gov/development/infiltration/bmp>
- 6. We recommend the use of alternative water sources, wherever practicable
- 7. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM:

- 8 The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water
- 9 A Well Construction Permit(s) is (are) required any well construction work begins.
- 10 A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
- 11. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained
- 12 Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- 13. A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.
- 14. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered
- 15. A Permit to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water
- 16 The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or positions are required from our office, or whether there are potential impacts to water resources

OTHER:

The document generally acknowledges the need to identify water sources and notes that this area is served by the Maui Department of Water Supply. The ground and surface water sources for this municipal system are nearly fully developed, meaning that alternative sources may be required. Some wells expected to provide services may be dependent upon return irrigation flow and seepage from Waialeale Reservoirs, meaning that these may not be reliable potable sources in the future. Treatment of surface water is subject to water availability, and with stream restoration ordered for these streams, such water availability is not guaranteed. The completed EIS will identify the scope of water demand for this project, and we recommend a full exploration of potable and non-potable portions of that demand, using the best available information to deploy alternative sources and conservation practices.

If there are any questions, please contact Charley Lee at 587-0218.

DRF-IA 06/19/2008

LD



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LAND DIVISION

2010 OCT 20 P 2:55

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 611
HONOLULU, HAWAII 96809

October 5, 2010

MEMORANDUM

TO:

DEPT. Agencies:

- Div. of Aquatic Resources
- Div. of Planning & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division -



FROM: Catherine Ueki, Assistant Administrator
SUBJECT: Environmental Impact Statement Preparation Notice for Waialeale
LOCATION: Island of Maui
APPLICANT: PER Hawaii on behalf of A&B Properties, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 5, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: *R. Ueki*
Date: 10/5/10


RECEIVED

OCT 12 2010

Office of Aquatic Resources

DAK-3/16/2

DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES
130 Mahalani Street
Wailuku, Hawaii 96793
October 15, 2010

To: Alton Miyasaka, Aquatic Biologist
From:  Skippy Hau, Aquatic Biologist
Subject: Environmental Impact Statement Preparation Notice for
Wai'ale (DAR3402)
(Due November 5, 2010 Charlene Unoki, Land)

(Figure 3.) Waikapu Stream is located in the future expansion area. How will the intermittent stream be addressed? Stream animals such as prawns (*Macrobrachium lar*) and 'o'opu nakea (*Awaous guamensis*) have been found upstream where water flows continuously.

(P.25) The natural drainage characteristics of the stream will not be altered.

It appears that the stream will be a part of a greenway.

Instream flow and continued "Na Wai Eha" diversions may be decided by the Water Commission in the future.



May 19, 2011

PRINCIPALS
THOMAS WITTEN, ASLA
President

R. STAN BUNCAN, ASLA
Executive Vice President

RESSEL Y. CHUNG FASHA, LEED AP
Executive Vice President

VINCENT SHIGEKUNI
Vice President

GRANT T. BURAKAMI, ACP, LEED AP
Principal

W. FRANK BRANDI LASHA
Chairman Emeritus

ASSOCIATES
TOM SCHMIDT, ACP
Senior Associate

RAYMOND T. HIGA, ASLA
Senior Associate

KEVIN K. NISHIKAWA, ASLA
Associate

KIMI MIKAMI YUKI, LEED AP
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SCOTT AIKAA BRIGOLI, LEED AP
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SCOTT BURAKAMI, ASLA, LEED AP
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1001 Kamehaha Boulevard
Kapolei Building, Suite 313
Kapolei, Hawaii 96797-2005
Tel: (808) 521-3631
Fax: (808) 385-3163

Mr. Russell Y. Tsuji, Administrator
State of Hawaii's
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawaii 96809

**SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT
PREPARATION NOTICE**

Dear Mr. Tsuji:

We are in receipt of the Land Division's letter dated November 8, 2010 to Mr. Grant Chun of A&B Properties, Inc. regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISPN). We understand that the EISPN was distributed to the following divisions:

1. Division of Aquatic Resources (comments provided);
2. Engineering Division (no comments provided);
3. Division of Forestry & Wildlife (comments provided);
4. Division of State Parks (comments provided);
3. Commission on Water Resource Management (comments provided);

As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to comments provided by the respective divisions of the Department of Land and Natural Resources.

Division of Aquatic Resources

Waikapu Stream is not located within the Wai'ale project. As mentioned in the EISPN, the natural drainage characteristics of the stream will not be altered. The area labeled as future expansion area on the master plan (as shown in the EISPN) is not part of the current Wai'ale project. The Wai'ale master plan that will be shown in the Draft EIS will be revised to remove reference to the future expansion area.

Division of Forestry & Wildlife

We acknowledge that the Division of Forestry & Wildlife has no comments.

Division of State Parks

We acknowledge that the Division of State Parks has no comments.

Mr. Russell Y. Tsuji
SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION
NOTICE
May 19, 2011
Page 2

Commission on Water Resource Management

Wai'ale will comply with all requirements of Hawai'i Revised Statutes (HRS), Chapter 174C, State Water Code and Hawai'i Administrative Rules (HAR), Chapters 13-167 to 13-171.

1. The applicant will coordinate with the County to incorporate Wai'ale into the County's Water Use and Development Plan.
2. The State Department of Agriculture will be contacted to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan.
3. Water efficient fixtures will be installed and water efficient practices will be implemented throughout Wai'ale, where feasible.
4. Best Management Practices (BMP) will be used for stormwater management to minimize the impact on the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events.
5. Alternative water sources will be used, where practical.
6. We acknowledge that any proposed water supply source located in a designated water management area will require a Water Use Permit prior to the use of water.
7. The Draft Environmental Impact Statement (EIS) will identify and discuss potential water sources for Wai'ale.
8. The Draft EIS will identify the scope of water demand (drinking quality and non-drinking quality) for the Wai'ale project, as well as potential water sources to meet this demand using the best available information and incorporating conservation practices.

Thank you for reviewing the EISP. Your comments will be included in the Draft EIS.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII


Michael Shibata
Project Manager/Planner

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LINDA LINGLE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

November 29, 2010

Mr. Grant Chun
A&B Properties, Inc.
P.O. Box 156
Kahului, Hawaii 96732

Dear Mr. Chun:

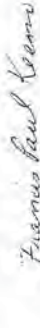
Subject: Waiale Community Project
Environmental Impact Statement Preparation Notice (EISP)

Thank you for requesting the State Department of Transportation's (DOT) review of the subject A&B Properties project. The project involves the development of a 545 acre master planned community consisting of: village mixed use, commercial, business/light industrial, multi-family and single family residential, (approx 2,550 residential units), community center, regional park, neighborhood parks, greenways and open space, cultural preserves, middle school, and related infrastructure. Access to the project is planned off of Waiko Road, Kuihelani Highway and Kamehameha Avenue.

Given the project's location, the State highway facilities (Kuihelani Highway, Honoapiilani Highway, and Kaahumahu Avenue) will be impacted. Your preparation notice mentions that your evaluation of the project includes a traffic analysis. The traffic analysis should include both project and regional traffic impacts and mitigation measures. In addition to traffic, any other impact that could affect State highway facilities, such as but not limited to drainage and stormwater, should be addressed.

DOT appreciates the opportunity to provide comments and requests four copies of the DEIS when it is available. If there are any other questions, including the need to meet with DOT Highways Division staff, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at (808) 831-7976.

Very truly yours,


MICHAEL D. FORMBY
Interim Director of Transportation

cc: Mr. Dan Davidson, Land Use Commission
Mr. Michael Shibata, PBR Hawaii

MICHAEL D. FORMBY
INTERIM DIRECTOR

RECEIVED
DODD DWORKE
HAWAII'S PALA KEENO

IN REPLY REFER TO
DEC - 2 2010
STP 8,0292

A&B PROPERTIES-MAUI



May 19, 2011

PRINCIPALS
THOMAS WITTEN, ASLA
President

R. STANFAN, ASLA
Executive Vice President

RUSSELL CHUNG, ASLA, LEED AP
Executive Vice President

VINCENT SHIGIKUNI
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Kapolei, Hawaii 96797-2005
Tel: (808) 521-3401
Fax: (808) 335-3103

Mr. Glenn Okimoto, Director
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Attn: Mr. David Shimokawa

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Mr. Okimoto:

We are in receipt of your Department's letter dated November 29, 2010 to Mr. Grant Chun of A&B Properties, Inc. (your reference number STP 8.0292) regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISPN). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to your comments:

A Traffic Impact Analysis Report (TIAR) has been prepared and will be included in the Draft Environmental Impact Statement (EIS). The TIAR will include project and regional traffic impacts and recommended mitigation measures. The Draft EIS will include a preliminary engineering and drainage report. Stormwater runoff from the project is not expected to adversely impact Kuihelani Highway. As requested, four copies of Draft EIS will be provided to your department.

Thank you for reviewing the EISPN. Your comments will be included in the Draft EIS.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII

David Grant

Michael Shibata
Project Manager/Planner

O:\A062\325399\03 Wai'ale Entitlements\EISPN\EISPN Comments\Final Responses\BL-18 State DOT Response.doc

PHONE (808) 594-1888



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPIOLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

FAX (808) 594-1885

HRD10/3583B

October 27, 2010

Grant Chun
A&B Properties, Inc.
P.O. Box 156
Kahului, Hawaii 96732

RE: Environmental Impact Statement Preparation Notice
Wai'ale Development Project
Waikapu and Wailuku, Island of Maui

Aloha e Grant Chun,

The Office of Hawaiian Affairs (OHA) is in receipt of an October 1, 2010 request for comments on an Environmental Impact Statement Preparation Notice (EISPN) for the proposed Wai'ale Development Project (project).

The forthcoming draft environmental impact statement (DEIS) will be the primary support document for a petition to the State Land Use Commission (LUC) requesting a District Boundary Amendment (DBA) and the reclassification of 545 acres from State Agriculture to Urban. The DEIS will also serve to support any future use of State or County lands or funds during the development of the project. The full extent of such uses is unknown at this time. The LUC will be the accepting authority for the DEIS. An amendment to the Wailuku-Kahului Community Plan and County of Maui Change in Zoning (CIZ) approval from Agriculture to Project District will also be required.

At full build out, the project is envisioned to be a residential community consisting of 2,550 single and multi-family units on with additional areas set aside for commercial and business/light industrial use. An 18 acre parcel will be set aside for a public middle school. Parks, cultural preserves, greenways and open space throughout the project area will total nearly 142 acres. Fifty acres of the project area will be contributed to the County of Maui for housing, a regional community center and a park.

OHA recognizes that this project certainly has laudable aspects, including the potential it offers for much needed housing and employment opportunities, increased public services and infrastructure development in Central Maui. This potential must be carefully balanced with the short and long term interests and goals of the Maui community. The DEIS should specifically detail how this project will support the broad goals, policies, elements (including "Directed Growth Strategy" which designates urban growth boundaries) and standards of the Maui Island Plan (currently in draft form) and the Wailuku-Kahului Community Plan.

OHA respectfully offers additional comments on the following:

Community Involvement

Section 2.2 of the EISPN details that the project "has been planned through a community-based process including meetings with key stakeholders. Community leaders, the County of Maui Administration, and Maui residents." and that "the community has contributed to Wai'ale's conceptual master plan and vision statement..." through a series of informational and outreach meetings and we applaud this effort.

The EISPN appears to indicate that efforts to gather community input concluded over five years ago, in August 2005. We hope the DEIS reflects that consultation with the Waikapu and Wailuku communities, including those who may have ancestral connections to these lands has and is continuing and that any information or thoughts shared with you has been afforded appropriate consideration.

Loss of Agricultural Lands

In general, OHA opposes LUC reclassifications which result in the loss of agricultural lands with the potential to be productive to urban development. One of the fundamental objectives of the State Agricultural Function Plan (1991) is to encourage and develop diversified agriculture throughout Hawai'i which will support our local economy and contribute to reducing our dependence on imported products. We firmly believe this objective can be obtained by protecting and prioritizing initiatives on agricultural lands with the highest potential for productivity.

The majority of the project area has received a Land Study Bureau Overall Productivity rating of "E", representing the lowest possible agricultural productivity rating. The project area is classified as "other" within Agricultural Lands of Importance in the State of Hawai'i system. Portions of the project area have been subject to previous agricultural use (sugarcane) with certain portions currently used for ranching (cattle and horse grazing and a feedlot) and an orchid nursery. Sand mining previously occurred within the project area. We look forward to seeing adequate justification in the DEA which supports the SBA and CZ.

We are interested to see additional discussion on the statement within Section 6.1 of the EISPN which attempts to dismiss a "no-action alternative" to the project because "if the site were to return to agriculture use, cultivation, harvesting and plowing of the site will expose soils to erosional forces of wind and rainfall".

Our first thought is that this statement borders on comical as it appears to be a "blanket justification" supporting development because agriculture cultivation contributes to erosion. After additional consideration, we are concerned that this statement will continue to be used to support the future reclassification of agricultural lands to facilitate urban development, regardless of their potential to be productive. From this perspective, the statement borders on reckless and we urge caution in using it.

We would agree that large scale, intensive cultivation of water thirsty crops which require fallowed fields following harvest facilitated by fire do contribute to erosion. Struggles over long diverted water resources and soils and a water table potentially contaminated by decades of harmful chemical use are just some of the reasons OHA is opposed to this type of irresponsible land stewardship.

Water

Section 4.7.3 of the EISPN identifies an alternative potable water source to support the project as being the proposed Wai'ale Water Treatment Facility (WTF), located adjacent to the Wai'ale Reservoir, which are both located north of the project site. We are interested in seeing the DEIS comprehensively discuss the water source which will support the WTF and the short and long term impacts drawing water from this source will have.

Cultural Resources

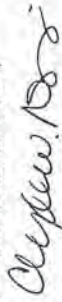
Section 4.1 of the EISPN accurately details that Native Hawaiian burials have been identified during sand mining activities within the project area. Consultation with the Department of Land and Natural Resources-State Historic Preservation Division and the Maui/Lana'i Island Burial Council on appropriate mitigation measures and final disposition are on going. We hope families with connections to the project area also have the opportunity to participate in these discussions and that their thoughts on appropriate treatment given full consideration.

We are pleased to see cultural preserves are planned within the project area. The long term preservation measures for these preserves should be carefully developed as the preserves will be situated within communities where daily activities have the potential to inadvertently impact them. It is our hope specific timeframes will be implemented for the completion and approval of any required mitigation or preservation plans. We look forward to reviewing the cultural impact assessment which will be incorporated into the DEIS.

Conclusion

Thank you for initiating consultation at this early stage. OHA is concerned with the broad range of State and County of Maui approvals the DEIS intends to support. We hope the potential uses of State and County of Maui lands or funds which are unknown at this time will be identified within the DEIS. We look forward to reviewing the DEIS and providing additional comments at that time. Should you have any questions, please contact Keola Lindsey at 594-0244 or keolal@oha.org.

'O wau iho nō me ka 'oia'i'o,



Clyde W. Nāmu'o
Chief Executive Officer

C: OHA Trustee Boyd P. Mossman
OHA- Maui Community Resources Coordinator

State of Hawai'i Land Use Commission
P.O. Box 2359
Honolulu, Hawai'i 96804

/ PBR Hawaii
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawai'i



May 19, 2011

PRINCIPALS
THOMAS WITTEN, ASLA
President

R. STAN DENCAN, ASLA
Executive Vice President

RENEE L. CHONG FASHA, LEED AP
Executive Vice President

VINCENT SHIGIKUNI
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Mr. Clyde W. Nāmu'o, Chief Executive Officer
State of Hawai'i
Office of Hawaiian Affairs
711 Kapi'olani Boulevard, Suite 500
Honolulu, Hawai'i 96813

Attn: Mr. Keola Lindsey

**SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT
PREPARATION NOTICE**

Dear Mr. Nāmu'o:

We are in receipt of your letter dated October 27, 2010 (your reference number HRD10/3583B) to Mr. Grant Chun of A&B Properties, Inc., regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISP/N). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to your comments:

The Draft Environmental Impact Statement (EIS) will include a discussion of Wai'ale's compliance with the *Countywide Policy Plan, Draft Maui Island Plan*, and the *Wailuku-Kahului Community Plan*.

Community Involvement

A&B Properties, Inc. has and will continue to consult with members of both the Waikapū and Wailuku communities, including those who may have ancestral connections to the Wai'ale site. The applicant is aware of the importance of community input and will continue to welcome and seek such input during the approval process of the project.

Loss of Agricultural Lands

The Draft EIS will include a discussion of the site's various soil "productivity" rating classification systems, the past agricultural activities conducted at the property and the potential impact on agricultural resources. Other factors supporting the designation of the site for future urban growth will also be discussed in the Draft EIS.

We greatly appreciate your comments on the "no action alternative." The discussion of this alternative will be revised accordingly.

Water

The Draft EIS will include discussion on the potential water sources for the proposed Wai'ale Water Treatment Facility, and the impacts of drawing water from this (these) source(s).

Mr. Clyde Nāmu'o
SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION
NOTICE
May 19, 2011
Page 2

Cultural Resources

An archaeological inventory survey has been prepared and will be included in the Draft EIS. Also, the Draft EIS will include the burial site component of a data recovery and preservation plan ("burial preservation plan") for burials identified at the site. The burial preservation plan includes the creation of five (5) preservation areas totaling over 30 acres in size. A&B Properties, Inc. and its consultants will continue coordinating with the State Historic Preservation Division and the Maui/Lana'i Island Burial Council on appropriate mitigation measures and final disposition. A cultural impact assessment will also be included in the Draft EIS.

Conclusion

A discussion on how the project supports State and County approvals, as well as the potential uses of State and County lands or funds, will be included in the Draft EIS.

Thank you for reviewing the EISPN. Your comments will be included in the Draft EIS.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII


Michael Shibata
Project Manager/Planner

O:\Job\23\2399\03 Waiale Entitlements\EISPN\EISPN Comments\Final Responses\BL-11 State OHA Response.doc



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT HONOLULU
FORT SHAFTER, HAWAII 96859-5440

October 7, 2010

REPLY TO
ATTENTION OF:

Regulatory Branch

File Number POH-2010-00278

PBR Hawaii & Associates, Inc.
Attention: Michael Shibata
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Shibata:

We have your letter dated October 1, 2010 requesting the Department of the Army review and comment on the Environmental Impact Statement Preparation Notice (EISPN) for the proposed Waiale Planned Community in Wailuku, Island of Maui, Hawaii. We have assigned the project the reference number **POH-2010-00278**. Please cite the reference number in any future correspondence concerning this project. We completed our review of the submitted document pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404).

Section 10 requires that a Department of the Army (DA) permit be obtained from the U.S. Army Corps of Engineers (Corps) prior to undertaking any construction, dredging and other activities occurring in, over, or under navigable waters of the U.S. The line of jurisdiction extends to the Mean High Water Mark (MHW) for tidal waters. Section 404 requires that a DA permit be obtained for the discharge (placement) of dredge and/or fill material into waters of the U.S., including wetlands. The line of jurisdiction extends to the Mean Higher High Water Mark (MHHW) for tidally influenced waters, the Ordinary High Water Mark (OHWM) for non-tidal waters and the approved delineated boundary for wetlands.

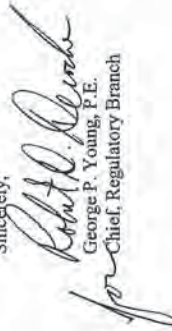
Based on the information the applicant provided in the EISPN, the project site appears to be absent of navigable waters subject to Corps jurisdiction. Therefore, Section 10 authorization may not be required. The south end of the project site abuts the Waikapu Stream. The Waikapu Stream is a perennial stream which discharges into Kealia Pond, and eventually the Pacific Ocean, a traditionally navigable water. As such, the Waikapu Stream is a water of the U.S., subject to Corps jurisdiction. There is insufficient information provided in the EISPN to determine if the proposed project will involve activities which require the discharge of fill into the Waikapu Stream however, to avoid unintentional violation to federal regulation and law, we advise the applicant contact our office prior to conducting any activity that may result in the discharge of dredged and/or fill material into this water body, as a DA permit granting Section 404 authorization may be required for this action. Also be advised that any tributaries discharging into this water body may also be subject to Corps jurisdiction.

The EISPN does not provide sufficient evidence to determine if there are any additional, unidentified waters of the U.S. within the review area. When developing the Environmental Impact Statement (EIS), we recommend you conduct a thorough aquatic resource survey, describing any wetlands, drainage ditches, gulches, gullies, streams, etc., on-site, especially those that may be impacted by any of the proposed project components. The survey should include descriptions of aquatic features proposed for impact, flow duration of each feature and the flow path of each feature into navigable waters. In addition, include sufficient information concerning the scope of work, including the use of Best Management Practices, i.e. silt fences and sandbag berms within the vicinity and in close proximity to potentially regulated bodies of water.

If any water bodies are determined to be waters of the U.S., the applicant must obtain authorization from the Corps prior to discharge of dredged or fill material into these water bodies. Fill material, permanent or temporary, may include, but is not limited to: rock, dirt, sand, sandbags, silt fences or concrete. The applicant should contact the Corps to determine if any of the proposed work constitutes a "discharge of fill" and submit an application and associated drawings that meet our drawing recommendations found at <http://poh.usace.army.mil/EC-REC-R.htm>. The Corps will then review the application to ensure it complies with all necessary federal laws and regulations. Note that if the fill results in the loss of waters of the U.S. and/or associated functions, the applicant may be required to provide compensatory mitigation for any unavoidable impacts. A request for an approved JD can be submitted prior to, or concurrently with, an application for the proposed work.

Thank you for contacting us regarding this project and providing us with the opportunity to comment. Should you have any questions, please contact Ms. Jessie Pa'ahana at 808.438.0391 or via email at Jessie.K.Paahana@usace.army.mil. You are encouraged to provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at <http://per2.mvp.usace.army.mil/survey.html>.

Sincerely,



George P. Young, P.E.
Chief, Regulatory Branch



May 19, 2011

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Executive Vice President

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Fax: (808) 535-3163

Mr. George P. Young, P.E., Chief, Regulatory Branch
U.S. Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii; 96858-5440

Attn: Ms. Jessie Pa'ahana

**SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT
PREPARATION NOTICE**

Dear Mr. Young:

Thank you for your letter dated October 7, 2010 (your reference number: POH-2010-00278) regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISPN). As the planning consultant for the applicant, A&B Properties, Inc., we are confirming that Waikapu Stream is not located within the Wai'ale project. We acknowledge that the U.S. Army Corps of Engineers (Corps) is unable to provide a determination whether a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1889 and Section 404 of the Clean Water Act would be required for the proposed project. Should future plans include the possible discharge of fill into Waikapu Stream, an application for jurisdictional determination will be submitted to the Corps. As requested, the Draft EIS will include a description of existing onsite topographic features and an aquatic resources study.

Thank you for reviewing the EISPN. Your comments will be included in the Draft EIS.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII



Michael Shibata
Project Manager/Planner

CHARMAINE TAVARES
Mayor
CHERYL K. OKUMA Esq.
Director

GREGG KRESGE
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
2200 MAIN STREET, SUITE 100
WAILUKU, MAUI, HAWAII 96793

November 10, 2010

Mr. Grant Chun
A&B Properties, Inc.
P.O. Box 156
Kahului, Hawaii 96732

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE
TMK (2) 3-8-005:023 (POR.) AND 037, AND (2) 3-8-007:071, 101 (POR.) AND
104, WAILUKU

We reviewed the subject application and have the following comments:

1. Solid Waste Division comments:
 - a. Solid waste/recycling issues are addressed.
2. Wastewater Reclamation Division (WWRD) comments:
 - a. The development of this project and others (planned and/or in construction) will exceed the remaining allocation capacity of the Kahului Wastewater Reclamation Facility. Therefore, in our opinion this project needs to include the development of a regional treatment plan to serve this project and others in the adjacent area (e.g. Tropical Plantation 1500+ dwelling units, etc.). The EIS should address the use of recycled water within the project.
 - b. If the subject development is allowed to connect to the County's wastewater system, items c thru i, will apply.
 - c. Although wastewater system capacity is currently available as of 11/10/2010, the developer should be informed that wastewater system capacity cannot be ensured until the issuance of the building permit. Provide discussion and calculations (sewer impact study) to substantiate that the existing wastewater system is adequate to serve this project.
 - d. Wastewater contribution calculations are required before building permit is issued.
 - e. Developer shall pay assessment fees for treatment plant expansion costs in accordance with ordinance setting forth such fees. The property is located in the Wailuku Sewer Service Area.
 - f. Developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.
 - g. Show or list minimum slope of new sewer laterals.
 - h.

Mr. Grant Chun
November 10, 2010
Page 2

- i. Plans should show the installation of a single service lateral and advanced meter for each lot.
- j. Indicate on the plans the ownership of each easement (in favor of which party). Note: County will not accept sewer easements that traverse private property.
- k. Commercial kitchen facilities within the proposed project shall comply with pre-treatment requirements (including grease interceptors, sample boxes, screens etc.).
- l. Non-contact cooling water and condensate should not drain to the wastewater system.

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

Sincerely,

CHERYL K. OKUMA
Director of Environmental Management



May 19, 2011

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Mr. Kyle Ginoza, Director
Department of Environmental Management
County of Maui

2200 Main Street, Suite 100
Wailuku, Hawai'i 96793

Attn: Mr. Gregg Kresge

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Mr. Ginoza:

We are in receipt of your Department's letter dated November 10, 2010 to Mr. Grant Chun of A&B Properties, Inc. regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISP/N). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to the various divisions that provided comments:

Solid Waste Division

a. The Draft Environmental Impact Statement (EIS) will address solid waste/recycling issues.

Wastewater Reclamation Division (WWRD)

a. Pursuant to your comment, the Draft EIS will include a discussion of the alternative of providing an on-site wastewater treatment plant to serve the project, should connection to the Kahului Wastewater Reclamation Facility not be possible.

b. The Draft EIS will include a discussion on the use of recycled water within the project.

c. If Wai'ale is allowed to connect to the County's wastewater system, the applicant acknowledges that wastewater system capacity cannot be ensured until the issuance of building permits.

d. If Wai'ale is allowed to connect to the County's wastewater system, the applicant acknowledges that it will need to provide a sewer impact study to substantiate that the existing wastewater system is adequate to serve this project.

e. If Wai'ale is allowed to connect to the County's wastewater system, the applicant acknowledges that wastewater contribution calculations will need to be prepared prior to the issuance of the building permit.

Mr. Kyle Ginoza
SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE
May 19, 2011
Page 2

f. If Wai'ale is allowed to connect to the County's wastewater system, the applicant acknowledges that assessment fees may be triggered for treatment plant expansion costs in accordance with ordinance setting forth such fees. We acknowledge that the property is located within the Wailuku Sewer Service Area.

g. If Wai'ale is allowed to connect to the County's wastewater system, the applicant acknowledges that it may be required to fund any necessary off-site improvements to collection system and wastewater pump stations.

h. If Wai'ale is allowed to connect to the County's wastewater system, the applicant acknowledges that sewer design drawings will either show or list the minimum slope of the proposed sewer laterals.

i. If Wai'ale is allowed to connect to the County's wastewater system, the applicant acknowledges that sewer design plans will show the installation of a single service lateral and advanced riser for each lot.

j. If Wai'ale is allowed to connect to the County's wastewater system, the applicant acknowledges that the County will not accept sewer easements that traverse private property. The ownership of each sewer easement will be indicated on each lot's plans.

k. If Wai'ale is allowed to connect to the County's wastewater system, the applicant acknowledges commercial kitchen facilities within the Wai'ale project will need to comply with pre-treatment requirements.

l. If Wai'ale is allowed to connect to the County's wastewater system, the applicant acknowledges that non-contact cooling water and condensate cannot be designed to drain to the wastewater system.

Thank you for reviewing the EISP/N. Your comments will be included in the Draft EIS.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII

Michael Shibata
Project Manager/Planner



DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
HOUSING DIVISION
COUNTY OF MAUI

35 LUNALILLO STREET, SUITE 102 • WAILUKU, HAWAII 96793 • PHONE: (808) 270-7351 • FAX: (808) 270-6284

CHARMAINE TAVARES
Mayor
LORI TSUBAKO
Deputy Director

JO-ANN T. RIDAO
Deputy Director

November 3, 2010

Mr. Grant Chun
A&B Properties, Inc.
P.O. Box 156
Kahului, HI. 96732

Dear Mr. Grant:

Subject: Environmental Impact Statement Preparation Notice (EISP/N) for the Wai'ale Project located in Wailuku, Maui.
TMK: (2) 3-8-005: 023 (por) and 037, and
(2) 3-8-007: 071, 101 (por), and 104

The Department has reviewed the Environmental Impact Statement Preparation Notice (EISP/N) for the above subject property and would like to offer the following comments:

1. How will this project address the County of Maui's Residential Workforce Housing Policy (Chapter 2.96, Maui County Code)?
2. On page 1 of the Wai'ale EISP/N, under section 1.1 Summary, in the Proposed Use section, the second sentence needs to be corrected to reflect the following:

The 50 acres of subject lands are not being donated to the County of Maui, but instead are being provided to satisfy a Planning Commission requirement.

Please call Mr. Buddy Almeida of our Housing Division at 270-7356 if you have any questions.

Sincerely,
Wayde T. Oshiro
WAYDE T. OSHIRO
Housing Administrator

cc. Director of Housing and Human Concerns
Dan Davidson, State of Hawaii Land Use Commission
Michael Shibata, PBR Hawaii

TO SUPPORT AND EMPOWER OUR COMMUNITY TO REACH ITS FULLEST POTENTIAL
FOR PERSONAL WELL-BEING AND SELF-RELIANCE

PRINTED ON RECYCLED PAPER



May 19, 2011

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Ms. Jo-Ann T. Ridao, Director
Department of Housing and Human Concerns
Housing Division
County of Maui
35 Lunaililo Street, Suite 102
Wailuku, Hawaii 96793

Attn: Mr. Buddy Almeida

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Ms. Ridao:

We are in receipt of your Department's letter dated November 3, 2010 to Mr. Grant Chun of A&B Properties, Inc. regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISP/N). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to your comments:

1. The Draft Environmental Impact Statement (EIS) will include a discussion on how Wai'ale addresses the County of Maui's Residential Workforce Housing Policy (Chapter 2.96, Maui County Code). Wai'ale will provide workforce housing in accordance with Chapter 2.96, Maui County Code. In addition, the applicant will be contributing 50 acres of land within this new master planned community to the County of Maui of which 40 acres will be allocated for affordable housing.
2. The Draft EIS will include a discussion that 50 acres of the subject lands are being provided to the County of Maui to satisfy a Maui Planning Commission requirement for the Maui Business Park - Phase II project.

Thank you for reviewing the EISP/N. Your comments will be included in the Draft EIS.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII

Michael Shibata
Michael Shibata
Project Manager/Planner

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May 19, 2011

Ms. Glenn Correa, Director
Department of Parks & Recreation
County of Maui
700 Hali'a Nakoa Street, Unit 2
Wailuku, Hawaii 96793

Attn: Mr. Patrick Matsui

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Mr. Correa:

Thank you for your Department's letter dated October 15, 2010 regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISP/N). As the planning consultant for the applicant, A&B Properties, Inc., we acknowledge that the County Department of Parks & Recreation wishes to withhold comment until the Maui County Council has completed its review of the Maui Island General Plan 2030.

Thank you for reviewing the EISP/N. Your comments will be included in the Draft Environmental Impact Statement.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII

Samuel Shibusaba
Michael Shibata
Project Manager/Planner

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TAMARA HORCAJO
Director
ZACHARY Z. HELM
Deputy Director
(808) 270-7230
FAX (808) 270-7934



DEPARTMENT OF PARKS & RECREATION
700 Hali'a Nakoa Street, Unit 2, Wailuku, Hawaii 96793

October 15, 2010

Mr. Michael Shibata
PBR Hawaii & Associates, Inc.
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, HI 96813

SUBJECT: Environmental Impact Statement Preparation Notice for Proposed Wai'ale Project
TMK: (2) 3-8-005:023 (por.) and 037, and
(2) 3-8-007:071, 101 (por.), and 104
Wailuku, Maui, Hawaii

Dear Mr. Shibata:

Thank you for the opportunity to review and comment on the subject project.

The Parks & Recreation Department wishes to withhold comment until County Council has completed its review of the Maui Island Plan General Plan 2030. The Department is not in agreement with the Regional Park area designated in the Central Maui Regional Park map in the Directed Growth Plan section of the Island Plan, as it does not provide adequate area needed to accommodate a Regional Park.

Please feel free to contact me or Mr. Patrick Matsui, Chief of Parks Planning & Development, at (808) 270-7931 should you have any questions.

Sincerely,

Tamara Horcajo
TAMARA HORCAJO
Director of Parks & Recreation

cc: Grant Chun, A&B Properties, Inc.
Dan Davidson, Land Use Commission, State of Hawaii
Patrick Matsui, Chief of Parks Planning and Development

TH:PTM:ca
S:\PLANNING\GIS\County Reviews\EA & EIS Reviews\Wai'ale EIS Prep.doc

CHARIMANE TANARES
Mayor
MILTON M. ARAKAWA, A.I.C.P.
Director

MICHAEL M. MIYAMOTO
Deputy Director
Telephone: (808) 270-7845
Fax: (808) 270-7955



COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET, ROOM NO. 434
WAILUKU, MAUI, HAWAII 96793

RALPH MACAMINE, L.S., P.E.
Development Services Administration
CARY YAMASHITA, P.E.
Engineering Division
BRIAN YASHIRO, P.E.
Highways Division

November 10, 2010

RECEIVED

NOV 17 2010

Mr. Grant Chun
A & B Properties, Inc.
P. O. Box 156
Kahului, Maui, Hawaii 96733

A&B PROPERTIES-MAUI

Dear Mr Chun:

**SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION
NOTICE FOR WAIALE; TMK: (2) 3-8-005:023 (POR.) AND
037, AND 3-8-007:071, 101 (POR.) AND 104**

We reviewed the subject application and have the following comments:

1. On Infrastructure - Roadways and Traffic, we note the following:
 - a. Waiko Road, between Kuihelani Highway and the driveway servicing Rojac Trucking (makai of Clinical Labs), is considered a County Road.
 - b. Portions of Kamehameha Avenue through Maui Lani are still privately owned and not owned by the County of Maui. That portion of Kamehameha Avenue that would tie in to the Waiale development is still privately owned.
 - c. Waiale Road, between Kuikahi Drive and Waiko Road, is still privately owned.
 - d. It is hoped that any historical/cultural sites such as graves, are located outside of the road right of way, especially if the road is proposed to be dedicated to the County. Reference the recently constructed Kuikahi Road Extension.

Mr. Grant Chun
November 10, 2010
Page 2

Please call Michael Miyamoto at 270-7845 if you have any questions regarding this letter.

Sincerely,

MILTON M. ARAKAWA, A.I.C.P.
Director of Public Works

MMA:MMM:ls
xc: Highways Division
Engineering Division

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May 19, 2011

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Executive Vice President

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Fax: (808) 335-3103

Mr. David Goode, Director
Department of Public Works
County of Maui
200 South High Street, Room No. 434
Wailuku, Hawaii 96793

Attn: Mr. Michael Miyamoto

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Mr. Goode:

We are in receipt of your Department's letter dated November 10, 2010 to Mr. Grant Chun of A&B Properties, Inc. regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISP/N). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to your comments:

1. We acknowledge that Waiko Road, between Kuihelani Highway and the driveway servicing Rojac Trucking, is considered a County Road.
2. We acknowledge that the portion of Kamehameha Avenue through Maui Lani that would tie into Wai'ale is privately owned and not owned by the County.
3. We acknowledge that Wai'ale Road, between Kuikahi Drive and Waiko Road, is privately owned.
4. All roads proposed to be dedicated to the County are located in areas that have not been identified as containing historical/cultural sites.

Thank you for reviewing the EISP/N. Your comments will be included in the Draft Environmental Impact Statement.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII

David Goode

Michael Shibata
Project Manager/Planner

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CIWAKAMI TAVARE
MA'ONO



DEPARTMENT OF TRANSPORTATION

COUNTY OF MAUI
200 South High Street
Wailuku, Hawaii, USA 96793-2155

October 6, 2010

Mr. Don Davidson
State of Hawaii
Land use Commission
P.O. Box 2359
Honolulu, Hawaii 96804

Subject: Wai'ale

Dear Mr. Davidson,

Thank you for the opportunity to comment on this project.

We anticipate a future bus route to service this area. With this in mind, we would like to ask that you include in the overall design of your project, bus pull-ins and bus shelter areas.

Please feel free to contact me if you have any questions.

Sincerely,

Don Medeiros

Don Medeiros
Director

LAND USE COMMISSION
STATE OF HAWAII

2010 OCT 13 A 11:01

Don A. Medeiros
Director
Wayne A. Rovillio
Deputy Director
Telephone: (808) 270-7511
Facsimile: (808) 270-7505



May 19, 2011

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Associate

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Associate

SCOTT AIKUA ARRIGO, LEED AP
Associate

SCOTT MURAKAMI, ASIA, LEED AP
Associate

DACHUNG DONG, LEED AP
Associate

HONOLULU OFFICE
1001 Bishop Street, Suite 650
Honolulu, Hawaii 96813-3464
Tel: (808) 523-1402
Fax: (808) 523-1402
E-mail: systems@pbrhawaii.com

KAPOLEI OFFICE
1001 Kamehala Boulevard
Kapolei Building, Suite 313
Kapolei, Hawaii 96797-2005
Tel: (808) 521-5631
Fax: (808) 335-3103

Ms. Jo Anne Johnson, Director
Department of Transportation
County of Maui
200 South High Street
Wailuku, Hawaii 96793-2155

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Ms. Johnson:

We are in receipt of your Department's letter dated October 6, 2010 to Mr. Dan Davidson of the State of Hawaii Land Use Commission regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISP/N). As the planning consultant for the applicant, A&B Properties, Inc., we acknowledge your comments in regards to a future bus route to service the area. The proposed project has been designed to be transit-ready, so the possibility of a future bus route(s) is welcomed. While more detailed planning and coordination will be undertaken with your department at the project's design stage, the project civil engineer is preliminary designing street widths to County standards. As the project design gets more detailed, bus pull-ins and bus shelter areas will be accommodated.

Thank you for reviewing the EISP/N. Your comments will be included in the Draft Environmental Impact Statement.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII

Michael Shibata
Project Manager/Planner

O:\062323299\03 Waiale Entitlements\EISP\NISP Comments\Final Responses\BL-03 County DOT Response.doc

CHARMINE TAVARES
Mayor



DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

RECEIVED

NOV - 4 2010

A&B PROPERTIES-MAUI

October 27, 2010
Mr. Grant Chun
A&B Properties, Inc.
P.O. Box 156
Kahului, HI 96732

Re: Wai'ale Environmental Impact Statement Preparation Notice
TMK.3-8-005:023 (por) and 037.3-8-007:071, 101 (por), and 104

Dear Mr. Chun:

Thank you for consulting with the Department of Water Supply (DWS) in preparation of an Environmental Impact Statement (EIS) for the Wai'ale project. Please find attached our comment letters to the well construction and pump installation permits for Waiale Well 1 & 2 dated November 22, 2006 and December 30, 2008.

Source Availability and Consumption

The EIS should identify expected potable and non-potable demand and the sources for each. Based on system standards, anticipated demand for the proposed project would be about 1.5 - 1.6 MGD. There is currently no additional source available to accommodate new customers according to system standards on the Central Maui System. Proposed source development projects include Waikapu South Well and the proposed Iao Surface Water Treatment Facility upgrade. Should the Waiale wells 1 & 2 be proposed to serve this project, the EIS should address the following:

1. Supplemental source to serve demand beyond the wells' combined sustainable pump capacity of 1.296 MGD;
2. Backup source for the Waiale wells; and
3. Committed use for the Maui Business Park Phase II subdivision as Waiale wells are identified as long-term, reliable supply of water in accordance with the County Availability Policy codified in Chapter 14.12 of the Maui County Code.

System Infrastructure

Our 18-inch and 36-inch transmission lines traverse the project site. The EIS should address easements for both transmission lines. The nearest distribution waterline and fire hydrant are about 1,325 feet west of the property. System improvement requirements will be determined in the subdivision process.

"By Water All Things Find Life"

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Pollution Prevention

The northern portion of the project site is within the 10-year time of travel wellhead protection area (WHPA) of DWS sources overlying Kahului aquifer. Please find attached a map showing the WHPA. Some of the capture zone for Waiale Well 1 is likely within the project area as well. We recommend that the EIS incorporate Best Management Practices (BMPs) and the following design guidelines to minimize ground water contamination from proposed uses within the WHPA:


1. Storm-water infiltration basins should be located outside the WHPA where feasible.
2. Active parks and schools should implement Integrated Pest Management.
3. As much of the development as possible should be sited outside the WHPA.
4. Vegetative cover should be provided on all disturbed land areas, excluding fallow agricultural fields, not covered by paving, stone or other solid material. The maintenance or use of native plant materials with lower water and nutrient requirements is encouraged.
5. There shall be a designated person on site during operating hours who is responsible supervising the use, storage, and handling of hazardous material and who shall take appropriate mitigating actions necessary in the event of a fire or spill.
6. Hazardous materials left on site when the site is unsupervised must be inaccessible to the public. Locked storage sheds, locked fencing, locked fuel tanks on construction vehicles, or other techniques may be used if they will preclude access.
7. Construction vehicles and stationary equipment that are found to be leaking fuel, hydraulic fluid, and/or other hazardous materials shall be removed from the site and from the Wellhead Protection Area. The vehicle or equipment may be repaired in place, provided the leakage is completely contained.
8. Hazardous materials and other deleterious substances shall not be allowed to enter stormwater systems.

Conservation

The EIS should identify a conservation plan identifying conservation measures to be implemented in project design and construction. Please refer to the attachment "Residential Conservation Measures" and the brochure "Saving Water in the Yard".

Should you have any questions regarding system improvements for this project, please contact our engineering division at (808) 270-7835. For questions on water resources, please contact our Water Resources and Planning Division at (808) 244-8550.

Sincerely,


Jeffrey K. Eng, Director

emb

c: engineering division
Dan Davidson, State of Hawaii Land Use Commission
Michael Shibata, PBR Hawaii

attachments.

DWS letter dated November 22, 2006

DWS letter dated December 30, 2008

Map of Wellhead Protection Area

Residential Conservation Measures

Plant Brochure: "Saving Water in the Yard"

C:\EA EIS SLUDAW\ialu 3-8-005_023por_EISPN.vpd

ALAN M. ARAKAWA
Mayor



GEORGE Y. TENDAN
Director
ERIC H. YAMASHIGE, PE., L.S.
Deputy Director

DEPARTMENT OF WATER SUPPLY

COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

November 22, 2006

Diane P. Bevilacqua, PE
Project Manager, Development
A&B Properties, Inc.
P. O. Box 156
Kahului, HI 96733-6636

Dear Ms. Bevilacqua:

RE: Well Construction/Pump Installation Permit Application
Waiale No. 1 Well, TMK: (2) 3-8-07:10

Please find a copy of our comment letter to the Commission on Water Resource Management for the well construction/pump installation permit for the proposed well. We have enclosed additional information for you in preparation for meeting with the Department to discuss location of your proposed well.

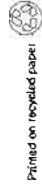
We have concerns about the potable water quality of wells within Kahului aquifer. Although proximity to existing water and power lines needs to be considered, the drilling site is not optimal for a potable source due to current and historic potential contaminant sources.

A Wellhead Protection Area (WHPA) for the Reynolds Well 1 was delineated and discussed in the 1997 report "The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii" by Matthew Hagemann and Glen Fukunaga. A circular 1 mile WHPA was the result of the essentially flat hydraulic gradient. We drafted and applied a similar WHPA to your proposed site for discussion purposes. We would be happy to assist you in having a more precise WHPA modeled by the U.H. Water Resources Research Center using MODFLOW.

Potential contaminant sources (PCSs) within the drafted WHPA include former and current large scale pesticide use and other potential sources of contamination. Active sugarcane cultivation and pesticide application are within a 1,000 ft radius of the site. Inventoried PCSs along Waiale Road include can/wreck storage, Brewer Industrial and recycling facilities. In the 1997 report, four former waste sites are located in the area southeast of Kahului. DBCP from former pesticide applications has been detected in Reynolds 1 well.

"By Water All Things Find Life"

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12/13/06

CHARMAINE TAVARES
Mayor



JEFFREY K. ENG
Director
ERIC H. YAMASHIGE, PE., L.S.
Deputy Director

DEPARTMENT OF WATER SUPPLY

COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

December 30, 2008

Ms. Laura H. Thielen, Chairperson
State of Hawaii Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809

Re: Well Construction/Pump Installation Permit Application
Waiale Well 2 (Well No. 5129-05)
TMK: 3-8-007:101

Dear Ms. Thielen:

Thank you for the opportunity to comment on this well construction/pump installation permit application. Please find attached a copy of our comment letter of December 8, 2006 to the application for Waiale Well No. 5129-04.

Aquifer Status and Proposed Amount of Withdrawal

Withdrawals of permitted wells in Kahului aquifer are far exceeding the sustainable yield of 1 MGD. We are concerned about how permitting additional municipal wells would affect the reliability of these wells and the effect on the overall aquifer, especially if sugar cane irrigation should cease over Kahului aquifer.

Water Quality and Ground Water Protection

We have concerns about the potable water quality of wells in this area due to current and historic potential contaminant sources. Current and former potential contaminant sources in this area include large scale pesticide use, car wreck storage, and recycling facilities. DBCP from former pesticide applications was detected in Reynolds 1 well. We recommend that the proposed source not be permitted for potable use. We understand the applicant is currently proposing a private water system. However, should dedication to the county be proposed in the future, any other use than irrigation would likely not be accepted.

In order to protect ground water resources, we recommend that Best Management Practices (BMPs) designed to prevent contamination through and to the proposed well be implemented. Sample BMPs are enumerated below.

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Laura H. Thielens
Page 2

1. Inspect exposed parts of the well periodically for problems such as: cracked or corroded well casing, broken or missing well cap, damage to protective casing, settling and cracking of surface seals
2. Slope the area around the well so that surface runoff drains away from the well
3. Provide a well cap or sanitary seal to prevent unauthorized use of or entry into the well
4. Provide for sediment removal or well cleaning, as necessary
5. Have the well tested once a year for fecal coliform or other constituents that may be of concern
6. Keep accurate records of any well maintenance, such as disinfection or sediment removal, that might require use of chemicals in the well.
7. Avoid mixing or using pesticides, fertilizers, herbicides, degreasers, fuels, or other pollutants near the well
8. Do not locate any type of potentially polluting activity up slope from the well

Should you have any questions, please contact our Water Resources and Planning Division at (808)244-8550.

Sincerely,



Jeffrey K. J.
Jeffrey K. Eng, Director
emb

attachment:
DWS letter dated December 8, 2006

c. engineering division



Residential Conservation Measures:

1. Start a Water Conservation Program

- a. Increase owner awareness of water conservation.
- b. Install signs encouraging water conservation in public areas.
- c. Seek resident's suggestions on water conservation; put suggestion boxes in prominent areas.
- d. Provide information and resources for residents to check for leaks and identify ways they can conserve.
- e. Encourage/provide an easy method for residents to report any leaks/waste found on the property.

2. Indoor Conservation Measures

- a. The use of EPA WaterSense labeled plumbing fixtures.
- b. Install flow reducers and faucet aerators in all plumbing fixtures wherever possible.
- c. Install dual flush toilets with high efficiency models that use 1.28 gallons per flush or less.
- d. Install showerheads with a flow rate of 1.5 gpm at 60 psi or less in all units.
- e. Install bathroom sink faucets with fixtures that do not exceed 1 gpm at 60 psi.
- f. Laundry facilities and/or individual unit machines must use Energy Star labeled washers.
- g. Limit the distance from the hot water source to the tap early in the design stage.

3. Pools and Fountains

- a. Channel splashed-out pool water onto landscaping.
- b. Lower pool water level to reduce amount of water splashed out.
- c. Use a pool cover to reduce evaporation when pool is not being used.
- d. Reduce the amount of water used to clean pool filters.
- e. Prohibit use of potable water in water decorations
- f. Use a re-circulating water system and monitor evaporation
- g. Limit the hours of operation to only when the facility is in use, and shut system off during times of drought

4. Exterior Areas

- a. Install infrastructure necessary to utilize a future connection to reclaimed water line
- b. Install irrigation well.
- c. Plan landscapes that require less water by using native, zone-appropriate plants.

- d. Use Smart Approved WaterMark irrigation products. Examples include ET irrigation controllers, drip irrigation, and water saving spray heads.
- e. Avoid plant fertilizing and pruning that would stimulate excessive growth.
- f. Remove weeds and unhealthy plants so remaining plants can benefit from the water saved.
- g. Time watering to occur in the early morning or evening to limit evaporation.
- h. Limit turf to as small an area as possible.

Zone-specific Native and Polynesian plants for Maui County

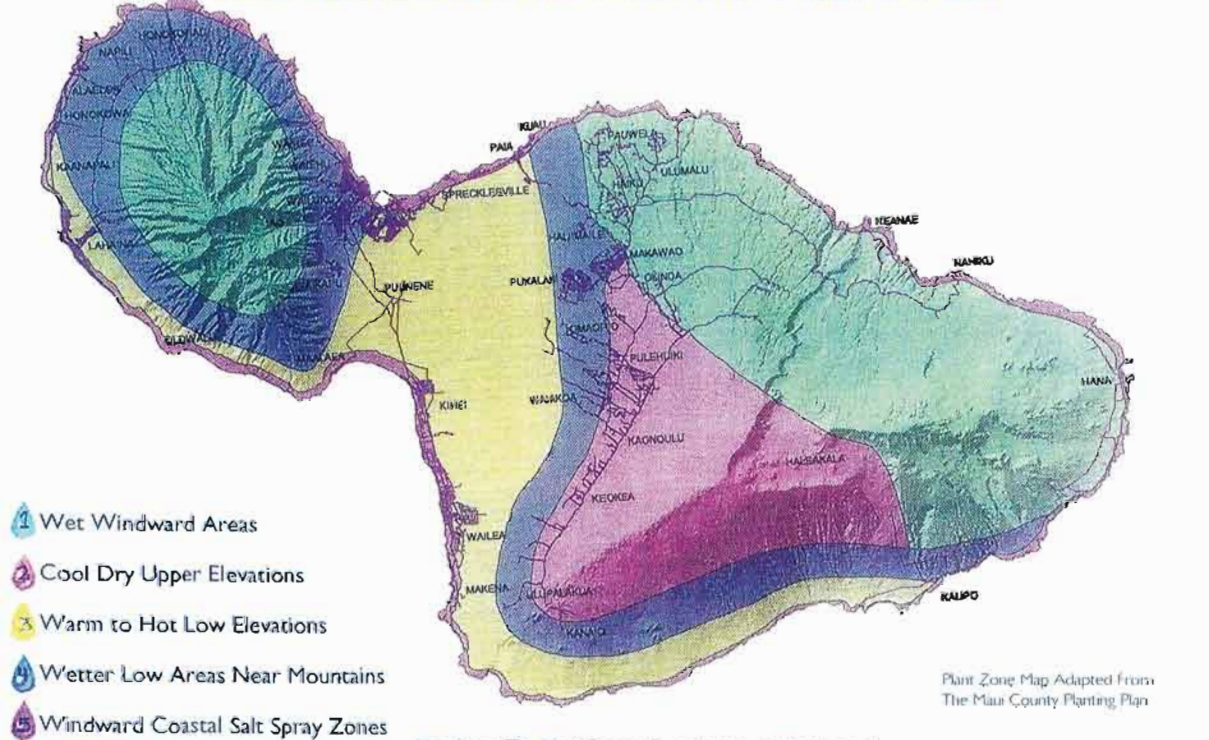
Zone 1

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	<i>Psilotum nudum</i>	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	<i>Sadleria cyatheoides</i>	'ama'u, ama'uma'u				
Gr - Sh	<i>Lipochaeta succulenta</i>	nehe	2'	5'	sea to 1,000'	Dry to Wet
P	<i>Cocos nucifera</i>	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	<i>Pritchardia arecina</i>	lo'ulu, hawane	40'	10'	1,000' to 3,000'	Dry to Wet
P	<i>Pritchardia forbesiana</i>	lo'ulu	15'			
P	<i>Pritchardia hillebrandii</i>	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	<i>Mariscus javanicus</i>	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	<i>Bidens hillebrandiana</i> ssp. <i>hillebrandiana</i>	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	<i>Cordyline fruticosa</i>	ti, ki	6'			
Sh	<i>Hedyotis</i> spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh - Tr	<i>Broussonetia papyrifera</i>	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Tr	<i>Acacia koa</i>	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	<i>Aleurites moluccana</i>	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	<i>Calophyllum inophyllum</i>	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	<i>Charpentiera obovata</i>		15'			
Tr	<i>Cordia subcordata</i>	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Hibiscus furcellatus</i>	'akiohala, hau-hele	8'			
Tr	<i>Metrosideros polymorpha</i> var. <i>macrophylla</i>	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Morinda citrifolia</i>	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	<i>Pandanus tectorius</i>	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
V	<i>Alyxia oliviformis</i>	maile	Vine		sea to 6,000'	Medium to Wet

Saving Water in The Yard

What and How to Plant in Your Area



Tips From The Maui County Department of Water Supply
By Water All Things Find Life

Zone-specific Native and Polynesian plants for Maui County

Zone 2

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Tr	<i>Nestegis sandwicensis</i>	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	<i>Pleomele auwahiensis</i>	halapepe	20'			
Tr	<i>Rauvolfia sandwicensis</i>	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Santalum ellipticum</i>	coastal sandalwood, 'iri-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Sophora chrysophylla</i>	mamane	15'	15'	1,000' to 3,000'	Medium
V	<i>Alyxia oliviformis</i>	malle	Vine		sea to 6,000'	Medium to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 2

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	<i>Psilotum nudum</i>	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	<i>Sadleria cyathoides</i>	'ama'u, ama uma'u				
G	<i>Eragrostis monticola</i>	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
Gr	<i>Ipomoea tuboides</i>	Hawaiian moon flower, 'uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	<i>Peperomia leptostachya</i>	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	<i>Plumbago zeylanica</i>	'ihe'e	1'			
Gr - Sh	<i>Hibiscus calyphyllus</i>	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lipochaeta rockii</i>	nehe	2'	2'	sea to 3,000'	Dry to Medium
Sh	<i>Argemone glauca</i> var. <i>declimens</i>	puā kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	<i>Artemisia mauiensis</i> var. <i>diffusa</i>	Maui wormwood, 'ahinahina	2'	3'	1,000' to higher	Dry to Medium
Sh	<i>Chenopodium oahuense</i>	'aheahea, 'aweoweo	8'		sea to higher	Dry to Medium
Sh	<i>Dianella sandwicensis</i>	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	<i>Lipochaeta lavarum</i>	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	<i>Osteomeles anthyllifolia</i>	'ulei, olueha	4'	6'	sea to 3,000'	Dry to Medium
Sh	<i>Senna gaudichaudii</i>	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	<i>Styphella tameiameia</i>	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	<i>Vitex rotundifolia</i>	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh - Tr	<i>Myoporum sandwicense</i>	nalo, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	<i>Notoliriodendron sandwicense</i>	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	<i>Dodonaea viscosa</i>	'a'ali'i	8'	8'	sea to higher	Dry to Medium
Tr	<i>Acacia koa</i>	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	<i>Charpentiera obovata</i>		15'			
Tr	<i>Erythrina sandwicensis</i>	wilwili	20'	20'	sea to 1,000'	Dry
Tr	<i>Metrosideros polymorpha</i> var. <i>macrophylla</i>	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 3

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	<i>Argemone glauca</i> var. <i>deciplens</i>	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	<i>Bidens mauiensis</i>	ko'oko'olau	1'	3'	sea to 1,000'	Dry to Medium
Sh	<i>Bidens menziesii</i> ssp. <i>menziesii</i>	ko'oko'olau	1'	3'		
Sh	<i>Bidens micrantha</i> ssp. <i>micrantha</i>	ko'oko'olau	1'	3'		
Sh	<i>Chenopodium bahuense</i>	aheahea, aweoweo	6'		sea to higher	Dry to Medium
Sh	<i>Dianella sandwicensis</i>	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	<i>Gossypium tomentosum</i>	mao, Hawaiian cotton	5'	8'	sea to 1,000'	Dry to Medium
Sh	<i>Hedyotis</i> spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh	<i>Lipochaeta lavarum</i>	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	<i>Osteomeles anthyllifolia</i>	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	<i>Scaevola sericea</i>	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	<i>Senna gaudichaudii</i>	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	<i>Solanum nelsonii</i>	akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	<i>Styphelia tameiameia</i> e	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	<i>Vitex rotundifolia</i>	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	<i>Wikstroemia uva-ursi kauaiensis kauaiensis</i>	akia, Molokai osmanthus				
Sh - Tr	<i>Broussonetia papyrifera</i>	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Sh - Tr	<i>Myoporum sandwicense</i>	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	<i>Nototrichium sandwicense</i>	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	<i>Dodonaea viscosa</i>	'a ali'i	8'	8'	sea to higher	Dry to Medium
Tr	<i>Aleurites moluccana</i>	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	<i>Calophyllum inophyllum</i>	kamani, alexandrian laurel	80'	40'	sea to 3,000'	Medium to Wet
Tr	<i>Canthium odoratum</i>	Alaha'e, 'ohie'e, walahe'e	12'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Cordia subcordata</i>	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Diospyros sandwicensis</i>	lama	12'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Erythrina sandwicensis</i>	williwill	20'	20'	sea to 1,000'	Dry
Tr	<i>Metrosideros polymorpha</i> var. <i>macrophylla</i>	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 3

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	<i>Psilotum nudum</i>	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
G	<i>Colubrina asiatica</i>	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	<i>Eragrostis monticola</i>	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Eragrostis variabilis</i>	'emo-loa	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Fimbristylis cymosa</i> ssp. <i>spathacea</i>	mau'aki'aki fimbriatilis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	<i>Boerhavia repens</i>	'alena	0.5'	4'	sea to 1,000'	Dry to Medium
Gr	<i>Chamaesyce celastrordes</i> var. <i>laehiensis</i>	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Cressa luxillensis</i>	cressa	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	<i>Heliotropium anomalum</i> var. <i>argenteum</i>	'hinahina ku kihakahi	1'	2'	sea to 1,000'	Dry to Medium
Gr	<i>Ipomoea tuboides</i>	Hawaiian moon flower, uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	<i>Jacquemontia ovalifolia</i> ssp. <i>sandwicensis</i>	pa'u o h'i'akae	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	<i>Lipochaeta integrifolia</i>	nehe	1'	5'	sea to 1,000'	Dry to Medium
Gr	<i>Peperomia leptostachya</i>	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	<i>Plumbago zeylanica</i>	'ilie'e	1'			
Gr	<i>Sesuvium portulacastrum</i>	'akulikuli, sea-purslane	0.5'	2'	sea to 1,000'	Dry to Wet
Gr	<i>Sida fallax</i>	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Tephrosia purpurea</i> var. <i>purpurea</i>	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	<i>Halimolobos calyphyllus</i>	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lipochaeta rockii</i>	nehe	2'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lipochaeta succulenta</i>	nehe	2'	5'	sea to 1,000'	Dry to Wet
Gr - Sh	<i>Lycium sandwicense</i>	'ohelo-kai, 'ae'ae	2'	2'	sea to 1,000'	Dry to Medium
P	<i>Cocos nucifera</i>	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	<i>Pritchardia hillebrandii</i>	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	<i>Mariscus javanicus</i>	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium

Zone-specific Native and Polynesian plants for Maui County

Zone 4

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	<i>Psilotum nudum</i>	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	<i>Sadleria cyatheoides</i>	'ama'u, ama'uma'u				
G	<i>Colubrina asiatica</i>	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	<i>Eragrostis monicola</i>	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Eragrostis variabilis</i>	'emo-loa	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Fimbristylis cymosa</i> ssp. <i>spathacea</i>	mau'u'aki'aki fimbri-stylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	<i>Chamaesyce celastroides</i> var. <i>laehiensis</i>	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Ipomoea tuboides</i>	Hawaiian moon flower, 'uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	<i>Jacquemontia ovalifolia</i> ssp. <i>sandwicensis</i>	pa'u o hi'iaka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	<i>Lipochaeta integrifolia</i>	nehe	1'	5'	sea to 1,00'	Dry to Medium
Gr	<i>Peperomia leptostachya</i>	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	<i>Plumbago zeylanica</i>	'ilie'e	1'			
Gr	<i>Sida fallax</i>	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Tephrosia purpurea</i> var. <i>purpurea</i>	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	<i>Hibiscus calyphyllus</i>	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lipochaeta rockii</i>	nehe	2'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lipochaeta succulenta</i>	nehe	2'	5'	sea to 1,000'	Dry to Wet
P	<i>Cocos nucifera</i>	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	<i>Pritchardia arecina</i>	lo'ulu, hawane	40'	10'	1,000' to 3,000'	Dry to Wet
P	<i>Pritchardia forbesiana</i>	lo'ulu	15'			
P	<i>Pritchardia hillebrandii</i>	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	<i>Mariscus javanicus</i>	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	<i>Argemone glauca</i> var. <i>deciplens</i>	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	<i>Artemisia australis</i>	'ahinahina	2'	3'	sea to 3,000'	Dry to Medium

Zone-specific Native and Polynesian plants for Maui County

Zone 3

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Tr	<i>Morinda citrifolia</i>	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	<i>Nesoluma polynesianum</i>	keahi	15'	15'	sea to 3,00'	Dry
Tr	<i>Nestegis sandwicensis</i>	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	<i>Pandanus tectorius</i>	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Pleomele auwahiensis</i>	halapepe	20'			
Tr	<i>Rauvolfia sandwicensis</i>	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Reynoldsia sandwicensis</i>	'ohe makai	20'	20'	1,000' to 3,000'	Dry
Tr	<i>Santalum ellipticum</i>	coastal sandalwood, 'ili-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Thespesia populnea</i>	milo	30'	30'	sea to 3,000'	Dry to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 4

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Tr	<i>Nestegis sandwicensis</i>	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	<i>Pandanus tectorius</i>	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Pleomele auwahiensis</i>	halapepe	20'			
Tr	<i>Rauvolfia sandwicensis</i>	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Santalum ellipticum</i>	coastal sandalwood, 'ili-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Sophora chrysophylla</i>	mamane	15'	15'	1,000' to 3,000'	Medium
Tr	<i>Thespesia populnea</i>	milo	30'	30'	sea to 3,000'	Dry to Wet
V	<i>Alyxia oliviformis</i>	malle	Vine		sea to 6,000'	Medium to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 4

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	<i>Artemisia mauiensis</i> var. <i>diffusa</i>	Maui wormwood, 'ahinahina	2'	3'	1,000' to higher	Dry to Medium
Sh	<i>Bidens hillebrandiana</i> ssp. <i>hillebrandiana</i>	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	<i>Bidens menziesii</i> ssp. <i>menziesii</i>	ko'oko'olau	1'	3'		
Sh	<i>Bidens micrantha</i> ssp. <i>micrantha</i>	ko'oko'olau	1'	3'		
Sh	<i>Cordyline fruticosa</i>	ti, ki	6'			
Sh	<i>Dianella sandwicensis</i>	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	<i>Lipochaeta lavarum</i>	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	<i>Osteomeles anthyllidifolia</i>	'ulei, etuehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	<i>Scaevola sericea</i>	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	<i>Solanum nelsonii</i>	'akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	<i>Styphelia tameiameia</i>	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	<i>Vitex rotundifolia</i>	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	<i>Wikstroemia uva-ursi</i> <i>kauaiensis</i> <i>kauaiensis</i>	'akia, Molokai osmanthus				
Sh - Tr	<i>Broussonetia papyrifera</i>	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Sh - Tr	<i>Myoporum sandwicense</i>	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	<i>Notoltrichium sandwicense</i>	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	<i>Dodonaea viscosa</i>	'a'ai'i	6'	8'	sea to higher	Dry to Medium
Tr	<i>Acacia koa</i>	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	<i>Aleurites moluccana</i>	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	<i>Calophyllum inophyllum</i>	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	<i>Canthium odoratum</i>	Alahe'e, 'ohe'e, walahe'e	12'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Charpentiera obovata</i>		15'			
Tr	<i>Cordia subcordata</i>	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Diospyros sandwicensis</i>	lama	12'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Hibiscus furcellatus</i>	'akiohala, hau-hele	8'			
Tr	<i>Metrosideros polymorpha</i> var. <i>macrophylla</i>	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Morinda citrifolia</i>	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 5

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	Hedyotis spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh	Lipochaeta lavarum	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	Osteomeles anthyllidifolia	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	Scaevola sericea	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	Senna gaudichaudii	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	Solanum nelsonii	'akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	Vilox rotundifolia	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	Wikstroemia uva-ursi kauaiensis kauaiensis	'akia, Mo'okai osmanthus				
Sh - Tr	Myoporum sandwicense	nalo, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh-Tr	Dodonaea viscosa	'a'ali	8'	8'	sea to higher	Dry to Medium
Tr	Aleurites moluccana	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	Calophyllum inophyllum	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	Cordia subcordata	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	Hibiscus furcatus	'akohala, hau-hele	8'			
Tr	Morinda citrifolia	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	Pandanus tectorius	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	Thespesia populnea	milo	30'	30'	sea to 3,000'	Dry to Wet
V	Ipomoea pes-caprae	beach morning glory, pohuehue	1'			

Zone-specific Native and Polynesian plants for Maui County

Zone 5

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
G	Colubrina asiatica	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	Eragrostis variabilis	'emo-foa	1'	2'	sea to 3,000'	Dry to Medium
G	Fimbristylis cymosa ssp. spathacea	mau'u'aki'aki fimbriatylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	Boerhavia repens	alena	0.5'	4'	sea to 1,000'	Dry to Medium
Gr	Chamaesyca celastroides var. laehiense	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	Cressa truxillensis	cressa	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	Heliotropium anomalum var. argenteum	hinahina ku kahakai	1'	2'	sea to 1,000'	Dry to Medium
Gr	Jacquemontia ovalifolia ssp. sandwicense	pa'u o h'i'aka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	Lipochaeta integrifolia	nehe	1'	5'	sea to 1,00'	Dry to Medium
Gr	Sesuvium portulacastrum	'akulikuli, sea-purslane	0.5'	2'	sea to 1,000'	Dry to Wet
Gr	Sida fallax	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	Tephrosia purpurea var. purpurea	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	Hibiscus calyphyllus	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lycium sandwicense	'ohelo-kai, 'ae'ae	2'	2'	sea to 1,000'	Dry to Medium
P	Cocos nucifera	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	Pritchardia hillebrandii	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	Marsicus javanicus	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	Argemone glauca var. decipiens	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	Artemisia australis	'ahinahina	2'	3'	sea to 3,000'	Dry to Medium
Sh	Bidens hillebrandiana ssp. hillebrandiana	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	Bidens mauiensis	ko'oko'olau	1'	3'	sea to 1,000'	Dry to Medium
Sh	Chenopodium oahuense	'aheahea, 'aweoweo	6'		sea to higher	Dry to Medium
Sh	Dianella sandwicensis	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	Gossypium tomentosum	mao, Hawaiian cotton	5'	8'	sea to 1,000'	Dry to Medium

DO NOT PLANT THESE PLANTS !!!

Common name	Scientific name	Plant family
	<i>Jasminum fluminense</i>	Oleaceae
	<i>Anthrotama ciliatum</i>	Melastomataceae
	<i>Dissolol rotundifolia</i>	Melastomataceae
	<i>Erigeron karwinskianus</i>	Asteraceae
	<i>Eucalyptus robusta</i>	Myrtaceae
	<i>Hedychium gardenianum</i>	Zingiberaceae
	<i>Juncus planifolius</i>	Juncaceae
	<i>Lophosyemon confertus</i>	Myrtaceae
	<i>Medinilla cunningii</i>	Melastomataceae
	<i>Medinilla magnifica</i>	Melastomataceae
	<i>Medinilla venosa</i>	Melastomataceae
	<i>Melastoma candidum</i>	Melastomataceae
	<i>Melinis minutiflora</i>	Poaceae
	<i>Olea europaea</i>	Oleaceae
	<i>Oxyspora paniculata</i>	Melastomataceae
	<i>Panicum maximum</i>	Poaceae
	<i>Paspalum urvillei</i>	Poaceae
	<i>Passiflora edulis</i>	Passifloraceae
	<i>Phormium tenax</i>	Agavaceae
	<i>Pinus taeda</i>	Pinaceae
	<i>Prosopis pallida</i>	Fabaceae
	<i>Pterolepis glomerata</i>	Melastomataceae
	<i>Rhodomyrtus tomentosa</i>	Myrtaceae
	<i>Schefflera actinophylla</i>	Araliaceae
	<i>Syzygium jambos</i>	Myrtaceae
Australian blackwood	<i>Acacia melanoxylon</i>	Mimosaceae
Australian tree fern	<i>Cyathea cooperi</i>	Cyatheaceae
Australian tree fern	<i>Sphaeropteris cooperi</i>	Cyatheaceae
Boggar's tick, Spanish needle	<i>Bidens pilosa</i>	Asteraceae
California grass	<i>Brachiaria rutilica</i>	Poaceae
Chinese banyon, Maylayan banyon	<i>Ficus microcarpa</i>	Moraceae
Chinese violet	<i>Asystasia gangetica</i>	Acanthaceae
Christmasberry, Brazilian pepper	<i>Schinus terebinthifolius</i>	Anacardiaceae
Formosan koa	<i>Acacia confusa</i>	Mimosaceae
German ivy	<i>Senecio mikanioides</i>	Asteraceae
Japanese honeysuckle	<i>Lonicera japonica</i>	Caprifoliaceae
Koster's curse	<i>Clidemia hirta</i>	Melastomataceae
Lantana	<i>Lantana camara</i>	Verbenaceae
Mauritius hemp	<i>Furcraea foetida</i>	Agavaceae
Mexican ash, tropical ash	<i>Fraxinus uhdei</i>	Oleaceae
Mexican tulip poppy	<i>Hunnemannia fumaritifolia</i>	Papaveraceae
Mules foot, Madagascar tree fern	<i>Angiopteris evecta</i>	Marattiaceae
New Zealand laurel, karakaranul	<i>Corynocarpus laevigatus</i>	Corynocarpaceae
New Zealand tea	<i>Lepidospermum scoparium</i>	Myrtaceae
Pampas grass	<i>Cortaderia jubata</i>	Poaceae
Panama rubber tree, Mexican rubber tree	<i>Castilleja elastica</i>	Moraceae
Shoebuttin ardisia	<i>Ardisia elliptica</i>	Myrsinaceae
banana poka	<i>Passiflora mollissima</i>	Passifloraceae

DO NOT PLANT THESE PLANTS !!!

Common name	Scientific name	Plant family
black wattle	<i>Acacia meamsii</i>	Mimosaceae
blackberry	<i>Rubus argutus</i>	Rosaceae
blue gum	<i>Eucalyptus globulus</i>	Myrtaceae
bocconia	<i>Bocconia frutescens</i>	Papaveraceae
broad-leaved cordia	<i>Cordia alliodora</i>	Boraginaceae
broomsedge, yellow blueslem	<i>Andropogon virginicus</i>	Poaceae
buffelgrass	<i>Cenchrus ciliaris</i>	Poaceae
butterfly bush, smoke bush	<i>Buddleia madagascariensis</i>	Buddleiaceae
cats claw, Mysore thorn, wait-a-bit	<i>Caesalpinia decapetala</i>	Caesalpiniaceae
common ironwood	<i>Casuarina equisetifolia</i>	Casuarinaceae
common velvet grass, Yorkshire lag	<i>Holcus lanatus</i>	Poaceae
iddlewood	<i>Citharexylum spinosum</i>	Verbenaceae
lira tree, faya tree	<i>Myrica faya</i>	Myricaceae
glorybower	<i>Clerodendrum japonicum</i>	Verbenaceae
hairy cat's ear, gosmore	<i>Hypochoeris radicata</i>	Asteraceae
haole koa	<i>Leucaena leucocephala</i>	Fabaceae
ivy gourd, scarlet-fruited gourd	<i>Coccinia grandis</i>	Cucurbitaceae
juniper berry	<i>Citharexylum caudatum</i>	Verbenaceae
kahili flower	<i>Grevillea banksii</i>	Proteaceae
klu, popinac	<i>Acacia farnesiana</i>	Mimosaceae
logwood, bloodwood tree	<i>Haematoxylon campechianum</i>	Caesalpiniaceae
loguai	<i>Eriobotrya japonica</i>	Rosaceae
meadow ricegrass	<i>Ehrharta stipoides</i>	Poaceae
melaleuca	<i>Melaleuca quinquenervia</i>	Myrtaceae
miconia, velvet leaf	<i>Miconia calvenscens</i>	Melastomataceae
narrow-leaved carpetgrass	<i>Axonopus lessifolius</i>	Poaceae
oleaster	<i>Elaeagnus umbellata</i>	Elaeagnaceae
oriental mangrove	<i>Bruguiera gymnorhiza</i>	Rhizophoraceae
padang cassia	<i>Cinnamomum burmanni</i>	Lauraceae
palmgrass	<i>Setaria palmifolia</i>	Poaceae
pearl flower	<i>Heterocentron subtripinervium</i>	Melastomataceae
quinine tree	<i>Cinchona pubescens</i>	Rubiaceae
satin leaf, caimitillo	<i>Chrysophyllum oliviforme</i>	Sapotaceae
silkwood, Queensland maple	<i>Findleria brayleyana</i>	Rutaceae
silky oak, silver oak	<i>Grevillea robusta</i>	Proteaceae
strawberry quava	<i>Psidium cattleianum</i>	Myrtaceae
swamp oak, saltmarsh, longleaf ironwood	<i>Casuarina glauca</i>	Casuarinaceae
sweet vernalgrass	<i>Anthoxanthum odoratum</i>	Poaceae
tree of heaven	<i>Ailanthus altissima</i>	Simaroubaceae
trumpet tree, quarumo	<i>Cecropia obtusifolia</i>	Cecropiaceae
white ginger	<i>Hedychium coronarium</i>	Zingiberaceae
white moho	<i>Heliconia popayanensis</i>	Tillaceae
yellow ginger	<i>Hedychium flavescens</i>	Zingiberaceae

Selection

As a general rule, it is best to select the largest and healthiest specimens. However, be sure to note that they are not pot-bound. Smaller, younger plants may result in a low rate of plant survival.¹ When selecting native species, consider the site they are to be planted in, and the space that you have to plant. For example: Mountain species such as koa and maile will not grow well in hot coastal areas exposed to strong ocean breezes. Lowland and coastal species such as waiwili and Kou require abundant sunshine and porous soil. They will not grow well with frequent cloud cover, high rainfall and heavy soil.

Consider too, the size that the species will grow to be. It is not wise to plant trees that will grow too large.² Overplanting tends to be a big problem in the landscape due to the underestimation of a species' height, width or spread.

A large, dense canopied tree such as the kukui is a good shade tree for a lawn. However, it's canopy size and density of shade will limit what can be planted in the surrounding area. Shade cast by a koa and ohia lehua is relatively light and will not inhibit growth beneath it.

Keep seasons in mind when you are selecting your plants. Not all plants look good year round, some plants such as ilima will look scraggly after they have flowered and formed seeds. Avoid planting large areas with only one native plant. Mixing plants which naturally grow together will ensure the garden will look good all year round.³ Looking at natural habitats helps to show how plants grow naturally in the landscape.

When planting an area with a mixed-ecosystem, keep in mind the size and ecological requirements of each plant. Start with the hardiest and most easily grown species, but allow space for fragile ones in subsequent plantings.

Acquiring natives

Plants in their wild habitat must be protected and maintained. It is best and easiest to get your plants from nurseries (see list), or friend's gardens. Obtain proper permits from landowners and make sure you follow a few common sense rules:

- collect sparingly from each plant or area.
- some plants are on the state or Federal Endangered Species list. Make sure you get permits (see app. A,B)

¹ K. Nagata, P.6

² K. Nagata, P.9

³ Nagata, P.9

Soil

Once you have selected your site and the plants you wish to establish there, you must look at the soil conditions on the site. Proper soil is necessary for the successful growth of most native plants, which perform poorly in hard pan, clay or adobe soils. If natives are to be planted in these types of soil, it would be wise to dig planting holes several times the size of the rootball and backfill with 50-75% compost.⁴ A large planting hole ensures the development of a strong root system. The plant will have a headstart before the roots penetrate the surrounding poor soil.⁵

It is recommended that native plants not be planted in ground that is more dense than potting soil. If there is no alternative, dig a hole in a mound of soil mixed with volcanic cinder which encourages maximum root development. Fill the hole with water, if the water tends to puddle or drain too slowly, dig a deeper hole until the water does not puddle longer than 1 or 2 minutes.⁶ Well-drained soil is one of the most important things when planting natives as you will see in the next section.

Irrigation

Most natives do very poorly in waterlogged conditions. Do not water if the soil is damp. Water when the soil is dry and the plants are wilting. Once established, a good soaking twice a week should suffice. Deep soaking encourages the development of stronger, and deeper root systems. This is better than frequent and shallow watering which encourage weaker, more shallow root systems.

The following is a watering schedule from Kenneth Nagata's Booklet, *How To Plant A Native Hawaiian Garden*:

WATER REQUIREMENT

Heavy
Moderate
Light

WATERING FREQUENCY

3x / week
2x / week
1x / week

Red clay soils hold more water for a longer period of time than sandy soils do. If your area is very sunny or near a beach, things will dry out faster. Even in the area of one garden, there are parts that will need more or less water. Soils can vary and amount of shade and wind differ. After plants are established (a month or two for most plants, up to a year for some trees), you can back off watering.

⁴ Nagata, p. 6

⁵ Nagata, p. 8

⁶ Nagata, p. 8

Automatic sprinkler systems are expensive to install and must be checked and adjusted regularly. Above-ground systems allow you to monitor how much water is being put out, but you lose a lot due to malfunctioning of sprinkler heads and wind. The most efficient way to save water and make sure your plants get enough water, is to hand-water. This way you are getting our precious water to the right places in the right amounts.⁷

Fertilizer

An all-purpose fertilizer 10-10-10 is adequate for most species. They should be applied at planting time, 3 months later, and 6 months thereafter. Use half the dosage recommended for ornamentals and pay special attention to native ferns which are sensitive to strong fertilizers. Use of organic composts and aged animal manures is suggested instead of chemical fertilizers. In addition, use of cinders for providing trace minerals is strongly recommended.⁸

Natives are plants which were here hundreds of years before the polynesians inhabited the Hawaiian Islands. They were brought here by birds, or survived the harsh ocean conditions to float here. They are well-adapted to Hawaii's varying soil and environmental conditions. This is why they make prime specimens for a xeriscape garden. However, natives will not thrive on their own, especially under harsh conditions. On the other hand, like any other plant, if you over-water and over-fertilize them, they will die. Follow the instructions given to you by the nursery you buy the plant from, or from this booklet. Better yet, buy a book (suggested readings can be found in the bibliography in the back of this pamphlet), read it, and learn more about native plants. I guarantee that you will be pleased with the results.

⁷ Bornhorst, p. 19-20

⁸ Nagata, p. 6

Propagation

There are many ways to propagate and plant-out native Hawaiian species. One of the most thorough and helpful book is Heidi Bornhorst's book, *Growing Native Hawaiian Plants*. The easiest, and best way to obtain natives for the novice gardener is to get them from a reputable nursery (see appendix c). That way all you will have to do is know how to transplant (if necessary) and plant-out when you are ready. These are the two methods I have listed here.

Transplanting

1. Use pots that are one size bigger than the potted plant is in
 2. Get your potting medium ready
- Good potting medium is a ½, ½ mixture of peat moss and perlite. If the plant is from a dry or coastal area, add chunks of cinder or extra perlite. If it is a wet forest species, add more peat moss or compost. Be aware that peat moss is very acidic and certain plants react severely to acidity.

If the plant is to eventually be planted into the ground, make a mix of equal parts peat moss, perlite, and soil from the area in which the plant is to be planted. Slow-release fertilizer can be mixed into the potting medium.

3. Once pots, potting medium, fertilizer and water are ready, you can begin re-potting. Keep the plant stem at the same depth it was in the original pot. Avoid putting the plant in too large a pot, as the plant may not be able to soak up all the water in the soil and the roots may drown and rot.

Mix potting medium and add slow-release fertilizer at this time. Pre-wet the medium to keep dust down and lessen shock to the plant. Put medium in bottom of pot. Measure for the correct depth in the new pot. Make sure there is from ¼ to 2 inches from the top of the pot so the plant can get adequate water. Try to stand the plant upright and center the stem in the middle of the pot.

Water the plant thoroughly after transplanting. A vitamin B-1 transplanting solution can help to lessen the transplant shock. Keep the plant in the same type of environment as it was before, sun or shade. If roots were broken, trim off some of the leaves to compensate for the loss.⁹

Planting out

1. Plant most native Hawaiian plants in a sunny location in soil that is well-drained.
2. Make the planting hole twice as wide as the root ball or present pot, and just as deep.

If the soil is clay-like, and drains slowly, mix in some coarse red or bland cinder, coarse perlite or

⁹ Bornhorst, p.20-21

- coarse compost. Place some slow-release fertilizer at the bottom of the hole.
- Carefully remove the plant from the container and place it in the hole. The top of the soil should be at the same level as the top of the hole, if it is too high or too low, adjust the soil level so that the plant is at the right depth.
 - Water thoroughly after you transplant.

Mulch

Most natives cannot compete with weeds, and therefore must be weeded around constantly in order to thrive. Mulch is a practical alternative, which discourages and prevents weeds from growing.

Hawaii's hot, humid climate leads to the breaking down of organic mulches. Thick organic mulches such as wood chips and leaves, may also be hiding places for pests.

Stone mulches are attractive, permanent and can help to improve soil quality. Red or black cinder, blue rock chips, smooth river rocks and coral chips are some natural choices.¹⁰ Macadamia nut hulls are also easy to find and can make a nice mulch.¹¹

Never pile up mulch right next to the stem or trunk of a plant, keep it a few inches away.

ZONES

The Maui County Planting Plan has compiled a system of 5 zones of plant growth for Maui County. The descriptions of zones and maps for these zones are as follows:

- Zone 1: Wet areas on the windward side of the island. More than 40 inches of rain per year. Higher than 3,000 feet.
- Zone 2: Cool, dry areas in higher elevations (above 1,000 feet). 20 to 40 inches of rain per year.
- Zone 3: Low, drier areas, warm to hot. Less than 20 inches of rain per year. Sea level to 1,000 feet.
- Zone 4: Lower elevations which are wetter due to proximity of mountains. 1,000 to 3,000 feet.
- Zone 5: Salt spray zones in coastal areas on the windward side.

These zones are to be used as a general guide to planting for Maui County. In addition to looking at the maps, read the descriptions of the zones and decide which zone best fits your area. Plants can be listed in more than one zone and can be planted in a variety of conditions. For best results, take notes on the rainfall, wind, sun and salt conditions of your site. Use the zones as a general guide for selection and read about the plants to decide which best fits your needs as far as care and or function.

¹⁰ Bomborst, p. 24

¹¹ Nagata, p. 7

PLACES TO SEE NATIVES ON MAUI.

The following places propagate native Hawaiian plants from seeds and/or cuttings. Their purpose is to protect and preserve these native plants. Please contact them before going to view the sites, they can provide valuable information and referral to other sources.

1. Hoolawa Farms
P O Box 731
Haiku HI 96708
575-5099
2. The Hawaiian Collection
1127 Manu Street
Kula HI 96790
878-1701
3. Kula Botanical Gardens
RR4, Box 228
Kula HI 96790
878-1715
4. Maui Botanical Gardens
Kanaloa Avenue, Kahului
across from stadium
249-2798
5. Kula Forest Reserve
access road at the end of Waipoli Rd
Call the Maui District Office
984-8100
875-9557
6. Wailea Point, Private Condominium residence
4000 Wailea Alanui, Kihei
public access points at Four Seasons Resort or
Polo Beach
248-8912
7. Kahanu Gardens, National Tropical Botanical Garden
Alau Place, Hana HI 96713
873-3097
8. Kahului Library Courtyard
20 School Street
Kahului HI 96732

PLACES TO BUY NATIVE PLANTS ON MAUI.

1. Ho'olawa Farms
Anna Palomino
P O Box 731
Haiku HI 96708
575-5099
* The largest and best collection of natives in the state. They will deliver, but worth the drive to go and see! Will propagate upon request
2. Kahanu Gardens
National Tropical Botanical Garden
Alau Place, Hana
248-8912
3. Kihana Nursery
1708 South Kihei Road
Kihei HI 96753
879-1165
4. Kihei Garden and Landscape
Waiko Road, Wailuku
P O Box 1058
Puunene HI 96784
244-3804
5. Kula Ace Hardware and Nursery
3600 Lower Kula Road
Kula HI 96790
876-0734
* many natives in stock
* get most of their plants from Ho'olawa Farms
* they take special requests
6. Kulamau Farms - Ann Carter
Kula HI 96790
878-1801
7. Maui Nui Botanical Gardens
Kanaloa Avenue
(Across from stadium)
Kahului HI 96732
249-2798
8. Native Landscapes
Robin McMillan
1330 Lower Kimo Drive
Kula HI 96790
870-1421
* grows native plants and installs landscapes including irrigation.
9. Na'ive Hawaiian Tree Source
1630 Piholo Road
Makawao HI 96768
572-6180
10. Na'ive Nursery, LLC
Jonathan Keyser
250-3341
11. New Moon Enterprises - Pat Bly
47 Kahoea Place
Kula HI 96790
878-2441
12. Waikoa Tree Farm - Kua Rogoff
Pukalani HI 96768
Cell - 264-4166



May 19, 2011

PRINCIPALS
THOMAS WITTEN, ASLA
President

R. STANBURNAN, ASLA
Executive Vice President

RUSSELL CHUNG, FASLA, LEED® AP
Executive Vice President

VINCENT SHIGIKUNI
Vice President

GRANT TAMURA, AIA, AIA, LEED® AP
Principal

W. FRANK BRANDT, FASLA
Chairman Emeritus

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Senior Associate

RAYMOND T. HIGA, ASLA
Senior Associate

KEVIN K. NISHIKAWA, ASLA
Associate

KIMI MIKAMI YUEN, LEED® AP
Associate

SCOTT AIKAA, AIA, LEED® AP
Associate

SCOTT MURAKAMI, ASLA, LEED® AP
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Fax: (808) 335-3103

Mr. Dave Taylor
SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION
NOTICE
May 19, 2011
Page 2

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII

Michael Shibata
Project Manager/Planner

O:\job\23\2399.03 Wai'ale Entitlements\EISP\EISP Comments\Final Responses\BL-08 County DWS Response.doc

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Mr. Taylor:

We are in receipt of your Department's letter dated October 27, 2010 to Mr. Grant Chun of A&B Properties, Inc. regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISP). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to your comments:

Source Availability and Consumption

The Draft Environmental Impact Statement (EIS) will provide information regarding Wai'ale's expected drinking and non-drinking water demands, as well as potential sources for each. The Wai'ale Wells 1 & 2 are not proposed to serve the Wai'ale project.

System Infrastructure

We acknowledge that the Department of Water Supply (DWS) transmission lines traverse the project site. We understand that system improvement requirements to serve Wai'ale will be determined in the subdivision process.

Pollution Prevention

Thank you for providing the map that shows the location of the project site in relation to the wellhead protection area (WHPA) of DWS sources overlying Kahului aquifer. The Draft EIS will include discussion of Best Management Practices (BMP) to minimize groundwater contamination from the proposed uses.

Conservation

Thank you for providing the "Residential Conservation Measures" and "Saving Water in the Yard" brochures. The Draft EIS will include discussion of conservation measures to be implemented in project design and construction, where applicable.

Thank you for reviewing the EISP. Your comments will be included in the Draft EIS.



CHARMAINE TAVARES
MAYOR

OUR REFERENCE
YOUR REFERENCE

POLICE DEPARTMENT
COUNTY OF MAUI

55 MAHALANI STREET
WAILUKU, HAWAII 96798
(808) 244-6400
FAX (808) 244-6411

GARY A. YABUTA
CHIEF OF POLICE

CLAYTON N.Y.W. TOM
DEPUTY CHIEF OF POLICE

October 25, 2010

Mr. Michael Shibata
PBR Hawaii
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, HI 96813

Dear Mr. Shibata:

SUBJECT: Environmental Impact Statement Preparation Notice – Waialeale
TMK: J(2) 3-8-005: 023 (por.) and 037, and (2) 3-8-007:071, 101 (por.) and 104

Thank you for your letter of October 1, 2010, requesting comments on the above subject.

We have reviewed the Environmental Impact Statement Preparation Notice and have enclosed our comments and recommendations. Thank you for giving us the opportunity to comment on the proposed project.

Very truly yours,

A.C.D. Matsuura
Assistant Chief Danny Matsuura
for: GARY A. YABUTA
Chief of Police

Enclosure

c: Kathleen Ross Apki, Maui County Planning Department
Grant Chun, A & B Properties, Inc.
Dan Davidson, State Land Use Commission

TO : GARY YABUTA, CHIEF OF POLICE, MAUI POLICE DEPT. *copy*
VIA : CHANNELS *A.C.D. Matsuura*
FROM : DARRELL RAMOS, ADMINISTRATIVE SERGEANT, WAILUKU PATROL DIVISION *10/23/10*
SUBJECT : RESPONSE TO A REQUEST FOR COMMENTS REGARDING THE EISPN FOR THE PROPOSED "WAI'ALE" PROJECT

This communication is submitted as a response to a request for comments by PBR HAWAII & ASSOCIATES, Inc., Principal, Vincent SHIGEKUNI, regarding the Environmental Impact Statement Preparation Notice for the following project;

TITLE OF PROJECT : Waialeale
TMK NO. : (2) 3-8-005: 023 (por.) and 037, and (2) 3-8-007: 071, 101 (por.) and 104
APPLICANT : A&B Properties (Grant CHUN)
LOCATION : Waikapu, Wailuku, Hawaii
PROJECT AREA : Approximate 545 acres

ROADWAYS AND TRAFFIC

Major roadways in the vicinity if the site include: Kulihelani Highway (adjacent to and east of the site), Waiko Road (bisects the site), Honoapi'iani Highway and Waialeale road (west of the site), and Kamehameha Avenue (north of the site).

Kulihelani Highway is a 4 lane, 2 way State arterial highway running in a north-south direction between Kahului and Ma'alea. Kulihelani Highway has traffic signals and turning lanes at major intersections, including Waiko Road. The posted speed limit varies between 30 and 55 mph.

Waiko Road, which intersects the Kulihelani Highway and divides the Waialeale site into 2 sections, is a 2 lane, County and privately owned collector roadway connecting Honoapi'iani Highway and Kulihelani Highway. The posted speed limit is 20 mph. Immediately east of Honoapi'iani Highway, Waiko Road provides access to a residential community, and is owned by the County. Further east, Waiko Road provides access to industrial and livestock land uses and is privately owned.

Honoapi'iani Highway is a 2 lane, undivided State highway running in a north-south direction between Wailuku & Ma'alea. The posted speed limit ranges between 30 and 55 mph near Waikapu. Honoapi'iani Highway has a left turn pocket into Waiko Road.

Waialeale Road is a 2 lane road running north from Waiko Road. Waiko Road becomes Lower Main Street near Kaahumanu Avenue. Waialeale Road has been extended and improved as part of the Waikapu affordable housing subdivision

(adjacent to and west of the Wai'ale site). The county's roadway master plan proposes an extension of Wai'ale Road from Waiko Road south to Honoapi'iliani Highway.

Kamehameha Avenue is a two lane, County collector roadway within the adjacent Maui Lani project that currently terminates just north of the Wai'ale site.

Portions of the Wai'ale site are currently leased to companies for various uses. These businesses generate traffic, including deliveries of goods and services and employees commuting to/from work.

POTENTIAL IMPACTS

A traffic Impact Assessment Report is being prepared to assess the project's impact on traffic and identify measures required to mitigate the impacts. The TIAR will be included in the draft EIS.

RESPONSE:

In review of the submitted documents, the focus from the police perspective would be upon the safety of pedestrian and vehicular movement.

At this time I remain with the response comments submitted by PBR HAWAII & ASSOCIATES, Inc., Vice President, Vincent SHIGEKUNI in regards to the Environmental Impact Statement Preparation Notice for the Proposed Wai'ale on 07/11/08 (see attached).

Respectfully submitted for your review and approval.

Daniel RAMOS E#1123
Administrative Sergeant/Wailuku Patrol Division
10/20/10 @ 0954 Hours

Concur - recommend approval
at this time - further review &
comments will be made once the
TIAR is completed.
Capt. Dingman 5/17
10/20/10 11:50 AM



May 19, 2011

PRINCIPALS
THOMAS WITTEN, ASLA
President

R. STAN BUNCAN, ASLA
Executive Vice President

RENEE L. CHONG FASHA, LEED AP
Executive Vice President

VINCENT SHIGEKUNI
Vice President

GRANT LAURAKAMI, ACP, LEED AP
Principal

W. FRANK BRANDI LASHA
Chairman Emeritus

ASSOCIATES
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RAYMOND T. HIGA, ASLA
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Associate

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Tel: (808) 521-5631
Fax: (808) 525-3163

Mr. Gary Yabuta, Chief of Police
Police Department
County of Maui
55 Mahalani Street
Wailuku, Hawaii 96793

Attn: Mr. Danny Matsuura, Assistant Chief

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Chief Yabuta:

Thank you for your Department's letter dated October 25, 2010 regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISP). As the planning consultant for the applicant, A&B Properties, Inc., we acknowledge that the focus from the Maui Police Department's perspective would be upon the safety of pedestrian and vehicular movements. A Traffic Impact Analysis Report has been prepared, and will be included in the Draft Environmental Impact Statement (EIS).

Thank you for reviewing the EISP. Your comments will be included in the Draft EIS.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII

Daniel Ramos
Michael Shibata
Project Manager/Planner

O:\Job\232399\03 Wai'ale Entitlements\EISP\EISP Comments\Final Responses\BL-06 County MPP Response.doc



October 6, 2010

Mr. Dan Davidson, Executive Officer
State of Hawaii
Land Use Commission
Post Office Box 2359
Honolulu, Hawaii, 96804

Subject: Environmental Impact Statement Preparation Notice for Wai'ale
Tax Map Key: (2) 3-8-005-023 (por.), 037, and (2) 3-8-007-071 (por.), and 104
Waiko Road and Kuihelani Highway
Wailuku, Maui, Hawaii

Dear Mr. Davidson,

Thank you for allowing us to comment on the Environmental Impact Statement Preparation Notice for the subject project.

In reviewing our records and the information received, Maui Electric Company will be requiring access and electrical easements for our facilities to serve the subject project site. If the customer wishes to relocate the existing overhead facilities within the project site, we ask that the consultant's survey and civil plans be submitted as soon as practical. Since this project's anticipated electrical demand may have a substantial impact to our system, we encourage the customer's electrical consultant to submit the electrical demand requirements and project time schedule as soon as practical so that service can be provided on a timely basis.

Should you have any questions or concerns, please call me at 871-2341.

Sincerely,


Kyle Tamori
Staff Engineer

c: PBR Hawaii – Mr. Michael Shibata
A & B Properties, Inc. – Mr. Grant Chun



May 19, 2011

PRINCIPALS
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Tel: (808) 521-5631
Fax: (808) 525-3163

Mr. Kyle Tamori, Staff Engineer
Maui Electric Company, Ltd.
210 West Kamehameha Avenue
P.O. Box 398
Kahului, Hawaii 96733-6898

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Mr. Tamori:

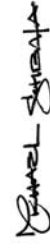
We are in receipt of your letter dated October 6, 2010 to Mr. Dan Davidson of the State of Hawaii Land Use Commission regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISP). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to your comments:

1. We acknowledge that the Maui Electric Company (MECO) will require access and electrical easements for MECO facilities to serve the site. A&B Properties, Inc. will work with you to provide these easements at the appropriate time.
2. Should A&B Properties, Inc. decide to relocate existing overhead facilities within the site, a survey and civil plans will be submitted to MECO as soon as practicable.
3. We acknowledge that Wai'ale's anticipated electrical load demand may have a significant impact to MECO's system. As recommended, A&B Properties, Inc.'s electrical sub-consultant, MK Engineers, Ltd. met with MECO staff to discuss the estimated electrical demand and what improvements will be required so that service can be provided on a timely basis. Please be assured that MECO will be further consulted.

Thank you for reviewing the EISP. Your comments will be included in the Draft Environmental Impact Statement.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII

Michael Shibata
Project Manager/Planner

clear in the DEIS and any impacts that these activities may have on the nearby residences.

It should be discussed whether the county found the proposed 30-acre affordable housing site a desirable location. It will be adjacent to a light industrial zone which buffers it from a former landfill site. It is immediately adjacent to the largest previously disturbed concentration of pre-contact burials found to date on the site and has the potential to contain additional unrecorded burials. **MTF requests that there be specific discussion in the DEIS of the percentage of the 30 acres which currently remains in natural dune formations and is likely to contain burials.**

The affordable housing neighborhood does not appear to be within walking distance to the proposed shopping and commercial areas. The 30 acres of the land dedicated to affordable housing is located appears as open space or park on the maps approved by the General Plan Advisory Committee and Maui Planning Commission and supported by the County Department of Planning. Portions of this same area were also indicated as park or open space on earlier maps of the Waiale project submitted to the public and to public agencies by the landowner. It appears that this was less desirable land, making it somehow suitable for the affordable housing needs of Maui families.

MTF requests that the DEIS address the reasons that this 30 acre site was chosen to fulfill the required donation requirements of Ordinance 3559, despite the fact that the draft Maui Island Plan (MIP) preferred to see the area as an open space buffer to protect cultural sites and minimize any impacts from the former landfill.

A number of specific sections of the EISPN fail to refer to relevant topics that should be in the DEIS. The following is a brief commentary on these and a request that these topics be brought into the public discussion process.

Section 1.9 & 2.1 Public Consultation

This section refers to the 2005 public planning process that Waiale offered to local residents. Not discussed is the fact that participants were not informed that over 60 burials had already been disturbed on the proposed project site. Only a vague mention was made of a proposed burial preservation area. Participants were not informed that burial features had already been inadvertently disturbed on many locations across the land. This could have influenced the public's response to how the project was planned.

Section 2.2 and 2.3.2 5.2.2 County's Maui Island Plan

The DEIS should clearly acknowledge that MIP maps approved by the GPAC, Maui Planning Commission and Maui Planning Director show a very different



November 7, 2010

Mr. Dan Davidson
Executive Officer
State of Hawaii
Land Use Commission
PO Box 2359
Honolulu, Hawaii 96804

Re: **Waiale Development (EISPN) Comments
TMK: (2) 3-8-05:23 (por.) and 37, and (2) 3-8-07:71, 101 (por.), and 104**

Maui Tomorrow Foundation, Inc. (MTF) asks to be a consulted party during the environmental and land use permitting review of this proposed project. We offer the following comments on the EISPN.

Project Design

County Affordable Housing Area

MTF is concerned that the land donation required to satisfy Condition 7 of County Ordinance 3559 (A&B Business Park Phase II Rezoning n Kahului) adopted in April of 2008 is to a large extent being located in an area closest in proximity to a former County landfill and a proposed light industrial zone.

The topic of the nearby landfill and its potential contamination of air, water or soils in the region is not listed in the EISPN as one that will be specifically discussed in the EIS document. It is our understanding that the Waikapu landfill was unlined and it was closed before current health safety regulations pertaining to testing and safety of landfill operations were in place.

MTF requests that an analysis of the landfill and its potential contaminants be done and included in the Hazard Mitigation section of the DEIS.

It appears that a light industrial zoned area will act as a "buffer" between the county's affordable housing area and the former landfill site. The nature of businesses and activities that are expected to use this area should also be made

configuration for the park/cultural preserve area which had specific planning objectives in mind.

The DEIS should also specify which lands, and how much land has been sold to others and how that may have affected the design of the proposed development. It appears that industrial use land along Waiko Road has been sold to others. Was this land originally proposed for residential use?

Section 2.1.1 Surrounding Environment

The EISPN does not mention that portions of Maui Tropical Plantation lands are proposed for approximately 1000 residential units, commercial uses, a school site, parks and a large agricultural preserve, and that partial land use entitlements for this plan are in place. This is relevant information for decision makers as they evaluate cumulative impacts of various developments proposed for the region.

Section 2.3.1 Vision Statement

The project's vision statement omits any reference to the cultural and historic significance of the region and the site. Nearly 80 individual sets of pre-contact remains have already been documented at locations spread across the project site.

"Respect for the natural, historical and cultural significance of the land" is listed as a "community planning goal" for the project. There should be some reference to the area's past history and cultural importance in the community "vision statement." If the vision statement was developed with input from community members the community should also be informed of the sacred nature of the area by Native Hawaiians.

The EISPN mentions a community goal to "capitalize on the views of Haleakala, West Maui mountains and significant landmarks" on the project site. It would be consistent to acknowledge that these considerable visual resources exist on the site and should be protected, rather than dismiss the idea that no important visual resources are listed onsite in county or state studies. **MTF requests that visual resources be discussed during the cultural impact assessment and archaeological review processes.**

Section 3.6. Fauna

Pueo (Native Hawaiian owls) are seen on the Waiale project site by local residents, especially in gulch areas. They are not listed in the avian survey, but are likely to use the area for habitat. Nene are also seen flying over the area and have established a presence at nearby Waiale reservoir, according to residents

who frequent the area. MTF requests that more extensive surveys be done of the site to observe conditions rather than a one or two day snapshot and that appropriate mitigations be offered.

Section 4.1 Historic and Cultural Resources

This section of the DEIS should acknowledge that over 80 sets of pre-contact human remains have been disturbed on the project site by sand mining operations even though archeological surveys completed for the same sites found nothing.

The lithified sand dunes which are found across the project site connect to a system of dunes in the region well known as burial grounds and are thought to be part of the terrain where an historic battle took place in 1776.

The historic-cultural section of the DEIS should state the project site's connection to similar dunes in the Maui Lani development area and the nearly 300 burials inadvertently disturbed in that project district..

MTF is concerned that the proposed Waiale plan creates minimal burial preserve areas. These areas contain only those burial sites which have already been disturbed, creating a risk that numerous additional burials will be discovered and disturbed during future project development. The current burial treatment plan proposed for the Waiale project area does not meet the minimum standards set forth under HAR 13-300-40 and should not be found acceptable by either SHPD, the state Land Use Commission or the county.

MTF requests that the DEIS include maps of all the remaining intact dune areas on the site and an alternative project design that avoids disturbance of these and other possible burial areas and sets aside a cultural preserve area designed to reduce the risk of future burial disturbance.

MTF requests that citizens who have expressed concerns about burials and other cultural features of the area being disturbed be consulted during the Cultural Inventory Assessment process, along with descendants of longtime Waikapu families. We also request that the archaeological review include maps that clearly show the location of cultural features in relationship to the proposal's master development plan.

MTF also requests that the DEIS discuss the impacts of reclassification from agricultural to urban zoning which would end the need for a Special Use Permit for sand mining. Is more sand mining planned for proposed development areas to grade the site?

Archival research for the DEIS should include Mahele-era claims for use of lands along Waikapu stream, both in the vicinity of the project and in adjoining lands.

Section 4.5 Visual Resources

Outstanding views from existing natural dune formations are found on the project site; these may have a cultural context as well. Will these dunes be preserved or will they be graded into building sites, with their unique views extinguished? The DEIS should include consultation with local cultural practitioners who offer a site tour of important visual resources to project planning consultants. The alignments of existing topography on the site to various natural features such as Waikapu valley should be recorded.

Section 4.7.2 Drainage

MTF requests that the DEIS discuss the project area's topography more accurately. The brief description of the characteristics of the land in the EISPN does not acknowledge the numerous prominent lithified sand dunes on the site. These are unique geological forms, created approximately 80,000 years ago and confined to only a small area of central Maui. Some dunes in the Waikapu district are connected with ancient legends that attribute their creation to the Hawaiian deity Haumea. The description in the EISPN of the land as "mostly level" is not accurate. Besides numerous dunes and rolling terrain, there are several gulches that traverse the site and a number of erosional features shaped by wind and water.

Section 4.7.3 Water Resources

MTF requests that the DEIS include updated information on the status of the proposed Waialeale Water Treatment Facility and its impact on surface waters and stream and aquifer health in the Na Wai Eha region. It is our understanding that the State Water Commission has not specifically allotted capacity for a 6 to 9 mgd facility through the recent Water Use Permit process of the four streams. If such a facility is built, would it impact available water for agriculture or water available to restore stream flows and recharge lea aquifer?

The DEIS should contain specific information about the project's expected peak potable and non-potable water needs, as well as planned water conservation measures and expected potable water demands. It would be useful to see these demands phased by number of units built-out during various construction phases.

Potential On-site Wells

Water quality testing reports should be included for the two potential on-site wells in Kahului aquifer. The county once used wells tapping the Kahului aquifer (Reynolds well) located just beyond the project boundary. That well was abandoned due to contamination. Testing reports, including a 10 day test regime,

should verify that the wells have the capacity to produce .64 mgd of fresh water a day long term. It is our understanding that no other well in the Kahului aquifer currently pumps at that sustained level and numerous wells are also drilled and expected to be in service in the neighboring Maui Lani project.

The state's Water Resources Protection Plan (2008) set the sustainable yield of Kahului aquifer as 1 mgd with a confidence factor rating of (2) meaning there is reasonable support for this conclusion, but specific test data is not available.

The WRPP report further notes in the "comments" section: "(1) only basal ground water. (2) Sustainable Yield ignores significant importation of surface water into Kahului from outside the aquifer system area. This explains the ability to withdraw fresh water from the aquifer at significantly higher rates than the sustainable yield without apparent negative impacts (i.e. rising chloride concentrations or decreasing water levels)."

Based upon this agency's observation, MTF requests that the Waialeale DEIS include analyses of the wells potential yield if irrigation of the surrounding area is reduced incrementally due to cessation of agricultural activities and proposed mitigations. This information should be available to decision-makers

Section 4.7.4 Wastewater Facilities

MTF requests that the DEIS also examine other options to treat waste-water through a new regional facility without putting an additional burden on the aging and vulnerable Kahului Waste Water Treatment Facility. This discussion should include potential partnerships with nearby proposed projects, water conservation measures to be designed into the project, and potential use of reclaimed water on the project site.

Section 4.7.5 Solid Waste

MTF requests that the DEIS estimate the amount of construction waste to be generated during the project. Will the construction waste generated be disposed of at the existing Puu Hele facility or will it need an additional construction waste disposal site such as the one proposed at the Puunene cinder pit on Alexander & Baldwin land? Plans for disposal of solid waste during site preparation and construction of these projects should be clearly discussed, especially if they lead to the use of other A&B/HC&C land for future disposal.

Section 4.8.1 Schools

A middle school is needed in the region and several nearby projects besides Waialeale are proposing potential school sites (i.e. Kehalani, Waikapu County Town, Ohana Kai). The DEIS should discuss what coordination is being done with DOE and nearby landowners to select the best suited site for a middle school.

Section 4.8.2 & 3 Police and Fire Protection

MTF requests that the DEIS clearly note the additional personnel and facilities needed to expand police and fire coverage to the Waiale project area and include an analyses of what tax revenues or other funding is expected to offset these additional costs for personnel, equipment and facilities and whether a special funding district will need to be created.

Section 4.8.5 Recreational facilities

MTF requests that the DEIS specifically discuss the proposed regional park along the project's northern border in terms of its ability to act as a protective buffer to minimize future burial disturbances and state whether it is the best location to provide this dual service. The DEIS should discuss what types of facilities and improvements are appropriate for lands set aside as parks in areas where burials are known or very likely to be present. This topic should also be covered in the CIA interviews.

Section 5.2.3 Wailuku –Kahului Community Plan

The Wailuku-Kahului Community Plan has many policies relating to cultural and historic preservation in the region. The historic and cultural importance of the site should be clearly acknowledged in relationship to community plan policies. Measures should be proposed, not only to protect known burials and other cultural features on the site, but also to respect these lands as ancient burial grounds chosen by our kupuna as a sanctified resting place for their departed. MTF requests that the DEIS discuss ways any future Waiale community can promote a respect for the past with specific facilities and dedications to memorialize the important historical events of the region. This should be discussed in the DEIS as part of the project's conformance with state and local plans.

Section 6.0 Alternatives Section

Chapter 343 requires a genuine discussion of alternative site plans for a project site where sensitive environmental or cultural resources are found. Waiale is such a site and alternatives must be offered to provide opportunities for the project to minimize impacts on sensitive cultural resources. The unspoken conclusion of providing minimal burial preservation areas is that all future burials encountered elsewhere on the remaining 500 acres will be relocated. This is largely avoidable through more proactive planning and project design.

MTF requests that the DEIS include maps showing alternative views of historic/cultural preservation areas and open space including those supported by the GPAC, Maui Planning Commission and Maui Planning Director.

Several maps and narratives should be provided showing expanded versions of the proposed cultural preserve area that would reduce the risk of further inadvertent burial disturbances

Sect 7. Findings and Determinations

We note that the EISPN offers a number of conclusions that are either inaccurate or are not adequately supported by facts. These include the following:

4. "will substantially and positively effect the economic, social welfare and cultural practices of the community."
COMMENT: The cultural practices of community members who view this land as a burial ground could be severely impacted by the current proposed plan which may disturb unrecorded burials and alter culturally significant ancient landforms.

7. "No degradation of environmental quality" ."

COMMENT: No information is provided to reach this conclusion. The project in its current master plan is likely to significantly alter the rare, unique and culturally significant lithified sand dunes present on the site. The effects of new pumping demands on the Kahului aquifer are unknown. Transforming an arid natural area into a cultivated urban landscape will create wastewater and other byproducts not currently part of the area's ecosystem.

8. Consultation process

COMMENT: The 2005 community consultation process did not provide participants with any sense of the historic or cultural significance of the land; therefore the community's decisions regarding the project were incomplete.

No mention is made of the long-held concerns of members of the Maui-Lanai Island Burial Council and members of the public who asked that the sand mining on this site be halted and the burials be left in peace. This should be summarized as part of the public consultation process. HAR rules require that opposing views be included in the discussion of project impacts.

9. "No native flora or fauna affected.

COMMENT: The native pueo has seen its habitat shrink dramatically on Maui in the past several decades. Although not formally listed as "threatened" it is now treated as such on Oahu. It is unfortunate that this project fails to recognize other flora and fauna on this site not visible during a brief survey. Gulches and other natural features that provide pueo habitat should remain unaltered if the project does not want to harm native fauna.

General Comments:

The EISPN does not mention what portion of the 2550 units will be affordable to Maui's working families. It is assumed that the county will form partnerships to build affordable units on the 40 donated acres. Will those 300 units count as part of the project total to meet the requirements of the Workforce Housing Ordinance? What price ranges will be reflected at Waiale?

Will the DEIS show alternative sites for the 30 acres donated for affordable housing that are not in proximity to a former landfill site closed before environmental laws required sufficient testing and remedial procedures to determine the presence of harmful pollutants released by such facilities?

Will the DEIS discuss whether testing was done to determine possible contamination from the various industrial operations that surrounded the project site, including a former demolition and scrap yard which processed toxic substances?

We look forward to more complete information in further documents and thank you for this opportunity to offer our comments.

Sincerely,



Irene Bowie
Executive Director

55 N. Church St. Ste. A5, Wailuku, HI 96793 808.244.7570 www.maui-tomorrow.org



May 19, 2011

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Maui Tomorrow Foundation, Inc.
c/o Ms. Irene Bowie, Executive Director
55 N. Church Street, Suite A5
Wailuku, Hawaii 96793

**SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT
PREPARATION NOTICE**

Dear Ms. Bowie:

We are in receipt of your letter dated November 7, 2010 to Mr. Dan Davidson of the State of Hawai'i (State) Land Use Commission regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISPN). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to your comments:

County Affordable Housing Area

We acknowledge your concern regarding the Wai'ale project's location in relation to the Waikapū landfill. A Phase I Environmental Site Assessment report for the Wai'ale site will be included in the Draft Environmental Impact Statement (EIS).

As requested, the nature of businesses and activities that are expected in the proposed light industrial zoned area will be described in the Draft EIS.

The Draft EIS will include a geological reconnaissance survey of the in-situ dunes features remaining at the project site, as well as the archaeological inventory survey of the Wai'ale site which incorporated extensive subsurface testing. Also, the Draft EIS will include the burial site component of a data recovery and preservation plan ("burial preservation plan") for burials identified at the site. The burial preservation plan includes the creation of five (5) preservation areas totaling over 30 acres in size. These preservation areas are depicted on the Wai'ale master plan.

The Draft EIS will include discussion regarding the merits of the location of the proposed 40-acre County affordable housing site.

Section 1.9 and 2.1 Public Consultation

A&B Properties, Inc. has and will continue to consult with members of both the Waikapū and Wailuku communities, including those who may have ancestral connections to the Wai'ale site. Appropriate consideration will be given to any information or thoughts shared to A&B Properties, Inc. A cultural impact assessment, including interviews with persons knowledgeable of the area, will be included in the Draft EIS.

Ms. Irene Bowie
SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION
NOTICE
May 19, 2011
Page 2

Section 2.2 and 2.3.2, 5.2.2 County's Maui Island Plan

The Draft EIS will include maps of the project area adopted as part of the *Draft Maui Island Plan*. Lands south of Waikapū Stream (approximately 220 acres) and along Waiko Road were included in the initial planning for Wai'ale, however, these were subsequently either not designated within the Urban Growth area under the *Draft Maui Island Plan* or were acquired by other parties.

Section 2.1.1 Surrounding Environment

The Draft EIS will include a discussion of the Maui Tropical Plantation lands (Waikapū Country Town) and its effect on cumulative impacts.

Section 2.3.1 Vision Statement

The cultural impact assessment will include a discussion concerning visual resources in relation to the Wai'ale site.

Section 3.6 Fauna

A supplemental flora and fauna survey of the project site was undertaken in March 2011 and will be included in the Draft EIS.

Section 4.1 Historic and Cultural Resources

The Draft EIS will include a summary of the findings of the archaeological inventory survey that has been conducted for the Wai'ale site. Also, the Draft EIS will include a geological reconnaissance survey of the in-situ dunes features remaining at the project site.

Alternatives to the proposed project will be addressed in the Draft EIS.

Efforts to include consultation with descendants of longtime Waikapū families and citizens who have expressed concerns about burials and other possible cultural features in the project were undertaken in the preparation of the cultural impact assessment.

Sand mining is no longer being conducted at the site.

Section 4.5 Visual Resources

As noted elsewhere, the Draft EIS will include a geological reconnaissance survey of the in-situ dunes features remaining at the project site and identify which portions of the existing dune features will be preserved, removed or built on. Consultation with cultural practitioners to identify important visual resources will be addressed in the cultural impact assessment.

Ms. Irene Bowie
SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION
NOTICE
May 19, 2011
Page 3

Section 4.7.2 Drainage

The Draft EIS will include additional description of the topography of the Wai'ale site, as well as a map and discussion of the sand dune features in relation to the site.

Section 4.7.3 Water Resources

As requested, the Draft EIS will include information of the status of the proposed Wai'ale Water Treatment Facility, discussion on the project's anticipated water demands, and water conservation strategies.

Potential On-site Wells

The applicant is pursuing potential drinking water sources, including new water wells in Central Maui. Two wells were recently constructed within the property. These wells are situated within the Kahului Aquifer. While water from these wells is not planned for use by this project, the wells demonstrate the potential for the development of potable water within the Central Maui region. The Draft EIS will discuss the potential for installing new wells that could tap the Kahului Aquifer.

Section 4.7.4 Wastewater Facilities

The Draft EIS will include a discussion of the anticipated wastewater to be generated by the Wai'ale project, as well as alternative means of wastewater treatment and disposal. The existing capacity and already allocated capacity of the County wastewater facility proposed to service the project, as well as any improvements required to accommodate additional wastewater generated within the service area will be discussed in the Draft EIS.

Section 4.7.5 Solid Waste

Development of the project will not entail the demolition of buildings and structures resulting in potentially high amounts of construction-term solid waste generation. Construction management practices to reduce and recycle potential waste byproducts during the construction of the project will be undertaken.

Section 4.8.1 Schools

The Draft EIS will note that A&B Properties, Inc. has been in consultation with the State Department of Education (DOE) regarding a proposed middle school within the Wai'ale site, and that the DOE is responsible for reviewing and approving the final location of the proposed middle school.

Section 4.8.2 and 4.8.3 Police and Fire Protection

The Draft EIS will include a discussion on the project's anticipated impacts on the County's Police and Fire Departments.

Ms. Irene Bowic
SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION
NOTICE
May 19, 2011
Page 4

Section 4.8.5 Recreational Facilities

The proposed cultural preserves are not envisioned as recreational facilities. While the proposed cultural preserves and the proposed parks are open spaces, there should be no confusion that their functions are entirely different.

Section 5.2.3 Wailuku-Kahului Community Plan

The Draft EIS will include a discussion on ways any future Wai'ale community can promote a respect for the past and how the project supports State and County plans, including the *Wailuku-Kahului Community Plan*.

Section 6.0 Alternatives Section

The Draft EIS will include maps showing alternatives developed during the process of drafting the Maui Island Plan. More specifically, the Draft EIS will include the Directed Growth Maps put forth by: 1) the Department of Planning; 2) the Maui Planning Commission; and 3) the General Plan Advisory Committee. The Wai'ale master plan has been prepared largely in concert with the tenets of the updated *Maui General Plan*, including the *Draft Maui Island Plan* and Directed Growth Strategy. The planning alternatives developed during the *Draft Maui Island Plan* process represent broad regional planning concepts. These planning concepts together with site specific studies such as archaeological inventory surveys, burial preservation plans, geotechnical and engineering analyses, which are essential to detailed site planning, were utilized in formulating the Wai'ale master plan.

Section 7.0 Findings and Determinations

Your comments on Section 7 (Findings and Determinations) of the EISPN are acknowledged.

7. "No degradation of environmental quality"

The Draft EIS will address the probable adverse effects that cannot be avoided and the rationale for proceeding with proceeding with Wai'ale notwithstanding unavoidable effects.

8. Consultation Process

The Draft EIS will include your viewpoints regarding the 2005 community consultation process.

9. No native flora or fauna affected

The Draft EIS will include flora and fauna surveys.

General Comments

The Draft EIS will include a discussion on how Wai'ale will address the County of Maui's

Ms. Irene Bowic
SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION
NOTICE
May 19, 2011
Page 5

Residential Workforce Housing Policy (Chapter 2.96, Maui County Code).

A&B Properties, Inc. has been in coordination with the County regarding the proposed location of the 50 acres to be provided to the County. As noted previously, a Phase I Environmental Site Assessment report will be included in the Draft EIS.

We will include Maui Tomorrow as a consulted party and provide a copy of the Draft EIS when it is available.

Thank you for reviewing the EISPN. Your comments will be included in the Draft EIS.

If you have any questions regarding this project, please do not hesitate to contact me at 521 5631.

Sincerely,

PBR HAWAII


Michael Shibata
Project Manager/Planner

O:\Job23\2399\03\Waiale Enititemens\EISPN\EISPN Comments\Final Responses\BL-10 Maui Tomorrow Response.doc

November 6th, 2010

From: Hokūālo Pellegrino
P.O. Box 967
Wailuku, Hawaii 96793

RECEIVED

NOV 17 2010

To: A&B Properties, Inc.,
P.O. Box 156
Kahului, Hawaii 96732.
Attention: Grant Chan (Vice President)

A&B PROPERTIES-MAUI

Re: Waiale Development (EISPN) Comments
TMK: (2) 3-8-05:23 (por.) and 37, and (2) 3-8-07:71, 101 (por.), and 104

Aloha c Mr. Chan,

My name is Hokūālo Pellegrino and I am a 32 year resident of the ahupua'a (land division) known as Waikapū. I am a lineal and cultural descendant of kūpuna who lived and continue to live in this ahupua'a. Over the last 10 years, I have conducted extensive research on the cultural and biological landscape and resources of Waikapū. My research includes but is not limited to native land titles, burial site identification, botanical surveys, watershed assessment, water resource management, estuary studies, traditional wetland and dryland agriculture, and cultural landscape GIS mapping and identification. I am well aware of the proposed project area and many of the cultural and biological features that lie within.

Due to being away completing my graduate studies in 2005, I was unable to participate in the community discussions. However, I have been following this project closely and have reviewed the EIS preparation document and other pertinent documents regarding the scope of this project.

As a concerned Kama'āina of Waikapū, I would like to review the environmental and land use permitting component of this proposed project. Mahalo. Below are a few preliminary concerns that I identified within the EIS preparation document.

1.9 Public Consultation

During the 2005 public planning and consulting process for local residents, were those attendees informed about the burial sites as well as burials that had been inadvertently disturbed on the proposed project site? Pertinent information such as this along with proposed burial preservation areas can greatly influence the public's response to how this project was planned. I would like to request that there be further discussions with the neighboring communities, especially those of Waikapū and the community association.

2.1.3 History of the Property

The historical name of the southern portion of this proposed development is Kama'ōma o / Ke Kula o Kama'ōma o, which refers to the central plains of Maui. The name Wai'ale refers to the pond / reservoir which captures water that is being diverted from Waiehe'e, Waiehu, and Wailuku.

I would like to note that the historical usage of this property predates the cultivation of sugar by HC&S, cattle and horse grazing, and the current sand-mining practices. Extensive pu'u one (sand dunes) existed prior to the flattening of the project

area by HC&S and Wailuku Sugar Company for agricultural purposes in the late 1800's early 1900's. These stretched from the coastal region of Waiehe'e to the Kealia Pond and was the longest sand dune feature on the island of Maui. These pu'u one were utilized for burying those kūpuna who were from the Waikapū and surrounding land divisions as well as those who fell to their death during the numerous battles which took place in these vicinities. It is for this reason, many burial sites have been identified within the confines of this project and more will likely come about in the developmental phase.

Trails and roadways connected the ahupua'a of Waikapū and those neighboring ahupua'a across the central plains in the moku of Kula. During the time of the Great Māhele and even prior to that, native tenants of both districts traversed the lands north and south of East Waikō Road in order to cultivate their wetland lo'i kalo (laro patch) or dryland 'ula (sweet potatoes).

As a Hawaiian and cultural practitioner, I would like to see more of an effort by the landowner and developer to incorporate the value of culturally significant areas such as the one being proposed for development. Incorporating important details like place names and other examples as specified above brings a greater historical context of the property, which in essence bring greater depth to the meaning of the proposed area. These details can bring forth an added value and cultural awareness to those who may call this place home in the future. Incorporating a detailed historical summary of the property can greatly assist in fulfilling the component within 2.3.1 Vision Statement for Wai'ale - Respecting the natural, historical, and cultural significance of the land.

4.1 Archaeological and Historic Resources

While I acknowledge a long term preservation plan for those 80 or so burials which have been identified and inadvertently disturbed, I would like to know what the developer intends to do if they come across more burials within the project area? I am deeply concerned as to how these burials are treated and the need for them to be undisturbed, rather than removed and reinterred on a vacant lot planted with native plants. This process is becoming all too common, especially in other developments surrounding the project area. The cultural preserves within the conceptual design are limited to the north western part of the project. I would like to see other cultural preserves, especially in the area south of East Waikō Road if other inadvertent burials are found.

I would also like to request that in the DEIS, all remaining intact pu'u one (sand dunes) be mapped. I would like to see these areas preserved and a buffer zone established so that the lithified dunes will not be disturbed by any external impacts (i.e. grading, excavating). Majority of all the ancient sand dunes of Waikapū have been disturbed or destroyed. These sites are both geologically and culturally significant and I would like to see that those that are remaining, are left in tact with minimal or no disturbance at all.

A clearly defined map showing the location of cultural features in relationship to the proposed design would also be of great assistance.

Section 4.7.3 Water Resources

The water resources of the ahupua'a of Waikapū is something I am intimately knowledgeable of. I am well aware that no surface water from the Waikapū Stream will be utilized for this project. However, I would like the DEIS to include updated information on the proposed Wai'ale Water Treatment Facility and its impact on surface water streams of Waiehe'e, Waiehu, and Wailuku. I would also like to request that the

DEIS include how this impacts the availability of water being pumped from the aquifer in the Waiuku region.

The Waikapu stream is a very important cultural and biological resource and in the conceptual plan, it abuts a park on the south side of the development. I would like the DEIS to address the drainage or waste water concerns so that it does not enter the stream. Keālia Pond National Wildlife Refuge and Sanctuary is located directly south of the proposed project and his home to migratory birds, many of which are endangered. Keālia Pond at times breaches into Mā alaea Bay. I would like the DEIS to explain how this project will not impact Keālia by means of waste, pollutants, and run off in the Waikapū Stream and that the characteristics of the stream will not be altered.

Currently the Waikapū Stream does not flow all year long due to 3 diversions capturing a total of 4 MGD mauka of the property. If the proposed project were to move forward, I would like to see the possibility of incorporating this perennial stream into the scope of this project. Allowing the stream to flow would enhance Keālia in terms of their water resource for protecting the native species. The Waikapū Stream would be another added value to this development and would help others understand how we should best manage our resources mauka to makai within the Waikapū ahupua'a. The restoration of this stream would show a good faith effort on A&B's end to ensure the protection of this important resource and how it can play an integral role in and around the proposed project.

Mahalo for this opportunity for me to share my concerns and requests regarding this project. I look forward to seeing these concerns addressed in the DEIS. If you have any questions, please feel free to contact me at (808) 430-4534 or Hokuno44@msi.com

Me ka 'ōia'i'o maoli nō,



May 19, 2011

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Mr. Hokūno Pellegrino
P.O. Box 967
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SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Mr. Pellegrino:

We are in receipt of your letter dated November 6, 2010 to Mr. Grant Chun of A&B Properties, Inc. regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISPN). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to your comments:

Public Consultation

The 2005 public planning process included discussion relating to the presence of onsite burials and potential burial preserves at the Wai'ale site. Since that time, further work has been undertaken in coordination with applicable parties, including the State Historic Preservation Division (SHPD) of the State of Hawai'i Department of Land and Natural Resources to more specifically determine the location and extent of burials at the site and the designation of appropriate preservation areas. A&B Properties, Inc. has and will continue to coordinate with interested parties, including neighboring communities, to discuss the Wai'ale project.

History of the Property

Thank you for your comments. Due to your self-identification as a cultural practitioner, your insights and knowledge of the area are appreciated and acknowledged. As part of the Draft Environmental Impact Statement (EIS), a cultural impact assessment (CIA) was prepared to address areas of cultural significance. We understand that you were invited to be interviewed but you declined and preferred that the CIA consultant rely on your letter (to which we are responding to).

Archaeological and Historic Resources

The Draft EIS will include the archaeological inventory survey of the Wai'ale site which incorporated extensive subsurface testing. Also, the Draft EIS will include the burial site component of a data recovery and preservation plan ("burial preservation plan") for burials identified at the site. The burial preservation plan includes the creation of five (5) preservation areas totaling over 30 acres in size. These preservation areas are depicted on the Wai'ale master plan. Should additional burials be found at the site, we understand that their disposition would be determined by the SHPD. We understand that preservation in place is the preferred alternative and that any other alternative would be considered on a case by case basis.

Mr. Hōkūao Pellegrino
SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION
NOTICE
May 19, 2011
Page 2

The Draft EIS will include a geological reconnaissance survey of the in-situ dunes features remaining at the project site. The CIA will also discuss the historical and cultural significance of the remaining sand dunes. A map showing the location of cultural features in relationship to the current Wai'ale master plan will be included in the Draft EIS.

Water Resources

The Draft EIS will include discussion on the proposed Wai'ale Water Treatment Facility. Additionally, the Draft EIS will discuss if there are any impacts on the availability of water being pumped from the aquifer in the Wailuku region.

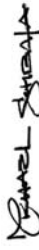
Please note that Waikapū Stream is situated outside of the Wai'ale project area. The Draft EIS will include discussion on potential best management practices that will be implemented to mitigate potential impacts from drainage and wastewater as a result of the Wai'ale project.

Thank you for reviewing the EISPN. Your comments will be included in the Draft EIS.

If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII



Michael Shibata
Project Manager/Planner

O:\b023\02399\03_Wai'ale Entitlements\EISPN\EISPN Comments\Final Responses\BL-15_Pellegrino Response.doc

From: Sierra Club Maui Group
PO Box 791180
Paia, HI 96779

To: A&B Properties, Inc.,
P.O. Box 156,
Kahului, HI 96732

Attention: Grant Chun, Vice President,

Re: Comments on Waiale (EISPN)
TMK: (2) 3-8-05:23 (por.) and 37, and (2) 3-8-07:71, 101 (por.), and 104

Sierra Club Maui Group (SCMG) has expressed concerns about the master plan for this proposed community. As planned, it proposes to destroy yet another section of sand dunes that are culturally important, and also provide an important link with Maui's geological and environmental history.

SCMG would like to be a consulted party during any environmental review of the proposed project. We have specific comments to offer on the EISPN as well.

COMMENTS:

Natural Resources

SCMG is very disappointed that the EISPN fails to mention the area's primary geological feature: the remnants of a once magnificent sweep of lithified sand dunes that are part of the geological creation saga of Maui's isthmus.

The sand dunes of the central isthmus have been destroyed, mined or altered over the past 100 years, obliterating an important part of the sense of place of the region, and removing the protection the dunes provided to the land, the creatures, and the people of Maui.

Because these irreplaceable dunes are not acknowledged to exist in this document, impacts to them conveniently, do not need to be discussed. This does not conform to the spirit of the legal requirements of chapter 343 review: Impacts to the dune systems must be acknowledged and discussed.

SCMG would ask that the Waiale DEIS include a full mapping and discussion of the dune features remaining on the project site. This would include:

- 1) their history and inter-relationship with the other dune systems in the isthmus;
- 2) their cultural use as burial grounds;
- 3) their connection to other notable natural landmarks such as the ridge of Haleakala, Iao or Waikapu valleys or Ma'alaea bay;
- 4) their specific geological composition;
- 5) their use as habitat for native flora and fauna
- 6) their relationship to prevailing winds and the affect that has on vegetation, avian and insect life.
- 7) A selection of open space preservation plans for the project that preserves the highest percentage of dune areas including those with documented burial sites.
- 8) Educational displays that would be part of the future project and allow the community's residents to learn about, and fully appreciate the dunes and their creation.

Kyselka and Lanterman in *Maui: How it Came to Be* described the creation process of these magnificent dune systems:

"Streaked across the isthmus and parallel in direction to the northeast trade winds are ridges 60 meters high that taper towards the south. Thirty thousand years ago, these hills were active, moving sand dunes. Now they are fixed in place, unmovable, turned to stone."

The authors continue to describe the unique geological conditions that created these dune systems:

"The lower seas of glacial times exposed great broad stretches of sandy beach at the isthmus. For centuries trade winds blew across the beaches, piling the sand up into long ridges, sorting it into fine and coarse layers. Shifting winds, working and reworking the old sand layers, have provided fascinating patterns of cross bedding."

Maui's sand dunes are as worthy of awe as the revered sandstone formations that grace national parks in the western U.S. The authors describe the slow process that cemented together the sand of these dunes, reputed to be part of the largest system in Hawaii.

"Vegetation anchored the drifting dunes. Plant roots, releasing carbonic acid, changed the calcium carbonate sand into a soluble bicarbonate form. Percolating through the dune, the calcium solution travels until it is reconverted into insoluble calcium carbonate, cementing the sand grains together. The sand dunes of the isthmus are now lithified, having been hurried to stone in the cementing process. But nothing is

permanent. Wind and water are now wearing away at the dunes, and technology hastens the process."

The author also refers to the tube like 'root molds' that erode out of the softer sand, ancient reminders of long vanished plant life that once inhabited the isthmus. These artifacts are commonly present on the Waiale site and should not be wantonly pulverized without regard for their importance as part of the area's biological history.

Dune Systems- Valuable Natural and Cultural Resources:

While lithified dunes are subject to natural changes, they are an irreplaceable natural resource. Such dune systems are unlikely to ever be recreated on Maui for many thousands of years. Other areas across the state that are fortunate enough to have such dunes recognize their value.

The Mo'omou shore of Molokai is known for its lithified dunes and the habitat they provide.

Ilio Point, also in Molokai, was recently nominated as a Natural Area Reserve. The application noted that the area "contains significant geological features such as lithified sand dunes which are desirable for sea bird habitat."

Moanalua Gardens on O'ahu offers school children "Geology of Hawaii" tours Where students visit and learn about such features as lithified sand dunes, tuff cones, cinder cones and lava flows, to understand the origins of the land where they live.

The Kauai Visitor's Bureau website directs visitors to Kawaiion Bay describing it as "rugged and delicate at once—rugged because of its rocky, windswept stretches of lithified sand dunes and sandstone pinnacles, and delicate by nature of its archaeological and cultural sites"

Maui's lithified dunes are also seen as valued resources:

"Other notable geological features of Maui are large lithified sand dunes near the north coast," a Geothermal feasibility report stated.

The presence of the dune formations at the base of the west Maui Mountains is noted in a recent USGS study describing the area's physical environment.

Respected Hawaiian cultural specialist Charles Maxwell told the County Council in 2003 that "sand dunes are a value to Hawaiian culture and are commonly used for burial sites."

In short, the remaining dune systems in Maui, such as those on the Waialeale site are acknowledged as important natural and cultural resources and are well known for their specific use as burial grounds. This project has an opportunity to showcase these valuable educational and cultural resources, and give future residents a true sense of place.

This option should be clearly discussed in the DEIS, as a mitigation for the large scale destruction of dunes and disturbance of pre-contact burials that has already taken place on the present site (Hawaiian Cement sand mining area) and throughout the Maui Lani development (Ameron sand mining area.) The problem of dune destruction is widely acknowledged:

"Mining of lithified and unconsolidated sand dunes has disturbed Hawaiian burials and a record of geology at work today." UH Grad student Darrel Tanaka concluded in his UH dissertation.

The Waialeale DEIS should not be acceptable to any reviewing agency unless it acknowledges the substantial number of natural dune formations on the project site and discusses meaningful mitigations to avoid their further destruction. The fact that these dunes commonly provide habitat for native birds, such as the Hawaiian owl, should also be considered, even though the creatures were not seen during the brief flora and fauna survey. Additional survey visits are warranted.

Historical And Cultural Resources

The EISP/N down plays the cultural and historical significance of the Waialeale area. Kupuna of the area confirm that the region was part of the battlefield utilized in the famous 18th century battle of Kekaulua. Besides burials, other cultural features occur on the site including a terraced knoll with pavement and an area of large rounded stones that exhibit culturally modified alignments. Past archaeological review of the area has been disjointed, and often substandard.

As an example, the first Inventory Survey done (Kennedy 1998) over roughly 60 acres of the Waialeale parcel dug 117 trenches and found three cultural sites: the terraced knoll with pavement, and two burial areas with a total of 5 sets of remains.

By 2006, sand mining activities in the same area that had supposedly had adequate review, had "inadvertently disturbed" 51 additional burial sites with the remains of 66 additional individuals. More than a dozen more individual remains have been disturbed in the sand mining areas, during the succeeding years.

The idea that these burials are "inadvertent finds" not subject to jurisdiction of the local Burial Councils is a polite fiction. The sand dunes are known burial areas. Nearly 300 burials have been disturbed during the destruction of natural dunes and construction of roads, pipelines and house lots in neighboring Maui Lani Project District. Over 80 burials have already been disturbed on the proposed Waialeale site, in an area of no more than 60 acres. These are not unexpected, "accidental" discoveries!

In spite of the factual record indicating that a burial complex is present on the project site, the EISP/N does not propose to discuss preserve areas beyond what is shown in the EISP/N figure 3. Without precautionary planning to set aside sufficient undisturbed lands for cultural preservation, the Waialeale project will in all likelihood continue the unacceptable practice of disturbing numerous additional pre-contact burials.

Mitigation measures for cultural resources should be discussed in the DEIS, including:

- An ethnographic study, based on a specific research format, in addition to or in lieu of a Cultural Impact Assessment.
- Interviewees should include, but not be limited to, the families and individuals present at the July 28 2010 Maui Lani Island Burial Council meeting who are cultural descendants of the Waikapu and Wailuku areas.
- Alternative designs should be presented in the DEIS for a much larger cultural preserve area. The currently proposed area primarily protects burials that have already been disturbed and does not allow sufficient preserve area to prevent future disturbance. Local cultural descendants have spoken very strongly that they want their *iwi kupuna* to rest in peace.
- The DEIS should discuss the concept of a memorial park with cultural center that commemorates the battle of Kekaulua and other historic events in the region, to bring respect and peace to the many burials that have been disturbed. This would give the new community a true sense of place and be a resource for local schools and civic groups.

clearly in the DEIS to fully reveal potential secondary impacts of the project and proposed mitigations.

Ground Water Sources

A second possible water source referred to in the EISPN was the two on-site wells A&B has drilled in the Kahului aquifer. The EISPN notes these wells as having a capacity of .64 mgd each, but their State Water Commission permit shows a much lower projected use.

- What is the verifiable capacity of the Waiale wells?

Waiale wells 1 & 2 (state wells: 5129-04 and 05) are listed in the Water Commission Bulletin as having a "proposed use" of .35 mgd each, a little more than half of the .64 mgd use proposed in the EISPN.

- Are the wells reliable at the proposed .64 mgd capacity?

The DEIS should specifically clarify what testing has been done, over what time period, to determine that the wells would have a reliable capacity of .64 mgd each. Specific water quality information should be provided in the engineering report and summarized in the DEIS.

- Will they produce enough water to meet eventual demand?

If project demand is eventually 2 mgd or more, these two wells may only be able to meet 60% of the project demand and need to be supplemented. The DEIS should discuss this

- How many more wells may be needed and when?

While both Waiale wells show a pump capacity of .72 mgd in the CRWRM Bulletin, it is not practical to pump wells at full capacity for extended periods of time. Even if both wells had a sustainable capacity of .64 mgd, more additional wells would be needed to meet full build-out demand, and establish back-up capacity when wells were off line. The expected phasing of project demands on the existing wells and need for additional wells should be discussed in the DEIS.

- Can the Kahului aquifer support 5 or more new wells?

- Mapping of the dune systems and their respective view planes should be included in the archaeological and cultural studies in the DEIS. Cultural descendants of the area have spoken about the importance of the view alignments from the various dunes and sites in the region. Dunes are a cultural resource, just like reefs.

Water Resources:

The EISPN does not clearly indicate a viable water source for the 2,550 future residences. If water use follows the central Maui average of 800 gallons a day, over 2 mgd of potable water would be needed for residential use alone. More would be needed to serve the commercial development and meet fire flow demands. The DEIS should specify the project's minimum and maximum water demand as well as plans to utilize non-potable water and water conservation strategies.

Surface Water Sources:

If the project plans to use diverted stream water from Na Wai Eha, the DEIS should discuss the impacts that will have on efforts to restore stream flows to 'Iao and Waikapu streams and additional flows to Waihe'e stream, which are currently the subject of a legal appeal.

- What would be the Waiale project's secondary impacts to stream health and future recharge of the 'Iao aquifer?

If A&B partners in the Waiale treatment plant, the facility will draw from 6 to 9 mgd of Na Wai Eha stream water. Is A&B planning this as its future water resource for the Waiale project, Kahului Business Park expansion and the firm's other projects?

- If stream water is the source of the project's water supply, the impacts to HC&S's agricultural operations should also be discussed.

A&B's subsidiary HC&S has told various agencies and the public that they cannot spare any water if viable agricultural operations are to continue. How would the 2 mgd or more eventually needed for this project fit into the long-term plans of HC&S?

HC&S representatives have said publicly that they are not able to reliably pump more from brackish wells in the Kahului aquifer to make up for surface water that was proposed to be restored to the streams. If the wells cannot make up the difference in lost access to surface water, what will? This should be discussed

The State Water Resources Protection Plan sets the sustainable yield of the Kahului aquifer at 1 mgd. The Waiale wells would propose to withdraw beyond that capacity -1.2 mgd or more.

• How much of the Kahului aquifer's capacity is dependent on reservoir leakage?

It is known that the Kahului aquifer is artificially recharged by irrigation water imported from Na Wai Eha streams, including an estimated leakage of more than 5 mgd from the nearby Waiale reservoir. The DEIS should provide data on dependable pumping levels that can be expected from the Kahului aquifer over an extended period, including modifications that will be needed to the project's water supply if Waiale reservoir leakage does not remain at current levels.

• Will use of the Waiale wells impact other users or HC&S ag wells?

Three Maui Lani wells, permitted in 2009, proposed to withdraw up to .72 mgd each or up to 2.2 mgd. Can the Kahului aquifer sustain a potential future demand of 4 mgd or more? The DEIS should provide an independent analyses of the aquifer's capacity that includes USGS modeling data from the Central Maui Groundwater study and discuss mitigations for any anticipated impacts to other well systems- potable and agricultural.

Waiale Master Plan

Affordable Housing Land Donation

Sierra Club Chair Lance Holter and other Maui Group members testified at numerous regulatory hearings for the A&B Business Park, in support of a large donation of A&B land for affordable housing construction. Now the "donation", which was strongly resisted by A&B, but was made a condition of rezoning approval, is being actualized. It is disappointing to see that the majority of the land is in an area that was proposed as open space in the Maui Island Plan both to avoid disturbing more burials, and to provide a buffer between future Waiale families and the former landfill site.

Is it just coincidence that both the proposed 30 acre County affordable housing area in Waiale and the VMX affordable housing area of Maui Lani flank the old Waikapu county landfill site? Is it a coincidence that the land being donated to the county is also adjacent to a burial preserve and has a likelihood of holding more burials as project construction disturbs the earth? Is it a coincidence that

Wailuku Water recently offered the West Maui Watershed partnership a similar "donation" of land next to an historic cemetery and traditional burial area? Are these "problem lands" seen as the most suitable for donation for public purposes?

SCMG asks that the DEIS discuss the location of the proposed 30 acre County affordable housing and why the proposed Waiale Mater Plan did not follow the recommendation of the Maui Planning Commission and others to keep that area as open space?

We also ask that a hazardous materials report be done to test for contamination in the soil or ground water in the vicinity of the former landfill, industrial users and feedlot.

Urban Growth Boundary

SCMG asks for the DEIS to include the maps of the project area adopted as part of the Draft Maui Island Plan by GPAC and Maui Planning Commission and recommended by the Maui Planning Department.

The project was approved in the Urban Growth Boundary, not as proposed in the Fig 3 Master Plan, but with a significant buffer area to provide park space, protect sensitive burial areas and create a separation, not between Maui Lani/Dream City and Waiale, but between Waiale and Waikapu.

This decision was based upon a significant amount of community input asking that both needs be reflected in any Urban Growth Boundary. The proposed regional park in the Fig 3 Waiale Master Plan does not accomplish either of these community objectives, but it does reflect the project's original design before GPAC and Planning Commission review.

In essence, the proposed Waiale Master Plan ignores the most recent public input on the project, given during the lengthy Maui Island Plan (MIP) Urban Growth Boundary (UGB) review. The Waiale project claims the approval that the MIP review offered, without offering to fulfill the conditions of that approval, as expressed in the UGB maps. As noted below, the public consultation process for this project did not truly reach out with enough information to allow the public to provide more than symbolic input.

Public Consultation



May 19, 2011

PRINCIPALS
 THOMAS WITTEN, ASLA
President

R. STAN DUNCAN, ASLA
Executive Vice-President

RUSSELL Y. CHUNG, FASLA, LEED® AP
Executive Vice-President

VINCENT SHIGEKI
Vice-President

GRANT E. MURAKAMI, ACP, LEED® AP
Principal

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Chairman Emeritus

ASSOCIATES

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SCMG representatives attended the 2005 public planning meetings described in the EISPN. The DEIS should acknowledge that meeting participants were not given the big picture view of the project area and its natural and cultural resources. It was portrayed as a "wasteland" unsuitable for farming, marginal for grazing, but perfect for extending "Dream City" and providing homes for working families. The remarkable sand dunes were not discussed.

The numerous burials on the site were only lightly discussed and references were made to a "burial preserve" that would take care of everything.

At the same time A&B representatives were at the Burial Council meeting trying to get approval to relocate dozens of burials into a few convenient "preserves" and leave the rest of the land open for sand mining and then eventual development as Waiale. It was not explained to the public that the project was being proposed on an ancient battle field and burial ground. They were only given the pretty pictures to look at.

Any future consultation process for the project should be based on a factual description of the site, its natural and cultural resources and the challenges from surrounding uses.

Important information about the amount of affordable housing, water sources, possible hazards from the old landfill, scrap yard or industrial user, cultural and natural resources was missing from Waiale's consultation process. We would ask that the DEIS show due diligence and bring that information forward.

Thank you for the opportunity to share these comments.

Sierra Club Maui Group
 For the Conservation Committee
 Lucienne de Naie

PBR HAWAII
 & ASSOCIATES, INC.

Sierra Club Maui Group
 c/o Lucienne de Naie
 P.O. Box 791180
 Pā'ia, HI 96779

SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Ms. de Naie:

We are in receipt of your letter to Mr. Grant Chun of A&B Properties, Inc. regarding the Wai'ale Environmental Impact Statement Preparation Notice (EISPN). As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to your comments:

Natural Resources

The Draft Environmental Impact Statement (EIS) will include a geological reconnaissance survey of the in-situ dunes features remaining at the project site. A cultural impact assessment will also discuss the historical and cultural significance of the remaining sand dunes. Means to promote the valuable educational and cultural resources of the site as part of the Wai'ale project will also be discussed.

Historical and Cultural Resources

An archaeological inventory survey and cultural impact assessment will be included in the Draft EIS. A discussion of the above mentioned reports, as well as anticipated impacts and mitigation measures for cultural resources, will be included in the Draft EIS.

Water Resources

The Draft EIS will include discussion on the anticipated water demands, potential impacts and mitigation measures such as the utilization of non-drinking quality water and water conservation strategies.

Surface Water Sources

The Draft EIS will discuss drinking quality water alternatives being pursued, including the proposed Wai'ale water treatment facility and new water wells.

Ground Water Sources

The applicant is pursuing potential drinking water sources, including new water wells in Central Maui. Two wells were recently constructed within the property. These wells are situated within the Kahului Aquifer. While water from these wells is not planned for use by this project, the wells demonstrate the potential for the development of potable water within

Ms. Lucienne de Naie
SUBJECT: WAI'ALE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE
May 19, 2011
Page 2

the Central Maui region. The Draft EIS will discuss the potential for installing new wells that could tap the Kahului Aquifer.

Wai'ale Master Plan

Affordable Housing Land Donation

The Draft EIS will include discussion regarding the merits of the location of the proposed 40-acre County affordable housing site.

A Phase I Environmental Site Assessment report will be included in the Draft EIS.

Urban Growth Boundary

The Draft EIS will include maps showing alternatives developed during the process of drafting the *Maui Island Plan*. More specifically, the Draft EIS will include the Directed Growth Maps put forth by: 1) the Department of Planning; 2) the Maui Planning Commission; and 3) the General Plan Advisory Committee. The Wai'ale master plan has been prepared largely in concert with the tenets of the updated *Maui General Plan*, including the *Draft Maui Island Plan* and Directed Growth Strategy. The planning alternatives developed during the *Draft Maui Island Plan* process represent broad regional planning concepts. These planning concepts together with site specific studies such as archaeological inventory surveys, burial preservation plans, geotechnical and engineering analyses, which are essential to detailed site planning, were utilized in formulating the Wai'ale master plan.

Public Consultation

We acknowledge your concern regarding the consultation process. A&B Properties, Inc. looks forward to future consultation with the Sierra Club Maui Group. Appropriate consideration will be given to any information or thoughts.

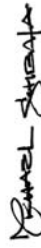
We will include you as a consulted party and provide a copy of the Draft EIS when it is available.

Thank you for reviewing the EISPN. Your comments will be included in the Draft EIS.

If you have any questions regarding this project, please do not hesitate to contact me at 521 5631.

Sincerely,

PBR HAWAII



Michael Shibata
Project Manager/Planner

12.0 DRAFT EIS COMMENTS AND RESPONSES



12.0 DRAFT EIS COMMENTS AND RESPONSES

The Draft EIS was sent to the following agencies, organizations, and individuals indicated below in the table with a (X). The Draft EIS was also available on the OEQC website. The public comment period on the Draft EIS was from June 8, 2011 to July 22, 2011. Where indicated (Comment Date), an agency, organization, or individual submitted comments.

Table 12-1: Draft EIS Comment Letters

<u>AGENCY</u>	<u>DRAFT EIS SENT</u>	<u>COMMENT DATE</u>
State		
<u>Department of Accounting and General Services</u>	<u>X</u>	<u>06-29-2011</u>
<u>Department of Agriculture</u>	<u>X</u>	<u>=</u>
<u>Department of Business, Economic Development and Tourism (DBEDT)</u>	<u>X</u>	<u>=</u>
<u>DBEDT – Energy Division</u>	<u>X</u>	<u>=</u>
<u>DBEDT – Land Use Commission</u>	<u>X</u>	<u>07-18-2011</u>
<u>DBEDT – Office of Planning</u>	<u>X</u>	<u>=</u>
<u>DBEDT – Strategic Industries Division</u>	<u>=</u>	<u>08-08-2011</u>
<u>Department of Defense (DOD)</u>	<u>X</u>	<u>=</u>
<u>DOD – State Civil Defense</u>	<u>X</u>	<u>07-14-2011, 08-26-2011</u>
<u>Department of Education</u>	<u>X</u>	<u>07-15-2011</u>
<u>Department of Hawaiian Home Lands</u>	<u>X</u>	<u>=</u>
<u>Department of Health (DOH)</u>	<u>X</u>	<u>=</u>
<u>DOH – Clean Air Branch</u>	<u>X</u>	<u>07-22-2011</u>
<u>DOH – Clean Water Branch</u>	<u>X</u>	<u>06-23-2011, 07-12-2011</u>
<u>DOH – Compliance Assistance Office</u>	<u>X</u>	<u>=</u>
<u>DOH – Environmental Planning Office</u>	<u>X</u>	<u>=</u>
<u>DOH – Hazard Evaluation and Emergency Response Office</u>	<u>X</u>	<u>=</u>
<u>DOH – Indoor and Radiological Health Branch</u>	<u>X</u>	<u>06-15-2011</u>
<u>DOH – Maui District Health Office</u>	<u>X</u>	<u>06-13-2011</u>
<u>DOH – Office of Environmental Quality Control</u>	<u>X</u>	<u>07-29-2011</u>
<u>DOH – Safe Drinking Water Branch</u>	<u>X</u>	<u>07-21-2011</u>
<u>DOH – Sanitation Branch</u>	<u>X</u>	<u>=</u>
<u>DOH – Solid and Hazardous Waste Branch</u>	<u>X</u>	<u>=</u>
<u>DOH – Vector Control Branch</u>	<u>X</u>	<u>=</u>
<u>DOH – Wastewater Branch</u>	<u>X</u>	<u>06-15-2011</u>
<u>Department of Human Services</u>	<u>X</u>	<u>06-08-2011</u>
<u>Department of Labor and Industrial Relations</u>	<u>X</u>	<u>06-13-2011</u>

WAI'ALE Draft-Final Environmental Impact Statement

<u>AGENCY</u>	<u>DRAFT EIS SENT</u>	<u>COMMENT DATE</u>
<u>Department of Land & Natural Resources (DLNR)</u>	<u>X</u>	<u>07-20-2011</u>
<u>DLNR – State Historic Preservation Division (SHPD)</u>	<u>X</u>	<u>=</u>
<u>DLNR SHPD – Maui Office</u>	<u>X</u>	<u>=</u>
<u>Department of Transportation (DOT)</u>	<u>X</u>	<u>07-21-2011, 09-02-2011</u>
<u>DOT – Highway Planning Branch</u>	<u>X</u>	<u>=</u>
<u>DOT – Statewide Transportation Planning</u>	<u>X</u>	<u>=</u>
<u>DOT – Maui District Office</u>	<u>X</u>	<u>=</u>
<u>Hawaii Housing Finance and Development Corporation</u>	<u>X</u>	<u>07-22-2011</u>
<u>Office of Hawaiian Affairs</u>	<u>X</u>	<u>07-19-2011</u>
<u>University of Hawai'i Environmental Center</u>	<u>X</u>	<u>=</u>
<u>Representative Gilbert Keith-Agaran</u>	<u>X</u>	<u>=</u>
<u>Representative George Fountaine</u>	<u>X</u>	<u>=</u>
<u>Representative Joseph Souki</u>	<u>X</u>	<u>=</u>
<u>Senator Shan Tsutsui</u>	<u>X</u>	<u>=</u>
<u>Federal</u>		
<u>U.S. Army Corps of Engineers</u>	<u>X</u>	<u>06-21-2011</u>
<u>U.S. Department of Agriculture, Natural Resources Conservation Service</u>	<u>X</u>	<u>=</u>
<u>U.S. Fish & Wildlife Service</u>	<u>X</u>	<u>07-22-2011</u>
<u>County of Maui</u>		
<u>Civil Defense Agency</u>	<u>X</u>	<u>=</u>
<u>Department of Environmental Management</u>	<u>X</u>	<u>06-16-2011</u>
<u>Department of Fire & Public Safety</u>	<u>X</u>	<u>06-29-2011</u>
<u>Department of Housing & Human Concerns</u>	<u>X</u>	<u>06-30-2011</u>
<u>Department of Parks & Recreation</u>	<u>X</u>	<u>07-14-2011</u>
<u>Department of Planning</u>	<u>X</u>	<u>07-18-2011, 07-22-2011</u>
<u>Department of Public Works</u>	<u>X</u>	<u>06-30-2011</u>
<u>Department of Transportation</u>	<u>X</u>	<u>=</u>
<u>Department of Water Supply</u>	<u>X</u>	<u>=</u>
<u>Police Department</u>	<u>X</u>	<u>07-28-2011</u>
<u>Office of the Mayor</u>	<u>X</u>	<u>=</u>
<u>Office of Economic Development</u>	<u>X</u>	<u>=</u>
<u>County Council Chair Danny Mateo</u>	<u>X</u>	<u>=</u>
<u>County Council Vice Chair Joseph Pontanilla</u>	<u>X</u>	<u>=</u>
<u>County Councilmember Gladys Coelho Baisa</u>	<u>X</u>	<u>=</u>
<u>County Councilmember Robert Carroll</u>	<u>X</u>	<u>=</u>
<u>County Councilmember Elle Cochran</u>	<u>X</u>	<u>=</u>
<u>County Councilmember Donald Couch, Jr.</u>	<u>X</u>	<u>=</u>

<u>AGENCY</u>	<u>DRAFT EIS SENT</u>	<u>COMMENT DATE</u>
<u>County Councilmember Riki Hokama</u>	<u>X</u>	<u>=</u>
<u>County Councilmember Mike White</u>	<u>X</u>	<u>=</u>
<u>County Councilmember Michael Victorino</u>	<u>X</u>	<u>=</u>
<u>Libraries, Private Companies, Organizations, and Individuals</u>		
<u>Kahului Public Library</u>	<u>X</u>	<u>=</u>
<u>Wailuku Public Library</u>	<u>X</u>	<u>=</u>
<u>Legislative Reference Bureau</u>	<u>X</u>	<u>=</u>
<u>Maui Community College Library</u>	<u>X</u>	<u>=</u>
<u>State Main Library</u>	<u>X</u>	<u>=</u>
<u>University of Hawai'i Hamilton Library</u>	<u>X</u>	<u>=</u>
<u>Honolulu Star-Advertiser</u>	<u>X</u>	<u>=</u>
<u>Maui News</u>	<u>X</u>	<u>=</u>
<u>Hawaiian Telcom</u>	<u>X</u>	<u>=</u>
<u>Honolulu Star-Advertiser</u>	<u>X</u>	<u>=</u>
<u>Hui O Na Wai Eha</u>	<u>X</u>	<u>06-24-2011, 07-19-2011</u>
<u>Maui Electric Company, Ltd.</u>	<u>X</u>	<u>07-12-2011</u>
<u>Maui/Lāna'i Islands Burial Council (Chair Keeaumoku Kapu)</u>	<u>X</u>	<u>=</u>
<u>Maui Lani Development (Leiane Paci)</u>	<u>X</u>	<u>=</u>
<u>Maui Tomorrow Foundation, Inc. (Irene Bowie)</u>	<u>X</u>	<u>07-22-2011</u>
<u>Oceanic Time Warner Cable of Hawaii</u>	<u>X</u>	<u>=</u>
<u>Sierra Club Maui Group (Lucienne de Naie)</u>	<u>X</u>	<u>07-30-2011</u>
<u>Waikapū Community Association (Glenn Adolpho)</u>	<u>X</u>	<u>07-20-2011</u>
<u>Waikapū Gardens Association (Glenn Adolpho)</u>	<u>X</u>	<u>=</u>
<u>Clare Apana</u>	<u>X</u>	<u>07-22-2011, 08-01-2011</u>
<u>Hōkūao Pellegrino</u>	<u>X</u>	<u>07-20-2011</u>
<u>Mark Hyde</u>	<u>=</u>	<u>06-08-2011</u>

NEAL ABERCROMBIE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P) 117.1

JUN 29 2011

BRUCE A. COPPA
COMPTROLLER

Mr. Michael Shibata
PBR Hawaii & Associates, Inc.
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Shibata:

Subject: Wai'ale Draft Environmental Impact Statement

Thank you for the opportunity to provide comments for the subject project. The project does not impact any of the Department of Accounting and General Services' existing facilities on Maui, however Pomaikai Elementary School is in close proximity to the development. Your proposed development may possibly impact the school's activities during construction. Please call the Department of Education to inform them of your proposed construction activities.

If you have any questions, please call me at 586-0400 or have your staff call Mr. Alva Nakamura of the Public Works Division at 586-0488.

Sincerely,


BRUCE A. COPPA
State Comptroller

c: Mr. Grant Chun, A&B Properties, Inc.
Mr. Dan Davidson, DBEDT SLUC
Mr. David Victor, DAGS Maui District Office



October 7, 2011

PRINCIPALS
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Kapolei, Hawaii 96707-2005
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Fax: (808) 520-3143

Mr. Bruce A. Coppa, State Comptroller
State of Hawai'i
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawai'i 96810-0119

Attn: Mr. Alva Nakamura, Public Works Division

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Coppa,

Thank you for your letter dated June 29, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we acknowledge that the project does not impact your department's existing facilities on Maui, however Pomaikai Elementary School is in close proximity to the development. For your department's information, the State Department of Education (DOE) is aware of the proximity of Pomaikai Elementary School to the proposed project, and has provided comments to the Draft EIS. The DOE will be informed of the project's proposed construction activities, prior to construction.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

O:\Job23\2399.03 Waiale-Entitlements\EIS\DEIS\Comments - Responses\Final\BL-10 State DAGS.doc

NIEL ABERCROMBIE
Governor



ORLANDO "DICK" DAVIDSON
Executive Officer

LAND USE COMMISSION
Department of Business, Economic Development & Tourism
State of Hawaii

July 18, 2011

Mr. Michael Shibata
Project Manager/Planner
PER Hawaii
1001 Bishop Street, Suite 650
Honolulu, Hawaii 96813-3484

Dear Mr. Shibata:

Subject: Docket No. A10-789/A&B Properties, Inc.
Draft Environmental Impact Statement (DEIS)
Waiale
Waiuku and Waikapu, Maui, Hawaii
Tax Map Keys: 3-8-05; por. 23 and 37; 3-8-07; 71, por. 101, and 104

We have reviewed the DEIS for the subject project and have the following comments to offer:

- 1) In accordance with section 11-200-17(e), Hawaii Administrative Rules (HAR), a description of the development should be provided. We acknowledge that the DEIS includes such a description, including the estimated cost of the development. We further acknowledge that the cost for the infrastructure improvements is preliminarily estimated at \$273 million (in 2010 dollars). We request that the cost breakdown of each alternative/option for the water supply and wastewater treatment improvements be provided.
- 2) In accordance with section 11-200-17(h), HAR, the status of each identified approval should be described. We acknowledge that the DEIS includes a listing of anticipated permits and approvals. We request that to the extent possible the *projected* submittal dates (i.e., by month/year) of the various applications to the responsible agencies be provided.
- 3) In accordance with section 11-200-17(i), HAR, the probable impact of the proposed action on the environment shall be included. We note that

235 SOUTH BEECHER STREET • SUITE 406 • HONOLULU, HAWAII 96813 • TEL (808) 587-3822 • FAX (808) 587-3827
EMAIL: lic@deidbeshi.hawaii.gov
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Mr. Michael Shibata
July 18, 2011
Page 2

there is minimal discussion in the DEIS on the existing civil defense facilities in the area and no discussion at all on the potential impacts on such facilities from the proposed development. We request that the Final DEIS address this matter, including any plan to fund and construct adequate civil defense measures (sirens) to serve the Petition Area as may be required by the State Department of Defense, Office of Civil Defense.

- 4) In accordance with section 11-200-17(n), HAR, the DEIS shall include a separate and distinct section that summarizes unresolved issues. We acknowledge that the DEIS includes such a section. We further acknowledge that said section attempts to address the additional requirements that it include a discussion of how such issues will be resolved prior to commencement of the action or a description of the overriding reasons for proceeding without resolving the problems by noting that the issues will require further discussion, review, and approval by the applicable governmental agencies as the project proceeds. However, we request that this discussion be expanded to include the provision of a timetable(s) for resolution, identification of the applicable agencies, and the options available to the Petitioner/project if the issues are not resolved in a timely manner relative to the commencement of the proposed development.

We have no further comments to offer at this time. Thank you for the opportunity to comment on the subject DEIS.

Should you have any questions, please feel free to call me or Bert Samuwatari of our office at 587-3822.

Sincerely,

ORLANDO DAVIDSON
Executive Officer

c: Grant Chun



October 7, 2011

PRINCIPALS

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Executive Vice-President

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Mr. Orlando Davidson, Executive Officer
State of Hawai'i
Department of Business, Economic Development & Tourism
Land Use Commission
235 South Beretania Street, Suite 406
Honolulu, Hawai'i 96813

Attn: Mr. Bert Saruwatari

**SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
DOCKET NO. A10-789/A&B PROPERTIES, INC.**

Dear Mr. Davidson,

Thank you for your letter dated July 18, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

1. Per your comments, the following will be added to Section 2.5 of the Final EIS:

Several potential drinking water source opportunities are being considered, including surface water treatment and new well sources. The estimated cost of the planned Wai'ale water treatment facility (9 million gallons per day) is approximately \$30 million. The design and scale of the final Wai'ale water treatment facility will be subject to other decisions and approvals, and these decisions could result in a smaller treatment facility with lower capacity than planned. The alternative of new groundwater wells is estimated at approximately \$15.2 million (4 wells, each at approximately \$3.8 million). With regard to wastewater treatment, two alternatives are considered, including an on-site wastewater treatment plant and treatment at the Kahului wastewater reclamation facility. The cost of an on-site wastewater treatment plant is estimated at approximately \$33 million. The alternative of conveying wastewater to the Kahului wastewater reclamation facility is estimated at approximately \$11 million.

2. The current status of each identified permit is described in Table 1-1 of the Draft EIS. It is nearly impossible to accurately estimate the future submittal dates for the anticipated permits. Since many of the applications are sequential in nature, any delays will impact the timing of subsequent applications. Any estimate at this time would be highly speculative. Should State Land Use Commission approval of the subject land use petition be attained in late 2012, Community Plan Amendment and Project District Phase I/Change in Zoning applications would be filed shortly thereafter in either late 2012 or 2013. The remaining State and County permits listed would then be filed in 2013 or 2014.

Mr. Orlando Davidson
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 2

3. The existing civil defense facilities in the area were described in the last sentence in the first paragraph of Section 3.4 of the Draft EIS: "The closest siren to the property is approximately 1.5 miles to the north in Kahului." In its Draft EIS public review comments, the State Department of Defense, Office of Civil Defense (SCD) recommended that the applicant install two 121 dB(c) omni-directional sirens. The applicant will coordinate with the SCD to provide suitable sites for access and installation of a warning siren(s). The following text has been added to the end of Section 3.4 of the Final EIS:

In its Draft EIS public review comments, the State Department of Defense, Office of Civil Defense (SCD) recommended that the applicant install two 121 dB(c) omni-directional sirens. The applicant will coordinate with the SCD to provide suitable sites for access and installation of a warning siren(s).

4. Per your comments, the following will be added to Section 7.5 of the Final EIS:

Additionally, Maui County Ordinance No. 3502 requires in part that no subdivision shall be approved unless prior to submittal of subdivision construction plans the Director of the County's Department of Water Supply verifies a long-term reliable supply of water. The applicant expects to meet the requirements of this ordinance or subdivision approval will not be granted...

As part of the engineering design process relating to wastewater treatment and disposal, the applicant and its engineering consultants expect to have ongoing consultations with the County Department of Environmental Management. At any time prior to filing any subdivision application, should it be confirmed that an on-site treatment plant will be required, the design of such a plant will be undertaken. Design of the plant will proceed in consultation with the State DOH, County Department of Public Works, County Department of Environmental Management, and County Department of Water Supply.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII

Vincent Shigekuni
Vice President

cc: Mr. Grant Chun, A&B Properties, Inc.



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

STRATEGIC INDUSTRIES DIVISION
235 Soan Be Hoku Drive, 5th Floor, Honolulu, Hawaii 96804
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

NEIL ABERCROMBIE
GOVERNOR
RICHARD C. LIM
DIRECTOR
MARY ALICE EVANS
DEPUTY DIRECTOR

Telephone: (808) 597-3607
Fax: (808) 599-2599

August 8, 2011

Mr. Grant Chun, Vice President
A&B Properties, Inc.
P.O. Box 156
Kahului, Hawaii 96732

Re: Draft Environmental Impact Statement for the Waialeale Planned Community Development
Project; Waiuku-Waikapā, Maui

Dear Mr. Chun:

In response to your May 31, 2011 notice, thank you for the opportunity to provide comments on the Draft Environmental Impact Statement (DEIS) for the proposed Waialeale planned community development project (Project). The Project proposes to develop a master planned community comprised of single-family homes, multi-family dwellings, and mixed use areas supported with commercial, retail, office, civic and other public facilities. Chapter 343, Hawaii Revised Statutes (HRS), review is required because the Project proposes the possible use of state and/or county lands and funds related to infrastructure improvements, an on-site wastewater treatment facility, and amendments to the Waiuku-Kahului Community Plan (General Plan).

At this time, the Hawaii State Energy Office within the Department of Business, Economic Development and Tourism (DBEDT) offers the following comments on the Project.

- Solar Water Heater System Required.** Please note that, effective January 1, 2010, no building permit shall be issued for a new single-family dwelling that does not include a solar water heating system that meets standards established by the Hawaii Public Utilities Commission, unless the DBEDT Director approves a variance (HRS §196-6.5; Energy Resources).
- Designated Parking Space and Placement of Charging Unit for Electric Vehicles.** Please note that all public, private, and government parking facilities available for use by the general public and with at least one hundred (100) parking spaces must designate one per cent (1%) of parking spaces exclusively for electric vehicles by December 31, 2011, provided that at least one of the parking spaces designated for electric vehicles is located near the building entrance and is equipped with an electric vehicle charging unit (HRS §291-71; Traffic violations). In addition, owners of multi-family residential dwellings or townhouses must be permitting to install and electric vehicle charging station on or near their parking stall (HRS §196-7.5). Contact our office if you have questions regarding these laws.
- State Energy Conservation Goals and the Hawaii Clean Energy Initiative.** We believe the future of Hawaii requires us to move away from imported fossil fuel for electricity and transportation and towards indigenous produced renewable energy and an ethic of energy efficiency. The Hawaii Clean Energy Initiative mandates a statewide energy goal of 70% "clean" energy by the year 2030, to be achieved through: (1) 30% energy efficiency savings by 2030 (HRS §269-96; Energy-

Mr. Grant Chun – V.P., A&B Properties
Draft Environmental Impact Statement for the Waialeale Planned Community Development Project; Waiuku-Waikapā, Maui
Page 2 of 2

Efficiency Portfolio Standards); and, (2) 40% renewable power generation by 2030 (HRS §269-92; Renewable Portfolio Standards). Proper planning and design of the Project will help Hawaii meet this critical energy goal.

Because of the magnitude of the Project, buildings, site grounds, infrastructure, and other Project activities should be designed and developed with energy saving, resource conservation, and renewable energy generation considerations. Continued work with Maui Electric Company (MECO) will help Applicant reduce the Project's considerable energy demand. We encourage Applicant to follow through with Section 2.6 of their DEIS, *Environmentally-Responsible Planning and Design* and commend your commitment to "limiting the environmental impact of Waialeale." Please consider the cost-saving benefits of Leadership in Energy and Environmental Design (LEED) certification. Attached for your use are materials about LEED.

Our website (<http://hawaii.gov/dbedt/info/energy>) provides detailed information on guidelines, directives, and statutes, as well as studies and reports on aspects of energy efficiency and renewable energy. Please do not hesitate to contact Carolyn Shon, Energy Conservation and Efficiency Branch Manager, at (808) 587-3810, for additional information on energy efficiency, and Maria Tome, Renewable Energy Branch Manager, at (808) 587-3809, for information on renewable energy resources.

Sincerely,

Estrella A. Seese
Acting Administrator, Hawaii State Energy Office

c: State of Hawaii, Office of Environmental Quality Control
State of Hawaii, Land Use Commission
PBR Hawaii & Associates, Inc.

Enclosures

- LEED 2009 for Neighborhood Development – Project Scorecard
- LEED 2009 for New Construction and Major Renovations – Project Checklist
- ENERGY STAR Qualified Homes Builder Option Package
- 2011 Enterprise Green Communities Checklist
- LEED for Homes Project Checklist



LEED 2009 for New Construction and Major Renovations

Project Checklist

Project Name

Date

Sustainable Sites		Possible Points: 26
Y	N	
Y		Prereq 1 Construction Activity Pollution Prevention
		Credit 1.1 Site Selection
		Credit 1.2 Development Density and Community Connectivity
		Credit 3 Brownfield Redevelopment
		Credit 4.1 Alternative Transportation—Public Transportation Access
		Credit 4.2 Alternative Transportation—Bicycle Storage and Changing Rooms
		Credit 4.3 Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles
		Credit 4.4 Alternative Transportation—Parking Capacity
		Credit 5.1 Site Development—Protect or Restore Habitat
		Credit 5.2 Site Development—Maximize Open Space
		Credit 6.1 Stormwater Design—Quantity Control
		Credit 6.2 Stormwater Design—Quality Control
		Credit 7.1 Heat Island Effect—Non-roof
		Credit 7.2 Heat Island Effect—Roof
		Credit 8 Light Pollution Reduction

Water Efficiency		Possible Points: 10
Y	N	
		Prereq 1 Water Use Reduction—20% Reduction
		Credit 1 Water Efficient Landscaping
		Credit 2 Innovative Wastewater Technologies
		Credit 3 Water Use Reduction

Energy and Atmosphere		Possible Points: 35
Y	N	
Y		Prereq 1 Fundamental Commissioning of Building Energy Systems
Y		Prereq 2 Minimum Energy Performance
Y		Prereq 3 Fundamental Refrigerant Management
		Credit 1 Optimize Energy Performance
		Credit 2 On-Site Renewable Energy
		Credit 3 Enhanced Commissioning
		Credit 4 Enhanced Refrigerant Management
		Credit 5 Measurement and Verification
		Credit 6 Green Power

Materials and Resources		Possible Points: 14
Y	N	
		Prereq 1 Storage and Collection of Recyclables
		Credit 1.1 Building Reuse—Maintain Existing Walls, Floors, and Roof
		Credit 1.2 Building Reuse—Maintain 90% of Interior Non-Structural Elements
		Credit 2 Construction Waste Management
		Credit 3 Materials Reuse

Materials and Resources, Continued		
Y	N	
		Credit 4 Recycled Content
		Credit 5 Regional Materials
		Credit 6 Rapidly Renewable Materials
		Credit 7 Certified Wood

Indoor Environmental Quality		Possible Points: 15
Y	N	
		Prereq 1 Minimum Indoor Air Quality Performance
		Prereq 2 Environmental Tobacco Smoke (ETS) Control
		Credit 1 Outdoor Air Delivery Monitoring
		Credit 2 Increased Ventilation
		Credit 3.1 Construction IAQ Management Plan—During Construction
		Credit 3.2 Construction IAQ Management Plan—Before Occupancy
		Credit 4.1 Low-Emitting Materials—Adhesives and Sealants
		Credit 4.2 Low-Emitting Materials—Paints and Coatings
		Credit 4.3 Low-Emitting Materials—Flooring Systems
		Credit 4.4 Low-Emitting Materials—Composite Wood and Agrifiber Products
		Credit 5 Indoor Chemical and Pollutant Source Control
		Credit 6.1 Controllability of Systems—Lighting
		Credit 6.2 Controllability of Systems—Thermal Comfort
		Credit 7.1 Thermal Comfort—Design
		Credit 7.2 Thermal Comfort—Verification
		Credit 8.1 Daylight and Views—Daylight
		Credit 8.2 Daylight and Views—Views

Innovation and Design Process		Possible Points: 6
Y	N	
		Credit 1.1 Innovation in Design: Specific Title
		Credit 1.2 Innovation in Design: Specific Title
		Credit 1.3 Innovation in Design: Specific Title
		Credit 1.4 Innovation in Design: Specific Title
		Credit 1.5 Innovation in Design: Specific Title
		Credit 2 LEED Accredited Professional

Regional Priority Credits		Possible Points: 4
Y	N	
		Credit 1.1 Regional Priority: Specific Credit
		Credit 1.2 Regional Priority: Specific Credit
		Credit 1.3 Regional Priority: Specific Credit
		Credit 1.4 Regional Priority: Specific Credit

Total		Possible Points: 110
Certified: 40 to 49 points	Silver: 50 to 59 points	Gold: 60 to 79 points
Platinum: 80 to 110 points		



LEED 2009 for Neighborhood Development

Project Scorecard

Project Name:

Date:

Yes	No	Points	Requirement
0	0	0	Prereq 1 Smart Location
0	0	0	Prereq 2 Reprofit Spaces and Ecological Communities
0	0	0	Prereq 3 Wetland and Water Body Conservation
0	0	0	Prereq 4 Agricultural Land Conservation
0	0	0	Prereq 5 Floodplain Avoidance
0	0	0	Credit 1 Preferred Locations
0	0	0	Credit 2 Brownfield Redevelopment
0	0	0	Credit 3 Locations with Reduced Automobile Dependence
0	0	0	Credit 4 Bicycle Network and Storage
0	0	0	Credit 5 Housing and Jobs Proximity
0	0	0	Credit 6 Steep Slope Protection
0	0	0	Credit 7 Site Design for Habitat or Wetland and Water Body Conservation
0	0	0	Credit 8 Restoration of Habitat or Wetland and Water Bodies
0	0	0	Credit 9 Long-Term Conservation Management of Habitat or Wetlands and Water Bodies

Yes	No	Points	Requirement
0	0	0	Prereq 1 Walkable Streets
0	0	0	Prereq 2 Compact Government
0	0	0	Prereq 3 Connected and Open Community
0	0	0	Credit 1 Walkable Streets
0	0	0	Credit 2 Compact Developments
0	0	0	Credit 3 Mixed-Use High-Density Centers
0	0	0	Credit 4 Mixed-Income Diverse Communities
0	0	0	Credit 5 Reduced Parking Footprint
0	0	0	Credit 6 Street Network
0	0	0	Credit 7 Transit Facilities
0	0	0	Credit 8 Transportation Demand Management
0	0	0	Credit 9 Access to Civic and Public Space
0	0	0	Credit 10 Access to Recreation Facilities
0	0	0	Credit 11 Visibility and Universal Design
0	0	0	Credit 12 Community Outreach and Involvement
0	0	0	Credit 13 Local Food Production
0	0	0	Credit 14 Tree-Lined and Shaded Streets
0	0	0	Credit 15 Neighborhood Schools

Yes	No	Points	Requirement
0	0	0	Credit 1 Certified Green Building
0	0	0	Credit 2 Building Energy Efficiency
0	0	0	Credit 3 Building Water Efficiency
0	0	0	Credit 4 Water-Efficient Landscaping
0	0	0	Credit 5 Existing Building Use
0	0	0	Credit 6 Historic Resource Preservation and Adaptive Reuse
0	0	0	Credit 7 Minimized Site Disturbance in Design and Construction
0	0	0	Credit 8 Stormwater Management
0	0	0	Credit 9 Heat Island Reduction
0	0	0	Credit 10 Solar Orientation
0	0	0	Credit 11 On-Site Renewable Energy Sources
0	0	0	Credit 12 District Heating and Cooling
0	0	0	Credit 13 Infrastructure Energy Efficiency
0	0	0	Credit 14 Wastewater Management
0	0	0	Credit 15 Recycled Content in Infrastructure
0	0	0	Credit 16 Solid Waste Management Infrastructure
0	0	0	Credit 17 Light Pollution Reduction

Yes	No	Points	Requirement
0	0	0	Credit 1.1 Innovation and Exemplary Performance: Provide Specific Title
0	0	0	Credit 1.2 Innovation and Exemplary Performance: Provide Specific Title
0	0	0	Credit 1.3 Innovation and Exemplary Performance: Provide Specific Title
0	0	0	Credit 1.4 Innovation and Exemplary Performance: Provide Specific Title
0	0	0	Credit 2 LEED Accredited Professional

Yes	No	Points	Requirement
0	0	0	Credit 1.1 Regional Priority Credit: Region Defined
0	0	0	Credit 1.2 Regional Priority Credit: Region Defined
0	0	0	Credit 1.3 Regional Priority Credit: Region Defined
0	0	0	Credit 1.4 Regional Priority Credit: Region Defined

Yes	No	Points	Requirement
0	0	0	Prereq 1 Certified Green Building
0	0	0	Prereq 2 Minimum Building Energy Efficiency
0	0	0	Prereq 3 Minimum Building Water Efficiency
0	0	0	Prereq 4 Construction Activity Pollution Prevention

Project Totals (Certification estimate)		Points
Certified: 40-49 points	Silver: 50-59 points	Gold: 60-79 points
Platinum: 80+ points		



ENERGY STAR Qualified Homes Builder Option Package for Homes with Solar Hot Water In Hawaii

The requirements for the ENERGY STAR Builder Option Package (BOP) are specified in the table below.

To qualify as ENERGY STAR using this BOP, a home must meet the requirements specified. Note that compliance with these guidelines is not intended to imply compliance with all local code requirements that may be applicable to the home to be built.

Location	Hawaii
Building Type	For use with all home types
Water Heater ²	HECO's EnergySolutions SM for the Home - approved Solar Hot Water System with 100 point inspection by utility-approved inspector
If whole house or room air conditioning is installed, a home must meet the following additional requirements and be verified and field-tested by a utility-approved inspector:	
Cooling Equipment ³	ENERGY STAR qualified and right-sized ≥ 14 SEER / 11.5 EER Air Conditioner or Heat Pump; OR, ENERGY STAR qualified and right-sized Room Air Conditioner
Heating Equipment	Any heating system is allowed
Thermostat	ENERGY STAR Qualified Thermostat is recommended but not required
Ductwork ⁴	Tightly sealed ducts. Recommended, but not required, to locate ducts within conditioned spaces
Envelope ^{5,6}	Any building envelope that meets local code is allowed
Windows ⁷	U-Value ≤ 0.65 If Window to Floor Area (WFA) ≤ 25%, then SHGC must be ≤ 0.40; OR If WFA > 25%, then SHGC must be ≤ (8.4% x Floor Area)/Window Area, where WFA = (Total Floor Area)/(Total Window Area). If a home has room air conditioners, the floor and window areas of all rooms must be included, not only rooms with room AC units
Lighting and Appliances ^{8,a}	Install at least five ENERGY STAR qualified products: ENERGY STAR Qualified Refrigerator, AND/OR, ENERGY STAR Qualified Dishwasher, AND/OR, ENERGY STAR Qualified Clothes washer, AND/OR, ENERGY STAR light fixtures, ceiling fans equipped with lighting fixtures, and/or ventilation fans It is also recommended, but not required, that all light fixtures be ENERGY STAR qualified or include ENERGY STAR qualified CFLs



ENERGY STAR Qualified Homes Builder Option Package for Homes with Solar Hot Water In Hawaii

1. Where requirements of the local codes, manufacturers' installation instructions, engineering documents, or regional ENERGY STAR programs overlap with the requirements of these guidelines, EPA offers the following guidance.
 - a. In cases where the overlapping requirements exceed the ENERGY STAR guidelines, these overlapping requirements shall be met.
 - b. In cases where overlapping requirements conflict with a requirement of these ENERGY STAR guidelines (e.g., slab infiltration is prohibited to allow visual access for termite inspections), then the conflicting requirement within these guidelines shall not be met. Furthermore, qualification shall still be allowed if the rater has determined that no equivalent option is available that could meet the intent of the conflicting requirement of these ENERGY STAR guidelines (e.g., switching from exterior to interior slab edge insulation).
2. For more information on HECO's EnergySolutionsSM for the HomeSM Solar Hot Water program, please visit: <http://www.heco.com/portal/site/heco/energySolutions/098576C78baa1434b4c0610c510b1ca7?vgnextoid=630956568e006d10VgnVCM100000008119289P&CRD&vgnnextinc=debaull>
3. Cooling equipment shall be sized according to the latest editions of ACCA Manuals J and S, ASHRAE Handbook of Fundamentals, or an equivalent procedure. Maximum oversizing limit for air conditioners and heat pumps is 15%. The following operating conditions shall be used in the sizing calculations and verified where reviewed by the utility-approved inspector:
Outdoor temperatures shall be the 99.0% design temperatures as published in the ASHRAE Handbook of Fundamentals for the home's location or most representative city for which design temperature data are available. Note that a higher outdoor air design temperature may be used if it represents prevailing local practice by the HVAC industry and reflects extreme climate conditions that can be documented with recorded weather data. Indoor temperatures shall be 75° F for cooling; infiltration rate shall be selected as "light", or the equivalent term. In specifying equipment, the next available size may be used. In addition, indoor and outdoor coils shall be matched in accordance with ARI standards.
4. To prevent condensation, using a minimum of R-4 insulation for ducts inside conditioned space is recommended, but not required.
5. To ensure consistent exchange of indoor air, whole-house mechanical ventilation is recommended, but not required.
6. If it is recommended, but not required, that insulation be inspected to Grade 1 installation as defined in the RESNET Standards.
7. The window performance levels match ENERGY STAR Program Requirements for Residential Windows, Doors, and Skylights—version 4.0, with additional requirements for climate zones 2 and 4. Additional information about version 5.0 of the program requirements for windows, which is more stringent and offers additional savings, can be found at www.energystar.gov/windows.
8. Any combination of ENERGY STAR qualified products listed may be installed to meet this requirement. ENERGY STAR qualified ventilation fans include range hood, bathroom, and intake fans. ENERGY STAR qualified lighting fixtures installed in the following locations shall not be counted: storage rooms (e.g., closets, pantries, sheds), or garages. Eligible appliances include ENERGY STAR qualified refrigerators, dish washers, and washing machines. Efficient lighting fixtures represent a significant opportunity for persistent energy savings and a meaningful way to differentiate ENERGY STAR qualified homes from those meeting minimum code requirements. To learn more about EPA's Advanced Lighting Package (ALP), refer to www.energystar.com/homes

3. Innovative or Regional Design				
3.1 Innovation 1 (rating #):		1	0	0
3.2 Innovation 2 (rating #):		1	0	0
3.3 Innovation 3 (rating #):		1	0	0
3.4 Innovation 4 (rating #):		1	0	0
Location & Linkages (LL) (Minimum 0 LL Points Required) Max: 10 Y:0 M:0 Notes Final: 0				
1. LEED for Neighborhood Development				
1.1 LEED for Neighborhood Development		10	0	0
2. Site Selection				
2.1 Site Selection (meet all of the following)		2	0	0
<input type="checkbox"/> a) Built above 100-year floodplain defined by FEMA				
<input type="checkbox"/> b) Not built on habitat for threatened or endangered species				
<input type="checkbox"/> c) Not built within 100 ft of water, including wetlands				
<input type="checkbox"/> d) Not built on land that was public parkland prior to acquisition				
<input type="checkbox"/> e) Not built on land with prime soils, unique soils, or soils of state significance				
3. Preferred Locations				
3.1 Edge Development		1	0	0
OR 3.2 Infill		2	0	0
AND/OR 3.3 Previously Developed		1	0	0
4. Infrastructure				
4.1 Existing Infrastructure		1	0	0
5. Community Resources / Transit				
5.1 Basic Community Resources / Transit (meet one of the following)		1	0	0
<input type="checkbox"/> a) Within 1/4 mile of 4 basic community resources				
<input type="checkbox"/> b) Within 1/2 mile of 7 basic community resources				
OR 5.2 Extensive Community Resources / Transit (meet one of the following)		2	0	0
<input type="checkbox"/> a) Within 1/4 mile of 7 basic community resources				
<input type="checkbox"/> b) Within 1/2 mile of 11 basic community resources				
OR 5.3 Outstanding Community Resources / Transit (meet one of the following)		3	0	0
<input type="checkbox"/> a) Within 1/4 mile of 11 basic community resources				
<input type="checkbox"/> b) Within 1/2 mile of 14 basic community resources				
<input type="checkbox"/> c) Within 1/2 mile of transit services providing 30 rides per weekday				
<input type="checkbox"/> d) Within 1/2 mile of transit services providing 50 rides per weekday				
<input type="checkbox"/> e) Within 1/2 mile of transit services providing 125 rides per weekday				
6. Access to Open Space				
6.1 Access to Open Space		1	0	0



for Homes

LEED for Homes Project Checklist

Builder Name: _____
 Project Team Leader: _____
 Home Address (Street/City/State): _____

Project Description

Building Type: *Single detached*
 # of Bedrooms: 0

Project type:
 Floor Area: 0

Adjusted Certification Thresholds

Certified: 45.0 Gold: 75.0
 Silver: 60.0 Platinum: 90.0

Project Point Total		Final Credit Category Point Totals			
Points: 0 + 0 maybe pts	Final: 0	ID: 0	SS: 0	EQ: 0	EA: 0
Certification Level		LL: 0	WE: 0	MR: 0	AE: 0
Platinum Not Certified	Final: Not Certified	Minimum Point Thresholds Met for Platinum & Final Rating			

Date: _____		Written by: _____		Project Points
* Indicates that an Accountability Form is required.		Max Pts. Available	Preliminary Rating	Project Points
		Y/Pts	Maybe	No

Innovation & Design Process (ID) (Minimum 0 ID Points Required) **Max: 11 Y:0 M:0** **Notes** **Final: 0**

1. Integrated Project Planning				
1.1 Preliminary Rating		Prep		
Target performance tier:				
1.2 Integrated Project Team (meet all of the following)		1	0	0
<input type="checkbox"/> a) Individuals or organizations with necessary capabilities				
<input type="checkbox"/> b) All team members involved in various project phases				
<input type="checkbox"/> c) Regular meetings held with project team				
1.3 Professional Credentialed with Respect to LEED for Homes		1	0	0
1.4 Design Charrette		1	0	0
1.5 Building Orientation for Solar Design (meet all of the following)		1	0	0
<input type="checkbox"/> a) Glazing area on east/south walls 50% greater than on east/west walls				
<input type="checkbox"/> b) East-west axis is within 15 degrees of due east-west				
<input type="checkbox"/> c) At least 450 sq. ft. of south-facing roof area, oriented for solar applications				
<input type="checkbox"/> d) 90% of south-facing glazing is shaded in summer, unshaded in winter				
2. Quality Management for Durability				
2.1 Durability Planning (meet all of the following)		Prep		
<input type="checkbox"/> a) Durability evaluation completed				
<input type="checkbox"/> b) Strategies developed to address durability issues				
<input type="checkbox"/> c) Moisture control measures from Table 1 incorporated				
<input type="checkbox"/> d) Durability strategies incorporated into project documentation				
<input type="checkbox"/> e) Durability measures listed in durability inspection checklist				
2.2 Durability Management (meet one of the following)		Prep		
<input type="checkbox"/> a) Builder has a quality management process in place				
<input type="checkbox"/> b) Builder conducted inspection using durability inspection checklist				
2.3 Third-Party Durability Management Verification		3	0	0

4. Surface Water Management					
4.1	Permeable Lot	4	0	0	0
	<input type="checkbox"/> vegetative landscape <input type="checkbox"/> permeable paving <input type="checkbox"/> impermeable surfaces directed to infiltration features <input type="checkbox"/> other impermeable surfaces (areas not counted towards credit)				
4.2	Permanent Erosion Controls (meet one of the following)	1	0	0	0
	<input type="checkbox"/> a) For portions of lot on steep slope, use terracing and retaining walls <input type="checkbox"/> b) Plant trees, shrubs, or groundcover				
4.3	Management of Runoff from Roof (meet any, see Raining System for pts)	2	0	0	0
	<input type="checkbox"/> a) Install permanent stormwater controls to manage runoff from the home <input type="checkbox"/> b) Install vegetated roof to cover 50% of roof area <input type="checkbox"/> c) Install vegetated roof to cover 100% of roof area <input type="checkbox"/> d) Have lot designed by professional to manage runoff from home on-site				
5. Nontoxic Pest Control					
5	Pest Control Alternatives (meet any of the following, 1/2 pt each)	2	0	0	0
	<input type="checkbox"/> a) Keep all exterior wood at least 12" above soil <input type="checkbox"/> b) Seal exterior cracks, joints, etc. with caulking and install pest-proof screens <input type="checkbox"/> c) Include no wood-to-concrete connections, or separate connections with dividers <input type="checkbox"/> d) Install landscaping so mature plants are 24" from home <input type="checkbox"/> e) In 'moderate' to 'very heavy' termite risk areas: <input type="checkbox"/> f) Treat all cellulose material with borate product to 3" above foundation <input type="checkbox"/> g) Install sand or diatomaceous earth barrier <input type="checkbox"/> h) Install steel mesh barrier termite control system <input type="checkbox"/> i) Install non-toxic termite bait system <input type="checkbox"/> j) Use noncellulosic wall structure <input type="checkbox"/> k) Use solid concrete foundation walls or pest-proof masonry wall design				
6. Compact Development					
6.1	Moderate Density	2	0	0	0
	<input type="checkbox"/> # of total units on this lot <input type="checkbox"/> lot size (acres) <input type="checkbox"/> density (units/acre)				
OR	High Density	3	0	0	0
OR	Very High Density	4	0	0	0
Water Efficiency (WE) (Minimum 3 WE Points Required)		Max: 15	Y: 0	M: 0	Notes: Final: 0
1. Water Reuse					
1.1	Rainwater Harvesting System	4	0	0	0
	<input type="checkbox"/> Percentage of roof area used for harvesting <input type="checkbox"/> Application				
AND/OR	Graywater Reuse System	3	0	0	0
OR	Use of Municipal Recycled Water System	3	0	0	0

Sustainable Sites (SS) (Minimum 5 SS Points Required)		Max: 22	Y: 0	M: 0	Notes: Final: 0
1. Site Stewardship					
1.1	Erosion Controls During Construction (meet all of the following)	1	0	0	0
	<input type="checkbox"/> a) Stabilize and protect disturbed topsoil from erosion. <input type="checkbox"/> b) Control the path and velocity of runoff with silt fencing or equivalent. <input type="checkbox"/> c) Protect sewer lines, streams, and lakes with silt bales, silt fencing, etc. <input type="checkbox"/> d) Provide swales to direct surface water from hillside. <input type="checkbox"/> e) Use straw, erosion blankets, compost blankets, etc. on sloped areas.				
1.2	Minimize Disturbed Area of Site (meet the appropriate requirements)	1	0	0	0
	Where the site is not previously developed, meet all the following: <input type="checkbox"/> a) Develop tree / plant preservation plan with "no-disturbance" zones <input type="checkbox"/> b) Leave 40% of buildable lot area, not including area under roof, undisturbed OR Where the site is previously developed, meet all the following: <input type="checkbox"/> c) Develop tree / plant preservation plan with "no-disturbance" zones AND <input type="checkbox"/> d) Rehabilitate lot, undo soil compaction and remove invasive plants AND <input type="checkbox"/> e) Meet the requirements of SS 2.2. OR <input type="checkbox"/> f) Build on a lot of 1/7 acre or less, or 7 units per acre.				
2. Landscaping					
2.1	No Invasive Plants	2	0	0	0
2.2	Basic Landscaping Design (meet all of the following)	2	0	0	0
	<input type="checkbox"/> a) Any turf must be drought-tolerant. <input type="checkbox"/> b) Do not use turf in densely shaded areas. <input type="checkbox"/> c) Do not use turf in areas with slope of 25% <input type="checkbox"/> d) Add mulch or soil amendments as appropriate. <input type="checkbox"/> e) All compacted soil must be tilled to at least 6 inches.				
AND/OR	Limit Compaction Turf	3	0	0	0
	<input type="checkbox"/> Percentage of designed landscape softscape area that is turf				
AND/OR	Drought-Tolerant Plants	3	0	0	0
	<input type="checkbox"/> Percentage of installed plants that are drought-tolerant				
OR	Reduce Overall Irrigation Demand by at Least 20%	6	0	0	0
	<input type="checkbox"/> Percentage reduction in estimated irrigation water demand (calculate)				
3. Reduce Local Heat Island Effects					
3.1	Reduce Local Heat Island Effects (meet one of the following)	1	0	0	0
	<input type="checkbox"/> a) Locate trees / plantings to provide shade for 50% of landscapes <input type="checkbox"/> b) Install light-colored, high-albedo materials for 50% of sidewalks, patios, and driveways				

Materials & Resources (MR) (Minimum: 2 MR Points Required)		Max: 16	Y: 0	M: 0	Notes	Final: 0
1. Material-Efficient Framing						
1.1	Framing Order Waste Factor	1	0	0		0
1.2	Detailed Framing Documents	1	0	0		0
AND/OR	1.3 Detailed Cut List and Lumber Order	1	0	0		0
	<input type="checkbox"/> Requirements of MR 1.2 have been met				<input type="checkbox"/> Detailed cut list and lumber order corresponding to framing plans or scopes	
AND/OR	1.4 Framing Efficiencies (meet any of the following, see Rating System for pts)	3	0	0		0
	<input type="checkbox"/> Precut framing packages				<input type="checkbox"/> Stud spacing greater than 16" on center	
	<input type="checkbox"/> Open-web floor trusses				<input type="checkbox"/> Ceiling joist spacing greater than 16" on center	
	<input type="checkbox"/> Structural insulated panel walls				<input type="checkbox"/> Floor joist spacing greater than 16" on center	
	<input type="checkbox"/> Structural insulated panel roof				<input type="checkbox"/> Roof rafter spacing greater than 16" on center	
	<input type="checkbox"/> Structural insulated panel floors				<input type="checkbox"/> Two of the following: Size headers for loads; ladder blocking; drywall clips; 2-stud corners	
OR	1.6 Off-site Fabrication (meet one of the following)	4	0	0		0
	<input type="checkbox"/> a) Panelized construction				<input type="checkbox"/> b) Modular, prefabricated construction	
2. Environmentally Preferable Products						
2.1	FSC Certified Tropical Wood (meet all of the following)	1	0	0		0
	<input type="checkbox"/> a) Provide suppliers with a notice of preference for FSC products AND				<input type="checkbox"/> b) No tropical wood installed (exceptions for FSC-certified or reclaimed wood)	
	<input type="checkbox"/> Request country of manufacture for each wood product					
2.2	Environmentally Preferable Products (meet any, 1/2 pt each)	6	0	0		0
	Assembly: component	(a) EPP	(b) Low emission	(c) Local production		
	Exterior wall, framing	<input type="checkbox"/>	type: _____			
	Exterior wall, siding or masonry	<input type="checkbox"/>	type: _____			
	Floor, flooring	<input type="checkbox"/> (45%)	type: _____	<input type="checkbox"/> 100% hard flooring		<input type="checkbox"/> (45%)
	Floor, flooring	<input type="checkbox"/> (90%)	type: _____	<input type="checkbox"/> SCS FloorScore		<input type="checkbox"/> (90%)
	Floor, flooring	<input type="checkbox"/>	type: _____	<input type="checkbox"/> Green Label Plus		
	Floor, framing	<input type="checkbox"/>	type: _____			
	Foundation: aggregate	<input type="checkbox"/>	type: _____			
	Foundation: cement	<input type="checkbox"/>	type: _____			
	Interior wall, framing	<input type="checkbox"/>	type: _____			
	Interior wall, ceiling: gypsum board	<input type="checkbox"/>	type: _____			
	Interior wall, ceiling, millwork, paint	<input type="checkbox"/>	type: _____	<input type="checkbox"/>		
	Landscape: decking and patio	<input type="checkbox"/>	type: _____			
	Other: cabinet	<input type="checkbox"/>	type: _____			
	Other: counter	<input type="checkbox"/>	type: _____			
	Other: door	<input type="checkbox"/>	type: _____			
	Other: interior trim	<input type="checkbox"/>	type: _____			
	Other: adhesive, sealant	<input type="checkbox"/>	type: _____	<input type="checkbox"/>		
	Other: window frame	<input type="checkbox"/>	type: _____			
	Roof, framing	<input type="checkbox"/>	type: _____			
	Roof, roofing	<input type="checkbox"/>	type: _____			
	Roof, floor, wall, cavity insulation	<input type="checkbox"/>	type: _____	<input type="checkbox"/>		
	Roof, floor, wall (2 of 3): sheathing	<input type="checkbox"/>	type: _____			
	Other: water supply, piping	<input type="checkbox"/>	type: _____			
	Other: driveway	<input type="checkbox"/>	type: _____			

2. Irrigation System						
2.1	High-Efficiency Irrigation System (meet any of the following, 1 pt each)	1	0	0		0
	<input type="checkbox"/> a) Irrigation system designed by EPA Water Sense certified professional				<input type="checkbox"/> d) Install timer or controller for each watering zone	
	<input type="checkbox"/> b) Irrigation system with head-to-head coverage				<input type="checkbox"/> e) Install pressure-regulating devices	
	<input type="checkbox"/> c) Install central shut-off valve				<input type="checkbox"/> f) High-efficiency nozzles with distribution uniformity of at least 0.70	
	<input type="checkbox"/> g) Install submeter for the irrigation system				<input type="checkbox"/> h) Install check valves in heads	
	<input type="checkbox"/> i) Use drip irrigation for 50% of planting beds				<input type="checkbox"/> j) Install moisture sensor or soil depth detection	
	<input type="checkbox"/> k) Create separate zones for each type of bedding					
AND/OR	2.2 Third-party inspection	1	0	0		0
OR	2.3 Reduce Overall Irrigation Demand by at Least 45%	1	0	0		0
	<input type="checkbox"/> Percentage reduction in estimated irrigation water demand				(calculate)	
3. Indoor Water Use						
3.1	High-Efficiency Fixtures and Fittings (meet any of the following, 3 pts each)	3	0	0		0
	<input type="checkbox"/> a) Average flow rate of lavatory faucets is ≤ 2.00 gpm				<input type="checkbox"/> c) Average flow rate for all toilets is ≤ 1.30 gpf, OR	
	<input type="checkbox"/> b) Average flow rate for all showers is ≤ 2.00 gpm per stall				<input type="checkbox"/> Toilets are dual-flush OR	
					<input type="checkbox"/> Toilets meet the EPA Water Sense specification	
3.2	Very High-Efficiency Fixtures and Fittings (meet any, 2 pts each)	2	0	0		0
	<input type="checkbox"/> a) Average flow rate of lavatory faucets is ≤ 1.50 gpm, OR				<input type="checkbox"/> b) Average flow rate for all showers is ≤ 1.75 gpm per stall	
	<input type="checkbox"/> Lavatory faucets meet the EPA Water Sense specification				<input type="checkbox"/> c) Average flow rate for all toilets is ≤ 1.00 gpf	
Energy & Atmosphere (EA) (Minimum: 0 EA Points Required)						
		Max: 38	Y: 0	M: 0	Notes	Final: 0
1. Optimize Energy Performance						
1.1	Performance of ENERGY STAR for Homes	1	0	0		0
1.2	Exceptional Energy Performance	1	0	0		0
	<input type="checkbox"/> IECC climate zone				<input type="checkbox"/> HERS Index	
7. Water Heating						
7.1	Efficient Hot Water Distribution System (meet one of the following)	2	0	0		0
	<input type="checkbox"/> a) Structured plumbing system				<input type="checkbox"/> c) Compact design of conventional system	
	<input type="checkbox"/> b) Central manifold distribution system					
7.2	Pipe Insulation	1	0	0		0
11. Residential Refrigerant Management						
11.1	Refrigerant Charge Test	1	0	0		0
11.2	Appropriate HVAC Refrigerants (meet one of the following)	1	0	0		0
	<input type="checkbox"/> a) Use no refrigerants				<input type="checkbox"/> c) Use refrigerants that comply with global warming potential equation	
	<input type="checkbox"/> b) Use low-GWP refrigerants					

5. Local Exhaust

5.1 Basic Local Exhaust (meet all of the following) Prereq.

a) Bathroom and kitchen exhaust meets ASHRAE Std. 62.2 air flow requirement

b) Fans and ducts designed and installed to ASHRAE Std. 62.2

c) Air exhausted to outdoors

d) ENERGY STAR labeled bathroom exhaust fans

5.2 Enhanced Local Exhaust (meet one of the following) 1 0 0 0

a) Occupancy sensor

b) Automatic humidistat controller

c) Automatic timer tied to switch to operate fan for 20+ minutes post-occupancy

d) Continuously operating exhaust fan

5.3 Third-Party Performance Testing 1 0 0 0

6. Distribution of Space Heating and Cooling

6.1 Room-by-Room Load Calculations Prereq.

6.2 Return Air Flow / Room-by-Room Controls (meet one of the following) 1 0 0 0

A. Forced-Air Systems

a) Return air opening of 1 sq. inch per cfm of supply

b) Limited pressure differential between closed room and adjacent spaces

B. Nonducted HVAC Systems

c) Flow control valves on every radiatory OR

d) Radiant floor system with thermostat controls in every room

6.3 Third-Party Performance Test / Multiple Zones (meet one of the following) 2 0 0 0

A. Forced-Air Systems

a) Have supply air flow rates in each room tested and confirmed

B. Nonducted HVAC Systems

b) Install at least two distinct zones with independent thermostat control

7. Air Filtration

7.1 Good Filters Prereq.

7.2 Better Filters 1 0 0 0

OR 7.3 Best Filters 2 0 0 0

8. Contaminant Control

8.1 Indoor Contaminant Control during Construction 1 0 0 0

8.2 Indoor Contaminant Control (meet any of the following, 1 pt each) 2 0 0 0

a) Design and install permanent walk-off mats at each entry

b) Design shoe removal and storage space near primary entryway

c) Install central vacuum system with exhaust to outdoors

8.3 Preoccupancy Flush 1 0 0 0

9. Radon Protection

9.1 Radon-Resistant Construction in High-Risk Areas Prereq.

9.2 Radon-Resistant Construction in Moderate-Risk Areas 0 0 0 0

3. Waste Management

3.1 Construction Waste Management Planning (meet both of the following) Prereq.

a) Investigate local options for waste diversion

b) Document diversion rate for construction waste

3.2 Construction Waste Reduction (use one of the following methods) 1 0 0 0

a) pounds waste / square foot

b) cubic yards waste / 1,000 square feet

c) percentage of waste diverted

Indoor Environmental Quality (EQ) (Minimum 6 EQ Points Required) Max: 21 Y: 0 M: 0 Notes: Final: 0

1. ENERGY STAR with Indoor Air Package 13 0 0 0

ENERGY STAR with Indoor Air Package

2. Combustion Venting

2.1 Basic Combustion Venting Measures (meet all of the following) Prereq.

a) no unvented combustion appliances

b) carbon monoxide monitors on each floor (if applicable)

c) no fireplace installed, OR

d) all fireplaces and woodstoves have doors

e) space, water heating equipment designed with listed combustion, OR

f) space and water heating equipment has power-vented exhaust, OR

g) space and water heating equipment located in detached or open-air facility, OR

h) no space- or water-heating equipment with combustion

2.2 Enhanced Combustion Venting Measures (meet one of the following) 2 0 0 0

Type of Fireplace or stove	Better practice (1 pt)	Best practice (2 pts) (must also meet Better Practice)
None		<input type="checkbox"/> graded automatically
Masonry wood-burning fireplace	<input type="checkbox"/> masonry heater	<input type="checkbox"/> back-draft potential test
Factory-built wood-burning fireplace	<input type="checkbox"/> listed by testing lab and meets EPA standards	<input type="checkbox"/> back-draft potential test
Woodstove and fireplace insert	<input type="checkbox"/> listed by testing lab and meets EPA standards	<input type="checkbox"/> back-draft potential test
Natural gas, propane, or alcohol stove	<input type="checkbox"/> listed, power-vented, or direct-vented	<input type="checkbox"/> listed
Pellet stove	<input type="checkbox"/> EPA certified or meets safety requirements	<input type="checkbox"/> power- or direct-venting

3. Moisture Control

3.1 Moisture Load Control (meet one of the following) 1 0 0 0

a) Additional dehumidification system

b) Central HVAC system equipped with additional dehumidification mode

4. Outdoor Air Ventilation

4.1 Basic Outdoor Air Ventilation (meet one of the following) Prereq.

a) Qualifies under ASHRAE Std. 62.2-2007 climate exemption.

b) Continuous ventilation

c) Interrupted ventilation

d) Passive ventilation

4.2 Enhanced Outdoor Air Ventilation (meet one of the following) 2 0 0 0

a) Meets EQ 4.1 part (a), active ventilation system installed

b) Install heat recovery system

4.3 Third-Party Performance Testing 1 0 0 0

USGBC LEGAL DISCLAIMER:

USGBC makes no warranty with respect to any LEED certified project, including any warranty of habitability, merchantability, or fitness for a particular purpose. There are no warranties, express or implied, written or oral, statutory or otherwise, with respect to the certifications provided by USGBC. By way of example only, and without limiting the broad scope of the foregoing, it is understood that LEED certification, whether at the Certified level or any other level, does not mean that the project is structurally sound or safe, constructed in accordance with applicable laws, regulations or codes, free of mold or mildew, free of volatile organic compounds or allergens, or free of soil gases including radon.

SIGNATURES BY RESPONSIBLE PARTIES:

By affixing my signature below, the undersigned does hereby declare and affirm to the USGBC that the LEED for Homes requirements, as specified in the LEED for Homes Rating System, have been met for the indicated credits and will, if needed, provide the necessary supporting documents.

Project Team Leader Company
 Signature Date

By affixing my signature below, the undersigned does hereby declare and affirm to the USGBC that the required inspections and performance testing for the LEED for Homes requirements, as specified in the LEED for Homes Rating System, have been completed. I have evaluated this project's documentation package and conducted the necessary QA/QC procedures with the Green Rater, and I hereby declare and affirm to USGBC that the homes included in this submittal are ready to earn LEED for Homes certification, as per the attached checklist.

Provider QAD Company
 Signature Date

By affixing my signature below, the undersigned does hereby declare and affirm to the USGBC that the required inspections and performance testing for the LEED for Homes requirements, as specified in the LEED for Homes Rating System, have been completed.

I also hereby confirm that all verification services were performed in accordance with the LEED for Homes Verification & Submittal Guidelines and Addendum.

Green Rater Company
 Signature Date

By affixing my signature below, the undersigned does hereby declare and affirm to the USGBC that the required inspections and performance testing for the LEED for Homes requirements, as specified in the LEED for Homes Rating System, have been completed.

I also hereby confirm that all verification services were performed in accordance with the LEED for Homes Verification & Submittal Guidelines and Addendum.

Green Rater Company
 Signature Date

10. Garage Pollutant Protection		
10.1 No HVAC in Garage	<input type="checkbox"/>	0
10.2 Minimize Pollutants from Garage (meet all of the following):		0
a) In conditioned spaces above garage:		
<input type="checkbox"/> Seal all penetrations and connecting floor and ceiling joist bays		
b) In conditioned spaces next to garage:		
<input type="checkbox"/> Weather-strip all doors		
<input type="checkbox"/> Carbon monoxide detectors in rooms that share a door with garage		
<input type="checkbox"/> Seal all penetrations and cracks at the base of walls		
AND/OR 10.3 Exhaust Fan in Garage (meet one of the following):		0
<input type="checkbox"/> a) Fan runs continuously		
<input type="checkbox"/> b) Fan designed with automatic timer control		
OR 10.4 Detached Garage or No Garage	<input type="checkbox"/>	0
Awareness & Education (AE) (Minimum 0 AE Points Required)		Max: 3 Y: 0 M: 0 Notes: Final: 0
1. Education of the Homeowner or Tenant		
1.1 Basic Operations Training (meet both of the following):		0
<input type="checkbox"/> a) Operations and training manual		
<input type="checkbox"/> b) One-hour walkthrough with occupant(s)		
1.2 Enhanced Training	<input type="checkbox"/>	0
1.3 Public Awareness (meet three of the following):		0
<input type="checkbox"/> a) Open house on at least four weekends		
<input type="checkbox"/> b) Website about features and benefits of LEED homes		
<input type="checkbox"/> c) Newspaper article on the project		
<input type="checkbox"/> d) Display LEED signage on the exterior of the home		
2. Education of the Building Manager		
2.1 Education of the Building Manager (meet both of the following):		0
<input type="checkbox"/> a) Operations and training manual		
<input type="checkbox"/> b) One-hour walkthrough with building manager		

6. Space Heating and Cooling Equipment

6.1 Good HVAC Design and Installation (meet all of the following): *Prereq.*

a) Design and size HVAC equipment using ACCA Manual 3 or equivalent

b) Install efficient heating AND cooling equipment (see Table)

c) Install ENERGY STAR programmable thermostat OR

Heat pump or hydronic installed and exempted from part (c)

_____ Type of cooling system

_____ Type of heating system

_____ Cooling efficiency (SEER / EER)

_____ Heating Efficiency (AFUE / HSPF / COP)

6.2 High-Efficiency HVAC *2 0 0 0*

OR 6.3 Very High Efficiency HVAC *4 0 0 0*

7. Water Heating

7.1 Efficient Hot Water Distribution System (meet one of the following) *2 0 0 0*

a) Structured plumbing system

b) Central manifold distribution system

c) Compact design of conventional systems

7.2 Pipe Insulation *1 0 0 0*

7.3 Efficient Domestic Hot Water Equipment *3 0 0 0*

_____ Type of DHW system

_____ Efficiency _____ Solar: Percentage of annual DHW load

8. Lighting

8.1 ENERGY STAR Lights *Prereq.*

8.2 Improved Lighting (meet one of the following, see Rating System for pts) *1.5 0 0 0*

a) Indoor lighting - 3 additional ENERGY STAR lights in high-use rooms

b) Exterior lighting - motion sensor controls or integrated PV

OR 8.3 Advanced Lighting Package (meet one of the following) *3 0 0 0*

a) 60% of fixtures are ENERGY STAR fixtures

b) 80% of lamps are ENERGY STAR CFLs

9. Appliances

9.1 High-Efficiency Appliances (meet any, see Rating System for pts) *2 0 0 0*

a) ENERGY STAR labeled refrigerator

b) ENERGY STAR labeled ceiling fans in living/family room and all bedrooms

c) ENERGY STAR labeled dishwasher using 6.0 gallons per cycle or less

d) ENERGY STAR clothes washer

9.2 Water-Efficient Clothes Washer *1 0 0 0*

10. Renewable Energy

10.1 Renewable Energy System *10 0 0 0*

_____ Reference electric load, kWh/yr (based on HERS model)

_____ Electricity supplied by renewable system, kWh/yr

0.0% Percentage of annual reference electric load met by renewable system

11. Residential Refrigerant Management

11.1 Refrigerant Charge Test *Prereq.*

11.2 Appropriate HVAC Refrigerants (meet one of the following) *1 0 0 0*

a) Use no refrigerants

b) Use non-HFC refrigerants

c) Use refrigerant that complies with global warming potential equation

LEED for Homes Project Checklist
Addendum: Prescriptive Approach for Energy and Atmosphere (EA) Credits

Points cannot be earned in both the Prescriptive (below) and the Performance paths of the EA section.	Max. Pts. Available	Preliminary Rating			Notes	Project Points
		Y/Pa	Maybe	No		
Energy & Atmosphere (EA) (Minimum 0 EA Points Required)	Max: 38	Y: 0	M: 0	No: 0	Notes	Final: 0
2. Insulation						
2.1 Basic Insulation (meet both of the following) <i>Prereq.</i>						
<input type="checkbox"/> a) Insulation meets R-value requirements of IECC						
<input type="checkbox"/> b) Insulation meets HERS Grade II specifications for installation						
2.2 Enhanced Insulation (meet both of the following) <i>2 0 0 0</i>						
<input type="checkbox"/> a) Insulation exceeds R-value requirements of IECC by 5%						
<input type="checkbox"/> b) Insulation meets HERS Grade I specifications for installation						
3. Air Infiltration						
3.1 Reduced Envelope Leakage <i>Prereq.</i>						
_____ Air leakage rate in ACH50						
3.2 Greatly Reduced Envelope Leakage <i>2 0 0 0</i>						
OR 3.3 Minimal Envelope Leakage <i>3 0 0 0</i>						
4. Windows						
4.1 Good Windows (meet all of the following) <i>Prereq.</i>						
<input type="checkbox"/> a) Windows and glass doors meet ENERGY STAR BOP window specifications						
<input type="checkbox"/> b) Skylight-gazing area is ≤ 3% of floor area AND						
<input type="checkbox"/> Skylight is meet ENERGY STAR requirements for skylights						
4.2 Enhanced Windows <i>2 0 0 0</i>						
OR 4.3 Exceptional Windows <i>3 0 0 0</i>						
5. Heating and Cooling Distribution System						
5.1 Reduced Distribution Losses (meet all of the following, as appropriate) <i>Prereq.</i>						
A. Forced-Air Systems						
<input type="checkbox"/> a) Duct leakage of ≤ 4.0 CFM at 25 Pascals per 100 sq.ft.						
<input type="checkbox"/> b) No ducts in exterior walls unless extra insulation is added						
<input type="checkbox"/> c) R-19 (or R-13) insulation around ducts in unconditioned spaces						
B. Nonducted HVAC Systems						
<input type="checkbox"/> At least R-3 insulation around pipes in unconditioned spaces						
5.2 Greatly Reduced Distribution Losses (meet the following, as appropriate) <i>2 0 0 0</i>						
A. Forced-Air Systems						
<input type="checkbox"/> Duct leakage of ≤ 3.0 CFM at 25 Pascals per 100 sq.ft.						
<input type="checkbox"/> Keep the boiler and pipes entirely within conditioned envelope						
OR 5.3 Minimal Distribution Losses (meet one of the following, as appropriate) <i>3 0 0 0</i>						
A. Forced-Air Systems						
<input type="checkbox"/> a) Duct leakage of ≤ 1.0 CFM at 25 Pascals per 100 sq.ft.						
<input type="checkbox"/> b) Air-handler and all ductwork is within conditioned envelope and RA 2.3 is met						
<input type="checkbox"/> c) Air-handler and all ductwork visibly within conditioned spaces (not in walls, etc.)						
B. Nonducted HVAC Systems						
<input type="checkbox"/> Outdoor reset control is set at 55°F (or based on outdoor temp)						

3. Innovative or Regional Design			
3.1			
3.2			
3.3			
3.4			

Credits *Responsible Party* *Last Updated* *Additional Notes*

LL 1. LEED for Neighborhood Development			
LL 2. Site Selection			
2			
LL 3. Preferred Locations			
3.1			
3.2			
3.3			
LL 4. Infrastructure			
4			
LL 5. Community Resources			
5.1			
5.2			
5.3			
LL 6. Access to Open Space			
6			

LEED for Homes Project Checklist, Project Notes

This section was created to give project teams additional space to make internal notes on the progress of the project. It does not need to be used and it should not be submitted to USGBC. This section is unlocked, so project teams are welcome to make changes to the format as necessary. Any comments or instructions provided below have not been created or endorsed by the US Green Building Council.

Date project began:

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Initiated by:

--

Credits *Responsible Party* *Last Updated* *Additional Notes*

ID 1. Integrated Project Planning			
1.1			
1.2			
1.3			
1.4			
1.5			
ID 2. Quality Mgmt for Durability			
2.1			
2.2			
2.3			



M = MANDATORY
E = AVAILABLE OPTIONAL POINTS

2011 Enterprise Green Communities Criteria Checklist

This checklist provides an overview of the technical requirements within the Enterprise Green Communities Criteria. To achieve Enterprise Green Communities Certification, all projects must achieve compliance with the criteria mandatory measures applicable to that construction type. Additionally, New Construction projects must achieve 35 optional points, Substantial Rehabilitation projects must achieve 30 optional points, and Moderate Rehabilitation projects must also achieve 30 optional points.

1.2a Green Development Plans (Integrative Design Meeting)
Conduct one or more integrative design meetings and submit a Green Development Plan or equivalent documentation.

1.2b Green Development Plans: Criteria Documentation
Create design and construction documentation to include information on implementation of appropriate Enterprise Green Communities Criteria.

1.2a Universal Design (New Construction only)
Design a minimum of 15% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines.

1.2b Universal Design (Substantial and Moderate Rehabilitation only)
Design a minimum of 10% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines. For an additional point, the remainder of the ground-floor units and elevator-adjacent units should have accessible unit entrances.

SUBTOTAL OPTIONAL POINTS

YES NO N/A/E/F

2.1 Seismic Site Protection (New Construction only)
Do not locate new development, including buildings, built structures, roads, or other parking areas, on portions of sites that meet any of the following conditions:
• Land within 100 feet of wetlands, including isolated wetlands or streams
• Land on slope greater than 15%
• Land with prime soils, unique soils, or soils of state significance
• Public parkland
• Land that is specifically identified as habitat for any species on federal or state threatened or endangered lists
• Land with elevation at or below the 100-year floodplain

YES NO N/A/E/F

2.2 Connections to Existing Development and Infrastructure (New Construction only, except for projects located on rural/trial lands, in cobble communities, or in communities of population less than 10,000)
Locate project on a site with access to existing roads, water, sewers, and other infrastructure within or contiguous to existing development. Connect the project to the pedestrian grid.

M = MANDATORY
E = AVAILABLE OPTIONAL POINTS

LOCATION - NEIGHBORHOOD FABRIC (CONTINUED)

2.3 Compact Development (New Construction only)
Design and build the project to a density of at least:

- Urban/Smart Cities: 10 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater
- Suburban/Mid-Size Towns: 7 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater
- Rural/Tribal/Small Towns: 5 units per acre for detached or semi-detached housing; 10 units per acre for townhomes; 15 units per acre for apartments

YES NO N/A/E/F

2.4 Compact Development
Design and build the project to a density of at least:

- Urban/Smart Cities: 15 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater (5 points)
- Suburban/Mid-Size Towns: 10 dwelling units per acre, or at least 75% of surrounding net residential density, whichever is greater (6 points)
- Rural/Tribal/Small Towns: 7.5 units per acre for detached or semi-detached housing; 12 units per acre for townhomes; 20 units per acre for apartments (6 points)

YES NO N/A/E/F

2.5 Proximity to Services (New Construction only)
Locate the project within:

- Urban/Smart Cities: a 0.25-mile walk distance of at least two OR a 0.5-mile walk distance of at least four of the list of facilities
- Suburban/Mid-Size Towns: a 0.5-mile walk distance of at least three OR a 1-mile walk distance of at least six of the list of facilities
- Rural/Tribal/Small Towns: two miles of at least two of the list of facilities

YES NO N/A/E/F

2.6 Preservation of and Access to Open Space (Rural/Tribal/Small Towns only)
Preservation of and access to open spaces for use by residents OR locate Set aside a minimum of 10% of the total project acreage as open space that is a minimum of 0.75 acres project within a 0.25-mile walk distance of dedicated public open space that is a minimum of 0.75 acres

YES NO N/A/E/F

2.7 Preservation of and Access to Open Space (New Construction only)
Set aside a percentage of (the total) project acreage as open space for use by residents: 20% (1 point); 30% (2 points); and 40% + written statement of preservation/conservation policy for residential (3 points)

YES NO N/A/E/F

2.8 Access to Public Transportation
Locate the project within:

- Urban/Smart Cities: a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting 76 or more transit rides per weekday and 32 or more transit rides on the weekend
- Suburban/Mid-Size Towns: a 0.5-mile walk distance of combined transit services (bus, rail, and ferry) constituting 60 or more transit rides per weekday and some type of weekend ride option
- Rural/Tribal/Small Towns: 5-mile distance of either a vehicle share program, a dial-a-ride program, an employer van pool, or public-private regional transportation

YES NO N/A/E/F

2.9 Walkable Neighborhoods (Connections to Surrounding Neighborhood - Rural/Tribal/Small Towns)
Connect the project to public spaces, open spaces, and adjacent development by providing at least one separate connection from the project to sidewalks or pathways at surrounding neighborhoods and natural areas.



M = MANDATORY
E = AVAILABLE OPTIONAL POINTS

M = MANDATORY
 E = EVALUABLE OPTIONAL POINTS

LOCATION 4 NEIGHBORHOOD FABRIC (CONTINUED)

- 7 YES NO MAYBE MAX
- 2.10 Street Site Location: Passive Solar Heating/Cooling
 Demonstrate a building with a passive solar design, orientation, and shading that meet specified guidelines. Select one:
 • Single building—New Construction (7 points)
 • Multiple buildings—New Construction (7 points)
 • Moderate or Substantial Renovation (7 points)
- 2 YES NO MAYBE MAX
- 2.11 Brownfield or Adaptive Reuse Site
 Locate the project on a brownfield or adaptive reuse site. Select either adaptive reuse site (2 points) or brownfield remediation (2 points)
- 6 YES NO MAYBE MAX
- 2.12 Access to Fresh Local Foods
 Pursue one of three options to provide residents and staff with access to fresh, local foods, including neighborhood farms and gardens; community-supported agriculture; proximity to farmers market.
- 3 YES NO MAYBE MAX
- 2.13 LEED for Neighborhood Development Certification
 Locate the project in a Stage 2 Pre-Certified LEED for Neighborhood Development plan or a Stage 3 LEED for Neighborhood Development Certified Neighborhood Development.

SUBTOTAL OPTIONAL POINTS

- 3.1 Environmental Remediation
 Conduct an environmental site assessment to determine whether any hazardous materials are present on site.
 YES NO MAYBE MAX
- 3.2 Erosion and Sedimentation Control (Except for projects with bioturbate cover smaller than one acre)
 Implement EPA's Best Management Practices for erosion and sedimentation control during construction.
 YES NO MAYBE MAX
- 3.3 Low-impact Development (New Construction only)
 Projects located on greenfields must meet the list of low-impact development criteria.
 YES NO MAYBE MAX
- 3.4 Landscaping
 Provide new plants (including trees, shrubs, and ground cover) such that at least 50% of area available for landscaping is planted with native or adaptive species, all new plants are appropriate to the site's soil and microclimate, and none of the new plants is an invasive species.
 YES NO MAYBE MAX
- 3.5 Efficient Irrigation and Water Reuse
 If irrigation is utilized, install an efficient irrigation or water reuse system.
 YES NO MAYBE MAX
- 2 of 6 YES NO MAYBE MAX
- 3.6 Surface Stormwater Management
 Retain, infiltrate, and/or harvest stormwater on site. Select only one: partial stormwater retention (2 points) or full stormwater retention (6 points)

SUBTOTAL OPTIONAL POINTS

M = MANDATORY
 E = EVALUABLE OPTIONAL POINTS

WATER CONSERVATION

- 4.1 Water-Conserving Fixtures
 Install or retrofit water-conserving fixtures in all units and any common facilities with the following specifications: Toilets—1.28 gpf; Urinals—0.5 gpf; Showers/baths—2.0 gpm; Kitchen fixtures—2.0 gpm; Bathroom fixtures—1.5 gpm
 YES NO MAYBE MAX
- 4.2 Advanced Water-Conserving Appliances and Fixtures
 Install or retrofit water-conserving fixtures in all units and any common facilities with the following specifications: Dishes—1.2 gpf; Showers/baths—1.5 gpm; Kitchen fixtures—1.5 gpm; Bathroom fixtures—0.5 gpm. Select any, or all, of the options:
 • Toilets (2 points)
 • Showers/baths (2 points)
 • Faucets—kitchen and bathroom (2 points)
- 4.3 Water Reuse
 Harvest, treat, and reuse rainwater and/or greywater to meet a portion of the project's water needs.
 YES NO MAYBE MAX
- 50% reuse (1 point)
 - 20% reuse (2 points)
 - 40% reuse (4 points)

SUBTOTAL OPTIONAL POINTS

- 5.1.1 Building Performance Standard: Single Family and Multifamily (three stories or fewer) (New Construction only)
 Certify the project under ENERGY STAR New Homes.
 YES NO MAYBE MAX
- 5.1.2 Building Performance Standard: Multifamily (four stories or more) (New Construction only)
 Demonstrate compliance with EPA's Multifamily High-Rise program (MFRH) using either the prescriptive or the performance pathway.
 YES NO MAYBE MAX
- 5.1.3 Building Performance Standard: Single Family and Multifamily (three stories or fewer) (Substantial and Moderate Rehab only)
 Demonstrate that the final energy performance of the building is equivalent to a Home Energy Rating System (HERS) Index of 65.
 YES NO MAYBE MAX
- 5.1.4 Building Performance Standard: Multifamily (four stories or more) (Substantial and Moderate Rehab only)
 Demonstrate that the final energy performance of the building is equivalent to ASHRAE 90.1-2007.
 YES NO MAYBE MAX
- 5.2. Additional Reducers in Energy Use
 Improve whole-building energy performance by percentage increment above baseline building performance standard for additional points.
 YES NO MAYBE MAX
- 5.3 Sizing of Heating and Cooling Equipment
 Size heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manual, Parts J and K, or ASHRAE handbooks.
 YES NO MAYBE MAX
- 5.4 ENERGY STAR Appliances
 If providing appliances, install ENERGY STAR-labeled clothes washers, dishwashers, and refrigerators.
 YES NO MAYBE MAX



M = Mandatory
P = Potential Optional Points

Item	Points	Response	Description
6.4 Construction Waste Management	Optional	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Decreases percentage of waste diversion and earn all points below the thresholds: • 35% waste diversion (1 point) • 45% waste diversion (2 points) • 55% waste diversion (3 points)
6.5 Recycling Storage for Multifamily Project	5	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Provide one or more easily accessible, permanent areas for the collection and storage of materials for recycling.
6.6 Recycled Content Material	5	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Interior building materials that are composed of at least 25% post-consumer recycled content or at least 50% post-industrial recycled content. Select from the following: • Framing materials (1 point) • Exterior materials: siding, masonry, roofing (1 point) • Concrete/cement and aggregate (1 point) • Drywall/interior sheathing (1 point) • Flooring materials (1 point)
6.7 Regional Material Selection	5	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Use products that were extracted, processed, and manufactured within 500 miles of the home or building for a minimum of 50% of the building material value (based on cost). Select any or all of these options: • Framing materials (1 point) • Exterior materials: siding, masonry, roofing (1 point) • Concrete/cement and aggregate (1 point) • Drywall/interior sheathing (1 point) • Flooring materials (1 point)
6.8 Certified, Salvaged, and Engineered Wood Products	5	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Commit to using wood products and materials of at least 25% that are (by cost): FSC-certified, salvaged products, or engineered framing materials without urea-formaldehyde binders.
6.9 Reduced Heat-Island Effect	1 or 3	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Use Energy Star-compliant roofing or install a "green" (vegetated) roof for at least 50% of the roof area. Select only one: cool roof (3 points) or green roof (1 point)
6.9b Reduced Heat-Island Effect: Paving	1 or 2	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Use light-colored, high-albedo materials and/or an open-grid pavement, with a minimum solar reflectance of 0.3, over at least 50% of the site's hardscaped area.

SUBTOTAL OPTIONAL POINTS

M
 YES NO MAYBE
7.1 Composites Wood Products that Emit Low/No Formaldehyde
All composite wood products must be certified compliant with California 09120.1. (Using a composite wood product that does not comply with California 09120.1, all exposed edges and ends must be sealed with low-VOC sealants.)



M = Mandatory
P = Potential Optional Points

Item	Points	Response	Description
5.5a Efficient Lighting: Interior Units	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Follow the guidance appropriate for the project type: install the ENERGY STAR Advanced Lighting Package (ALP), or follow the ENERGY STAR MRP program guidelines, which require that 80% of installed lighting fixtures within units must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed. OK if replacing, new fixtures and ceiling fans must meet or exceed ENERGY STAR efficiency levels.
5.5b Efficient Lighting: Common Areas and Emergency Lighting	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Follow the guidance appropriate for the project type: use ENERGY STAR-labeled fixtures or any equivalent high-performance lighting fixtures and bulbs in all common areas. OK if replacing, new common space and emergency lighting fixtures must meet or exceed ENERGY STAR efficiency levels. For emergency lighting, if installing new or replacing, all exit signs shall meet or exceed LED efficiency levels and conform to local building codes.
5.5c Efficient Lighting: Exterior	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Follow the guidance appropriate for the project type: install ENERGY STAR-qualified fixtures or LEDs with a minimum efficacy of 45 lumens/watt. OK if following the ENERGY STAR MRP program guidelines, which require that 80% of outdoor lighting fixtures must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed. OK if replacing, install ENERGY STAR compact fluorescents or LEDs with a minimum efficacy of 45 lumens/watt.
5.6a Electricity Meter (New Construction and Substantial Renovation only)	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Install individual or sub-metered electric meters in all dwelling units.
5.6b Electricity Meter (Nonrental Units only)	3	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Install individual or sub-metered electric meters in all dwelling units.
5.7a Renewable Energy	1, 2, or 3	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Install photovoltaic (PV) panels, wind turbines, or other electric generating renewable energy source to provide a specified percentage of the project's estimated energy demand.
5.7b Photovoltaic/Solar Hot Water Ready	1 or 2	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Site, design, engineer, and/or plumb the development to accommodate installation of photovoltaic (PV) or solar hot water system in the future.
5.8 Advanced Metering Infrastructure	5	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	Site, design, engineer, and wire the development to accommodate installation of smart meters and/or the ability to interface with smart grid systems in the future.

SUBTOTAL OPTIONAL POINTS

M
 YES NO MAYBE
6.1 Low/No VOC Paints and Primers
All interior paints and primers must be less than or equal to the following VOC levels: Flat—50 g/L; Non-flat—50 g/L; Spack—100 g/L

M
 YES NO MAYBE
6.2 Low/No VOC Adhesives and Sealants
All adhesives must comply with Rule 1163 of the South Coast Air Quality Management District. All caulks and sealants must comply with regulation 6, rule 51, of the Bay Area Air Quality Management District.

M
 YES NO MAYBE
6.3 Construction Waste Management
Commit to following a waste management plan that reduces non-hazardous construction and demolition waste by at least 25% by weight through recycling, salvaging, or diversion strategies.

2011 ENTERPRISE GREEN COMMUNITIES CRITERIA CHECKLIST

M = MANDATORY
O = AVAILABLE OPTIONAL POINTS

HEALTHY LIVING ENVIRONMENT (CONTINUED)		
7.2 Environmentally Preferable Flooring Do not install carpet in entryways, laundry rooms, bathrooms/kitchens/utility rooms, and all rooms of ground-connected floors. Any carpet products used must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpets, pad, and carpet adhesives. Any hard surface flooring products used must be either ceramic tile, unglazed hardwood floors, or in compliance with the Sustainable Certification System's Healthcare program criteria.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.3 Environmentally Preferable Flooring: Alternative Sources Use non-wool, non-carpet floor coverings in all rooms of building.	4	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.4a Exhaust Fans Bathroom (New Construction and Substantial Rehab only) Install Energy Star-labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidity sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.4b Exhaust Fans Bathroom (Moderate Rehab only) Install Energy Star-labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidity sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).	6	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.5a Exhaust Fans Kitchen (New Construction and Substantial Rehab only) Install power-vented fans or range hoods that exhaust to the exterior at the appropriate efficiency rate, per ASHRAE 62.2, or install a central ventilation system with rooftop fans that meet efficiency criteria.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.5b Exhaust Fans Kitchen (Moderate Rehab only) Install power-vented fans or range hoods that exhaust to the exterior at the appropriate efficiency rate, per ASHRAE 62.2, or install a central ventilation system with rooftop fans that meet efficiency criteria.	6	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.6a Ventilation (New Construction and Substantial Rehab only) Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE's requirements for the building type.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.6b Ventilation (Moderate Rehab only) Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE's requirements for the building type.	5	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.7 Clothes Dryer Exhaust Clothes dryers must be exhausted directly to the outdoors using rigid type exhaust vent.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.8 Combustion Equipment Specify power-vented or closed-combustion equipment when installing new space and water-heating equipment in New Construction and any Substantial and Moderate Rehab projects.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.9a Mold Prevention Water Heaters Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.9b Mold Prevention Surfaces In bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.9c Mold Prevention Tub and Shower Enclosures Use non-pipe-thread backing materials such as cement board, fiber cement board, or equivalent in bathrooms.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE



2011 ENTERPRISE GREEN COMMUNITIES CRITERIA CHECKLIST

M = MANDATORY
O = AVAILABLE OPTIONAL POINTS

HEALTHY LIVING ENVIRONMENT (CONTINUED)		
7.10 Vapor Barrier Strategies (New Construction and Rehab Projects only, foundation work only) Install vapor barriers that meet specified criteria appropriate for the foundation type.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.11 Radon Mitigation (New Construction and Substantial Rehab only) For New Construction in EPA Zones 1 and 2 areas, install passive radon-resistant features below the slab. For Substantial Rehab projects in these zones, test for the presence of radon and mitigate if elevated levels exist.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.12 Water Drainage (New Construction and Rehab projects requiring assemblies called out in Criterion only) Provide drainage of water away from windows, walls, and foundations by implementing list of techniques.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.13 Garage Isolation Follow list of criteria for projects with garages, including: provide a continuous air barrier between the conditioned (living) space and any garage space to prevent the migration of any contaminants into the living spaces, and install a CO alarm inside the house in the room with a door to the garage and outside all sleeping areas.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.14 Integrated Pest Management Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate sealing methods to prevent pest entry.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.15 Lead-Safe Work Practices (Substantial and Moderate Rehab only) For properties built before 1978, use lead-safe work practices consistent with the EPA's Renovation, Repair, and Painting Regulation and applicable HUD requirements.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
7.16 Smoke-Free Building Implement and enforce a no smoking policy in all common, individual living areas, and with a 25-foot perimeter around the exterior of all residential buildings.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
SUBTOTAL OPTIONAL POINTS		
8.1 Building Maintenance Manual (All Multi-Unit Projects) Provide a building maintenance manual that addresses maintenance schedules and other specific instructions related to the building's green features.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
8.2 Resident Manual Provide a guide for homeowners and renters that explains the intent, benefits, use, and maintenance of green building features.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
8.3 Resident and Property Manager Orientation Provide a comprehensive walk-through and orientation for residents and property managers using the appropriate building maintenance or resident's manual.	M	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
8.4 Project Data Collection and Monitoring System Collect and monitor project performance data on energy, water, and, if possible, health by being environments for a minimum of five years.	12	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A/NE
SUBTOTAL OPTIONAL POINTS		
TOTAL OPTIONAL POINTS		



October 7, 2011

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Ms. Estrella A. Seese
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
DOCKET NO. A10-789/A&B PROPERTIES, INC.
October 7, 2011
Page 2 of 4

[§291-71] Designation of parking spaces for electric vehicles; charging units. All public, private, and government parking facilities that are available for use by the general public and have at least one hundred parking spaces shall designate one per cent of parking spaces exclusively for electric vehicles by December 31, 2011, provided that at least one of the parking spaces designated for electric vehicles is located near the building entrance and is equipped with an electric vehicle charging unit. Spaces shall be designated, clearly marked, and the exclusive designation enforced. The electric vehicle charging units shall meet recognized standards, including SAE J1772 of the Society of Automotive Engineers. Owners of multiple parking lots within the State may designate and electrify fewer parking spaces than required in one or more of their owned properties as long as the scheduled requirement is met for the total number of aggregate spaces on all of their owned properties.

Since the project site is vacant and is not used for parking for more than 100 cars, HRS 291-71 does not currently apply to the subject property.

In regards to the information you provided on HRS 196-7.5, a new Section 2.6.5 will be added to the Final EIS as follows:

During the Draft EIS public review period, the State Energy Office wrote: "...owners of multi-family residential dwellings or townhouses must be permitting to install and electrical vehicle charging station on or near their parking stall (HRS 196-7.5)." HRS 196-7.5 (a) states:

Notwithstanding any law to the contrary, no person shall be prevented by any covenant, declaration, bylaw, restriction, deed, lease, term, provision, condition, codicil, contract, or similar agreement, however worded, from installing an electric vehicle charging system on or near the parking stall of any multi-family residential dwelling or townhouse that the person owns. Any provision in any lease, instrument, or contract contrary to the intent of this section shall be void and unenforceable.

Per HRS 196-7.5 (b), the applicant "...may adopt rules that reasonably restrict the placement and use of electric vehicle charging systems for the purpose of charging or electrical vehicles in the parking stalls of any multi-family residential dwelling or townhouse; provided that those restrictions shall not prohibit the placement or use of electric vehicle charging systems altogether." Further, the applicant understands that "No private entity shall assess or charge any homeowner any fees for the placement of any electric vehicle charging system; provided that the private entity may require reimbursement for the cost of electricity used by such electric vehicle charging system." Finally HRS 196-7.5 (c) and (d) provides rules for the homeowners who install an electric vehicle charging system.

Ms. Estrella A. Seese, Acting Administrator
State of Hawai'i
Department of Business, Economic Development & Tourism
Hawai'i State Energy Office
P.O. Box 2359
Honolulu, Hawai'i 96804

**SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
DOCKET NO. A10-789/A&B PROPERTIES, INC.**

Dear Ms. Seese,

Thank you for your letter dated August 8, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

Solar Water Heater System Required

Per your comments, a new Section 2.6.4 will be added to the Final EIS as follows:

Solar Water Heaters

During the Draft EIS public review period, the State Energy Office wrote: "...effective January 1, 2010, no building permit shall be issued for a new single-family dwelling that does not include a solar water heating system that meets standards established by the Hawai'i Public Utilities Commission, unless the DBEDT Director approves a variance (HRS 196-6.5; Energy Resources).

Designated Parking Space and Placement of Charging Unit for Electric Vehicles

We appreciate the information provided on HRS 291-71, which states in part:

Ms. Estrella A. Seese
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
DOCKET NO. A10-789/A&B PROPERTIES, INC.
October 7, 2011
Page 3 of 4

State Energy Conservation Goals and the Hawai'i Clean Energy Initiative

Per your comments regarding the Hawai'i Clean Energy Initiative, the following two paragraphs will be added to Section 2.6.1 of the Final EIS:

According to Hawai'i Energy (a ratepayer-funded conservation and efficiency program administered by Science Applications International Corporation under contract with the Hawai'i Public Utilities Commission serving the islands of Hawai'i, Lanai, Maui, Molokai and O'ahu), the typical Hawai'i residence utilizes approximately 20.0 kilowatt hours per day. The proposed 2,550 residences (including the 300 unit County Housing project) would generate a demand for approximately 51 megawatts (MW) of electricity per day. As noted in Section 4.8.6 of this Final EIS, the applicant's electrical engineering subconsultant met with Maui Electric Company (MECO) staff to discuss the estimated electrical demand and what improvements will be required so that service can be provided on a timely basis. No indication was given that MECO anticipates any generating or transmission capacity constraints may arise as a result of the proposed project and other projects planned for the region.

According to the Hawai'i Clean Energy Initiative, "Maui is served by the Maui Electric Company, which has about 260 megawatts of capacity. Maui has significant local renewable energy resources, as well as energy-efficiency potential. An aggressive program to retrofit inefficient buildings and increase the efficiency of new buildings could flatten Maui's load growth over the next 20 years... Two large renewable energy projects—a 30-megawatt wind farm (the state's largest) and a 16-megawatt biomass power plant burning bagasse at a commercial sugar operation—already provide Maui with about 20% renewable energy generation. Maui also has a few megawatts of hydroelectric generation, and rooftop PV distributed across the island currently contributes approximately 1 megawatt to the island's renewable energy portfolio... Technical assessments show that Maui has significant additional resource potential, including: Wind energy – 67 megawatts. Biomass energy – 25 megawatts. Geothermal energy – 140 megawatts. Solar thermal energy (exact capacity to be determined)... Proposed renewable generation projects include 42 megawatts of wind energy, 6 megawatts of biomass power, and 10 megawatts of geothermal... Although ocean energy technologies are not yet proven on a commercial scale, Maui is at the forefront of ocean energy research. The island is planning to help test and demonstrate a wave project off its north coast in the near future." This appears to demonstrate that Maui has significant additional resource potential to meet the estimated demand from the proposed project.

Ms. Estrella A. Seese
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
DOCKET NO. A10-789/A&B PROPERTIES, INC.
October 7, 2011
Page 4 of 4

Miscellaneous Comments

Comment: "We encourage Applicant to follow through with Section 2.6 of their DEIS, Environmentally-Responsible Planning and Design and commitment to 'limiting the environmental impact of Wai'ale.' Please consider the cost-savings benefits of Leadership in Energy and Environmental Design (LEED) certification."

Response: The applicant will consider the benefits of LEED. While the applicant acknowledges the potential energy cost savings benefit of LEED design, it must be weighed against the increase in cost over conventional design and construction. Energy-efficient and other sustainable design measures are increasingly being adopted in conventional design and building practice, with or without LEED certification.

Comment: "Our website (<http://hawaii.gov/dbedt/info/energy>) provides detailed information on guidelines, directives, and statutes, as well as studies and reports on aspects of energy efficiency and renewable energy."

Response: We appreciate the information provided and have reviewed the website. Per your comments, the following paragraph will be added to Section 2.6.3 of the Final EIS:

During the Draft EIS public review period, the State Energy Office wrote: "Our website (<http://hawaii.gov/dbedt/info/energy>) provides detailed information on guidelines, directives, and statutes, as well as studies and reports on aspects of energy efficiency and renewable energy."

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

NEIL ABERCROMBIE
GOVERNOR

MAJOR GENERAL DARRYL D. M. WONG
DIRECTOR OF CIVIL DEFENSE

EDWARD T. TEIXEIRA
VICE DIRECTOR OF CIVIL DEFENSE



STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
2849 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4485

PHONE (808) 733-4300
FAX (808) 733-4307

July 14, 2011

Mr. Michael Shibata
PBR HAWAII & Associates, Inc.
ABS Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Shibata:

Wa'i'ale Draft Environmental Impact Statement (DEIS)

Thank you for the opportunity to comment on the Wa'i'ale DEIS. The proposed locations are located within Flood Zone X and outside tsunami evacuation zones. However, we recommend your consideration of measures to mitigate natural hazards risks as appropriate.

We defer to the Department of Land and Natural Resources for mitigation actions that pertain to archeological, historical, and cultural discoveries.

If you have any questions please call Ms. Havinne Okamura, Hazard Mitigation Planner, at (808)733-4300, extension 556.

Sincerely,


EDWARD T. TEIXEIRA
Vice Director of Civil Defense



October 7, 2011

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Mr. Edward T. Teixeira, Vice Director
State of Hawaii
Department of Defense
Office of the Director of Civil Defense
3949 Diamond Head Road
Honolulu, Hawaii 96816-4495

Attn: Ms. Havinne Okamura

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Teixeira,

Thank you for your letter dated July 14, 2011 regarding the Wa'i'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

Thank you for confirming that the proposed project is located within Flood Zone X and is outside the tsunami evacuation zone. We concur with your recommendation on our consideration of measures to mitigate natural hazards risks as appropriate. In Section 3.4 of the Draft EIS, it is stated that "Potential damage caused by earthquakes and hurricanes will be mitigated, as all structures will be constructed in compliance with the County Building Code."

We acknowledge that your office defers to the State of Hawaii, Department of Land and Natural Resources for mitigation actions that pertain to archaeological, historical, and cultural discoveries.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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DIRECTOR OF CIVIL DEFENSE

EDWARD T. TEIXEIRA
VICE DIRECTOR OF CIVIL DEFENSE



STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

August 26, 2011

Mr. Michael Shibata
PBR Hawaii and Associates, Inc.
1001 Bishop Street, Suite 650
Honolulu, Hawaii 96813

Dear Mr. Shibata:

Draft Environmental Impact Statement Review

Wai'ale Development, Wailuku, Maui

TMK Map Keys: (2) 3-8-005:023,037 (2) 3-8-007:071,101,104

After further review of the above project, State Civil Defense (SCD) has found that the Wai'ale development does not have any emergency outdoor warning coverage and would like to add the following recommendation to our previous letter dated July 14, 2011: Recommend that the developer install two 121 dB(c) omni-directional sirens.

We recommend installation of one siren in the park area at the southern part of the property and one siren around the community center on the northern part of the property. The required footprint of each new siren site is 5'x5' and should be close to an access road. Determination of the exact placement of the sirens will be available as soon as SCD can view the ongoing development plans.

If you have any questions, please call Ms. Fay Alailima-Rose, SCD Assistant Telecommunications Officer, at (808) 733-4300, ext. 531.

Sincerely,

EDWARD T. TEIXEIRA
Vice Director of Civil Defense

c: Hawaii State Planning Office
Maui County Planning Office
Maui Civil Defense Agency



October 7, 2011

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Mr. Edward T. Teixeira, Vice Director
State of Hawai'i
Department of Defense
Office of the Director of Civil Defense
3949 Diamond Head Road
Honolulu, Hawai'i 96816-4495

Attn: Ms. Fay Alailima-Rose and Ms. Havinne Okamura

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Teixeira,

Thank you for your letter dated August 26, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). It is our understanding this letter serves as a follow up clarification to your previously sent letter dated July 14, 2011. As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

We acknowledge your recommendation that the applicant install two 121 dB(c) omni-directional sirens. The applicant will coordinate with the State Civil Defense to provide suitable sites for the access and installation of a warning siren(s).

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII

Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.



STATE OF HAWAII
DEPARTMENT OF EDUCATION
P. O. BOX 2390
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

July 15, 2011

Mr. Michael Shibata, Project Manager
PBR Hawaii
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Shibata:

SUBJECT: Draft Environmental Impact Statement for the Wai'ale Project, Waipaho, Maui
The Department of Education (DOE) has reviewed the Draft Environmental Impact Statement (DEIS) for the Wai'ale Project proposed by A&B Properties.

The DOE notes that the DEIS acknowledges that the proposed project is in the Central Maui school impact district and will be subject to school impact fees. The DEIS also notes that it will make an 18-acre middle school site available to the DOE within the project. The DOE intends to continue meeting with A&B Properties to process the land donation.

The DOE is concerned with the DEIS insistence on splitting the proposed school site into two parcels, a 12-acre campus and a six-acre field parcel. The design of the future middle school in Wai'ale will consider the full 18-acre site and it is possible that the school's playfields will not be placed where they are currently shown on the map. Reviewers of the DEIS may be given the false impression that the six-acre site is a part of the surrounding green colored park or open space.

The DOE will require more information on the waterline easement that may be included within the boundary of the school parcels.

The DOE also would like to comment on the estimated increased annual cost the DOE will incur to serve the proposed project. The DEIS indicates on page 99 that there will only be 58 in-migrant students in the project at full build-out, so the annual cost to DOE is estimated at \$712,000, or \$12,276 per in-migrant student.

The DEIS fails to identify the multiplier it used to estimate the number of students estimated in the in-migrant population. But, if 58 students are estimated out of a population of 396 in-migrants,

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

Mr. Michael Shibata
Page 2
July 15, 2011

the assumption is that there would be a total of 1,160 DOE students in the total population of Wai'ale, which would be close to 8,000 people.

The DOE does not object to the assumption that 95 percent of Wai'ale's future residents will come from Maui. However, 95 percent of the Wai'ale students will have previously attended another DOE school on Maui. New students will replace the Wai'ale students at their old schools. Schools will not close, nor will enrollments drop because 1,000 students move to Wai'ale.

The actual additional cost of operating schools for the students in Wai'ale should be based on 100 percent of the estimated student population of the project at build-out. Since the DEIS does not provide a breakdown between single-family and multi-family units, the DOE is unable to provide an estimated student count at this time.

The DOE has no other comments or concerns with the proposed project. If you have any questions, please call Heidi Meeker of the Facilities Development Branch at 377-8301.

Very truly yours,

Kathryn S. Matayoshi
Superintendent

KSM:jmb

c: Bruce Anderson, CAS, Baldwin/Kekaulike/Maui High Complex Areas
Randolph Moore, Assistant Superintendent, OSFSS



October 7, 2011

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Ms. Kathryn S. Matayoshi
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 2

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII

Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Ms. Matayoshi,

Thank you for your letter dated July 15, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

1. This is to acknowledge and confirm that the State Department of Education (DOE) will determine the design of the proposed 18-acre middle school site, including the location of the school's campus and playfields.
2. As shown on Figure O-1, the intent of the conceptual community master plan is to establish the boundary between the proposed DOE middle school site and the proposed Regional Park, with the easement falling within the Regional Park. Your concerns are noted and relevant information concerning the easement will be provided to you prior to your acceptance of the middle school site.
3. As noted in the last paragraph of Section 4.9.2 of the Draft EIS, ACM estimated that approximately 6,767 residents would be living within Wai'ale once the project was fully built out. For estimation purposes, of that amount, approximately 17 percent or 1,150 residents were estimated to be students. The amount of in-migrant students was estimated at approximately 58 students or 5 percent of the total. The estimated annual cost to the DOE of these new additional students was estimated at approximately \$12,276 per student or \$712,000 per year. We concur that the actual cost to the DOE would be based on 100 percent of the estimated student population at full build out. However, the analysis cited in the Draft EIS was addressing the incremental additional cost of the in-migrant students attributable to the Wai'ale project. The estimated breakdown of single family versus multi family units is approximately 1,240 single family units and approximately 1,010 multi family units.



October 7, 2011

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SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

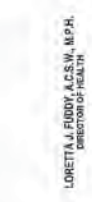
Dear Mr. Nagamine,

Thank you for your letter dated July 22, 2011 (your reference # 11-496A CAB) regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

1. Per your comments, Section 4.5 of the Final EIS will be revised to read as follows:

Construction activity would occur, in phases, over the entire property. Using EPA AP-42 emission factors (EPA AP-42 Handbook, Compilation of Air Pollutant Emission Factors), construction activity could generate up to 16 pounds per day of fugitive dust emissions. During the Draft EIS public review period, the State Department of Health, Clean Air Branch commented that: "The activities must comply with the provisions of Hawaii Administrative Rules, subsection 11-60.1-33 on Fugitive Dust. In addition, for cases involving mixed land use, we strongly recommend that buffer zones be established, wherever possible, in order to alleviate potential dust and odor nuisance problems...We encourage the contractor to implement a dust control plan, which does not require approval by the Department of Health, to comply with the fugitive dust control regulations." Construction emissions would be temporary and are not considered adverse.

2. Thank you for recognizing that the Draft EIS included specific dust and odor control measures. Per your comments, the following text will be added to Section 4.5 of the Final EIS:



LORETTA L. FIDDY, ACSW, M.P.H.
 DIRECTOR OF HEALTH
 In reply, please refer to
 11-496A CAB
 STATE OF HAWAII
 DEPARTMENT OF HEALTH
 P.O. Box 3378
 HONOLULU, HAWAII 96801-3378
 July 22, 2011

Mr. Michael Shibata
 PBR Hawaii & Associates, Inc.
 ASB Tower, Suite 650
 1001 Bishop Street
 Honolulu, Hawaii 96813

Dear Mr. Shibata:
SUBJECT: Draft Environmental Impact Statement
 Wai'ale Project, Waiuku, Maui
 TMK: (2) 3-8-005: 023 (por.) and 037
 TMK: (2) 3-8-007: 071, 101 (por.) and 104

All projects should address potential dust and odor nuisance concerns. The activities must comply with the provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust. In addition, for cases involving mixed land use, we strongly recommend that buffer zones be established, wherever possible, in order to alleviate potential dust and odor nuisance problems.

We encourage the contractor to implement a dust control plan, which does not require approval by the Department of Health, to comply with the fugitive dust regulations. We recognize that you have proposed specific dust and odor control measures in your proposal. Additional dust control measures that may be complementary include, but are not limited to, the following:

- a) Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities; centralizing on-site vehicular traffic routes; and locating potential dust-generating equipment in areas of the least impact;
- b) Providing an adequate water source at the site prior to start-up of construction activities;
- c) Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;
- d) Minimizing dust from shoulders and access roads;
- e) Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- f) Controlling dust from debris being hauled away from the project site. Also, controlling dust from daily operations of material being processed, stockpiled, and hauled to and from the facility.

If you have any questions, please contact Mr. Barry Ching of the Clean Air Branch at 586-4200.

Sincerely,

 WILFRED K. NAGAMINE
 Manager, Clean Air Branch

BC:rg

cc: Grant Chun, A&B Properties, Inc.
 Dan Davidson, State of Hawaii, Land Use Commission

Mr. Wilfred K. Nagamine
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 2

During the Draft EIS public review period, the State Department of Health, Clean Air Branch commented that: "Additional dust control measures that may be complementary include, but are not limited to, the following:

- a) Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;
- b) Providing an adequate water source at the site prior to start-up of construction activities;
- c) Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;
- d) Minimizing dust from shoulders and access roads;
- e) Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- f) Controlling dust from debris being hauled away from the project site. Also, controlling dust from daily operations of material being processed, stockpiled, and hauled to and from the facility."

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

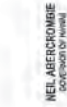
PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

June 23, 2011

Mr. Michael Shibata
PBR HAWAII & Associates, Inc.
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Shibata:

**Subject: Comments on Draft Environmental Impact Statement (DEIS) for
Wai'ale
Wailuku, Island of Maui, Hawaii**

TMKs: (2) 3-8-005:023 (por.) & 037 and (2) 3-8-007:071, 101 (por.), & 104

The Department of Health (DOH), Clean Water Branch (CWB), has reviewed the subject document and has no comments at this time. The DOH-CWB provided comments on the Environmental Impact Statement Preparation Notice (DOH-CWB Letter No. 10042PDCL.10, dated October 20, 2010).

Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at:
<http://www.hawaii.gov/health/environmental/envy-planning/landuse/CWB-standardcomment.pdf>.

If you have any questions, please visit our website at:

<http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,



ALEC WONG, P.E., CHIEF
Clean Water Branch

DCL:ml

c: DOH-EPO # 11-106 [via email only]
Mr. Grant Chun, A&B Properties, Inc. [via fax (808) 871-7497 only]
Mr. Dan Davidson, State Land Use Commission (via fax 587-3827 only)

LORETTA J. EUDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

11/10/11, 10:58 AM
BAC/CWB

06032PDCL.11



October 7, 2011

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Mr. Alec Wong
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 3

- A National Pollutant Discharge Elimination System (NPDES) permit is required. The need for this permit is stated in the Draft EIS on Table 1-1 (Anticipated Permits and Approvals) and Table 5-6 (Anticipated Permits and Approvals).
- At the appropriate time during the NPDES permit preparation process, the Clean Water Branch will be contacted, and a Notice of Intent will be submitted at least 30 days before the commencement of activities requiring the NPDES permit.
- If it is determined to be required, an individual NPDES permit will be obtained. We understand that an application for an individual NPDES permit must be submitted at least 180 days before commencement of construction activities.
- A copy of the NPDES permit application will be submitted to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD) for review.
- All discharges related to the project construction or operation activities will comply with the State's Water Quality Standards.

Monitoring

- We acknowledge that effluent discharge and/or receiving water monitoring may be required as conditions of Section 401 Water Quality Certifications and NPDES Permits.

Enforcement

- As previously mentioned, all discharges related to the project construction or operation activities must comply with Chapters 11-54 and 11-55, HAR.

Polluted Runoff Control Projects

- It is unlikely that this project will cause conditions that will require polluted runoff control as outlined in the State's Coastal Nonpoint Pollution Control Management Plan and/or Hawaii's Implementation Plan for Polluted Runoff Control and thus will unlikely qualify for federal grants administered by your office.

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Wong,

Thank you for your letter dated June 23, 2011 (reference number: 06032PDCL.11) regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

1. We acknowledge that your branch has reviewed the Draft EIS and has no comments at this time. Additionally, we acknowledge that your branch previously provided comments dated October 20, 2010 on the Environmental Impact Statement Preparation Notice (EISPN) (reference number: 10042PDCL.10).
2. All discharges related to the project construction or operation activities must comply with Chapters 11-54 and 11-55, Hawaii Administrative Rules (HAR). Should your branch require the applicant to fulfill additional requirements, we would appreciate your feedback.

The following responses are offered to the standard comments on your website: <http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf> for the State Department of Health (DOH) Clean Water Branch:

Permit Issuance

- As previously mentioned, all discharges related to the project construction or operation activities must comply with Chapters 11-54 and 11-55, HAR.
- In their review of the Draft EIS, the U.S. Army Corps of Engineers was unable to provide a determination whether a Department of Army (DA) permit would be required for the proposed project. An application for jurisdictional determination will be submitted to the U.S. Army Corps of Engineers.

Mr. Alec Wong
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 3 of 3

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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Clean Water Branch.doc

07-12-2011 10:22am

From: DEPT OF HEALTH ENVIRONMENTAL MGMT

T-673 P 001/001 F-277

Miki Kameonohi
Commissioner of Health



LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-0378

07008PSW.11

July 12, 2011

Mr. Michael Shibata
PBR HAWAII
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Shibata:

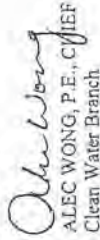
**SUBJECT: Comments on Draft Environmental Impact Statement (DEIS) for
Wai'ale
Wailuku, Island of Maui, Hawaii
TMKs: (2) 3-8-005-023 (por.) & 037 and (2) 3-8-007-071, 101 (por.), & 104**

The Department of Health (DOH), Clean Water Branch (CWB), has reviewed the subject document and has no additional comments at this time. The DOH-CWB provided comments to the previous submittal titled Comments on Environmental Impact Statement Preparation Notice (EISPN) for Wai'ale (Letter No. 10042PDCL10, dated October 20, 2010).

As a reminder, all discharges related to the project construction or operation activities, whether or not National Pollutant Discharge Elimination System permit coverage and/or Section 401 Water Quality Certification are required, must comply with the Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

If you have any questions, please visit our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>, or contact the Engineering Section, CWB, at 586-4309.

Sincerely,



ALEC WONG, P.E., CHIEF
Clean Water Branch

SW:ml

C: Mr. Grant Chun, A&B Properties, Inc. [via fax (808) 871-7497 only]
Mr. Dan Davidson, State Land Use Commission (via fax 587-3827 only)



October 7, 2011

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Fax: (808) 525-3183

Mr. Alec Wong
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 2

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII

Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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Clean Water Branch.doc

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Wong,

Thank you for your letter dated July 12, 2011 (reference number: 07008PSW.11) regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we acknowledge that the Clean Water Branch (CWB) has no additional comments at this time. The CWB previously submitted comments on the Environmental Impact Statement Preparation Notice (EISP) dated October 20, 2010 (reference number: 10042PDCL.10), as well as on the Draft EIS dated June 23, 2011 (reference number: 06032PDCL.11).

Per your comments, Section 3.3.4 of the Final EIS will be revised to read as follows:

Temporary erosion control measures will be incorporated during the construction period to minimize soil loss and erosion hazards. Special care will be taken to protect sensitive areas such as Waikapu Stream and the proposed Cultural Preserves. Temporary Best Management Practices (BMPs) will include sediment basins, diversion berms and swales, silt fences, dust fences, inlet protection, slope protection, stabilized construction entrances and truck wash-down areas. Periodic water spraying on loose soils will take place to minimize airborne dirt particles from reaching adjacent properties. During the Draft EIS public review period, the State Department of Health, Clean Water Branch wrote: "...all discharges related to the project construction or operation activities, whether or not National Pollutant Discharge Elimination system permit coverage and/or Section 401 Water Quality Certification are required, must comply with the Water Quality Standards...specified in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55..." An application for a National Pollution Discharge Elimination System (NPDES) permit will be submitted to the State Department of Health (DOH) for review and approval.



October 7, 2011

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Mr. Jeffrey M. Eckerd, Acting Program Manager
State of Hawai'i
Department of Health
Indoor and Radiological Health Branch
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Eckerd,

Thank you for your letter dated June 15, 2011 to Mr. Grant Chun of A&B Properties, Inc. regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

This is to confirm that project activities will comply with the following Administrative Rules of the State Department of Health:

- Chapter 11-39, Air Conditioning & Ventilating
- Chapter 11-46, Community Noise Control
- Chapter 11-501, Asbestos Requirements
- Chapter 11-503, Fees for Asbestos Removal & Certification
- Chapter 11-504, Asbestos Abatement Certification Program

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII

Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

June 15, 2011

Mr. Grant Chun
A&B Properties, Inc.
P. O. Box 156
Kahului, HI 96732

Dear Mr. Chun:

This correspondence is in response to your request for comments to the Draft Environmental Impact Statement for the Wai'ale Project (Tax Map Key: (2) 3-8-005: 023 (por.) and 037, and (2) 3-8-007: 071, 101 (por.), and 104), Wailuku, Maui.

Project activities shall comply with the following Administrative Rules of the Department of Health:

- Chapter 11-39 Air Conditioning & Ventilating
- Chapter 11-46 Community Noise Control
- Chapter 11-501 Asbestos Requirements
- Chapter 11-503 Fees for Asbestos Removal & Certification
- Chapter 11-504 Asbestos Abatement Certification Program

Should you have any questions, please contact me at (808) 586-4701.

Sincerely,

Jeffrey M. Eckerd
Acting Program Manager
Indoor and Radiological Health Branch

C: Dan Davidson, State of Hawai'i, Land Use Commission
Michael Shibata, PBR HAWAII & Associates, Inc.

NDL ABERCROMBIE
GOVERNOR OF HAWAII



LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

LORRIN W. PAANG, M.D., M.P.H.
DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
64 HIGH STREET
WAILUKU, HAWAII 96738

June 13, 2011

Mr. Grant Chun
Vice President
A&B Properties, Inc.
P. O. Box 156
Kahului, Hawaii 96732

Dear Mr. Chun:

Subject: Draft Environmental Impact Statement for Waiale
TMK: (2) 3-8-005:023 (por.) and 037, and
(2) 3-8-007:071, 101 (por.), and 104

Thank you for the opportunity to review this project. We have the following comments to offer:

1. National Pollutant Discharge Elimination System (NPDES) permit coverage may be required for this project. The Clean Water Branch should be contacted at 808 586-4309.
2. This project will be impacted by existing Hawaiian Commercial & Sugar Company's cane burning activities and will be located next to Hawaiian Charcoal, which is not addressed in this DEIS.
3. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control." A noise permit may be required and should be obtained before the commencement of work.

It is strongly recommended that the Standard Comments found at the Department's website: <http://hawaii.gov/health/environmental/env-planning/landuse/landuse.html> be reviewed, and any comments specifically applicable to this project should be adhered to.

Mr. Grant Chun
June 13, 2011
Page 2

Should you have any questions, please call me at 808 984-8230 or E-mail me at patricia.kikowski@doh.hawaii.gov.

Sincerely,

Pati Kikowski
District Environmental Health Program Chief

c Land Use Commission
PBR HAWAII & Associates, Inc.
EPO



October 7, 2011

PRINCIPALS
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Ms. Patti Kitkowski
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 2

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII

Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

O:\job23\2399.03 Waiale Entitlements\EIS\DEIS\DEIS Comments - Responses\Responses\Final\BL-02 State DOH
Maui Office.doc

Dear Ms. Kitkowski,
Thank you for your letter dated June 13, 2011 to Mr. Grant Chun of A&B Properties, Inc. regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

1. As stated on page 36 in Section 3.3 of the Draft EIS, a National Pollutant Discharge Elimination System (NPDES) permit will be submitted to the State Department of Health (DOH) for review and approval. The DOH Clean Water Branch will be contacted.
2. Per your comments, the following sentences will be added to Section 4.5 of Final EIS:

During the Draft EIS public review period, the State Department of Health, Maui District Health Office commented that "This project will be impacted by existing Hawaiian Commercial & Sugar Company's cane burning activities and will be located next to Hawaiian Charcoal..." We understand that the latter operation is mauka (and west) of the project, and downwind of the project site during predominant trade wind conditions. As a result, emissions would not typically traverse the project site.

3. As stated on page 66 in Section 4.4 of the Draft EIS, the project applicant shall obtain a noise permit associated with exceeding the maximum permissible noise levels discussed in the *Hawaii Administrative Rules*.

As recommended, the Standard Comments found at the Department of Health's website were reviewed for applicability to the project.

NEIL ABERCROMBIE
Governor of Hawaii

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STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

Department of Health
225 South Beretania Street
Leapapa, A Kaeohamaha, Suite 702
Honolulu, Hawaii 96813

GARY HOOSER
Director

July 29, 2011

A&B Properties, Inc.
Attn: Grant Chun
P.O. Box 156
Kahului, Hawaii 96732

Subject: Wai'ale Draft Environmental Impact Statement

Dear Mr. Chun:

The Wai'ale Draft EIS was published in The Environmental Notice on June 8, 2011. The Office of Environmental Quality Control has reviewed your project study and offers the following comments:

1. Please finalize the discussion on page four (p. 18 in the pdf version) with respect to identifying the actual triggers for the EIS document under Chapter 343, HRS.
2. On page four of the draft EIS, reconsider the first sentence in the last paragraph. The sentence reads, "This EIS was preceded by the Wai'ale Environmental Impact Statement Preparation Notice (EISPN)." For accuracy, the sentence should state that "This draft EIS was preceded by the Wai'ale Final Environmental Assessment/Environmental Impact Statement Preparation Notice (FEA/EISPN)." Under §11-200-11.2(A)(1), Hawaii Administrative Rules, the EISPN is a determination supported by a final environmental assessment (FEA); therefore, the initial document should have been called FEA/EISPN instead of the EISPN. Subsequent uses of the acronym EISPN should also be revised to read FEA/EISPN.
3. In Section 1.8.4 *Anticipated Permits and Approvals*, list all required approvals or permits related to the project; this includes water use for probable water treatment facility for surface water and wastewater facility, if relevant.
4. Provide any updates of the Unresolved Issues of Water and Wastewater in section 1.8.8 (page 16).

Mr. Grant Chun
Wai'ale Draft EIS
July 29, 2011

5. In the section on Stormwater Retention/infiltration on page 40, please ensure that any retention basin is safe and secure and does not pose a drowning threat to young children or become a breeding area for mosquitos/other vectors.

6. Section 2.6, Environmentally-Responsible Planning and Design, discusses sustainable development and energy. If possible, please disclose the estimated electricity usage by your development and where that interfaces with the Hawaii Clean Energy Initiative.

Thank you very much for the opportunity to review the environmental impacts and mitigation for your proposed project and appreciate the chance to provide comments. Please feel free to contact me anytime at (808) 586-4185, if you have further questions.

Sincerely,

Herman Tuiolosega
Planner

c: Michael Shibata, PBR Hawaii
Dan Davidson, Land Use Commission



October 7, 2011

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Mr. Herman Tuiolosega
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 5

During the Draft EIS public review period, the State of Hawaii's Office of Environmental Quality Control noted that: "Under subsection 11-200-11.2(A)(1), Hawaii Administrative Rules, the EISP is a determination supported by a final environmental assessment (FEA); therefore, the initial document should have been called FEA/EISP instead of the EISP. Subsequent uses of the acronym EISP should also be revised to read FEA/EISP." The Draft EIS was preceded by the Wai'ale Final Environmental Assessment/Environmental Impact Statement Preparation Notice (FEA/EISP). The State of Hawaii's Land Use Commission submitted the FEA/EISP to the State of Hawaii's Office of Environmental Quality Control (OEQC) prior to September 28, 2010. Notice of the availability of the FEA/EISP was published in the October 8, 2010 edition of the OEQC's The Environmental Notice. Copies of the FEA/EISP were provided to appropriate government agencies and other organizations (See Chapter 11). The public comment period for the FEA/EISP began on October 8, 2010 and ended November 7, 2010. Comments and responses on the FEA/EISP received during the public comment period are incorporated in this EIS and the letters are provided in Chapter 11.

3. As requested, Table 1-1 in Section 1.8.4 of the Final EIS will list all required approvals or permits related to the project; including water use for probable treatment facility for surface water and wastewater facility.

Table 1-1: Anticipated Permits and Approvals

PERMIT/APPROVAL	RESPONSIBLE AGENCY	STATUS
Chapter 343, HRS Compliance	State Land Use Commission	Final EIS is pending pending public comments on EIS and acceptance by the State Land Use Commission.
State Land Use District Boundary Amendment	State Land Use Commission	Petition has been filed. Processing after EIS (Chapter 343, HRS) process has been completed.
Community Plan Amendment	Maui Department of Planning	Application(s) to be submitted after successful processing of State Land Use District Boundary Amendment.
Project District Phase I/Change in Zoning	Maui Department of Planning	Application(s) to be submitted after successful processing of State Land Use District Boundary Amendment.
Project District Phase II	Maui Department of Planning	Application(s) to be submitted after Project District Phase I approval.
Project District Phase III/Subdivision Approval	Maui Department of Planning	Application(s) to be submitted after Project District Phase II approval.

While it is not certain at this time whether an on-site wastewater treatment facility will be required to service the proposed project, an amendment to the Wailuku-Kahului Community Plan (General Plan) will be required and the project is anticipated to involve the use of State and County lands for the construction of roadway, infrastructure and utility improvements. Additionally, an on-site wastewater treatment facility is likely to be required to service the proposed project. Per your request, the following paragraph will be added to Section 1.5 of the Final EIS:

While it is not certain at this time whether an on-site wastewater treatment facility will be required to service the proposed project, an amendment to the Wailuku-Kahului Community Plan (General Plan) will be required and the project is anticipated to involve the use of State and County lands for the construction of roadway, infrastructure and utility improvements. The applicant has decided to take a conservative interpretation of the "triggers" for the preparation of this EIS to address each of the above circumstances, including the construction of a wastewater treatment plant.

2. Thank you for the information provided, the requested revisions will be made throughout the Final EIS, in addition, Section 1.5 of Final EIS will be revised to read as follows:

PERMIT/APPROVAL	RESPONSIBLE AGENCY	STATUS
		approval.
Chapter 6E, HRS Compliance	State Historic Preservation Division	Application(s) to be submitted pending Project District Phase II approval.
National Pollutant Discharge Elimination System Permit	State Department of Health	Application to be submitted prior to Grading/Building Permits.
Grading/Building Permits	Maui Department of Public Works	Application to be filed after Project District Phase II approval.
Grading and Grubbing	Maui Department of Public Works	Application to be filed after Project District Phase III approval.
Drainage Approval	Maui Department of Public Works	Application to be filed after Project District Phase III approval.
Permit to Perform Work within a State Right-of-Way (ROW)	State Department of Transportation	Application to be filed after Project District Phase III approval.
Request for Access to State ROW	State Department of Transportation	Application to be filed after Project District Phase I approval.
Surface Water Use Permit	State Department of Land and Natural Resources, Commission on Water Resource Management	Application to be submitted after successful processing of State Land Use District Boundary Amendment.
New Raw Water Source	State Department of Health, State Drinking Water Branch	Application to be submitted after water source determined.
Capacity	State Department of Health, State Drinking Water Branch	Application to be submitted after water source determined.
Construction Plans	State Department of Health, State Drinking Water Branch	Application to be submitted after water source determined.

4. Per your comments, the following will be added to applicable sections of Section 7.5 of the Final EIS:

Maui County Ordinance No. 3502 requires in part that no subdivision shall be approved unless prior to submittal of subdivision construction plans the Director of the County's Department of Water Supply verifies a long-term reliable supply of water. The applicant expects to meet the requirements of this ordinance or subdivision approval will not be granted...

As part of the engineering design process relating to wastewater treatment and disposal, the applicant and its engineering consultants expect to have ongoing consultations with the County Department of Environmental Management. At any time prior to filing any subdivision application, should it be confirmed that an on-site treatment plant will be required, the design of such a plant will be undertaken. Design of the plant will proceed in consultation with the State DOH, County Department of Public Works, County Department of Environmental Management, and County Department of Water Supply.

5. Per your comments, Section 3.5 of the Final EIS will be revised to read as follows:

The bottom one to two feet of the stormwater basins will be reserved for retention of the water quality volume. The water quality runoff and potential pollutants will be prevented from flowing to downstream areas such as Waikapū Stream. Stormwater will be held for an extended period allowing suspended solids to settle out. To reduce the risk of children playing in the collected storm water, various alternatives are being considered to provide retention basin safety, including fencing, installing a "safety shelf", and/or installing landscaping. Water will infiltrate into the soils gradually over 24 to 48 hours and recharge groundwater. Since the project will not contain stormwater "hotspot" uses such as heavy industrial, car salvage, or fueling sites, stormwater infiltration is considered acceptable.

6. Per your comments, Section 4.8.6 of the Final EIS will be revised to read as follows:

According to Hawai'i Energy (a ratepayer-funded conservation and efficiency program administered by Science Applications International Corporation under contract with the Hawaii Public Utilities Commission serving the islands of Hawai'i, Lāna'i, Maui, Moloka'i and O'ahu), the typical Hawai'i residence utilizes approximately 20.0 kilowatt hours per day. The proposed 2,550 residences (including the 300 unit County Housing project) would generate a demand for approximately 51 megawatts (MW) of electricity per day.

According to the Hawai'i Clean Energy Initiative, "Maui is served by the Maui Electric Company, which has about 260 megawatts of capacity. Maui has significant local renewable energy resources, as well as energy-efficiency potential. An aggressive program to retrofit inefficient buildings and increase the efficiency of new buildings could flatten Maui's load growth over the next 20 years... Two large renewable energy projects—a 30-megawatt wind farm (the state's largest) and a 16-megawatt biomass power plant burning bagasse at a commercial sugar operation—already provide Maui with about 20% renewable energy generation. Maui also has a few megawatts of hydroelectric generation, and rooftop PV distributed across the island currently contributes approximately 1 megawatt to the island's renewable energy portfolio... Technical assessments show that Maui has significant additional resource potential, including: Wind energy – 67 megawatts, Biomass energy – 25 megawatts, Geothermal energy – 140 megawatts, Solar thermal energy (exact capacity to be determined)... Proposed renewable generation projects include 42 megawatts of wind energy, 6 megawatts of biomass power, and 10 megawatts of geothermal... Although ocean energy technologies are not yet proven on a commercial scale, Maui is at the forefront of ocean energy research. The island is planning to help test and demonstrate a wave project off its north coast in the near future." This appears to demonstrate that Maui has

Mr. Herman Tuiolosega
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 5 of 5

significant additional resource potential to meet the estimated demand from the proposed project.

The applicant's electrical engineering subconsultant met with MECO staff to discuss the estimated electrical demand and what improvements will be required so that service can be provided on a timely basis. No indication was given that MECO anticipates any generating or transmission capacity constraints may arise as a result of the proposed project and other projects planned for the region. MECO has plans to construct a Kuihelani Substation which will be located east of the intersection of Kuihelani Highway and Maui Lani Parkway, approximately 2,800 feet north of Wai'ale. Construction of the substation is expected to be completed in 2013. MECO indicated that electrical service for Wai'ale will be obtained from Kuihelani Substation. It is proposed that electrical power for Wai'ale will be obtained from the proposed substation by extending primary distribution circuits underground to the property along Kuihelani Highway. State Department of Transportation (DOT) approval will be required for this underground line extension.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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NEIL ABERGROMBIE
GOVERNOR OF HAWAII



LONETA J. RUDDY, ACSW, MPH.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

It is my pleasure to
re: SDWB

July 21, 2011

Mr. Michael Shibata
PBR Hawaii and Associates,
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Shibata:

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
WAI'ALE DEVELOPMENT
WAILUKU/WAIKAPU, MAUI, HAWAII

The Safe Drinking Water Branch (SDWB) has reviewed the subject document and has the following comments:

1. The DEIS indicates that it is not certain if the project will be served by the development of new ground water sources or the use of treated surface water from the proposed Wai'ale Water Treatment Facility (WTF). The Wai'ale Water Treatment Facility is a source of concern for the Safe Drinking Water Branch (SDWB). The Waihe'e ditch and Hopoi ditch system will be used to convey water from the Waihe'e Stream and other stream sources to the Wai'ale WTF. The open ditch system is vulnerable to contamination from storm water runoff from adjacent properties. Human activities on these adjacent properties include the use of herbicides for vegetation control. Other various human activities in the surrounding urbanized environment contribute to degradation in the water quality. Reliance of the Wai'ale development on the Wai'ale WTF further encourages the use of source water that has an undesirable exposure to surface water contamination.
2. The project qualifies as a public water system if it is constructed as a new private water system. Federal and state regulations define a public water system as a system that serves 25 or more individuals at least 60 days per

Year or has at least 15 service connections. All public water system owners and operators are required to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, titled "Rules Relating to Potable Water Systems."

3. All new public water systems are required to demonstrate and meet minimum capacity requirements prior to their establishment. This requirement involves demonstration that the system will have satisfactory technical, managerial and financial capacity to enable the system to comply with safe drinking water standards and requirements in accordance with HAR Title 11, Chapter 20, Section 29.5, entitled "Capacity demonstration and evaluation."

4. Projects that propose development of new sources of drinking water serving or proposed to serve a public water system must comply with the terms of HAR Title 11, Chapter 20, Section 29, entitled "Use of new sources of raw water for public water systems." This section requires that all new public water system sources be approved by the Director of Health prior to its use. Such approval is based primarily upon the submission of a satisfactory engineering report which addresses the requirements set in Section 11-20-29.

5. The engineering report must identify all potential sources of contamination and evaluate alternative control measures which could be implemented to reduce or eliminate the potential for contamination, including treatment of the water source. In addition, water quality analyses for all regulated contaminants, performed by a laboratory certified by the State Laboratories Division of the State of Hawaii, must be submitted as part of the report to demonstrate compliance with all drinking water standards. Additional parameters may be required by the Director for this submittal or additional tests required upon his or her review of the information submitted.

6. All sources of public water systems must undergo a source water assessment which will delineate a source water protection area. This process is preliminary to the

creation of a source water protection plan for that source and activities which will take place to protect the source of drinking water.

7. Projects proposing to develop new public water systems or proposing substantial modifications to existing public water systems must receive approval by the Director of Health prior to construction of the proposed system or modification in accordance with HAR Title 11, Chapter 20, Section 30, entitled "New and modified public water systems." These projects include treatment, storage and distribution systems of public water systems. The approval authority for projects owned and operated by a County Board or Department of Water or Water Supply has been delegated to them.

8. All public water systems must be operated by certified distribution system and water treatment plant operators as defined by HAR Title 11, Chapter 11-25, entitled, "Rules Pertaining to Certification of Public Water System Operators."

9. All projects which propose the use of dual water systems or the use of a non-potable water system in proximity to an existing drinking water system to meet irrigation or other needs must be carefully designed, and operated to prevent the cross-connection of these systems, and prevent the possibility of backflow of water from the non-potable system to the drinking water system. The two systems must be clearly labeled and physically separated by air gaps or reduced pressure principle backflow prevention devices to avoid contaminating the drinking water supply. In addition, backflow devices must be tested periodically to assure their proper operation. Further, all non-potable spigots and irrigated areas should be clearly labeled with warning signs to prevent the inadvertent consumption on non-potable water. Compliance with HAR Title 11, Chapter 21, entitled "Cross-Connection and Backflow Control" is also required.

10. All projects which propose the establishment of a potentially contaminating activity (as identified in the Hawai'i Source Water Assessment Plan) within the source water protection area of an existing source of water for a



Mr. Michael Shibata
July 21, 2011
Page 4

public water supply should address this potential and activities that will be implemented to prevent or reduce the potential for contamination of the drinking water source.

- 11. In Table 5-6, add under "Permit/Approval" items for New Raw Water Source (HAR 11-20-29), Capacity (HAR 11-20-29(e) and HAR 11-20-29.5), and Construction Plans (HAR 29.5 (b)(1)). The responsible agency would be the Safe Drinking Water Branch, State Department of Health.

If there are any questions, please call Craig Watanabe at 586-4258.

Sincerely,

Ann J. Zane

Dr. JOANNA L. SETO, P.E., CHIEF
Safe Drinking Water Branch
Environmental Management Division

CW:cb

October 7, 2011

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State of Hawai'i
Department of Health
Safe Drinking Water Branch
Environmental Management Division
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

Attn: Mr. Craig Watanabe

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Ms. Seto,

Thank you for your letter dated July 21, 2011 (your reference: File: SDWB) regarding the Wai'ale Drait Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

- 1. In response to your comment No. 1, if the Wai'ale Water Treatment Facility (WTF) ends up being the source of water for this project, it would have to meet the State Department of Health's (DOH) standards and approval, including the concerns about potential sources of contamination that you cite. Further discussion with DOH will need to be undertaken. At this time, however, let us offer the following information: Approximately 5 of the 6 miles of the Waihe'e Ditch, which would source the proposed WTF, are within or border along Conservation District lands which do not permit urban activities. Mitigation measures to address concerns with adjacent lands include the use of berms to divert storm water runoff, appropriate site grading within future developments, the establishment of written covenants to require these improvements to be built and maintained, as well as other appropriate operational, maintenance and security protocols. The entire length of the Hopoi Chute is piped, which will minimize any risk of potential contamination. Also, appropriate treatment technology at the plant will be installed to address potential contamination.

- 2. Thank you for your comments Nos. 2-8, and 10, regarding rules and regulations relating to public water systems. The following text has been added to Section 3.6 of the Final EIS:

During the Draft EIS public review period, the State Department of Health, Safe Drinking Water Branch (SDWB) wrote:

The project qualifies as a public water system if it is constructed as a new private water system. Federal and state regulations define a public water system as a system that serves 25 or more individuals at least 60 days per year or has at least 15 service connections. All public water system owners and operators are required to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, titled "Rules Relating to Potable Water Systems."...

All new public water systems are required to demonstrate and meet minimum capacity requirements prior to their establishment. This requirement involves demonstration that the system will have satisfactory technical managerial and financial capacity to enable the system to comply with safe drinking water standards and requirements in accordance with HAR Title 11, Chapter 20, Section 29.5, entitled "Capacity demonstration and evaluation."...

Projects that propose development of new sources of drinking water serving or proposed to serve a public water system must comply with the terms of HAR Title 11, Chapter 20, Section 29, entitled "Use of new sources of raw water for public water systems." This section requires that all new public water system sources be approved by the Director of Health prior to its use. Such approval is based primarily upon the submission of a satisfactory engineering report which addresses the requirements set forth in Section 11-20-29....

The engineering report must identify all potential sources of contamination and evaluate alternative controls measures which could be implemented to reduce or eliminate the potential for contamination, including treatment of the water source. In addition, water quality analyses for all regulated contaminants, performed by a laboratory certified by the State Laboratories Division of the State of Hawaii, must be submitted as part of the report to demonstrate compliance with all drinking water standards. Additional parameters may be required by the Director for this submittal or additional tests required upon his or her review of the information submitted...

All sources of public water systems must undergo a source water assessment which will delineate a source water protection area. This process is preliminary to the creation of a source water protection plan for that source and activities which will take place to protect the source of drinking water...

Projects proposing to develop new public water systems or proposing substantial modifications to existing public water systems must receive

approval by the Director of Health prior to the construction of the proposed system or modification in accordance with HAR Title 11, Chapter 20, Section 30, entitled "New and modified public water systems." These project include treatment, storage and distribution systems of public water systems. The approval authority for projects owned and operated by a County, Board or Department of Water or Water Supply has been delegated to them...

All public water systems must be operated by certified distribution system and water treatment operators as defined by HAR Title 11, Chapter 11-25, entitled "Rules Pertaining to Certification of Public Water System Operators."...

All projects which propose the establishment of a potentially contaminating activity (as identified in the Hawai'i Source Water Assessment Plan) within the source water protection area of an existing source of water for a public water supply should address this potential and activities that will be implemented to prevent or reduce the potential for contamination of the drinking water source.

3. Per your comment No. 9, Section 4.8.2 of the Final EIS was revised to read as follows:

If ~~an~~ WWTP is necessary to treat the wastewater generated by Wai'ale, then effluent reuse and/or disposal will be necessary. The primary method of effluent reuse would be landscape irrigation. The WWTP/wastewater reclamation facility would produce ~~approximately 980,000 gpd~~ of R-1 water quality effluent, which would allow for irrigation reuse with minimal restrictions. The estimated irrigation demand, based on the County of Maui's Water System Standards, is approximately 200,000 gpd. Therefore, if ~~all of the~~ R-1 water quality effluent can be utilized, it will reduce the drinking quality water demand that would be used for irrigation by about 200,000 ~~gpd~~ gpd. Possible on-site areas for irrigation reuse are the parks, open space areas, playing fields associated with a proposed middle school site and community center, and roadway landscaping. The reuse of effluent for on-site irrigation would be implemented in consultation with all applicable parties. Separate distribution irrigation waterlines will be required to convey the R-1 water to the irrigation reuse areas. During the Draft EIS public review period, the State Department of Health, Safe Drinking Water Branch (SDWB) wrote:

All projects which propose the use of dual water systems or the use of a non-potable water system in proximity to an existing drinking water system to meet irrigation or other needs must be carefully designed, and operated to prevent the cross-connection of these systems, and prevent the possibility of backflow of water from the non-potable system to the drinking water system. The two systems must be clearly labeled and physically separated by air gaps or reduced pressure principle backflow prevention devices to avoid contaminating the drinking water supply. In addition, backflow devices must be tested periodically to assure their proper operation. Further,

all non-potable spigots and irrigated areas should be clearly labeled with warning sirens to prevent the inadvertent consumption of non-potable water. Compliance with HAR Title 11, Chapter 21, entitled "Cross-Connection and Backflow Control" is required.

4. Per your comment No. 11, Table 5-6 of the Final EIS will be revised to read as follows:

Table 5-6: Anticipated Permits and Approvals

PERMIT/APPROVAL	RESPONSIBLE AGENCY	STATUS
Chapter 343, HRS Compliance	State Land Use Commission	Final EIS is pending. Pending public comments on EIS and acceptance by the State Land Use Commission.
State Land Use District Boundary Amendment	State Land Use Commission	Petition has been filed. Processing after EIS (Chapter 343, HRS) process has been completed.
Community Plan Amendment	Maui Department of Planning	Application(s) to be submitted after successful processing of State Land Use District Boundary Amendment.
Project District Phase I/Change in Zoning	Maui Department of Planning	Application(s) to be submitted after successful processing of State Land Use District Boundary Amendment.
Project District Phase II	Maui Department of Planning	Application(s) to be submitted after Project District Phase I approval.
Project District Phase III/Subdivision Approval	Maui Department of Planning	Application(s) to be submitted after Project District Phase II approval.
Chapter 6E, HRS Compliance	State Historic Preservation Division	Application(s) to be submitted pending Project District Phase II approval.
National Pollutant Discharge Elimination System Permit	State Department of Health	Application to be submitted prior to Grading/Building Permits.
Grading/Building Permits	Maui Department of Public Works	Application to be filed after Project District Phase II approval.
Grading and Grubbing	Maui Department of Public Works	Application to be filed after Project District Phase III approval.
Drainage Approval	Maui Department of Public Works	Application to be filed after Project District Phase III approval.
Permit to Perform Work within a State Right-of-Way (ROW)	State Department of Transportation	Application to be filed after Project District Phase II approval.
Request for Access to State ROW	State Department of Transportation	Application to be filed after Project District Phase I approval.
Surface Water Use Permit	State Department of Land and Natural Resources, Commission on Water Resource Management	Application to be submitted after successful processing of State Land Use District Boundary Amendment.

PERMIT/APPROVAL	RESPONSIBLE AGENCY	STATUS
New Raw Water Source	State Department of Health, Safe Drinking Water Branch	Application to be submitted after water source determined.
Capacity	State Department of Health, Safe Drinking Water Branch	Application to be submitted after water source determined.
Construction Plans	State Department of Health, Safe Drinking Water Branch	Application to be submitted after water source determined.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.
 Sincerely,

PBR HAWAII



Vincent Shigekuni
 Vice President

cc: Mr. Dan Davidson, Land Use Commission
 Mr. Grant Chun, A&B Properties, Inc.



October 7, 2011

Mr. Marshall Lum, P.E., Acting Chief
State of Hawai'i
Department of Health
Wastewater Branch
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Lum,

Thank you for your letter dated June 15, 2011 (reference number: LUD - 2 3 8 005 023 etc - ID690 DEIS Waiale Residential Community) to Mr. Grant Chun of A&B Properties, Inc. regarding the Wai'ale Drait Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

1. Per your comments, the following text will be added to Section 4.8.2 of the Final EIS:

During the Draft EIS public review period, the State Department of Health, Wastewater Branch wrote: "The subject project is located in a critical wastewater disposal area as determined by the Maui Wastewater Advisory Committee. If the project is located within or near the vicinity of a public sewer system as determined by the Director of Health, the project shall connect to the existing public sewer. If it is determined that a public sewer connection is not available, a wastewater system may be constructed in accordance with our Hawaii Administrative Rules (HAR), Chapter 11-62, 'Wastewater Systems.'"

2. Per your comments, the following paragraph will be added to Section 4.8.2 of the Final EIS:

Per the State Department of Health, Wastewater Branch's comments during the Drait EIS public review period, all wastewater plans will conform to applicable provisions of the Chapter 11-62, HAR. Further per the Branch's comments, the State Department of Health Wastewater Branch reserves the right to review the detailed wastewater plans for conformance to applicable rules.

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Kapolei, Hawaii 96707-2403
Tel: (808) 521-2631
Fax: (808) 525-3143



LORETTA J. RUDDY, A.C.S.W., M.P.H.
HEALTH DIRECTOR OF HEALTH
in reply, please refer to:
LUD - 2 3 8 005 023 etc - ID690
DEIS Waiale Residential Community

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

June 15, 2011

Mr. Grant Chun
A&B Properties, Inc.
P. O. Box 156
Kahului, Hawaii 96732

Dear Mr. Chun:

Subject: Draft Environmental Impact Statement - Waiale Residential Community
Kuihelani Highway, Waiale, Wailuku, Maui, Hawaii 96793
TMKs (2) 3-8-005: 023 (portion), (2) 3-8-005: 037, (2) 3-8 007: 071,
(2) 3-8-007: 101, (2) 3-8-007: 104 Approx. 545 acres

Thank you for the opportunity to review the subject project which requests comments on the draft environmental impact statement for the Waiale Residential Community. We have the following comments and information on the subject property:

The subject project is located in the critical wastewater disposal area as determined by the Maui Wastewater Advisory Committee. If the project is located within or near the vicinity of a public sewer system as determined by the Director of Health, the project shall connect to the public sewer. If it is determined that a public sewer connection is not available, a wastewater system may be constructed in accordance with our Hawaii Administrative Rules (HAR), Chapter 11-62, "Wastewater Systems."

All wastewater plans must conform to applicable provisions of the Chapter 11-62, HAR. We do reserve the right to review the detailed wastewater plans for conformance to applicable rules. Should you have any questions, please contact the Planning & Design Section of the Wastewater Branch at (808) 586-4294 or fax to (808) 586-4300.

Sincerely,

MARSHALL LUM, P. E., ACTING CHIEF
Wastewater Branch

LML:cle
c: DOH's Environmental Planning Office
DOH-WWB's Maui Staff, Mr. Roland Tejano
State of Hawaii, Land Use Commission, Mr. Dan Davidson
PBR Hawaii & Associates, Mr. Michael Shibata

Mr. Marshall Lum
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 2

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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Wastewater Branch.doc

NEIL ABERCROMBIE
GOVERNOR



PATRICIA MCMANAMAN
DIRECTOR

PANKAJ BHANOT
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
Benefit, Employment and Support Services Division
820 Milliani Street, Suite 606
Honolulu, Hawaii 96813

June 8, 2011

Refer to 11-0386

Mr. Michael Shibata
PBR HAWAII & Associates, Inc.
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Shibata:

On June 7, 2011 the Department of Human Services (DHS) received your request to review and comment on the Draft Environmental Impact Statement for the project named "Wai'ale".

We have reviewed the documents submitted on the CD (PDF file) and we do not foresee any negative impact from this proposed project on child care services in the community. Our comments have been submitted to Dan Davidson at the Land Use Commission, and to Grant Chun at A & B Properties, Inc., as you requested.

If you have any questions or need further information, please contact Ms. Marija Leivo, Child Care Program Specialist, at (808) 586-7112.

Sincerely,



Luanne Murakami
Acting Division Administrator

c: Patricia McManaman, Director

AN EQUAL OPPORTUNITY AGENCY

NEIL ABERCROMBIE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
Benefit, Employment and Support Services Division
820 Millilani Street, Suite 606
Honolulu, Hawaii 96813

June 8, 2011

Refer to 11:0366

Mr. Dan Davidson
State of Hawaii
Land Use Commission
P.O. Box 2359
Honolulu, Hawaii 96804

Dear Mr. Davidson:

On June 7, 2011 the Department of Human Services (DHS) received a request from Michael Shibata, Consultant for PBR HAWAII & Associates, Inc., to review and comment on the Draft Environmental Impact Statement for the project named "Wai'ale". The Consultant requested that we also submit our comments to you, at the Land Use Commission, and to Grant Chun at A & B Properties, Inc.

We have reviewed the documents submitted on the CD (PDF file) and we do not foresee any negative impact from this proposed project on child care services in the community.

If you have any questions or need further information, please contact Ms. Marja Leivo, Child Care Program Specialist, at (808) 586-7112.

Sincerely,

Luanne Murakami
Acting Division Administrator

c: Patricia McManaman, DHS Director
Michael Shibata, PBR HAWAII & Associates, Inc.
Grant Chun, A & B Properties, Inc.

AN EQUAL OPPORTUNITY AGENCY



October 7, 2011

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Fax: (808) 326-3143

Ms. Luanne Murakami, Acting Division Administrator
State of Hawai'i
Department of Human Services
Benefit, Employment and Support Services Division
820 Millilani Street, Suite 606
Honolulu, Hawai'i 96813

Attn: Ms. Marja Leivo, Child Care Program Specialist

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Ms. Murakami,

Thank you for your letter dated June 8, 2011 (your reference number: 11:0366) regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., please be advised that based on your comments, Sections 5.1.5 and 5.2.3 in the Final EIS will be revised to read:

In their Draft EIS public review comments, the State Department of Human Services wrote: "...we do not foresee any negative impact from this project on child care services in the community."

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII

Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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NEL ABERCROMBIE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
830 PUNCHBOWL STREET, ROOM 321
HONOLULU, HAWAII 96813
www.hawaii.gov/labor
Phone: (808) 586-3844/Fax: (808) 586-3099

June 13, 2011

Michael Shibata
PBR Hawaii & Associates, Inc.
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, HI 96813

Dear Mr. Shibata:

This is in response to your request for comments dated May 31, 2011 on the Draft Environmental Impact Statement for the Waiale project located on the island of Maui. The Department of Labor and Industrial Relations has no comments, and we foresee no impact on our existing or proposed programs.

Should you have any questions, please call me at 586-8844.

Sincerely,

DWIGHT TAKAMINE
Director

cc: Grant Chun, A&B Properties, Inc.
Dan Davidson, Land Use Commission

DWIGHT TAKAMINE
DIRECTOR
AUDREY HIDANO
DEPUTY DIRECTOR



October 7, 2011

PRINCIPALS
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Fax: (808) 326-3184

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Takamine,

Thank you for your letter dated June 13, 2011 regarding the Waiale Draft Environmental Impact Statement (EIS). Per your comments, the following text will be added to the end of Section 4.9 of the Final EIS: *"During the Draft EIS public review period, the State Department of Labor and Industrial Relations wrote: The Department of Labor and Industrial Relations has no comments, and we foresee no impact on our existing or proposed programs."*

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII

Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96804



July 20, 2011

State of Hawaii
Land Use Commission
Box 2359
Honolulu, Hawaii 96804

Ladies and Gentlemen:

Subject: Draft Environmental Impact Statement for Waialeale

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Division of State Parks, Commission on Water Resource Management, Engineering Division, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Historic Preservation will be submitting comments through a separate letter. Should you have any questions, please feel free to call our office at 587-0414. Thank you.

Sincerely,

Russell Y. Tsuji

Russell Y. Tsuji
Administrator

Cc: PBR Hawaii & Associates, Inc.



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

June 3, 2011

MEMORANDUM

TO: DLNR Agencies:
 Div. of Aquatic Resources
 Div. of Boating & Ocean Recreation
 Engineering Division
 Div. of Forestry & Wildlife
 Div. of State Parks
 Commission on Water Resource Management
 Office of Conservation & Coastal Lands
 Land Division -

FROM: Charlene Utocki, Assistant Administrator
SUBJECT: Draft Environmental Impact Statement for Waialeale
LOCATION: Island of Maui
APPLICANT: PBR Hawaii & Associates, Inc. on behalf of A & B Properties, Inc.

Charlene Utocki

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by July 18, 2011.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments
- Comments are attached.

Signed: *Russell Y. Tsuji*
Date: 6/21/11

RECEIVED
LAND DIVISION

2011 JUN -9 P 3 08

DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE OF HAWAII

24145



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES



DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/CharleneUnoKI
REF: DEIS/Wai'alea Master Plan
Maui, S42

COMMENTS

- (X) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone X. The Flood Insurance Program does not have any regulations for developments within Zone X.
- () Please note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone _____.
- () Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is _____.
- () Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0767.
- () Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:
 - () Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Sio Lu at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
 - () Mr. Carter Romero at (808) 961-8943 of the County of Hawaii, Department of Public Works.
 - () Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
 - () Ms. Wynne Ushigane at (808) 241-4890 of the County of Kauai, Department of Public Works.
- () The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and dity storage.
- () The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update
- () Additional Comments: _____
- () Other: _____

Should you have any questions, please call Ms. Suzie S. Agram of the Planning Branch at 587-0258.

Signed: Charlene UnoKI
/s/ CHARLY S. CHANG, CHIEF ENGINEER
Date: 6/18/11

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

RECEIVED
STATE PARKS DIV.

June 3, 2011

MEMORANDUM

TO: DLNR Agencies:
 Div. of Aquatic Resources
 Div. of Boating & Ocean Recreation
 Engineering Division
 Div. of Forestry & Wildlife
 Div. of State Parks
 Commission on Water Resource Management
 Office of Conservation & Coastal Lands
 Land Division -

FROM: Charlene UnoKI, Assistant Administrator
SUBJECT: Draft Environmental Impact Statement for Wai'alea
LOCATION: Island of Maui
APPLICANT: PBR Hawaii & Associates, Inc. on behalf of A & B Properties, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by July 18, 2011.
If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- () We have no objections.
- () We have no comments.
- () Comments are attached.

Signed: Charlene UnoKI
Date: 6/18/11

RECEIVED
LAND DIVISION
2011 JUN -9 12:34
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

Charlene UnoKI
Charlene UnoKI, Assistant Administrator



WILLIAM J. ALA, JR.
SPECIAL AGENT
WILLIAM F. BOGARD, JR.
SUNAMBI BOGARD, JR.
LORRETTA J. BUDDY, A.C.S.W., A.C.P.H.
NENA S. FUJIMURA
SPECIAL AGENT
LAURENCE H. MIKE, M.D., D.E.
WILLIAM W. TAM
SPECIAL AGENT

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STATE OF HAWAII JUN 20 A 10:55

DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT & CONSERVATION
P.O. BOX 51
HONOLULU, HAWAII 96850 NATURAL RESOURCES
STATE OF HAWAII

June 20, 2011

TO: Russell Tsuji, Administrator
Land Division

FROM: William M. Tam, Deputy Director
Commission on Water Resource Management

SUBJECT: Waialea Villages DEIS, Kahului, Waikapu, Maui
FILE NO.: N/A
TMK NO.: (2) 3-8-005, several

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State. Therefore, water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at <http://www.hawaii.gov/dlnr/cwrmm>.

Our comments related to water resources are checked off below.

- 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.
- 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.
- 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at <http://www.usgbc.org/leed>. A listing of fixtures certified by the EPA as having high water efficiency can be found at <http://www.epa.gov/watersense/guidelines.htm>.
- 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project on the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at <http://hawaii.gov/dlnr/cwrmm/submit/water/waterid.php>.
- 6. We recommend the use of alternative water sources, wherever practicable.

Mr. Russell Tsuji, Administrator
Page 2
June 20, 2011

- 7. There may be the potential for ground or surface water degradation/contamination, and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM:

- Additional information and forms are available at <http://hawaii.gov/dlnr/cwrmm/permits.htm>.
- 8. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water.
- 9. A Well Construction Permit(s) is (are) required any well construction work begins.
- 10. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
- 11. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be abandoned by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
- 12. Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- 13. A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.
- 14. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered.
- 15. A Petition to Amend the Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
- 16. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

OTHER:

This document notes that the County has already stated that no current water resources are available to meet the additional demand of this project (average 1.9 mgd, peak demand at 2.8 mgd).

The applicant follows a Final Candidate Strategies Report prepared for the Central Maui Service Area (incorporating this project), which recommends exploring negotiations to use "Waia' Maui" (Waialuku-Waikapu) ditch water through a water treatment facility prior to exploring East Maui ground water options.

However, following the setting of Instream Flow Standards (IFS) for the four streams supplying the ditch system, restoration has reduced amounts available for diversion.

Surface water use permit applications filed for uses existing as of March 13, 2008 total more than the amounts considered available for off-stream use (residential development).

These water use permit applications include amounts for existing MDWS treatment at their IAD facility.

Appeal of the Na Wai Eha decision may lead to even greater stream flow restoration and less water available for new off-stream uses, including the proposed Waialea treatment facility.

The implementation of the Na Wai Eha Decision and Order requires the Waialea Reservoir to be lined to reduce leakage. The Reservoir leakage is currently a source for fresh water in the Waialea Wells.

The Waialea Wells to serve adjacent the Maui Land urban development, thereby reducing planned available municipal water supply and creating competing directly with this proposed development.

The DEIS notes our earlier comments (EIS PN) by incorporating into project design low-flow fixtures and other conservation measures, and best land management practices to minimize adverse impacts on water resources.

If there are any questions, please contact Charley Ice at 587-0218.



October 7, 2011

PRINCIPALS
THOMAS WITTEN, ASIA
President

R. STAN DANCAN, ASIA
Executive Vice-President

RUSSELL LEUNG, ASIA, LEED AP
Executive Vice-President

VINCENT SHIGIKUNI
Vice-President

GRANT MURAKAMI, AIA, LEED AP
Principal

W. FRANK BRANDI, ASIA
Chairman Emeritus

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Senior Associate

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Associate

KAWAKAMI YUEN, LEED AP
Associate

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Tel: (808) 521-2631
Fax: (808) 525-3183

Mr. Russell Y. Tsuji
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 5

Commission on Water Resource Management

1. Per the Commission on Water Resource Management's (CWRM) comment #1, Section 4.8.1 of the Final EIS will be revised to read as follows:

As recommended by the Commission on Water Resource Management (CWRM) in its FEA/EISPN and Draft EIS public review comments, the applicant will coordinate work with the County of Maui to incorporate ensure the Wai'ale project is incorporated into the County's Water Use and Development Plan.

2. Per CWRM's comment #3, the following paragraph will be added before the last paragraph in Section 3.3 of the Final EIS:

During the Draft EIS public review period, The State Department of Land and Natural Resources, Commission on Water Resource Management (CWRM) wrote: "We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP)." According to the CWRM website, "The major objective of the AWUDP is to develop a long-range management plan that assesses state and private agricultural water use, supply and irrigation water systems. The plan is intended to be a master irrigation inventory plan which identifies system rehabilitation needs and prioritizes system repair." It is not envisioned that any agricultural activities will cease as a result of the water needs of this project.

3. Per CWRM's comment #4, the second to the last paragraph of Section 4.8.1 of the Final EIS will be revised to read as follows:

As recommended by the CWRM in its FEA/EISPN and Draft EIS public review comments, water efficient fixtures will be installed and water efficient practices will be implemented throughout Wai'ale, where feasible, to reduce the increased demand on the area's freshwater resources. Water demand can be reduced through low flow fixtures as required by Uniform Plumbing Code and through xeriscaping. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at <http://www.usgbc.org/leed>. A listing of fixtures certified by the EPA as having high water efficiency can be found at <http://www.epa.gov/watersense/pp/index.htm>. Xeriscaping is a concept of water conservation in the landscape. It preserves water and can reduce operational costs. The following xeriscaping principles will guide the landscape architectural design:

Dear Mr. Tsuji,
Thank you for your letter dated July 20, 2011 addressed to the State of Hawai'i Land Use Commission, regarding the Wai'ale Draft Environmental Impact Statement (EIS). We understand that the Draft EIS was distributed to the following divisions:

- 1. Division of Aquatic Resources (no comments provided);
- 2. Engineering Division (comments provided);
- 3. Division of Forestry & Wildlife (no comments provided);
- 4. Division of State Parks (comments provided);
- 3. Commission on Water Resource Management (comments provided);

As the planning consultant for the applicant, A&B Properties, Inc., we offer the following responses to comments provided by the respective divisions of the Department of Land and Natural Resources.

Engineering Division

We appreciate Engineering Division's confirmation of the Flood Insurance Rate Map designation for the site. The following sentence will be added to the end of Section 3.4.1 of the Final EIS:

During the Draft EIS public review period, the State Department of Land and Natural Resources, Engineering Division confirmed that the project site is located in Zone X and stated: "The Flood Insurance Program does not have any regulations for developments within Zone X."

Division of State Parks

We acknowledge that the Division of State Parks has no comments on the proposed project.

- Use lower water demand ("drought tolerant") landscape materials;
- Use native or adaptive plant materials;
- Limit the extent of high water demand turf areas to a functional minimum and select appropriate turf species that require less water;
- Develop planting designs that group plant species in zones of similar water needs;
- Develop irrigation systems zoned for water delivery in accordance with plant and microclimatic requirements;
- Where feasible, use appropriate water-efficient irrigation methods (e.g., automated operation, drip irrigation, rainwater catchment systems, non-drinking quality water sources) to maximize efficiency;
- As feasible, use non-drinking quality water and/or R-1 quality recycled water for irrigation and assure that the salinity and quality of the water source can support the landscaping proposed for the project;
- Improve the soil to absorb and retain water;
- Provide an appropriate level of maintenance; and
- Consider pervious paving materials to decrease stormwater run-off.

4. In response to CWRM's comment #5, best management practices (BMPs) for stormwater management to minimize the impact of the project to the existing area's hydrology were addressed in Sections 1.8.2, 3.3, and 3.5 of the Draft EIS.

5. In response to CWRM's comment #6, it is noted in the first sentences of Sections 3.5 and 3.6 of the Draft EIS, "The applicant is exploring several potential drinking water source opportunities to serve Wai'ale." Further, the Draft EIS did identify a non-potable water source. This was noted on the second to the last paragraph on page 84 of Section 4.8.2 in the Draft EIS. This paragraph has been revised in the Final EIS to read as follows:

If ~~an~~ WWTP is necessary to treat the wastewater generated by Wai'ale, then effluent reuse and/or disposal will be necessary. The primary method of effluent reuse would be landscape irrigation. The WWTP wastewater reclamation facility would produce approximately ~~980,000~~ ~~gpd~~ of R-1 water quality effluent, which would allow for irrigation reuse with minimal restrictions. The estimated irrigation demand, based on the County of Maui's Water System Standards, is approximately 200,000 gpd. Therefore, if ~~all of the~~ R-1 water quality effluent can be utilized, it will reduce the drinking quality water demand that would be used for irrigation by about ~~200,000~~ ~~980,000~~ gpd. Possible on-site areas for irrigation reuse are the parks, open space areas, playing fields associated with a proposed middle school site and community center, and roadway landscaping. The reuse of effluent for on-site irrigation would be implemented in consultation with all applicable parties. Separate distribution irrigation waterlines will be required to convey the R-1 water to the irrigation reuse areas.

6. In response to the CWRM's comment #15, we acknowledge that a petition to amend the interim instream flow standard is required for any new or expanded diversion(s) of surface water.

7. OTHER CWRM comments:
We acknowledge your comments concerning: the Final Candidate Strategies Report prepared for the Central Maui Service Area that recommended exploring use of West Maui ditch water through a water treatment facility, the setting of Interim Instream Flow Standards for streams supplying the ditch system and the status of surface water use permit applications.

The CWRM's June 2010 decision on the Na Wai 'Eha Interim Instream Flow Standards petition and the subsequent appeal of the CWRM's decision to court is cited in the Draft EIS. Section 3.6 of the Draft EIS acknowledges that the design and scale of the final Wai'ale water treatment facility will be subject to other decisions and approvals, including any changes the court may or may not order to the CWRM's June 2010 Interim Instream Flow Standard decision for the Na Wai 'Eha streams. We acknowledge that the court's action could result in a smaller treatment facility with lower capacity than planned. We also acknowledge that at this juncture, it is impossible to predict what the court might do.

Section 3.5 of the Draft EIS does identify leakage from the Wai'ale reservoir as one source of recharge for the Kahului Aquifer. Section 3.5 of the Final EIS will be revised to include the following language:

The CWRM's Water Resource Protection Plan notes a sustainable yield of 1 million gallons per day (MGD) for the Kahului Aquifer, commenting specifically that this "Sustainable Yield ignores significant importation of surface water into Kahului from outside the aquifer system area. This explains the ability to withdraw fresh water from the aquifer at significantly higher rates than the sustainable yield without apparent negative impacts (i.e. rising chloride concentrations or decreasing water levels)". ~~The State Commission on Water Resource Management (CWRM) has set the sustainable yield of the Kahului Aquifer at 1.0 million gallons per day (MGD) based on its estimate that approximately 20 percent of the rainfall directly on the 9.5-square mile area becomes recharged to the underlying groundwater and that 44 percent of this recharge can be safely pumped by wells. As mentioned above, this sustainable yield estimate, however, reflects natural recharge, i.e., rainfall only. As discussed below, the Kahului Aquifer is also fed by other sources and has long yielded significant amounts of brackish water far in excess of this sustainable yield figure. The aquifer has a long history of substantial pumpage of brackish water by HC&S for sugarcane irrigation. In more recent years, the pumpage has been reduced to the range of 25 MGD.~~

Mr. Russell Y. Tsuji
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 5 of 5

To clarify, Waiale Wells Nos. 1 (State No. 5129-04) and 2 (State No. 5129-05) are not planned to serve the Maui Lani development, nor are they planned to serve the subject Wai'ale project.

Thank you for acknowledging that the Draft EIS notes your earlier comments concerning project design low-flow fixtures and other conservation measures, and best management practices to minimize adverse impacts to water resources.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

July 21, 2011

Mr. Grant Chun
A&B Properties, Inc.
P. O. Box 136
Kahului, Hawaii 96732

Dear Mr. Chun:

Subject: Draft Environmental Impact Statement - Waiale

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project. DOT previously commented on the project's transportation impacts during the early consultation for the subject project in its letter STP 8.0292 dated November 29, 2010 (see Section 11 of the DEIS).

DOT offers the following initial additional comments on the subject project:

1. DOT remains concerned about the local and regional traffic impacts related to the development of the proposed 10-year project.
2. The master plan for Waiale is stated as being conceptual and preliminary in nature and subject to change. A review of a Traffic Impact Analysis Report (TIAR) used to support the proposed project will thus be conditioned and subject to the need for necessary supplements or updates as changes and refinements in the development plans occur or should the project, or portions thereof, are included in any subsequent land use or zoning application. Any updated TIAR will need to be submitted to DOT for Highways Division prior review and approval.
3. A detailed development plan for the subject project, including each phase or portions thereof, if incremental developments occur, shall accompany any TIAR. The development plan shall show the layout of the area or increment, and include types of units and spaces, sizes, uses, number of floors and parking.
4. The developer's traffic consultant will need to continue coordination with DOT Highways Division to ensure that all traffic impacts are adequately addressed and properly mitigated.
5. The DOT Highways Division is completing its review of the project DEIS and TIAR and will provide further comments as necessary.

GLENN M. OHIMOTO
DIRECTOR

Deputy Directors
JACIE T. BUTAY
FORNIA FUCHIGAMI
RANDY GRUENE
JADRE UNISAN

INHERIT REEF TO:
STP 8.0494

Mr. Grant Chun
July 22, 2011
Page 2

STP 8.0494

DOT appreciates the opportunity to provide these initial additional comments. If there are any questions, including the need to meet with DOT Highways Division staff, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Very truly yours,



GLENN M. OKIMOTO, Ph.D.
Director of Transportation

c: Dan Davidson, Land Use Commission
Michael Shibata, PBR Hawaii & Associates, Inc.



October 7, 2011

PRINCIPALS
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Mr. Glenn M. Okimoto, Ph.D., Director
State of Hawai'i
Department of Transportation
869 Punchbowl Street
Honolulu, Hawai'i 96813-5097

Attn: Mr. David Shimokawa

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Okimoto,

Thank you for your letter dated July 21, 2011 (your reference number: STP 8.0494) addressed to Mr. Grant Chun of A&B Properties, Inc., regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

1. We acknowledge the State Department of Transportation (DOT)'s concerns regarding local and regional traffic impacts.
2. We also acknowledge that substantive changes or refinements to the Wai'ale master plan, or if the project, or portions thereof, are included in any subsequent land use or zoning application, then the Traffic Impact Analysis Report (TIAR) will need to be supplemented or updated.
3. As more detailed development plans are prepared, any subsequent TIAR will reflect the site plan for the area or increment, types of units or spaces, sizes, uses, number of floors and parking.
4. A&B Properties, Inc. will retain a traffic consultant to continue coordination with DOT Highways Division to ensure that all traffic impacts are adequately addressed and properly mitigated.
5. We acknowledge that DOT Highways Division is completing its review of the project's Draft EIS and TIAR and will provide further comments as necessary.

Mr. Glenn M. Okimoto
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 2

Per the above comments, the following paragraph will be added to the end of Section 4.3 of the Final EIS:

In their Draft EIS public review comments, the State Department of Transportation (DOT) asked that any substantive changes or refinements to the Wai'ale master plan, or if the project, or portions thereof, are included in any subsequent land use or zoning application, then the Traffic Impact Analysis Report (TIAR) will need to be supplemented or updated. Further, as more detailed development plans are prepared, any subsequent TIAR will reflect the site plan for the area or increment, types of units or spaces, sizes, uses, number of floors and parking. State DOT also asked that a traffic consultant be retained to continue coordination with State DOT Highways Division to ensure that all traffic impacts are adequately addressed and properly mitigated.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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GLENN M. OKIMOTO
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JADE T. BULTAY
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IN REPLY REFER TO:
STP 8.0522

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

A&B PROPERTIES MAUI

September 2, 2011

Mr. Grant Chun
A&B Properties, Inc.
P.O. Box 156
Kahului, Hawaii 96732

Dear Mr. Chun:

Subject: Waiale – Draft Environmental Impact Statement (DEIS)

The State Department of Transportation (DOT) previously commented on the subject project in its letter STP 8.0494 dated July 21, 2011 (attached), and now offers the following supplemental comments. DOT continues to have concerns about the impacts on State transportation facilities by and from the project.

1. While the Waiale project is not currently within the County of Maui's urban growth area, DOT understands the County's draft Maui Island plan proposes to expand the urban growth boundary to include the subject project. DOT also understands that a request to change the land use classification of the project area from Agricultural to Urban has been filed with the State Land Use Commission. As such, the future of this project is dependent upon the approvals of the State and County.
2. The Waiale project is located between two principal arterials under State DOT jurisdiction, Kuilhelani Highway and Honoopiilani Highway. It is anticipated the subject project will have a greater impact on Kuilhelani Highway. Arterials are intended for safe, efficient and fast transportation between regions. Federal guidelines for preserving functional classification include limiting the number of access points, maximizing the space between intersections, using cross intersections instead of tee intersections, and limiting intersection to collector roads and other arterials. The Waiale project should follow those federal guidelines.
3. Federal Highway Administration (FHWA) guidelines recommend different distances between intersections for different land uses. However, due to the mixture of land uses (urban & agricultural) along this portion of the highway, DOT will require that rural minimum spacing of one-half mile between intersections be used along the subject project border with Kuilhelani Highway.

4. The distances along Kūihelani Highway between the intersection with Maui Lani Parkway and the proposed Road C and between the intersection with proposed Road C and East Waiko Road meet the FHWA rural guideline.
However, the proposed location of the Road E/Kūihelani Highway intersection which is only 750 feet from the East Waiko Road /Kūihelani Highway intersection does not meet federal guidelines and will not be permitted.
Furthermore, there is an existing agriculture tractor crossing at this Road E/Kūihelani Highway intersection that has a two-phase traffic signal. With the proposed land use changes of the subject project, DOT understands that the tractor crossing will no longer be needed. The applicant will need to submit a written request to the DOT Highways Division, Right-of-Way Branch to extinguish the agricultural access crossing, and upon notification by DOT, properly remove the traffic signal and associated signing and stripping at no cost to the State.
5. DOT will consider a request for a southern access to Kūihelani Highway if it is at least one half of a mile south of East Waiko Road. A written request for such access and the proposed northern access at Road C should be submitted to the DOT Highways, Right-of-Way Branch. Access restrictions will be imposed along the remainder of the project frontage with Kūihelani Highway. The applicant should be aware that monetary consideration for access may be assessed.
6. The mix and adjacencies of light industrial, commercial and residential uses and their traffic on East Waiko Road and at the Kūihelani Highway intersection raises traffic safety concerns that should be further addressed in the DEIS and Traffic Impact Analysis Report (TIAR).
7. The DEIS and TIAR should further discuss how the interior project roads will provide indirect access from Kūihelani Highway to the various existing properties located adjacent to and on the north side of East Waiko Road, including a cattle feed lot on parcel TMK: (2) 3-8-007:102 adjacent to Kūihelani Highway. Upon the completion of the interior project roads, the cattle feed lot will not be permitted direct access to Kūihelani Highway.
8. The distance between the Road B/Road E intersection and Kūihelani Highway, appears to be less than 1,200 feet. Such distance is not desired and may cause traffic queuing onto Kūihelani Highway. A queue analysis including mitigation measures should be prepared and included in the TIAR if the distance is less than 1,200 feet.
9. The Conceptual Community Master Plan (Figure O-1) shows approximately 22 total acres of park along Waikapu Stream and about 8.5 total acres of greenway and open space adjacent to Kūihelani Highway. The DEIS should clarify whether the 100-foot setback along Kūihelani Highway is intended to be under State or County jurisdiction or if it will be maintained by the applicant.

10. The Conceptual Community Master Plan (Figure O-1) and Proposed Roadway (Figure 4-2) need clarification and/or revision to identify all existing, new, planned, future roads, and agricultural use roads as well as existing roads that are to be modified as part of the project. DOT understands there is an existing access permitted road located about 600 feet south of the proposed Road C (and about 3,500 feet south of the Maui Lani Parkway intersection) to Kūihelani Highway that will need to be extinguished. The applicant will need to submit a written request to extinguish the existing access to the DOT Highways Division, Right-of-Way Branch and afford the present users of this access permitted road continued access to the highway through the project's interior roadway network.
11. Section 1.8.2, Page 9 and Section 5.2.1, Page 166 of the DEIS state, "Waiale will contribute to regional traffic improvements that will address the impacts of general regional traffic growth, as well as impacts specifically related to Waiale." A list of those regional improvements should be included in both the DEIS and the TIAR recommendations section for the review and approval of DOT.
All access intersection improvements to Kūihelani Highway are considered local and not regional improvement. The only traffic mitigation for a State highway mentioned in Section 7.2 of the DEIS is an improvement to East Waiko Road at its intersection with Kūihelani Highway. Improvements within the Kūihelani Highway right-of-way are also required for each access and they should be described in Section 7.2.
12. All roads within the subject project should be bicycle and pedestrian friendly, including the roads leading to State highways.
13. Section 2.2.1 of the DEIS states that the project originally encompassed 826 acres, however about 220 acres, south of and adjacent to the Waikapu Stream were taken out. DOT understand the applicant, Alexander & Baldwin (A&B), still envisions the 220 acres for future urban expansion. As such, the applicant needs to examine and consider, as part of this DEIS, to reserve and make provision or accommodations for a connection or stub out for Kamehameha Avenue at the south boundary of the subject project to accommodate a potential future connection across Waikapu Stream to A&B's property to the south. The potential need for this connectivity arises with the proposed Waiale Road extension being only two lanes and currently the only parallel road to Honoapiʻilani and Kūihelani Highways.
14. Section 4.3, Roadways and Traffic, in the DEIS and Section 11 (A) of the TIAR states that 650 feet east of the East Waiko Road/Waiale Road intersection is a stop control; however, no site plan or map shows such a stop sign intersection, nor is a reason given for the stop.

15. While Figure 4, Major Projects in Project Vicinity, in the TIAR is a map showing the locations of the various other land development projects, the DEIS should have, but presently lacks, a similar illustration as part of the discussion on the subject project in context with present and planned uses of the lands around and surrounding the project site including Honoapiʻilani Highway and Kūihelani Highway.
16. The residential and industrial areas located adjacent to and north of East Waiko Road that use said road bisecting much of the subject project should be addressed in the DEIS with a map and narrative covering such adjacent activity. The DEIS should also discuss the amount and type of truck traffic generated by the present light industrial area and its impact to the roadways in the area.
17. The timing and funding of the planned County project to extend Waiale Road from East Waiko Road (aka Waiko Road) to Honoapiʻilani Highway and to improve East Waiko Road (aka Waiko Road) to three lanes from Waiale Road to Kūihelani Highway should be addressed in the DEIS and TIAR. The current Statewide Transportation Improvement Program (STIP) includes \$3.64 million for construction of Waiko road improvements. Kūihelani Highway to Waiale Road, in Federal Fiscal Year (FFY) 2014. Nothing is currently programmed for the Waiale Road Extension, so it is likely that the project will not be programmed until at least FFY 2017.
18. All mitigative measures in the Recommendations for Year 2022 with Project for Kūihelani Highway and Honoapiʻilani Highway shall be included in narrative form on page 64 of the DEIS. DOT will seek that such mitigative measures be included with any conditions of land use approval at the State and County levels.
19. An updated TIAR shall be required in or by 2022 to determine if mitigative measures, included in the revised TIAR that is accepted by DOT, are sufficient to achieve the currently projected levels of service and to provide any additional mitigation, as required.
20. The TIAR, dated March 21, 2011 (Appendix J) is not acceptable and should be revised for review and acceptance by DOT Highways Division. Besides the other comments in this letter that need to be reflected in the DEIS and revised TIAR, the revision of the TIAR shall address the following comments:
 - a. Explain the intent behind separating the "Base Year 2022" mitigation measures on page 64 of the TIAR from the "Additional Mitigation Measures" that was shown on page 65 of the TIAR. The explanation shall also identify the development projects being referenced; the conditions that were stipulated and required on the project; and the status (completed, underway, pending) of each mitigation measure.
 - b. The recommendations for Year 2022 with Project as shown on page 66 of the TIAR and page 64 of the DEIS describes one mitigation measure for a State highway, i.e. double left-turn lanes on eastbound East Waiko Road at the intersection with Kūihelani Highway that's not sufficient. The explanation should include a list of

- c. The recommendations for Year 2022 with Project in the TIAR include a statement at the bottom of page 66. "See Figures 11a, 11b, and 11c for a summary of recommended improvements." This is not acceptable. The TIAR shall list all recommended improvements in narrative form under Recommendations for Year 2022 with Project. The list of recommendations shall include mitigative improvements on Kūihelani Highway at its intersections with Road C, East Waiko Road and a relocated Road E. Mitigation at the access points on Kūihelani Highway shall include, but not be limited to, sight distance studies, queue analysis to determine turning lane lengths, traffic signal warrant studies, traffic signals when warranted and requested by DOT, acceleration, deceleration, turn and refuge lanes constructed to travel lane standards, channelization, bicycle lanes, pedestrian crosswalks, street lights, and associated signing and striping.
- d. The analysis for the Waiale project relies heavily on improvements to be made by other developments. Improvements or a share of future improvements to accommodate the Waiale project traffic on Honoapiʻilani Highway at its intersections with East Waiko Road and Kuikahi Drive shall also be included in the recommendations for Year 2022 with Project and with Mitigation. Mitigation shall include queue analysis to determine turning lane lengths, auxiliary lanes, channelization, bicycle lanes, pedestrian crosswalks, and associated signing and striping.
- e. Revision of the TIAR shall provide an alternative analysis to: 1) show the impact of the Waiale project in 2022 without improvements by others, i.e., Base Year 2022 without Improvements with Project and 2) recommend improvements to mitigate the project's traffic impacts on Kūihelani Highway and Honoapiʻilani Highway. The present analysis and recommendations rely heavily on the County of Maui's proposed Waiale Road Extension and East Waiko Road improvements, which may not be completed by 2022. The applicant shall be responsible to provide all recommended improvements needed to mitigate the Waiale project.
- f. The revision of the TIAR shall include a projected Phasing Plan of the development, but a traffic impact analysis of each phase will not be required until prior to a phase. The revised TIAR must be updated and approved by DOT prior to the commencement of construction of each respective phase of the development, generally as indicated in the Phasing Plan, and the traffic mitigation measures and other traffic improvements required to support that phase must be completed prior to the issuance of a certificate of occupancy for the first residential unit, commercial use or any use in that respective phase.

This comment expands on DOT's prior comments #2 and #3 in its letter STP 8.0494 (see attached).

- b. Identify and determine if adequate right-of-way is available to accommodate recommended improvements that the applicant will implement as mitigation review and approval.
21. The noise study shall be revised accordingly and submitted for DOT Highway Division's review and approval.
 - a. Section 4.4, Noise and Vibration, of the DEIS shall be revised to provide a subsection with narrative for only the impacts of traffic noise from Kūihelani Highway and Hōlokapiti Highway on the Waiale project. It is difficult to determine impacts because the discussion in the DEIS mixes requirements for different agencies, such as Housing and Urban Development (HUD) and FHWA. The Vehicular Impacts paragraph on page 67 shall provide the projected noise increase resulting from the Waiale Project along Kūihelani Highway.
 - b. If the noise analysis was not conducted in accordance with the requirements of Section 4, Traffic Noise Prediction and Section 5, Analysis of Traffic Noise Impacts of the DOT Noise Policy, the DEIS should explain the differences between DOT noise policy and the procedures used for the noise study in the DEIS.
 - c. Traffic noise analysis is to be done in accordance with the requirements in Section 4, Traffic Noise Prediction of the DOT's Highway Traffic Noise Policy and Abatement Guidelines dated April 25, 2011.
 - d. The DEIS shall discuss noise impacts on residences, the school and the parks and cultural preserves based on the requirements in the DOT Noise Policy. If cultural preserves land on which serenity and quiet are of extraordinary significance and serve an important public need and where preservation of those qualities are essential if the areas are to continue serving intended purposes, the cultural preserves would be in Activity Category A, which has DOT noise abatement criteria of 56 Leq(h).
 - e. Appendix K, Noise Study, states that both exterior and interior noise levels at residences that face Kūihelani Highway exceed FHWA guidelines and HUD guidelines. The applicant should be aware that DOT requires abatement for noise above or equal to 66 dBA Leq(h) for residential land use. The proposed use of Noise Control Measure N8, "Residents of units with exterior useable space fronting Kūihelani Highway and East Waiko Road shall be given notice of possible incompatible exterior noise levels" is not acceptable noise abatement. As residential use in Hawaii includes open windows and outdoor visiting, DOT encourages better land use compatibility planning to avoid excessive noise for sensitive receptors. The applicant shall either plan the project to achieve a noise level less than 66 dBA Leq(h) for residences and parks or plan, design and construct a noise wall at no cost to the State. The noise study shall include a description of the process and implementation

of the process by the applicant that clearly relieves the DOT of any responsibility to provide noise abatement measures.

- f. Noise Control Measure N11, using the 300 feet closest to Kūihelani Highway on the southern portion of the project site for recreational activities such as ball fields or basketball courts does not qualify as noise abatement measures in the DOT Noise Policy. DOT Noise Policy, Activity Category B includes active sports areas, which have a noise abatement criteria of 66 dBA Leq(h). DOT will not be responsible for abating highway noise that can be mitigated by appropriate land use planning or a noise wall or other feasible and reasonable method. Noise impacts from State highways to the Waiale development shall be addressed by the applicant in a manner that clearly relieves the DOT of responsibility for providing noise abatement measures.
22. No additional storm water runoff will be permitted in the State highway right-of-way. Water quality criteria for areas discharging into State drainage facilities shall follow DOT's current Storm Water Permanent Best Management Practices Manual.
23. All improvements in the State highway right-of-way must be planned, designed and constructed to current State requirements and American Association of State Highway and Transportation Officials (AASHTO) standards and provided at no cost to the State Department of Transportation.
24. Permits to work in the State highway right-of-way and the request for access to the State highway should be added to the major approvals/permits required in Section 1.1 of the DEIS.
25. The subject proposed development project can be affected by aircraft noise and overflights. The project lies just left of the primary approach corridor to Runway 2 at Kahului Airport and aircraft operating under visual flight rules approaching Kahului Airport from the south will also transit over the subject project enroute to either Runway 2 or Runway 5. The applicant should grant the DOT Airports Division an avigation and noise easement for the subject property, and provide disclosure of potential impacts to prospective developers, homeowners and tenants. Additionally, the applicant and any developer should consider filing a Federal Aviation Administration (FAA) Form 7460-1 Notice of Proposed Construction or Alteration which can be obtained at the following website: <https://www.oceanaa.faa.gov/ceaaa/external/portal.jsp>. The filing of the construction or alteration notice ensures that there will be a review for obstructions, interference or safety impacts to aircraft from facilities and structures placed on properties within the development project.
26. The DOT requests a response to the above comments and our prior comments for our further review. Before materials, reports and studies are included in the Final Environmental Impact Statement (FEIS) for the subject project.

Mr. Grant Chun
Page 8
September 1, 2011

STP 8.0522

If there are any questions or the need to meet with DOT Highways Division staff and/or DOT Airports Division staff, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

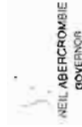
Very truly yours,



GLENN M. OKIMOTO, Ph.D.
Director of Transportation

Attachment: Letter STP 8.0494 dtd 7/21/11

c: Jesse K. Souki, Office of Planning, DBEDT
William Speiser, Maui Planning Department



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GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
868 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5087

GLENN M. OKIMOTO
DIRECTOR
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JAMES HURTAY
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RANDY ORLINE
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STP 8.0494

July 21, 2011

Mr. Grant Chun
A&B Properties, Inc.
P. O. Box 156
Kahului, Hawaii 96732

Dear Mr. Chun:

Subject: Draft Environmental Impact Statement - Waiale

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project. DOT previously commented on the project's transportation impacts during the early consultation for the subject project in its letter STP 8.0292 dated November 29, 2010 (see Section 11 of the DEIS).

DOT offers the following initial additional comments on the subject project:

1. DOT remains concerned about the local and regional traffic impacts related to the development of the proposed 10-year project.
2. The master plan for Waiale is stated as being conceptual and preliminary in nature and subject to change. A review of a Traffic Impact Analysis Report (TIAR) used to support the proposed project will thus be conditioned and subject to the need for necessary supplements or updates as changes and refinements in the development plans occur or should the project, or portions thereof, are included in any subsequent land use or zoning application. Any updated TIAR will need to be submitted to DOT for Highways Division prior review and approval.
3. A detailed development plan for the subject project, including each phase or portions thereof, if incremental developments occur, shall accompany any TIAR. The development plan shall show the layout of the area or increment, and include types of units and spaces, sizes, uses, number of floors and parking.
4. The developer's traffic consultant will need to continue coordination with DOT Highways Division to ensure that all traffic impacts are adequately addressed and properly mitigated.
5. The DOT Highways Division is completing its review of the project DEIS and TIAR and will provide further comments as necessary.




Mr. Grant Chun
July 22, 2011
Page 2

STP 8.0494

DOT appreciates the opportunity to provide these initial additional comments. If there are any questions, including the need to meet with DOT Highways Division staff, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Very truly yours,


GLENN M. OKIMOTO, Ph.D.
Director of Transportation

c: Dan Davidson, Land Use Commission
Michael Shibata, PBR Hawaii & Associates, Inc.

October 7, 2011

Glenn M. Okimoto, Ph.D.
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813-5097

Dear Mr. Okimoto:

This is in reply to your letter dated September 2, 2011 (your reference number: STP 8.0522), which we received on September 13, 2011. Please be advised that your comments (Nos. 1-26 outlined in your September 2, 2011 letter) were received well past the July 22, 2011, deadline for the receipt of comments to the Waialeale Draft Environmental Impact Statement (DEIS) and that we had just completed the draft Final EIS (FEIS) when your comments were received. Further, pursuant to Section 11-200-22 B, Hawaii Administrative Rules, comments received outside of the comment period need not be considered or responded to. However, as a courtesy to the State Department of Transportation (DOT), we have sought to respond to your comments and include these in the FEIS. Our numbered responses below correspond to the numbered comments from your letter.

1. Your statements concerning the draft Maui Island Plan and the applicant's petition to reclassify the property from the Agricultural to the Urban district are acknowledged. As you note, the project will require approvals of the State and County in order to proceed.
2. Your statements concerning applicable Federal Highway Administration (FHWA) guidelines are acknowledged.
3. Your statement concerning applicable FHWA rural guidelines are acknowledged.
4. Your comment that the proposed Road "E"/Kuihela Highway intersection, as presently shown, will not be permitted is acknowledged and will be complied with. Your comments concerning the existing agricultural crossing at this location are also acknowledged.
5. Should another southern access to Kuihela Highway be considered, we will consult with the DOT.

6. We have inentionally situated the bulk of our industrial land uses in line with other existing and future (by other developers) industrial land uses.

In terms of safety, our traffic consultant, Austin, Tsutsumi & Associates, Inc. (ATA), has stated that the forthcoming complete streets standards (based on Act 54) would serve to enhance and improve safety for pedestrian and bicycle travel – in particular along Road “B” and the extension of Kamehameha Avenue, which connect the southern and northern portions of the project.
7. As proposed, Road “B” will provide access to TMK (2) 3-8-007; 102. Please note that this parcel is not part of the petition area nor owned by the applicant.
8. Assuming that the proposed Road “E”/Kuihelani Highway intersection, as presently shown, will not be permitted, if another southern access to Kuihelani Highway is proposed that is at least half-a-mile away from the intersection of Kuihelani Highway/East Waiko Road, then the closest intersection within the property will be located a minimum of 1,200 feet or a queue analysis will be provided.
9. The proposed setback area is intended to remain under the applicant’s control.
10. A revised Figure 1 to the Traffic Impact Analysis Report (TIAR) has been prepared and is included in Appendix J-1 of the FEIS. Your comment concerning the currently permitted access located south of Road “C” is acknowledged.
11. Please understand that the subject project is in the beginning stage of the State and County land use entitlement process, and this is expected to take several years to complete. We anticipate that conditions of approval will be imposed requiring further update to the TIAR as well as the implementation of appropriate traffic improvements and mitigation measures as approved by the DOT. Such a requirement would insure the DOT that the TIAR is updated at a point in time close to actual development, when traffic conditions can be more accurately assessed and appropriate traffic improvements and mitigation measures, including regional improvements that will be identified in the forthcoming update to the Maui Long Range Transportation Plan, are implemented based on those conditions.
12. All major roadways, including those leading to State highways, are planned to be bicycle and pedestrian friendly.
13. Waikapu Stream and the lands to the south are not part of the project. This area is not included in the urban growth boundary of the draft MIP. However, per your comment, during the engineering design phase, provisions for a potential connection to the lands to the south will be examined.

14. Waiko Road is a County collector road with a posted speed limit of 20 mph. The intersection you refer to is under the control of the County of Maui, where the stop control is an existing condition.
15. Figure 2-1 (Regional Location) was revised in the FEIS to include labels of locations of other nearby existing projects (Kehalani and Waikapu Gardens). For the future planned projects, since these are speculative, we would refer you to Figure 4 of the TIAR.
16. Section 2.1.2 of the DEIS describes the adjacent land uses in this area. Traffic generated by these adjacent areas was accounted for in the traffic counts taken for the TIAR.
17. We appreciate the information on the timing and funding for the construction of the Waiko Road improvements. According to the Waiale Road Extension Draft Environmental Assessment (DEA), the construction of the extension of Waiale Road from East Waiko Road to Honopitani Highway is anticipated to cost approximately \$16.1 million and to be completed by 2013.
18. Recommendations for Year 2022 with Project were included in the DEIS (pages 63 and 64 in Section 4.3 of the DEIS).
19. As noted previously, we anticipate that conditions of approval will be imposed requiring further update to the TIAR as required by the DOT.
20. As noted previously, the subject project is in the beginning stage of the State and County land use entitlement process, which is expected to take several years to complete. We anticipate that conditions of approval will be imposed requiring further update to the TIAR as well as the implementation of appropriate traffic improvements and mitigation measures as approved by the DOT. Such a requirement would insure the DOT that the TIAR is updated at a point in time close to actual development, when traffic conditions can be more accurately assessed and appropriate traffic improvements and mitigation measures, including regional improvements, are implemented based on those conditions.
 - a. As stated on page 64 in Section 4.3 of the DEIS, the Base Year 2022 mitigation depicts what is in the 2002 Maui Lani Roadway Master Plan. Therefore the improvements described are based upon the continuing development of Maui Lani. The “Additional Mitigative Measures” denote the improvements that would be necessary to attain the desired LOS.
 - b. Refer to overall response above.
 - c. Refer to overall response above. The recommendations are included in text form on pages 64-66 in Section 4.3 of the DEIS.

- d. Refer to overall response above. The TIAR was prepared based upon the best available knowledge of possible roadway projects at the time of its writing. It is also understood that the continuing development of surrounding projects such as the Waikapu Country Town, Kehalani, and Maui Lani will be dependent upon the Waiale Road Extension and the provisions contained within the Maui Lani Roadway Master Plan to accommodate their respective traffic in order to move forward.
- e. The Waiale Road Extension was assumed as a base year project, given that it has been identified in the Maui Long Range Transportation Plan, and based upon the information contained within its DEA.
- f. Refer to overall response above.
- g. Adequate right-of-way is available to accommodate the recommended improvements.

21. We note that your comments revolve around DOT's Highway Traffic Noise Policy and Abatement Guidelines dated April 25, 2011. We understand that this policy provides procedures for noise studies and noise abatement measures to help protect the public's health, welfare and livability, to supply noise abatement criteria, and to establish requirements for information to be given to local officials for use in the planning and design of highways approved pursuant to Title 23 U.S.C. Please note that this project is not a federal-aid highway project.

22. All civil engineering plans impacting State highway facilities will be subject to the review of the DOT.

23. Your comment concerning applicable standards for the design and construction of improvements within the State highway right-of-way is acknowledged. We understand that direct project related transportation improvements will be the responsibility of the applicant, however, the applicant's participation in other regional improvements would be determined on a fair share basis.

24. Approval to work in the State highway right-of-way is included as a future permit in Table I-1 of the DEIS. Table I-1 of the FEIS will be revised to also include approval for access to the State highway.

25. Thank you for the information concerning potential aircraft noise and overflights. As part of the project's entitlement and design process we expect to have further discussions with the DOT concerning these matters and the need for any appropriate disclosures, for both aircraft and highway noise.

26. As noted above, your comments were received well past the deadline for the receipt of comments to the Waiale DEIS. However, we have sought to respond to your comments and include these in the FEIS.

Thank you for reviewing the DEIS.

Sincerely,



Grant Y. M. Chun
Vice President

cc: Dan Davidson, Land Use Commission



October 7, 2011

Ms. Karen Seddon, Executive Director
State of Hawai'i
Department of Business, Economic Development and Tourism
Hawai'i Housing Finance and Development Corporation
677 Queen Street, Suite 300
Honolulu, Hawai'i 96813

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Ms. Seddon,

Thank you for your letter dated July 22, 2011 (your reference number: 11:PEO/62) addressed to Mr. Grant Chun of A&B Properties, Inc., regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

As stated in the Draft EIS, Waiale is envisioned to include approximately 2,550 residential units. This includes approximately 300 affordable units to be developed by the County of Maui on 40 acres that will be conveyed to the County. Additionally, the remaining portion of the Wai'ale project (2,250 units) would also be subject to the provisions of the Maui Residential Workforce Housing Policy, Chapter 2.96, Maui County Code. The Assessment of Economic and Fiscal Impacts (pages 1-2), Appendix P in the Draft EIS, includes a projected breakdown of the anticipated affordable units by income group and unit type for Wai'ale (see below). A total of approximately 563 affordable units in four income categories are projected based on the provisions of the current workforce housing policy. The actual allocation of affordable units would be based on discussions and agreement with the County Department of Housing and Human Concerns. Please note that changes to the overall project unit count would affect the amount of affordable units required.

Single-Family

- Cap Income 62 units (20 percent)
- Above Moderate Income 62 units (20 percent)
- Moderate Income 93 units (30 percent)
- Below Moderate Income 93 units (30 percent)
- Total Affordable Single-family Housing Units 310 units

Multi-Family

- Cap Income 50 units (20 percent)
- Above Moderate Income 51 units (20 percent)
- Moderate Income 76 units (30 percent)
- Below Moderate Income 76 units (30 percent)
- Total Affordable Multi-family Housing Units 253 units

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KAREN SEDDON
EXECUTIVE DIRECTOR

IN REPLY REFER TO:
11:PEO/62



STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0800

July 22, 2011

Mr. Grant Chun
A&B Properties Inc.
P.O. Box 156
Kahului, Hawaii 96732

Dear Mr. Chun:

Re: Draft Environmental Impact Statement for Proposed Wai'ale Project, TMK: (2) 3-8-005: 023 (por.) and 037, and (2) 3-8-007: 071, 101 (por.), and 104, Wailuku, Maui, Hawaii

We have reviewed the subject DEIS and offer the following comments.

The Wai'ale master plan proposes the development of approximately 2,550 single family and multi-family dwelling units, including approximately 300 residential units within 40 acres of land to be contributed to the County of Maui. Based on statements made throughout the DEIS, workforce housing will be provided in compliance with Chapter 2.96, Maui County Code. It would be helpful to include a table which conceptually describes the number of affordable housing units, the different income segments to be assisted, and the types of units (e.g., single family and multi-family for sale or rental housing units) that are planned for development.

The proposed project, and in particular residential use, appears to be consistent with the affordable housing policy set forth in the Hawaii State Plan of increasing homeownership and rental housing opportunities and choices in terms of quality, location, cost densities, style and size of housing.

Thank you for the opportunity to comment.

Sincerely,

Karen Seddon
Executive Director

c: Dan Davidson, State Land Use Commission
Michael Shibata, PBR HAWAII & Associates, Inc.

Ms. Karen Seddon
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 2

Per your comments, the following text will be added to Sections 4.9.3, 5.1.4, and 5.1.5 of the Final EIS:

During the Draft EIS public review period, the State Hawai'i Housing Finance and Development Corporation wrote: "The proposed project, and in particular residential use, appears to be consistent with the affordable housing policy set forth in the Hawai'i State Plan of increasing homeownership and rental housing opportunities and choices in terms of quality, location, cost densities, style and size of housing."

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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PHONE (808) 594-1888

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STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPIOLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

HRD10/3583C

July 19, 2011

Grant Chun
A&B Properties, Inc.
P.O. Box 156
Kahului, Hawaii 96732

RE: Draft Environmental Impact Statement
Wai'ale Project
Waikapu, Waialuku, Island of Maui

Aloha ʻe Grani Chun,

The Office of Hawaiian Affairs (OHA) is in receipt of a May 31, 2011 request for comments on a Draft Environmental Impact Statement (DEIS) to support Wai'ale Project (project) proposed on 545 acres of land in Waikapu, Waialuku on the Island of Maui. The project will require a State Land Use Commission (LUC) District Boundary Amendment (DBA) from Agricultural to Urban District, a County of Maui Change in Zoning from Agricultural to Project District and an amendment to the Waialuku-Kahului Community Plan to change the project area from Agricultural to Urban designation. The LUC will be the accepting authority for the final environmental impact statement.

At full build out, the project is envisioned to be a master planned community with 2,550 single- and multi-family units, a middle school site, and commercial components for office, retail and business uses, and light industrial components. A regional park, neighborhood parks, greenways, open space and cultural preserve will total nearly 142 acres. Various on- and off-site (on State of Hawai'i and County of Maui land) infrastructure improvements will be required. Approximately 50 acres within the project area will be conveyed to the County of Maui (County) for the development of affordable housing units (40 acres), a community multi-purpose center (7 acres) and park (3 acres).² Following receipt of necessary State of Hawai'i and County approvals, the full urban development of the project is expected to be "substantially completed" within 10 years (DEIS, Section 2.4).

¹ The County of Maui - Department of Parks and Recreation (DPR) has withheld comments on this project until the Maui County Council completes its review of the Maui Island General Plan 2030.

² The conveyance of these 50 acres to the County of Maui for the development of affordable housing units, a community multi-purpose center and park fulfills a condition of Ordinance No. 3559 passed by the Maui County Council in May 2008 which facilitated the applicant's development of the Mini Business Park-Phase II.

OHA recognizes the laudable aspects of this project, including the potential it offers for providing much needed affordable housing and employment opportunities on the Island of Maui. We appreciate that project design has incorporated certain State of Hawaii's Department of Health-Office of Environmental Quality Control *Sustainable Building Design Guidelines*, U.S. Environmental Protection Agency "Energy Star" requirements and Leadership in Energy and Environmental Design practices developed by the U.S. Green Building Council.⁴ While modern land uses of the project area may support the conclusion in the DEIS (Section 3.7) that no mitigation measures are warranted for impacts to botanical resources, we do encourage consideration be afforded to the use of native plant species adapted to the climate of the project area in landscaping design.

At this juncture, OHA is continuing our assessment and review of the results of the archaeological inventory survey⁵ (AIS) conducted for the project area. We acknowledge that by letter dated February 28, 2010 the AIS has been reviewed and approved by the Department of Land and Natural Resources State Historic Preservation Division (SHIPD). We are also continuing our review of the extensive history relative to iwi kōpuna which have been inadvertently discovered during sand mining activities within or adjacent to the project area to confirm whether necessary mitigation plans have been reviewed by the Maui/Lana'i Island Burial Council and approved by the SHIPD in consultation with appropriate descendant families. The cultural impact assessment (CIA) incorporated interviews with four individuals knowledgeable of the project area and concluded (page 13) that the project "resides in a culturally significant and unique land area" and that "there are potential adverse effects to the remaining cultural resources extant on the property that can be mitigated with proper community consultation and proactive planning on the part of the developers." We look forward to seeing the educational "touchpoints" proposed in the CIA (page 14) developed into interpretive signage and programs which achieve their full potential and serve to provide the Wai'ale community a sense of their place within a traditional cultural landscape.

OHA is also continuing our comprehensive assessment of the impacts this project will have on public infrastructure and facilities and we may provide substantive comments on the loss of agricultural lands when the DBA petition is submitted to the LUC for consideration. In general, OHA is cautious when assessing DBA which result in the loss of agricultural lands with the potential to be productive to urban development. The development of diversified agricultural endeavors throughout Hawaii has the potential to support our local economy and contribute to reducing our dependence on imported products.

In order to meet the July 22, 2011 deadline for comments on the DEIS to be considered and responded to pursuant to §343-5, Hawaii's Revised Statutes we offer you the following substantive comments on the discussion within the DEIS relative to water:

⁴ The DEIS, Chapter 4.9.3 describes that the project will develop affordable housing units in compliance with Chapter 206 of the Maui County Code, Residential Workforce Housing Policy.

⁵ DEIS, Section 2.6.

⁶ The DEIS, Section 2.1.4 describe the final portions of the project area are currently leased for horse and cattle grazing and stockpiling and nursery purposes. Other portions of the project area are currently followed sugar cane fields and a small area was formerly used by a scrap metal company.

⁷ DEIS, Appendix F

⁸ DEIS, Appendix I

General

The State of Hawaii and its agencies have a public trust obligation to "ensure the continued availability and existence of water resources for present and future generations."⁶ As a critical resource for the perpetuation of traditional and customary rights, OHA would also like to point out that the exercise of Native Hawaiian traditional and customary rights is considered a public trust purpose,⁷ and the LUC has an *independent and affirmative* duty to promote and protect Native Hawaiian traditional and customary practices, beliefs, and resources. OHA asserts that the DEIS does not provide sufficient information to allow the LUC to satisfy these duties.

The DEIS Does Not Adequately Address the Water Source for the Project

Water is one of the most controversial issues facing Maui communities. 'Īao Aquifer, which provides drinking water for most of Central Maui, is being pumped to the limits of, and arguably beyond, its sustainable yield, and streams in both East Maui and West Maui have been diverted to irrigate sugar cane fields. Disputes over surface water have resulted in the designation of Central Maui's Nā Wai 'Ehā (the Four Great Waters – Waihe'e River and Waiehu, 'Īao, and Waikapū Streams) as the State's first surface water management area, and there are appeals pending in the Hawaii's Supreme Court and the Intermediate Court of Appeals regarding the diversion of surface water from Nā Wai 'Ehā and East Maui streams. Despite these ongoing issues, Alexander & Baldwin (A&B) is proposing to move forward with the development of this project without having specifically identified a viable water source (which it is still "exploring" and remains "unresolved").

The DEIS identifies the potential sources of potable water for the project as: (1) surface water from Nā Wai 'Ehā (more specifically the Waihe'e River) that would be treated at the proposed Wai'ale Treatment Facility (WTF); or (2) new wells in the Kahului Aquifer.⁸ However, as alluded to but not explained in the DEIS, there are legal impediments to the use of Nā Wai 'Ehā water. With respect to the Kahului Aquifer, preliminary studies that would be necessary to determine its viability as a potable water source have not been undertaken.

The WTF is not feasible. As noted in the DEIS,⁹ the Commission on Water Resources Management (CWRM) has set interim instream flow standards (IFS) for Nā Wai 'Ehā streams, including Waihe'e River. During the contested case hearing before CWRM regarding the IFS, A&B, through its Hawaii's Commercial & Sugar Company (HC&S), urged that 9.0 MGD for the WTF was a potential offstream use of Nā Wai 'Ehā water that CWRM should consider and make allowance for in amending the IFS. The majority's final decision on the IFS flatly rejected that argument; not only was the WTF not included among the reasonable future offstream uses

⁶ *In Re Wai'ale O Mōkōhō'i, Inc.*, 103, Hawaii 1, 431 (2004), citing *In Re Water Use Applications* ("Waiehu 1"), 94 Hawaii 1, 97, 139 (2000).

⁷ *Kahui Mōkōhō'i, Inc.*, 171 P.2d 230; *Waiehu 1*, 94 Hawaii at 117, (citing *Haw. Const.*, art. XII, section 7, Public Access Shoreline Hawaii v. county Planning Commission, 79 Hawaii 425 (1995); *Kulpa v. Hawaiian Trust Co.*, 66 Haw. 1 (1982)).

⁸ DEIS, Section 7.5.

⁹ *Ibid.*, Section 4.8.1.

considered, the majority urged Maui County to "[tak]e responsibility to *reduce reliance upon stream waters* [to meet municipal needs]."¹³ The majority also admonished that "[l]arger diverters facing ongoing and growing needs, including the County, should explore joint development of reclamation and water recycling in order to *address their needs without returning to these streams*."¹⁴

The IFS for Wahe'e River was set at 10 MGD, which greatly reduces the amount of water available for offstream use. As the result of the designation of Na Wai 'Ehā as a surface water management area, existing users of water from Wahe'e River and the other Na Wai 'Ehā streams were required to apply for water use permits within one year of the effective date of the designation. As of the April 2009 deadline, existing users had applied for 62.97 MGD of water from Na Wai 'Ehā, more than the 59 MGD median amount available at the current IFS. Of that 59 MGD available (which will almost certainly be reduced when the IFS are increased following the appeal),¹⁵ HC&S (an A&B subsidiary) has existing use permit applications pending for 47 MGD and has consistently and adamantly claimed that it needs all of the water it diverts from Na Wai 'Ehā to irrigate sugar cane or it will have to shut down its plantation and put 800 employees out of work. If that is indeed the case, there is obviously insufficient Na Wai 'Ehā water for the WTF.

The DEIS also does not disclose that, when the Maui Department of Water Supply's (DWS) acceptance of the Final Environmental Impact Statement (FEIS) for the WTF was challenged in the Circuit Court, the DWS chose not even to defend its acceptance of the deficient EIS. Instead, the DWS stipulated to the entry of judgment against it, to the effect that "[t]he DWS's acceptance of the Waiaie EIS is legally invalid under HEPA and its implementing regulations and is without force and effect." See *Supplated Judgment* filed on August 12, 2010 in *Hai O Na Wai 'Ehā, et al. v. Department of Water Supply, County of Maui*, Civil No. 10-1-0388(3), Circuit Court of the Second Circuit.

The feasibility of new wells in the Kahului Aquifer is entirely speculative at this juncture. The DEIS also suggests that A&B "continues to examine" the feasibility of new wells in the Kahului Aquifer as a potential potable water source for the project. Unfortunately, A&B has done no hydrologic studies to support its hypothesis that sufficient potable water can be developed from wells in the Kahului Aquifer, which it acknowledges has a sustainable yield of only 1 MGD. The DEIS (Section 4.8.1) suggests that pump tests of Waiaie Well No. 1 and 2 on the property demonstrate the "potential" for the development of drinking-quality water from the Kahului Aquifer, but the DEIS does not disclose whether those wells have been pumped for any period of time. The DEIS also does not indicate whether sustained pumping of Waiaie Well Nos. 1 and 2 has any impact on the existing "Maui Lani" wells, which draw potable well from the Kahului Aquifer. During the IFS's contested case hearing, Jeff Eng, the then-director of the

¹³ Findings of Fact, Conclusions of Law, and Decision and Order issued on June 10, 2010 in *In re Maui Ground Water Management Area High-Level Source Water Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Wahe'e River, and Wahe'e, Ika, and Waiaie Streams Contested Case Hearing*, CWRM Case No. CCH-MA06-01, p. 192 (emphasis added).

¹⁴ *Ibid.* at 194 (emphasis added).

¹⁵ As the DEIS discloses, the IFS for Na Wai 'Ehā streams may change, because the majority's final decision is an appeal to the Hawaii's Supreme Court. What the DEIS does not disclose is that, because of the posture of the appeal, there is virtually no potential for the IFS to be reduced in order to allow more offstream use, which is what would have to occur before there would be sufficient water available for the WTF.

DWS, testified that DWS was advised by the U.S.G.S that the Maui Lani wells would not be a long-term source, because "the chlorides would rise fairly quickly, and maintain at [a] fairly high level over time." During the same hearing, HC&S testified that its non-potable well in the Kahului Aquifer, which it had used for more than half a century, was not a practicable alternative to diverted Na Wai 'Ehā water, because sustained pumping would increase the salinity of the water. In sum, there is obviously insufficient information to determine whether the 1 MGD sustainable yield of the Kahului Aquifer should be increased.

Non-potable Water

For its non-potable water needs, the DEIS does even less by not identifying a non-potable water source. It is obvious that the full build out of the Waiaie Project will result in a substantial demand for non-potable water. The DEIS itself states that A&B will seek non-potable water for common areas and landscape irrigation purposes and that it intends to build a non-drinking quality water system. Although it is not clear, OHA assumes that the estimated 1.9 MGD water demand combines the project's potable and non-potable demand. Yet, the DEIS does not even attempt to quantify how much it will need, nor does it identify and analyze a feasible non-potable water source.

Native Hawaiian Traditional and Customary Rights

The exercise of Native Hawaiian traditional and customary rights is considered a public trust purpose, and the LUC has an independent and affirmative duty to "protect the reasonable exercise of customarily and traditionally exercised rights of native Hawaiians to the extent feasible."¹⁶ To protect traditional and customary Native Hawaiian rights, the LUC is required, at a minimum, to make specific findings and conclusions regarding

- (1) the identity and scope of valued cultural, historical, or natural resources in the area, including the extent to which traditional and customary native Hawaiian rights are exercised in the area; (2) the extent to which those resources – including traditional and customary native Hawaiian rights will be affected or impaired by the proposed action; and (3) the feasible action to be taken by the state to reasonably protect native Hawaiian rights if they are found to exist.¹⁷

The DEIS and the CIA are completely silent on the extent to which traditional and customary Native Hawaiian rights are exercised in Na Wai 'Ehā, the extent to which those rights will be affected or impaired by the project's "water plan," and the feasible action that can be taken to protect Native Hawaiian rights. As articulated by numerous experts and *kamū'āina* practitioners throughout the contested case hearing before CWRM regarding the IFS, Native Hawaiians have engaged in traditional and customary practices in Na Wai 'Ehā since time immemorial. Testimony described traditional and customary practices of Na Wai 'Ehā as including gathering of *hāwāi*, *'ōpae*, *'ō'ōpe*, *limu*, *hau*, *palapala*, *la'i*, *hau'ae*; farming; and spiritual observances. The testimony also supported the conclusion that reduced stream flows can and has lead to reduced exercise of traditional and customary Native Hawaiian practices. Despite this, A&B did not include analysis of whether increased use of Na Wai 'Ehā's water or

¹⁶ *Ka Pū'āhau O Kū'āina v. Land Use Commission*, 94 Hawaii 131, 35 (2006).

¹⁷ *Ibid.*

increasing pumping in the Kahului Aquifer will interfere with or deny traditional and customary Native Hawaiian rights.

OHA firmly believes that there is a significant connection between the impacts the project's "water plan" will have on Native Hawaiian traditional and customary practices, for which the entire area of Na Wai 'Eha is storied.

The specifics of the water resource issue in Central Maui have yet to be sufficiently identified. A&B should not proceed with a project that will require at least 1.9 MGD of water until there is more certainty regarding the feasibility of its identified water sources. Comments submitted for the EISP/N put A&B on notice that the project would elicit concerns over water availability (both potable and non-potable), as well as the potential impacts that could result from its water plan. A&B's failure to include the project's demand and source for non-potable water; a feasibility study of its identified potable water sources; and an adequate analysis of the identified sources' potential impacts to Native Hawaiian traditional and customary practices; leave the LUC with insufficient information to adequately review the impacts from the proposed Wai'ale project. Moreover, it denies the public an opportunity to give adequate input into the project.

Thank you for the opportunity to provide comments. Should you have any questions, please feel free to contact Jocelyn Doane 594-1759 or jocelynd@oha.org regarding water issues or Keola Lindsey at 594-0244 or keolal@oha.org regarding other issues.

'O wau iho nō,



Clyde W. Nāmu'o
Chief Executive Officer

C: OHA Trustee Boyd P. Mossman

OHA- Maui Community Resources Coordinator

State of Hawai'i Land Use Commission
P.O. Box 2359
Honolulu, Hawai'i 96804

PBR Hawai'i
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawai'i



October 7, 2011

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Mr. Clyde W. Nāmu'o, Chief Executive Officer
State of Hawai'i

Office of Hawaiian Affairs
711 Kapi'olani Boulevard, Suite 500
Honolulu, Hawai'i 96813

Attn: Ms. Jocelyn Doane/Mr. Keola Lindsey

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Nāmu'o,

Thank you for your letter dated July 19, 2011 addressed to Mr. Grant Chun of A&B Properties, Inc., regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your substantive comments relative to water, which begin on page 3 of your letter.

"General" – Although we disagree, we acknowledge your statement that: "OHA asserts that the DEIS does not provide sufficient information to allow the LUC to satisfy these duties" (referring to "LUC has an independent and affirmative duty to promote and protect Native Hawaiian traditional and customary practices, beliefs, and resources"). The applicant contracted Hana Pono, LLC (Hana Pono) to prepare a cultural impact assessment (CIA) for the property to identify traditional customary practices within and in the vicinity of the property. The CIA was conducted in accordance with the OEQC Guidelines for Assessing Cultural Impacts and includes archival research and interviews with people knowledgeable of the property and the surrounding area. Findings of the CIA and other relevant information were summarized in Section 4.2 of the Draft EIS. Appendix I of the Draft EIS contained the complete cultural impact assessment.

"The DEIS Does Not Adequately Address the Water Source for the Project" – OHA commented that "Alexander & Baldwin (A&B) is proposing to move forward with the development of this project without having specifically identified a viable water source (which it is still "exploring" and remains "unresolved")". We acknowledge this statement and note that the Wai'ale project is in the very beginning stages of seeking the necessary land use approvals and reviews. As such, it will be a number of years before it is known whether the project will indeed be allowed to proceed, and certainly a number of years before water service is required. The applicant is diligently exploring a number of alternatives for water source for this project, but it is not unusual that at this early stage of a project, infrastructure specifics, like water source, have not been finalized. It is an undisputable fact, however, that this project will not be built unless a viable source of water is available at that time.

OHA also commented that “The WTF is not feasible.” While we acknowledge this statement, we do not agree that this conclusion can be reached at this time.

Section 4.8.1 of the Draft EIS identified and discussed potential water sources for the project. Please note that this section will be amended to include the following language:

The Island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent, or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Kōʻolau Aquifer sector, which could also source the County of Maui’s Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs; however, the infrastructure to make this water available, needs to be developed. The need for these improvements is discussed in the County’s Water Use and Development Plan and also the Maui Island Plan.

With specific regard to the planned Waiʻale WTF, the Draft EIS clearly acknowledges that further discussion, review and approvals by various governmental agencies would be required in order to proceed. Included among these is the resolution of the interim in-stream flow standards for the Na Wai ʻEha. As you are aware, the State Commission on Water Resource Management (CWRM) issued a decision in June 2010 on the petition to amend the interim in-stream flow standards for the Na Wai ʻEha streams. The CWRM’s decision was appealable and this matter is currently before the court. The outcome is unknown, and unpredictable, at this time, notwithstanding OHA’s statement that the available water “...will almost certainly be reduced when the IFS are increased following the appeal”. Your comments concerning the status of the Final EIS for the Waiʻale WTF are also acknowledged.

OHA also commented: “The feasibility of new wells in the Kahului Aquifer is entirely speculative at this juncture” and that “A&B has done no hydrologic studies to support its hypothesis that sufficient potable water can be developed from wells in the Kahului Aquifer, which it acknowledges has a sustainable yield of only 1 MGD.”

As noted in Section 4.8.1 of the Draft EIS, Waiʻale Wells Nos. 1 and 2 were each approved by the CWRM for a pumping capacity of 550 gpm. These wells demonstrate the potential for the development of potable water sources in the Kahului aquifer. Further, north of the property within the Maui Lani development, and also in the Kahului aquifer, are Maui Lani Wells 5, 6 and 7 which are part of the County water system. A&B will undertake hydrologic studies of the Kahului Aquifer if it is determined that wells in this aquifer are going to be pursued. As mentioned above, A&B is pursuing water development alternatives concurrently with the entitlement process. The Waiʻale project will not get built unless an acceptable source of water is identified and developed.

With specific regard to the Kahului Aquifer, Section 3.5 of the Draft EIS described the Kahului Aquifer. This section will be amended to include the following language:

The CWRM’s Water Resource Protection Plan notes a sustainable yield of 1 million gallons per day (MGD) for the Kahului Aquifer, commenting specifically that this

“Sustainable Yield ignores significant importation of surface water into Kahului from outside the aquifer system area. This explains the ability to withdraw fresh water from the aquifer at significantly higher rates than the sustainable yield without apparent negative impacts (i.e. rising chloride concentrations or decreasing water levels).” The State Commission on Water Resource Management (CWRM) has set the sustainable yield of the Kahului Aquifer at 1.0 million gallons per day (MGD) based on its estimate that approximately 20 percent of the rainfall directly on the 9.5-square mile area becomes recharged to the underlying groundwater and that 44 percent of this recharge can be safely pumped by wells. As mentioned above, this sustainable yield estimate, however, reflects natural recharge, i.e., rainfall only. As discussed below, the Kahului Aquifer is also fed by other sources and has long yielded significant amounts of brackish water far in excess of this sustainable yield figure. The aquifer has a long history of substantial pumpage of brackish water by HC&S for sugarcane irrigation. In more recent years, the pumpage has been reduced to the range of 25 MGD.

“Non-potable Water” – The Draft EIS did identify a non-potable water source in the second to the last paragraph on page 84 in Section 4.8.2 of the Draft EIS. The subject paragraph will be revised in the Final EIS to read as follows:

If ~~an~~ WWTP is necessary to treat the wastewater generated by Waiʻale, then effluent reuse and/or disposal will be necessary. The primary method of effluent reuse would be landscape irrigation. The WWTP/wastewater reclamation facility would produce approximately 980,000 gpd of R-1 water quality effluent, which would allow for irrigation reuse with minimal restrictions. The estimated irrigation demand, based on the County of Maui’s Water System Standards, is approximately 200,000 gpd. Therefore, if ~~fall-out-of-the~~ R-1 water quality effluent can be utilized, it will reduce the drinking quality water demand that would be used for irrigation by about 200,000,000,000 gpd. Possible on-site areas for irrigation reuse are the parks, open space areas, playing fields associated with a proposed middle school site and community center, and roadway landscaping. The reuse of effluent for on-site irrigation would be implemented in consultation with all applicable parties. Separate distribution irrigation waterlines will be required to convey the R-1 water to the irrigation reuse areas.

“Native Hawaiian Traditional and Customary Rights” – OHA commented:

“The DEIS and the CIA are completely silent on the extent to which traditional and customary Native Hawaiian rights are exercised in Na Wai ʻEha, the extent to which these rights will be affected or impaired by the project’s “water plan,” and the feasible action that can be taken to protect Native Hawaiian rights...A&B did not include analysis of whether increased use of Na Wai ʻEha’s water or increase pumping in the Kahului Aquifer will interfere with or deny traditional and customary Native Hawaiian rights.”

The proposed Waiʻale WTF would not involve a change to the status quo relative to the diversion of water from the Na Wai ʻEha streams. There will be no additional diversion. Since there will be no additional diversion of water, there would be no additional adverse impacts over the status quo, including that relating to traditional and customary Native Hawaiian rights. The CIA did identify Waikapū Stream as a significant cultural landmark and natural

Mr. Clyde W. Nāmū'o
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 4 of 4

resource. However, the CIA did not identify potential adverse impacts to traditional and customary practices associated with any increased pumping of the Kahului Aquifer.

OHA also commented: "The specifics of the water resource issue in Central Maui have yet to be sufficiently identified. A&B should not proceed with a project that will require at least 1.9 MGD of water until there is more certainty regarding the feasibility of its identified water sources. Comments submitted for the EISPN put A&B on notice that the project would elicit concerns over water availability (both potable and non-potable), as well as the potential impacts that could result from its water plan. A&B's failure to include the project's demand and source for non-potable water; a feasibility study of its identified potable water sources; and an adequate analysis of the identified sources' potential impacts to Native Hawaiian traditional and customary practices; leave the LUC with insufficient information to adequately review the impacts from the proposed Waiale project. Moreover, it denies the public an opportunity to give adequate input into the project."

We acknowledge these comments but disagree for the reasons stated above as well as the following:

Section 4.8.1 of the Draft EIS identifies and discusses potential water sources for the project. Please understand that State of Hawai'i environmental law requires preparation of an environmental impact statement at the earliest practical time. This is often prior to the attainment of all necessary governmental land use approvals. As a result, it is recognized that certain issues will require further discussion, review, and approvals by various governmental agencies in order to proceed and that aspects of a proposed project would be subject to modification through the subsequent governmental permitting and public review processes. The environmental review process acknowledges this circumstance and includes a section within the EIS to discuss such unresolved issues. For this reason, water supply has been listed and discussed as an unresolved issue in Section 7.5 of the Draft EIS. Additionally, Maui County Ordinance No. 3502, relating to water availability, insures that all new projects have a reliable source of water prior to development. The Ordinance provides that verification of a long term reliable supply of water be determined prior to any subdivision approval.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.
Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96859-5440

June 21, 2011

REPLY TO:
ATTENTION OF:

Regulatory Branch

POH-2010-000278

PBR Hawaii & Associates, Inc.
ATTN: Michael Shibata
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, HI 96813

Dear Mr. Shibata:

We have received your request for the U.S. Army Corps of Engineers (Corps) to review and comment on the Draft Environmental Impact Statement (DEIS) for the proposed Waiale Planned Community in Wailuku, Island of Maui. We have assigned the project the reference number POH-2010-00278. Please cite the reference number in any future correspondence concerning this project. We completed our review of the submitted document and have the following comments:

Section 10 of the Rivers and Harbors Act of 1899 (Section 10) requires that a Department of the Army (DA) permit be obtained from the Corps prior to undertaking construction, dredging and other activities occurring in, over, or under navigable waters of the U.S. The line of jurisdiction extends to the Mean High Water Mark (MHHWM) for tidal waters. Section 404 of the Clean Water Act (Section 404) requires that a DA permit be obtained for the discharge (placement) of dredge and/or fill material into waters of the U.S., including wetlands. The line of jurisdiction extends to the Mean Higher High Water Mark (MHHWM) for tidally influenced waters, the Ordinary High Water Mark (OHWM) for non-tidal waters and the approved delineated boundary for wetlands.

Based on the information the applicant provided in the DEIS, the project site appears to be absent of navigable waters subject to Corps jurisdiction. Therefore, Section 10 authorization may not be required. The south end of the project site abuts the Waikapu Stream. The Waikapu Stream is a perennial stream which discharges into Kealia Pond, Ma'alaea Bay and eventually into the Pacific Ocean, a traditionally navigable water. As such, the Waikapu Stream is a water of the U.S., subject to Corp jurisdiction. It appears that the proposed project will involve activities which require the discharge of fill that may impact waters of the U.S. To avoid unintentional violation to federal regulation and law, we advise the applicant to contact our office prior to conducting any activity that may result in the discharge of dredged and/or fill material into this water body. Section 404 authorization may be required for this action. Fill material, permanent or temporary, may include, but is not limited to: rocks, dirt, sand, sandbags, silt fences or concrete.

We recommend the applicant to contact the Corps to determine if any of the proposed work constitutes a "discharge of fill" and submit an application with associated drawings that meet our

drawing recommendations found at <http://www.poh.usace.army.mil/EC-R/EC-R.htm>. Click on "Apply for a Permit" on the right-hand side, and then click on "Rec - Sect 404 Clean Water Act Drawings." Providing photographs of the parcel would also expedite our review. As a reminder, only the Corps has authority to determine if any of these features are or are not waters of the U.S. and, potentially subject to regulations under Section 404 of the Clean Water Act. A request for an approved JD can be submitted prior to, or concurrently with, an application for the proposed work. Also be advised that any tributaries discharging into this water body may also be subject to Corps jurisdiction.

Thank you for contacting us regarding this project and providing us with the opportunity to comment. Should you have any questions, please contact Ms. Deserie Bala at (808) 438-9258 or via email at Deserie.M.Bala@usace.army.mil. You are encouraged to provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,



George P. Young, P.E.
Chief, Regulatory Branch



October 7, 2011

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Mr. George P. Young, P.E., Chief
Department of the Army
U.S. Army Corps of Engineers, Honolulu District
Regulatory Branch
Fort Shafter, Hawaii 96858-5440

Attn: Ms. Deserie Bala

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Young,

Thank you for your letter dated June 21, 2011 (your reference number: POH-2010-000278) regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

Per your comments, the following will be added before the last sentence of Section 3.6 of the Final EIS:

During the Draft EIS public review period, the U.S. Army Corps of Engineers (Corps) wrote: "Based on the information the applicant provided in the DEIS, the project site appears to be absent of navigable waters subject to Corps jurisdiction. Therefore Section 10 authorization may not be required."

In addition, the following will be added after the aforementioned new text:

Although no construction is proposed within Waikapū Stream, the Corps wrote that it is unable to provide a determination whether a DA permit pursuant to Section 404 of the Clean Water Act would be required for the proposed project. At the appropriate stage in the design process, the Corps will be contacted to determine if proposed activities warrant a DA permit.

Mr. George P. Young
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 2

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850



In Reply Refer To:
2011-TA-0340

JUL 22 2011

Mr. Michael Shibata
PBR Hawaii and Associates, Inc.
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Subject: Technical Assistance for Proposed Waiale Community Development Project,
Maui

Dear Mr. Shibata:

The U.S. Fish and Wildlife Service (Service) received your request for our comments on the Draft Environmental Impact Statement (DEIS) for the proposed Waiale Community Master Plan on June 3, 2011. Based on information you provided and pertinent information in our files, including data compiled by the Hawaii Biodiversity and Mapping Program, the endangered Blackburn's sphinx moth (*Manduca blackburni*), Hawaiian goose (*Branta sandvicensis*, nene), and Hawaiian hoary bat (*Lasiurus cinereus semotis*) are known to occur in the vicinity of the proposed project and therefore may be impacted by the proposed activities described in the DEIS. The endangered Hawaiian petrel (uau, *Pterodroma sandvicensis* (= *Pterodroma phaeopygia sandvicensis*) and the threatened Newell's shearwater (*Puffinus auricularis newelli*) (collectively referred to as seabirds) may traverse the project area. We recommend the following measures be taken to minimize and avoid potential project impacts to these species:

- Your surveys indicate the Blackburn's sphinx moth breeds and feeds within the proposed project area. Adult moths feed on nectar from native plants, including beach morning glory (*Ipomoea pes-caprae*), iliee (*Plumbago zeylanica*), and malapilo (*Capparis sandwichiana*); larvae feed upon non-native tree tobacco (*Nicotiana glauca*) and native atea (*Nothocestrum latifolium*). According to the Botanical Resources Survey, compiled by Robert W. Hobby, eggs and feeding larvae were found on several *N. glauca* plants in disturbed areas on the northern portion of the property. Because no Federal agency is involved with the project and implementation of the project, as proposed, is likely to result in take of the Blackburn's sphinx moth, we recommend the applicant apply for an incidental take permit under section 10(a)(1)(B) of the Endangered Species Act (Act) of 1973, as amended (16 USC 1531 *et seq.*). In addition, implementation of this project, as

TAKE PRIDE
IN AMERICA

Mr. Michael Shibata

2

- proposed, may also require a State incidental take license. Alternatively, our staff can continue to assist you in the development of measures to minimize the likelihood of an adverse impact to the Blackburn's sphinx moth.
- The information you provided indicates Hawaiian geese have been observed frequenting the King Kamehameha Club golf course near the project site. Proposed green space in proposed parks and school grounds in the Community Master Plan will likely attract this species into the project area. We recommend avoiding roadwork and land clearing during the Hawaiian goose breeding season (December through April). If work must be conducted during this season, then the Service recommends that a biologist familiar with the nesting behavior of this species survey the area prior to the initiation of any work or after any subsequent delay in work of three or more days (during which birds may attempt nesting). If a nest is discovered, work should cease immediately and our office should be contacted for further guidance. Furthermore, all on-site project personnel should be apprised that Hawaiian geese may be in the vicinity of the project any time during the year. If a Hawaiian goose appears within 100 feet (30.5 meters) of ongoing work, all activity should be temporarily suspended until the animal leaves the area of its own accord.
- Hawaiian hoary bats roost in both exotic and native woody vegetation and, while foraging, leave their young unattended in "nursery" trees and shrubs. If trees or shrubs suitable for bat roosting are cleared during the breeding season, there is a risk that young bats could inadvertently be harmed or killed. As a result, woody plants greater than 15 feet (4.6 meters) tall should not be removed or trimmed from June 1 to September 15.
- Seabirds may traverse the project area at night during the breeding season (February 1 through December 15). Any outdoor lighting, particularly when used during each year's peak fledging period (September 15 through December 15), could result in seabird disorientation, fallout, and injury or mortality. Potential impacts to seabirds can be minimized by shielding outdoor lights associated with the project, avoiding night-time construction, and providing all project staff and residents with information regarding seabird fallout. All project lights should be shielded so the bulb can be seen only from below.

If you have any questions concerning the recommendations included in this letter, please contact Ian Bordenave, Fish and Wildlife Biologist, at (808) 792-9400 for further assistance.

Sincerely,



Loyal Mehrhoff
Field Supervisor



October 7, 2011

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Mr. Loyal Mehrhoff, Field Supervisor
United States Department of the Interior
Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850

Attn: Mr. Ian Bordenave

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Mehrhoff,

Thank you for your letter dated July 22, 2011 (your reference number: 2011-TA-0340) regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

1. We appreciate your comments concerning the Blackburn's sphinx moth and your offering of assistance in the development of measures to minimize the likelihood of an adverse impact to the Blackburn's sphinx moth. The applicant looks forward to cooperatively working with the USFWS in developing an appropriate mitigation plan, with the aim of preventing any "take" of the Blackburn's sphinx moth.

2. We thank you for the information provided on the Hawaiian geese. As noted in the Flora and Fauna Study (page 12), included as Appendix D of the Draft EIS, no Hawaiian geese were observed in the kiawe forest habitat found at the property. However, should the planned parks and open spaces at the project attract the Hawaiian geese, appropriate mitigation measures will be undertaken.

3. We appreciate the information provided on the Hawaiian hoary bats. As also indicated in the Flora and Fauna Study (page 14), no Hawaiian hoary bats were found at the property and the existing habitat does not appear to be ideal for this species. However, should there be sightings of the Hawaiian hoary bat at the property, appropriate mitigation measures will be implemented.

4. We thank you for the information provided on seabirds. As suggested, measures to reduce potential impacts to seabirds, including shielded outdoor lighting, avoiding night-time construction, and providing all project staff and residents with information regarding seabird fallout will be implemented.

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Senior Associate

RAYMOND L'HIGA, ASLA
Senior Associate

KEVIN K. NISHIKAWA, ASLA
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Mr. Loyal Mehrhoff
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 2

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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ALAN M. ARAKAWA
Mayor
KYLE K. GINOZA, P.E.
Director
MICHAEL M. MIYAMOTO
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
2200 MAIN STREET, SUITE 100
WAILUKU, MAUI, HAWAII 96793

June 16, 2011

Mr. Grant Chun
A&B Properties, Inc.
P.O. Box 156
Kahului, Hawaii 96732

SUBJECT: WAI'ALE
DRAFT ENVIRONMENTAL IMPACT STATEMENT
TMK (2) 3-8-005:023 (POR.) AND 037, AND
(2) 3-8-007:071, 101 (POR.) AND 104, WAILUKU

We reviewed the subject application and have the following comments:

1. Solid Waste Division comments:
 - a. None.
2. Wastewater Reclamation Division (WWRD) comments:
 - a. The development of this project and others (planned and/or in construction) will exceed the remaining allocation capacity of the Kahului Wastewater Reclamation Facility. Therefore, in our opinion this project needs to include the development of a regional treatment plan to serve this project and others in the adjacent area (e.g. Tropical Plantation 1500+ dwelling units, etc.).
 - b. The EIS should address the use of recycled water within the project.
If the subject development is allowed to connect to the County's wastewater system, items c. thru i. will apply.
 - c. Although wastewater system capacity is currently available as of 6/16/2011, the developer should be informed that wastewater system capacity cannot be ensured until the issuance of the building permit.
 - d. Provide discussion and calculations (sewer impact study) to substantiate that the existing wastewater system is adequate to serve this project.

TRACY TAKAMINE, P.E.
Solid Waste Division
ERIC NAKAGAWA, P.E.
Wastewater Reclamation Division

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NOV 30 2011

A&B PROPERTIES-MAUI

- e. Wastewater contribution calculations are required before building permit is issued.
- f. Developer shall pay assessment fees for treatment plant expansion costs in accordance with ordinance setting forth such fees. The property is located in the Wailuku Sewer Service Area.
- g. Developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.
- h. Show or list minimum slope of new sewer laterals.
- i. Plans should show the installation of a single service lateral and advanced riser for each lot.
- j. Indicate on the plans the ownership of each easement (in favor of which party). Note: County will not accept sewer easements that traverse private property.
- k. Commercial kitchen facilities within the proposed project shall comply with pre-treatment requirements (including grease interceptors, sample boxes, screens etc.).
- l. Non-contact cooling water and condensate should not drain to the wastewater system.

If you have any questions regarding this memorandum, please contact Michael Miyamoto at 270-8230.

Sincerely,



KYLE K. GINOZA, P.E.
Director of Environmental Management

*: Mr. Dan Davidson
State of Hawaii Land Use Commission

Mr. Michael Shibata
PBR HAWAII & Associates, Inc.



October 7, 2011

PRINCIPALS
THOMAS WITTEN, ASLA
Principal

R. STAN DUNCAN, ASLA
Executive Vice-President

RUSSELL CHUNG, FASLA, LEED AP
Executive Vice-President

VINCENT SHIGIKUNI
Vice-President

GRANT T. ARAKAWA, AICP, LEED AP
Principal

W. FRANK BRANDT, FASLA
Chairman Emeritus

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RAYMOND T. HIGA, ASLA
Senior Associate

KYUNK. NISHIKAWA, ASLA
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Mr. Kyle Ginoza, P.E., Director
County of Maui
Department of Environmental Management
2200 Main Street, Suite 100
Wailuku, Hawai'i 96793

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Ginoza,

Thank you for your letter dated June 16, 2011 addressed to Mr. Grant Chun of A&B Properties, Inc., regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

Solid Waste Division

- a. Per your comments, the following sentence will be added to the end of Section 4.8.5 of the Final EIS:

During the Draft EIS public review period, the DEM's Solid Waste Division wrote that it had no comments.

Wastewater Reclamation Division

- a. Per your comments, Section 4.8.2 of the Final EIS will be revised to read as follows:

During their review of the EA/EISPN and Draft EIS, the County's Department of Environmental Management (DEM) Wastewater Reclamation Division (WRD) wrote that: "The development of this project and others (planned and/or in construction) will exceed the remaining allocation capacity of the Kahului Wastewater Reclamation Facility. Therefore, in our opinion this project needs to include the development of a regional treatment plan to service this project and others in the adjacent area (e.g. Maui Tropical Plantation 1500+ dwelling units, etc.)." As a follow up to the DEM's comments, a Director indicated that any regional sewage treatment plant solution should be properly advanced and pursued by the DEM.

As a result of your comments, Section 4.8.2 of the Draft EIS included a discussion of the alternative of providing an on-site wastewater treatment plant to serve the project, should connection to the Kahului Wastewater Reclamation Facility not be possible.

b. Section 4.8.2 of the Final EIS includes a discussion on the use of recycled water within the project.

If ~~a~~ WWTP is necessary to treat the wastewater generated by Wai'ale, then effluent reuse and/or disposal will be necessary. The primary method of effluent reuse would be landscape irrigation. The WWTP/wastewater reclamation facility would produce ~~approximately 980,000 gpd~~ of R-1 water quality effluent, which would allow for irrigation reuse with minimal restrictions. The estimated irrigation demand, based on the County of Maui's Water System Standards, is approximately 200,000 gpd. Therefore, if ~~it~~ ~~all~~ ~~of~~ ~~the~~ R-1 water quality effluent can be utilized, it will reduce the drinking quality water demand that would be used for irrigation by about 200,000~~980,000~~ gpd. Possible on-site areas for irrigation reuse are the parks, open space areas, playing fields associated with a proposed middle school site and community center, and roadway landscaping. The reuse of effluent for on-site irrigation would be implemented in consultation with all applicable parties. Separate distribution irrigation waterlines will be required to convey the R-1 water to the irrigation reuse areas. During the Draft EIS public review period, the State Department of Health, Safe Drinking Water Branch (SDWB) wrote:

All projects which propose the use of dual water systems or the use of a non-potable water system in proximity to an existing drinking water system to meet irrigation or other needs must be carefully designed, and operated to prevent the cross-connection of these systems, and prevent the possibility of backflow of water from the non-potable system to the drinking water system. The two systems must be clearly labeled and physically separated by air gaps or reduced pressure principle backflow prevention devices to avoid contaminating the drinking water supply. In addition, backflow devices must be tested periodically to assure their proper operation. Further, all non-potable spigots and irrigated areas should be clearly labeled with warning sirens to prevent the inadvertent consumption of non-potable water. Compliance with HAR Title 11, Chapter 21, entitled "Cross-Connection and Backflow Control" is required.

The total area of the parks and buffers is approximately 116 acres. Assuming an average irrigation rate of 5/16 inches per day, the average irrigation demand would be approximately 990,000 gpd. Effluent may also be used for roadway landscaping areas. The irrigated area for roadway landscaping is approximately 17 acres. Based on an average irrigation rate of 5/16 inches per day, the average irrigation demand would be approximately 140,000 gpd. Thus, the total irrigation for the parks, buffer areas and roadway landscaping would be

approximately 1,130,000 gpd. This irrigation demand may vary depending on weather conditions. However, the expectation is that all of the effluent produced by the WWTP will be used for irrigation, except during significant rain events.

As a back-up to disposal of treated effluent via project irrigation, injection wells will be installed. The boundary between non-drinking water aquifers and underground sources of drinking water is generally referred to as the "UIC Line". Restrictions on injection wells differ, depending on whether the area is inland (mauka) or seaward (makai) of the UIC line. The UIC Map for Maui shows that Wai'ale is located seaward of the UIC line. The effluent injection wells would be located more than ¼ mile from any existing potable water wells, as required by the State Department of Health. Therefore, the injection wells are not expected to adversely impact any existing potable water wells.

c. In response to your comments identified as c. through l., the following text will be added to Section 4.8.2 of the Final EIS:

During the Draft EIS public review period, the County DEM's WRD wrote that: "Although wastewater system capacity is currently available as of 6/16/11, the developer should be informed that wastewater system capacity cannot be ensured until the issuance of building permit." If Wai'ale is allowed to connect to the County's wastewater system, the following will apply:

- Wastewater contribution calculations are required before building permit is issued.
- The developer will pay assessment fees for treatment plant expansion costs in accordance with ordinance setting forth such fees (Waituku Sewer Service Area)."
- The developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.
- Show or list minimum slope of new sewer laterals.
- Plans should show the installation of a single service lateral and advanced riser for each lot.
- Indicate on the plans the ownership of each easement (in favor of which party). (Note: County will not accept sewer easements that traverse private property).
- Commercial kitchen facilities within the Wai'ale project will comply with pre-treatment requirements (including grease interceptors, sample boxes, screens, etc.).
- Non-contact cooling water and condensate should not drain to the wastewater system.

Mr. Kyle Ginoza
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 4 of 4

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.
Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

O:\pbb2\2399.03 Waiale Entitlements\EIS\DES\DES Comments - Responses\Responses\Final\BL-12 County
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ALAN W. ARAKAWA
MAYOR



COUNTY OF MAUI
DEPARTMENT OF FIRE AND PUBLIC SAFETY
FIRE PREVENTION BUREAU

313 MANEA PLACE • WAILUKU, HAWAII 96793
(808) 244-9161 • FAX (808) 244-1363

Date : June 29, 2011
To : Grant Chun
A & B Properties, Inc.
P.O. Box 156
Kahului, HI 96732
Project : Draft Environmental Impact Statement
Waiale
TMK (2) 3-8-005:023(por.) & 037, & (2) 3-8-007:071,101(por.), & 104
Wailuku, Maui, Hawaii

Michael,

Thank you for allowing us to comments on this DEIS. Attached are some information for the several different zoning applications you are developing. These are our requirements for them and will be reviewing the subdivisions as such. See following pages for applicable information:

If there are any questions or comments, please feel free to contact me by e-mail or at 244-9161 ext. 25.

Sincerely,



Kono Davis
Lieutenant, Fire Prevention Bureau

cc: State of Hawaii, Land Use Commission
P.O. Box 2359
Honolulu, HI 96804
Attn: Dan Davidson

JEFFREY A. MURRAY
CHIEF
ROBERT M. SHIMADA
DEPUTY CHIEF

cc: PBR Hawaii & Associates, Inc.
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, HI 96813
Attn: Michael Shibata

Subject: Preliminary Plans Review File No.
Business Subdivision

Thank you for the opportunity to comment on the above subject subdivision. At this time the Fire Prevention Bureau would request a water supply for fire protection and fire department access roads.

Water supply for fire protection shall have a minimum flow of 2000 gallons per minute for a two hour duration with hydrant spacing a maximum of 250 feet between hydrants. Dead-ends shall have a hydrant within 125 ft.

Service roads to proposed properties shall have a clear width of 20 feet. Any dead-end roads or cul-de-sacs shall have a clear width of 32 ft., and if greater than 150 ft. in length, shall be provided with an approved fire apparatus turn-around. All turns and required turnarounds shall have an outside turning radius of 35 feet. The maximum grade for the service roads shall not be greater than 12%.

Once construction of buildings are planned, there shall be at least one hydrant within 300 feet of any building to be constructed.

Subject: Preliminary Plans Review File No.
Rural Subdivision

Thank you for the opportunity to comment on the above subject subdivision. At this time the Fire Prevention Bureau would request a water supply for fire protection and fire department access roads. Water supply for fire protection shall have a minimum flow of 1000 gallons per minute for a two hour duration with hydrant spacing a maximum of 500 feet between hydrants. Service roads to proposed properties shall have a clear width of

20 feet. Any dead-end roads or cul-de-sacs shall have a clear width of 32 ft., and if greater than 150 ft. in length, shall be provided with an approved fire apparatus turn-around. All turns and required turnarounds shall have an outside turning radius of 35 feet. The maximum grade for the service roads shall not be greater than 14%. Once construction of buildings are planned, there shall be at least one hydrant within 500 feet of any building to be constructed.

Subject: Preliminary Plans Review File No.
Single Family Subdivision

Thank you for the opportunity to comment on the above subject subdivision. At this time the Fire Prevention Bureau would request a water supply for fire protection and fire department access roads.

Water supply for fire protection shall have a minimum flow of 1000 gallons per minute for a two hour duration with hydrant spacing a maximum of 350 feet between hydrants. Dead-ends shall have a hydrant within 175 ft.

Service roads to proposed properties shall have a clear width of 20 feet. Any dead-end roads or cul-de-sacs shall have a clear width of 32 ft., and if greater than 150 ft. in length, shall be provided with an approved fire apparatus turn-around. All turns and required turnarounds shall have an outside turning radius of 35 feet. The maximum grade for the service roads shall not be greater than 14%. *(40.5 O.T.R. for areas with Loader Trucks)*

Once construction of buildings are planned, there shall be at least one hydrant within 500 feet of any building to be constructed.

Subject: Preliminary Plans Review File No.
Townhouse 7 Low-rise apartments Subdivision

Thank you for the opportunity to comment on the above subject subdivision. At this time the Fire Prevention Bureau would request a water supply for fire protection and fire department access roads.

Water supply for fire protection shall have a minimum flow of 1500 gallons per

minute for a two hour duration with hydrant spacing a maximum of 250 feet between hydrants. Dead-ends shall have a hydrant within 125 ft.

Service roads to proposed properties shall have a clear width of 20 feet. Any dead-end roads or cul-de-sacs shall have a clear width of 32 ft., and if greater than 150 ft. in length, shall be provided with an approved fire apparatus turn-around. All turns and required turnarounds shall have an outside turning radius of 35 (or 40.5') feet. The maximum grade for the service roads shall not be greater than 12%.

Once construction of buildings are planned, there shall be at least one hydrant within 300 feet of any building to be constructed.

**Subject: Preliminary Plans Review File No.
Heavy Industrial Subdivisions**

Thank you for the opportunity to comment on the above subject subdivision. At this time the Fire Prevention Bureau would request a water supply for fire protection and fire department access roads.

Water supply for fire protection shall have a minimum flow of 2500 gallons per minute for a two hour duration. Fire hydrants shall be placed on the service road to all parcels with hydrant spacing a maximum of 250 feet between hydrants.

Service roads to proposed properties shall have a clear width of 20 feet. Any dead-end roads or cul-de-sacs shall have a clear width of 32 ft., and if greater than 150 ft. in length, shall be provided with an approved fire apparatus turn-around. All turns and required turnarounds shall have an outside turning radius of 40.5 feet. The maximum grade for the service roads shall not be greater than 12%.

Once construction of buildings are planned, there shall be at least one hydrant within 300 feet of any building to be constructed.



October 7, 2011

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Executive Vice-President
RUSSELL CHUNG, FASIA, LEED AP
Executive Vice-President
VINCENT SHIGEKUNI
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Tel: (808) 521-5031
Fax: (808) 526-3143

Mr. Kono Davis, Lieutenant
County of Maui
Department of Fire and Public Safety
Fire Prevention Bureau
313 Manea Place
Wailuku, Hawaii 96793

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Lt. Davis,

Thank you for your letter dated June 29, 2011 addressed to Mr. Grant Chun of A&B Properties, Inc., regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments. Per your comments, the following text will be added to Section 4.10.3 of the Final EIS:

During the Draft EIS public review period, the County Department of Fire and Public Safety provided information on its requirements for various types of subdivisions.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII

Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
HOUSING DIVISION
COUNTY OF MAUI

ALAN M. ARAKAWA
Mayor
JO-ANN T. RIDGAY
Director
JAN SHELDON
Deputy Director

35 LUNALILO STREET, SUITE 102 • WAILUKU, HAWAII 96793 • PHONE (808) 270-7351 • FAX (808) 270-6284

RECEIVED

June 30, 2011

JUL - 6 2011

A&B PROPERTIES-MAUI

Mr. Grant Chun
A & B Properties, Inc.
P.O. Box 156
Kahului, Hawaii 96732

Dear Mr. Chun:

Subject: Draft Environmental Impact Statement (DEIS) for Wai'ale of Maui, Hawaii. TMK's (2) 3-8-005-023 (por) and 037, and (2) 3-8-007-071, 101 (por) and 104

Thank you for the opportunity to review the Draft Environmental Impact Statement for the subject property. The Department would like to offer the following comment:

Applicant has indicated that Zoning Ordinance (Ordinance No. 3559) required A & B Properties, Inc. to contribute 50 acres to the County of Maui for Affordable Housing, Community Center and Neighborhood Park. Based on that requirement the subject project is exempt from Chapter 2.96, Maui County Code (Section 2.96.030 B.2).

Please call Mr. Veranio Tongson Jr. of our Housing Division at 270-1741 if you have any questions.

Sincerely,

Wayde T. Oshiro

WAYDE T. OSHIRO
Housing Administrator

cc: Director of Housing and Human Concerns

TO SUPPORT AND EMPOWER OUR COMMUNITY TO REACH ITS FULLEST POTENTIAL
FOR PERSONAL WELL-BEING AND SELF-RELIANCE



October 7, 2011

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Executive Vice-President

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Mr. Wayde T. Oshiro, Housing Administrator
County of Maui
Department of Housing and Human Concerns
Housing Division
35 Lunalilo Street, Suite 102
Wailuku, Hawaii 96793

Attn: Mr. Veranio Tongson Jr.

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Oshiro,

Thank you for your letter dated June 30, 2011 addressed to Mr. Grant Chun of A&B Properties, Inc., regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

As noted in Section 1.0 of the Draft EIS, the applicant will contribute a total of 50 acres to the County of Maui for Affordable Housing (40 acres), Community Center (7 acres), and a Neighborhood Park (3 acres) to fulfill requirements of Ordinance No. 3559 for the Maui Business Park Phase II project.

Additionally, the remaining portion of the Wai'ale project would also be subject to the provisions of the Maui Residential Workforce Housing Policy, Chapter 2.96, Maui County Code. The Assessment of Economic and Fiscal Impacts (pages 1-2), Appendix P in the Draft EIS, includes a projected breakdown of the anticipated affordable units by income group and unit type for Wai'ale. A total of approximately 563 affordable units in four income categories are projected based on the provisions of the current workforce housing policy. We recognize that the actual allocation of affordable units would be based on discussions and agreement with the County Department of Housing and Human Concerns.

Mr. Wayde T. Oshiro
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 2

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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ALAN M. ARAKAWA
Mayor



GLENN T. CORREA
Director
PATRICK T. MATSUI
Deputy Director
(808) 270-7230
FAX (808) 270-7834

DEPARTMENT OF PARKS & RECREATION
700 Halli'a Nakoa Street, Unit 2, Wailuku, Hawaii 96793

July 14, 2011

Mr. Michael Shibata
PBR HAWAII & Associates, Inc.
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, HI 96813

Dear Mr. Shibata:

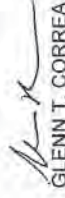
**SUBJECT: Draft Environmental Impact Statement for Proposed Wai'ale
Project**
TMK: (2) 3-8-005:023 (por.) and 037, and
(2) 3-8-007:071, 101 (por.), and 104
Wailuku, Maui, Hawaii

Thank you for the opportunity to review and comment on the subject project.

The Parks & Recreation Department wishes to withhold comment until County Council has completed its review of the Maui Island Plan General Plan 2030. The Department is not in agreement with the Regional Park area designated in the Central Maui Regional Park map in the Directed Growth Plan section of the Island Plan, as it does not provide adequate area needed to accommodate a Regional Park.

Please feel free to contact me or Robert Halvorson, Chief of Planning & Development, at (808) 270-7931, should you have any questions.

Sincerely,



GLENN T. CORREA
Director of Parks & Recreation

c: Grant Chun, A&B Properties, Inc.
Dan Davidson, State of Hawaii Land Use Commission
Robert Halvorson, Chief of Planning & Development

GTC:RH:ca

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October 7, 2011

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Executive Vice-President

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KAPOLEI OFFICE
1301 South Mahele
Kapolei Building, Suite 313
Kapolei, Hawaii 96707-2808
Tel: (808) 521-2631
Fax: (808) 525-3184

Mr. Glenn T. Correa, Director
County of Maui
Department of Parks and Recreation
700 Hali'a Nakoa Street, Unit 2
Wailuku, Hawaii 96793

Attn: Mr. Robert Halvorson

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Correa,

Thank you for your letter dated July 14, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). We are replying to your department's letter as the planning consultant for the applicant, A&B Properties, Inc.

We acknowledge your desire to withhold comment until the County Council completes its review of the Maui Island Plan General Plan 2030. Per your comments, the following text will be added to Section 4.10.6 of the Final EIS:

During the Draft EIS public review period, the County Department of Parks and Recreation wrote that it: "...wishes to withhold comment until County Council has completed its review of the Maui Island General Plan 2030. The Department is not in agreement with the Regional Park area designated in the Central Maui Regional Park map in the Directed Growth Plan section of the Island Plan, as it does not provide adequate area needed to accommodate a Regional Park."

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII

Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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ALAN M. ARAKAWA
Mayor
WILLIAM R. SPENCE
Director
MICHELE CHOUTEAU McLEAN
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

July 18, 2011

Mr. Michael Shibata
PBR Hawaii & Associates, Inc.
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Shibata:

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE PROPOSED WAI'ALE COMMUNITY MASTER PLAN, TO BE LOCATED AT WAIKAPU, WAILUKU, ISLAND OF MAUI, HAWAII; TMK(S): (2) 3-8-005:023 & 037 (POR.) and (2) 3-8-007:071, 101 (POR.) & 104 (RFC 2011/0093)

The Department of Planning (Department) is in receipt of the above-referenced document for the proposed Wai'ale project. The Department understands the proposed action includes the following:

- The Wai'ale project is located in the Wailuku-Waikapu region and is adjacent to the existing Maui Lani Project District;
- The project area is approximately 545 acres in size and is owned by Alexander & Baldwin, Inc.;
- The proposed project is a master planned community that includes Single-Family homes, multi-family dwellings, commercial, retail, office, civic, and public facilities;
- The proposed project will also include a cultural preserve area, and
- The property has the following State and County land use designations:

- State: Agriculture
- County: Agriculture

The Department's Current Division provides the following comments on the Draft EIS:
1. Please include a signed Zoning Confirmation Form from the Zoning Administration and Enforcement Division verifying the land use designations of the subject property(s) in the Final EIS;

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
MAIN LINE (808) 270-7735; FACSIMILE (808) 270-7634

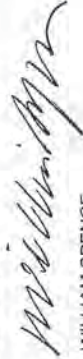
CURRENT DIVISION (808) 270-8205; LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7253

Mr. Michael Shibata
July 18, 2011
Page 2

2. Please address how this project will impact available sand quantity in the area. In 2006, SSFM International, Inc. conducted a study for the County of Maui Department of Public Works. The study indicated that sand stocks on Maui were being depleted due to sand mining and development on sand dunes. Please address this in the Final EIS;
3. Please include information on any changes that have occurred since the project was presented in any GPAC or public meetings and why those changes were made; and
4. Please explain the rationale behind the layout of the project and why the different land uses are being proposed as presented in the Draft EIS.

Thank you for the opportunity to comment. Should you require further clarification, please contact Staff Planner Danny Dias at danny.dias@mauicounty.gov or at (808) 270-7557.

Sincerely,



WILLIAM SPENCE
Planning Director

cc: Clayton I. Yoshida, AICP, Planning Program Administrator
Danny A. Dias, Staff Planner
Dan Davidson, State of Hawaii Land Use Commission
Grant Chun, A&B Properties, Inc.
Project File
General File

WRS:DAD:sa
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October 7, 2011

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Mr. William Spence, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

Attn: Mr. Danny Dias

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Spence,

Thank you for your letter dated July 18, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

1. A signed Zoning and Flood Confirmation Form from the Zoning Administration and Enforcement Division verifying the land use designations of the subject properties will be included as Appendix R in the Final EIS.

2. We were not able to secure a copy of 2006 SSFM study that you referred to in your letter, but we did have an opportunity to review the minutes of the County Council Parks and Economic Development Committee meeting on November 16, 2006 regarding the SSFM study. While concerns were raised about inland sand stocks on Maui, other sources of supply, such as off-shore sources were also discussed.

As noted in Section 3.2 of the Draft EIS, Geolabs, Inc. (Geolabs) was retained by A&B Properties, Inc. to conduct an on-ground field reconnaissance survey and geological mapping of in-situ dune features at the property (See Appendix B of the Draft EIS). During the course of the field reconnaissance, Geolabs did not find natural sand dunes that could be considered to be pristine geological features. The majority of the dunes within the project limits have essentially been obliterated by human activities. In the section of the property south of East Waiko Road, the former dune lands were flattened and tilled for the cultivation of sugar cane. In the section of the property north of East Waiko Road, are some small clusters of dunes particularly in the north central area. However, these dune clusters have been degraded by longstanding ranching activities and other agricultural uses. The northwestern portion of the site has been heavily disturbed by sand mining, stockpiling and agricultural use. However, this area also includes the larger and comparatively more representative examples of the remaining dune structures within the property. Its boundaries roughly coincide with the boundaries of the largest of the proposed cultural preserves (and where the highest concentrations of burials reside). Figure 3-1 of the Draft EIS contains a mapping of natural lithified sand dunes remaining on the property.

3. Section 2.2.1 of the Final EIS has been revised to read as follows:

The original conceptual master plan for the property included approximately 826 acres; comprising of 474 acres contiguous to Maui Lani, extending to Kuihelani Highway and East Waiko Road, and approximately 352 acres extending south from East Waiko Road along Kuihelani Highway. The project was envisioned as a master planned community that would incorporate a mix of land uses to support the projected future community growth in Central Maui, including affordable housing and the potential for a new civic center for the County of Maui.

However, ~~since that time~~ in consultation with the County Planning Department in the initial stages of formulating the Draft Maui Island Plan, the original project area has been reduced in scope ~~and~~ to fit within the population and land use projections for Year 2030. Thus, the lands south of Waikapū Stream (approximately 220 acres) were not included in the scaled back conceptual master plan. As currently planned, the entire project area is designated within the Urban Growth area under the Draft Maui Island Plan (December 2010). ~~Although the lands south of Waikapū Stream are still envisioned as a potential future urban expansion area, they are not included in this project~~

While the ~~final~~ Draft Maui Island Plan ~~has not yet been adopted~~ is still under review by the Maui County Council and is not anticipated to be finalized and adopted until later this year, a major element of the Maui Island Plan ~~will be~~ is the Directed Growth Strategy, ~~which will include~~ including Directed Growth Maps specifying "urban growth boundaries" for the island of Maui. As of ~~the~~ the December 2010 draft, all of the subject lands north of Waikapū Stream are within the "urban growth boundary" of the Directed Growth Maps put forth by: 1) the Department of Planning; and 2) the General Plan Advisory Committee; and 3) the Maui Planning Commission. In addition, ~~various~~ County and State governmental agencies have been consulted in the ~~development~~ preparation and refinement of the Wai'ale master plan.

The Wai'ale master plan has sought to incorporate the open space buffer between Maui Lani and Wai'ale as articulated in the Draft Maui Island Plan. Within the Wai'ale master plan, areas designated for park space and planned cultural preserves seek to provide that open space buffer. However, the rationale for designating a portion of lands within the northern portion of Wai'ale for planned County Housing is in part based on County Ordinance No. 3559. The County of Maui via Ordinance No. 3559 (Maui Business Park Phase II-Change in Zoning) required in part that A&B dedicate 50 acres to the County for affordable housing (40 acres), community center (7 acres) and park (3 acres). The specific location of these lands was described as being "...at the approximate location of the terminus of Kamehameha Avenue, near the new Maui Lani Park and Pomaikai Elementary School". This location in the northern portion of the property, is where infrastructure and roadway connections to

Maui Lani would be the closest, cheapest and the fastest to build. Additionally, in order for these areas to be zoned and utilized for recreational park purposes, they must be situated within the Urban Growth Boundary (UGB) so that appropriate zoning can be eventually obtained through the County's zoning process (per Maui County Code Section 19.615.040 which states that regional parks must be situated either in the State Land Use "Urban" or "Rural" Districts).

4. The rationale behind the proposed Wai'ale master plan is to create a compact, mixed-use town with park land, open space, a middle school and commercial uses. Wai'ale will be located south of Maui Lani, and it is bounded on the west by various properties makai of Honoapi'iani Highway, to the south by Waikapū Stream, and to the east by Kuihelani Highway. While proximate to Kahului, Wailuku, and Waikapū, the Wai'ale Community will have a distinct community, clearly separate from, but connected to existing towns.

As recommended in the *Draft Maui Island Plan*, the proposed Wai'ale project will provide roughly 50% of the additional residential units needed in the Central Maui region and will help to address the housing needs of Maui residents. With a mix of both single-family and multi-family housing units, and a strong potential to provide workforce housing, the Wai'ale project will provide housing options to address resident housing demand. The Wai'ale project is proximate to Wailuku and Kahului employment opportunities and infrastructure, has adequate highway access and transit connectivity, and has favorable topography.

To prevent sprawl and urbanization of prime agricultural resource land, the master plan calls for compact walkable neighborhoods integrated with a network of greenbelts, open space, and parks. With the inclusion of a regional park and existing open spaces, the master plan achieves a buffer to surrounding urban development (along the southern, eastern, and northern boundaries). Where there is a desire to provide connectivity to the surrounding communities, the plan provides for circulation (automobile and pedestrian/bicycle) and open space. Thus, the master plan provides a clear distinction between Maui Lani and the proposed Wai'ale project, and buffers Waikapū Stream with a linear greenway park. The Wai'ale project is currently bounded on the west and east by roads which help to define and provide access to the new community. Based on consultation with the County Department of Housing and Human Concerns, 40 acres comprised of two parcels in the northern portion of Wai'ale project would be provided to the County for workforce housing of approximately 300 units comprised of single and multi-family housing. The key attributes of these lands are readily available infrastructure and roadway connections to Maui Lani that would facilitate cost effective workforce housing that could be implemented in the early phase of the community. In addition, the Wai'ale project will also provide residential units that will be priced to meet the County workforce housing policy.

The proposed Wai'ale project's mix of land uses is an essential component to providing alternatives to driving such as walking or biking. The location of commercial and retail establishments throughout Wai'ale provide for greater interaction, economic activity, and quality of life for residents and visitors. The Wai'ale project's open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits,

Mr. William Spence
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 4 of 4

and an overall setting of enhanced environmental quality and community health. Uses envisioned include commercial or civic facilities such as restaurants, schools, pharmacies, supermarkets, parks, libraries and/or bookstores, shops, and possibly theatres. Providing such facilities within the community will reduce the number of personal motorized vehicle trips and possibly the high costs of private car ownership.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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ALAN M. ARAKAWA
Mayor
WILLIAM R. SPENCE
Director
MICHELE CHOUTEAU McLEAN
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

July 22, 2011

Mr. Michael Shibata
PBR Hawaii & Associates, Inc.
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Shibata:

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
PROPOSED WAI'ALE COMMUNITY MASTER PLAN, TO BE
LOCATED AT WAIKAPU, WAILUKU, ISLAND OF MAUI, HAWAII;
TMK(S): (2) 3-8-005:023 & 037 (POR.) and (2) 3-8-007:071, 101 (POR.),
& 104 (RFC 2011/0093)

The Department of Planning (Department) is in receipt of the above-referenced document for the proposed Wai'ale project. The Department understands the proposed action includes the following:

- The Wai'ale project is located in the Wailuku-Waikapu region and is within close proximity to the existing Maui Lani Project District;
- The project area is approximately 545 acres in size and is owned by Alexander & Baldwin, Inc.;
- The proposed project is a master planned community that includes Single-Family homes, multi-family dwellings, commercial, retail, office, civic, and public facilities;
- The proposed project will also include a cultural preserve area; and
- The property has the following State and County land use designations:

• State: Agriculture
• County: Agriculture

The Planning Department's Long Range Division (Division) offers comments on the Draft Environmental Impact Statement (DEIS) that focus on the proposed project's conformance to the General Plan of the County of Maui, including aspects of any General Plan public review processes that have occurred since 2003. The Wai'ale project has received a significant amount of discussion, public review, and comment over the past six (6) years. The outcome of these

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Mr. Michael Shibata
July 22, 2011
Page 2

processes has affected the support this project has received by the Planning Department, General Plan Advisory Committee (GPAC), Maui Planning Commission, key stakeholders, and the general community. The Waialeale project has consequently been included in the draft Maui Island Plan's (Plan) Central Maui urban growth boundaries and as such complies with the overall Plan's growth strategy.

The draft Maui Island Plan provides for a net residential density of 10-20 dwelling units per acre for the proposed project, with the total units planned for all combined areas to be 2,554 units. The description of these planned growth areas includes the statement, "Preservation areas will be established to protect Hawaiian Burials and in-lact sand dunes."

However, the Waialeale master plan (attached as Exhibit "A", Figure "0-1") in the DEIS differs from past proposals to the Division, Maui GPAC, and Maui Planning Commission and the conceptual site plans contained within the draft Maui Island Plan's Directed Growth Strategy (see Exhibit "B"). The Division has concerns about the changes made to the configuration of the site plan in the DEIS as compared to the concept plan that A&B Properties presented to the community throughout the planning process and that is reflected in the draft Maui Island Plan.

Based on the foregoing, the Department's Long Range Division (Division) provides the following comments on the DEIS:

1. The Division supports the location of the Waialeale master-planned community. The proposed project falls within the proposed Urban Growth Boundaries of the draft Maui Island Plan, and thus conforms to an island growth strategy that encourages development of land in proximity to major work and employment centers and existing infrastructure.
2. The proposed Waialeale site plan has changed significantly from previous Waialeale site plans proposed for inclusion in the draft Maui Island Plan. The site plans contained within the draft Maui Island Plan have been extensively reviewed and commented on by the Planning Department, Maui General Plan Advisory Committee (GPAC), Maui Planning Commission, and that is now under review by the County Council. Please explain the rationale for the rearrangement of the proposed land uses within the project, including their acreages, and their subsequent relationship to other land uses and sensitive resources. Discuss the cumulative impacts to traffic circulation, park lands, and Sensitive Lands such as environmental and archaeological resources. Please address how the significant archeological resources and sand dunes will be preserved and protected.
3. As proposed within the DEIS, changes to the configuration of the land uses contained within the proposed master plan represented in Figure "0-1" in the DEIS create concern that the proposed design of the project does not meet the intent of the draft Maui Island Plan (see Exhibit "B"). For example, the proposed site plan appears to foreclose on the many opportunities to create a network of greenways that do not interface or follow existing roadways, and would provide the community with ample safe, interesting, and visually attractive recreational

Mr. Michael Shibata
July 22, 2011
Page 3

opportunities. Please discuss urban design principles contemplated for the project in the Final EIS.

Thank you for the opportunity to comment. Please include the Department on the distribution list of the Final EIS. Should you require further clarification, please contact Simone Bosco, Senior Staff Planner with the Long Range Division at 808-270-5570.

Sincerely,



WILLIAM SPENCE
Planning Director

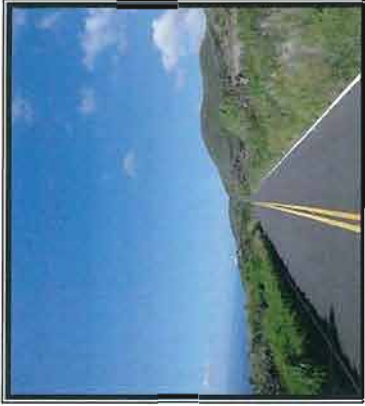
cc: Clayton I. Yoshida, AICP, Planning Program Administrator
John F. Summers, Planning Program Administrator, Long Range Division
Simone Bosco, Staff Planner, Long Range Division
Danny Dias, Staff Planner, Current Division
State Land Use Commission
TMK File
Project File
General File

WRS:JFS:SB:jpj

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DIRECTED GROWTH PLAN

Plan's public involvement process. Several of the Planned Protection Areas draw from the following plans and studies: 1. *Pull to Puamana Parkway Master Plan* (February 2005); 2. *North Shore Corridor Report* (Fall, 2006); 3. *Infrastructure and Public Facilities Assessment Update* (March and September 2007); 4. *Scenic and Historic Resources Inventory & Mapping Study* (June 2006); and 5. *MauiStory and MauiStory* public outreach events (December 2006). Each Planned Protection Area shall be incorporated into appropriate Community Plan Updates, green infrastructure plans, capital improvement plans, special district plans, related functional plans, and urban beautification efforts.



View of Pu'uani Highway, Maui, Hawaii.

A REGIONAL FRAMEWORK

In consideration of the guiding land use principles discussed above, the following four themes provide a broad island-wide framework for the identification of areas that are appropriate for future growth, the identification of areas that should be preserved and the implementation of the directed growth strategy.

Theme One: Limit Development in Northwest and East Maui.

East and Northwest Maui are the most remote, inaccessible, and undeveloped regions on Maui. Both regions possess rugged physical beauty, agricultural landscapes, and culturally rich communities. The island's largest intact watersheds, and natural wildland areas, including Haleakalā National Park and the West Maui Mountains, are located in Northwest and East Maui.

Development in both areas is largely dispersed, employment is limited, and infrastructure and public facility capacity is restricted. Maui island residents have a strong desire to protect the natural and cultural resources of these regions.

Theme Two: Protect Maui's agricultural resource lands, especially prime agricultural lands.

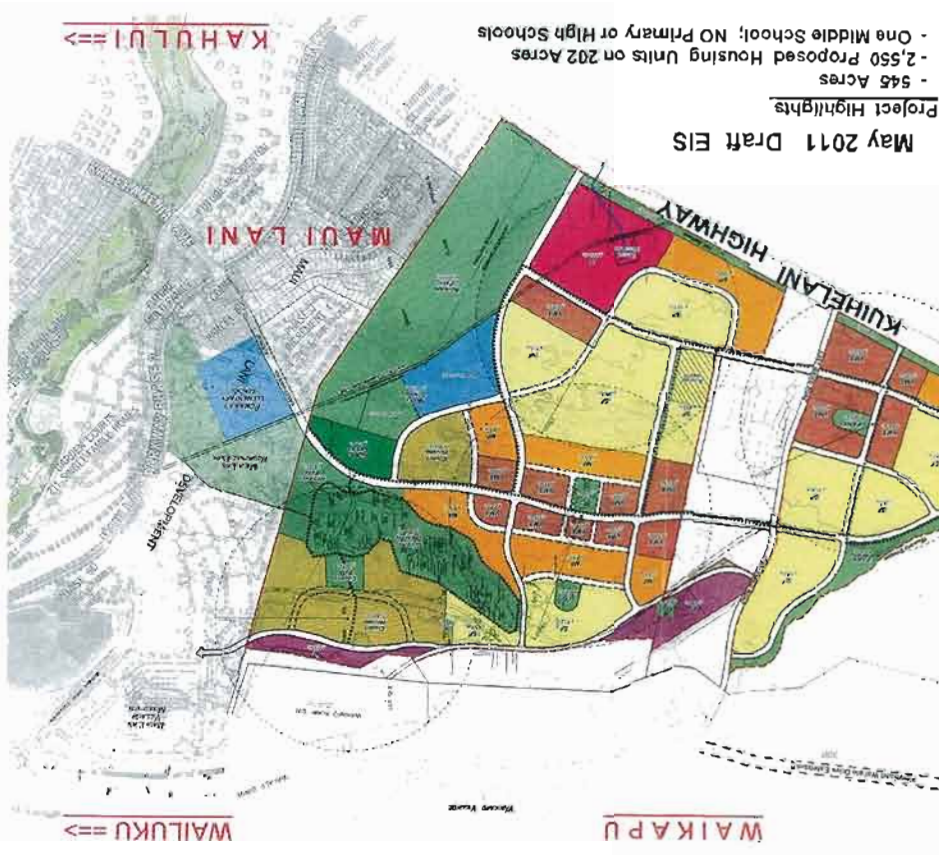
Maui's agricultural lands comprise 237,745 acres, or approximately 53% of the island's land area. Of these lands, approximately 149,077 acres, or roughly 62% are highly suitable for agriculture. Maui's agricultural lands are an important resource for both current and future generations of island residents. Agricultural lands provide the opportunity for greater economic diversification; food and energy security; and better stewardship of land, water, and open space resources. Maui residents have expressed a strong desire to support the agricultural economy and protect the island's agricultural lands for both present and future generations.



Example of overlay analysis.

*Data is derived from the Agricultural Lands of Importance to the State of Hawaii (ALISH), State of Hawaii, Board of Agriculture. Highly suitable land includes ALISH "Prime", "Unique" and "Other" important agricultural land.

Exhibit "B"



WAI'ALE'ALE
Conceptual Community Master Plan
May 2011 Draft EIS
Project Highlights
- 545 Acres
- 2,550 Proposed Housing Units on 202 Acres
- One Middle School; NO Primary or High Schools

LEGEND

- SR Single Family
- MR Multi-Family
- MDR Medium Density Residential
- CR Commercial
- CC Community Center
- TR Traditional/Resort
- BI Business/Light Industrial
- SRP Single-Family Residential
- MRP Multi-Family Residential
- MDRP Medium Density Residential
- CRP Commercial
- CCP Community Center
- TRP Traditional/Resort
- BIP Business/Light Industrial
- SRP Single-Family Residential
- MRP Multi-Family Residential
- MDRP Medium Density Residential
- CRP Commercial
- CCP Community Center
- TRP Traditional/Resort
- BIP Business/Light Industrial

Exhibit "A"

DIRECTED GROWTH PLAN

jobs in 2005. The region is composed of four distinct sub-regions: Wailuku, Kahului, Waikapū, and Waihe'e. A brief discussion of each sub-region is provided below.

Wailuku. Wailuku serves as the Civic Center for Maui Island and the seat of Maui County government. Wailuku is a culturally diverse town with strong ties to Maui's Hawaiian, missionary, and plantation history and serves as the gateway to Iao Valley. Residential neighborhoods in Wailuku are characterized by a rich mix of housing types, older homes and a variety of lot sizes, generally laid out in a traditional street pattern grid. Commercial areas are composed of smaller, older buildings primarily near the Main and Market Street intersection with some businesses intermixed with residential neighborhoods.

Beginning in the 1950's, Wailuku experienced a period of transition and decline as the resident population became more dispersed throughout the region and Kahului grew into the commercial center of the island. As residents and businesses left Wailuku Town, the area began to deteriorate and blight conditions persisted. In the last decade, Wailuku has been undergoing revitalization due to efforts initiated by community groups, the County, and local businesses.

Kahului. Kahului is the island's major commercial and industrial center. Shopping and community facilities, such as Queen Kaahumanu Shopping Center, Maui Arts and Cultural Center, and the University of Hawaii - Maui College, draw residents from all regions of the island. Kahului is also Maui's main shipping center with the island's major seaport and airport. Kahului first came to life in the modern era after World War II as Maui's population became decentralized and major projects such as "Dream City" and the Kahului Shopping Center were completed. Kahului's residential neighborhoods are separated from commercial uses and composed of larger suburban lots and wide curvilinear streets.

Waikapū. Waikapū is a small rural town between Wailuku and Māhele on Honoapiʻiāni Highway. The town is primarily residential with a small commercial component. Historically, Waikapū has been surrounded by sugarcane fields, providing a clear distinction between the town and other nearby communities. As Wailuku and Kahului grow southward, the separation between these sub-regions and Waikapū is being diminished.

Waihe'e. Waihe'e is another small rural town in the Wailuku-Kahului Community Plan region. It is the last town in the region along Kahekili Highway and serves as the eastern gateway to Northwest Maui. The sub-region is primarily residential with small-scale agriculture and family cultivated taro patches in the vicinity of Waihe'e Stream. Managing urbanization on the fallow agricultural lands south of the town will be important for maintaining the rural identity of the town.

CHALLENGES AND OPPORTUNITIES

The Wailuku-Kahului Community Plan area has several key land use issues which must be considered when planning future development in the region. Some issues apply to the region as a whole while others are specific to a sub-region. Major land use threats and opportunities include:

Loss of Community Identity and Boundaries

The Wailuku-Kahului Community Plan region is one of the fastest growing regions on Maui. The majority of the region's growth is occurring on vacant agricultural land at the edges of the sub-regions, particularly south of Wailuku and Kahului, with isolated areas of redevelopment opportunities. As these lands become urbanized, the region's individual towns begin to blend together and lose their unique identities. To prevent the creation of one large, sprawling urban mass, clear separation must be maintained between the area's four sub-regions through the use of regional parks, greenways and protected areas.

DECEMBER 2010

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DRAFT MAUI ISLAND PLAN

Theme Three: *Direct growth to areas proximate to existing employment centers, where infrastructure and public facility capacity can be cost effectively provided, and where housing can be affordably constructed.*

Traffic congestion, affordable housing, and convenience are major quality of life issues that Maui residents care deeply about. The same is true for quality education, public safety, and a clean environment.

Given the high cost of developing public infrastructure and facilities to service remote areas, the significant environmental and social impacts associated with long vehicle commutes, and the broad desire to "keep the country-side country" it is preferable to locate development as close as possible to existing employment centers.

There currently exists undeveloped land that is within close proximity to Wailuku-Kahului, Kihei Town, and Lahaina-Kā'anapali-Kapahula that is feasible for development. These lands are close to existing public facilities and major centers of employment.

Theme Four: *Within the Urban Growth Boundaries, promote livable, mixed-use communities, defined by a high quality of life.*

Maui's future growth will be accommodated largely within urban growth boundaries. These boundaries will encompass higher density mixed-use infill development, planned urban expansion, and the creation of new, self-sufficient towns.

A primary objective of the directed growth strategy is to ensure that our urban communities offer a high quality of life. Designing communities to be pedestrian-oriented, with a mix of uses to sustain daily needs, and close to places of employment makes for a more vibrant and livable environment. Providing parks and open space, tree lined roadways, and easy connections to the natural and built environment are necessary to promote health and well-being.

Beyond our urban boundaries, working agricultural landscapes, natural wildland areas, and undeveloped shorelines and beaches are vitally necessary to provide a sense of refuge and escape from the stresses of urban life.

WAILUKU-KAHULUI

The Wailuku-Kahului community plan area encompasses the island's Civic Center, major commercial-industrial and shipping center, and the largest resident population of all community plan areas with over 44,481 people in 2005. The community plan area also has the largest employment center with 34,875



Sketch of the urban growth boundaries.

DECEMBER 2010

B-14

DRAFT MAUI ISLAND PLAN

18" foldax:

Auto-Dependency and Traffic Congestion

The region's land use pattern and street layout, particularly in Kahului, has led to strong auto-dependency and traffic congestion. While a public bus system services the region, it is relatively new and is making steady progress in becoming a part of everyday life for residents. Adequate bike and pedestrian infrastructure are also lacking within the region, limiting the opportunity for multi-modal transportation. Clear and distinct separation of land uses also significantly contributes to poor mobility and the need for a high number of private automobile trips.

Lack of Housing Choices

While the Wailuku-Kahului Community Plan has the largest supply of residential units on Maui, only about 12% of the units are multi-family. This marked disparity between single-family and multi-family residential units provides residents with limited housing options in the Central Maui region. More multi-family units are needed in the region to provide for a mix of housing prices and types.

Lack of Kahului Downtown Core

A major land use issue in the region is the lack of a downtown core in Kahului; the sub-region does not have an identifiable center or core with a pedestrian-friendly mix of land uses where people can gather and interact. A downtown core in Kahului will strengthen the sub-region and provide it with a unique identity. Infill and redevelopment projects, such as the Kahului Town Center Redevelopment and harbor revitalization efforts provide a unique opportunity to revitalize the area.

Revitalization of Wailuku Civic Center District

A key land use opportunity in the region is the revitalization of the Wailuku downtown and Civic Center District. Maintaining the identity of Wailuku as the County's Civic Center is an important land use goal. The *Wailuku Redevelopment Plan* (December 2000), prepared by the Maui County Planning Department, offers key strategies for revitalizing the area. As part of the revitalization, increased mixed-use development, activity generators, streetscape beautification, additional public parking, and build out of the abutting Civic Center District with additional government office space is necessary. This approach is supported by policy direction throughout the Maui Island Plan.

Wailuku – Kahului – Planned Growth Areas

Urban infill will be a major source of additional housing units in the Wailuku-Kahului community plan region. In addition, three new planned growth areas have been identified: Waipahoehoe, Puunani, and Waikapu Tropical Plantation Town. No new rural growth areas are planned for Central Maui. Planned growth areas are depicted in Figure 8-1 and on Directed Growth Map #C3.

New Regional Facilities Recommended – Wailuku-Kahului

- Maui Lani Parkway extension
- Regional Park – 100 acre minimum
- Central Fire Training Facility
- Dedicated County Fairgrounds
- Water Treatment Facilities
- Intermediate School
- Elementary School
- Relocation of the County Jail from Wailuku to Puunani

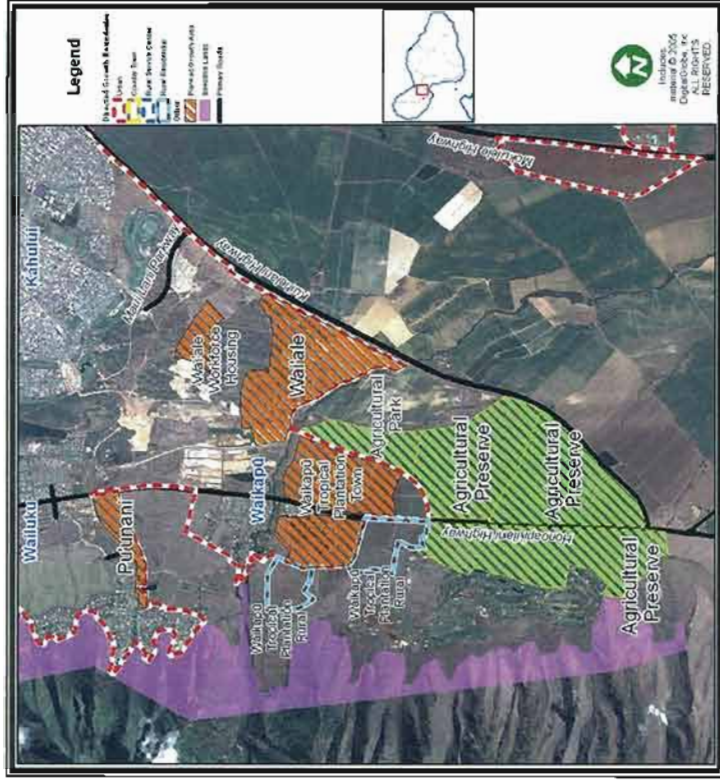


Figure 8-1: Wailuku Planned Growth Areas.

Kahului Infill and Redevelopment and Revitalization of Wailuku Town

The plan proposes infill and redevelopment within Kahului. Much of Kahului is significantly underutilized and redevelopment will strengthen the economy, provide diverse housing opportunities within close proximity to jobs and services, and protect agricultural lands and the character of Maui's rural communities by making higher and better use of our existing urban areas. Redevelopment will also strengthen Kahului's identity, promote urban beautification and livability, and breathe vitality and life into the area.

The County should work with area landowners and the community to prepare the following studies: 1) Risk and Vulnerability Assessments (RVA); 2) specific area plans; and 3) supporting model development ordinances. The RVA is necessary prior to redevelopment because much of urban Kahului is within the

DIRECTED GROWTH PLAN

landmark revitalization area. This study will further define the areas and magnitudes of potential flooding and necessary mitigation measures to protect life and property. The specific areas plans and model development ordinances will further define the character of redevelopment and geographic boundaries where infill and redevelopment is feasible. The Specific Area Plans should emphasize the opportunity for higher density mixed-use development, pedestrian and vehicular circulation patterns, and urban beautification. A system of sidewalks, greenways and bike lanes should be developed to reduce community reliance on the automobile.

Infill and redevelopment within Kahului on entitled urban lands could produce hundreds of new residential units. An example of this is the closed pineapple cannery behind the Queen Kaahumanu Shopping Center. New multi-family units at this location could be built at an urban density of at least 18 to 25 units per acre in a mixed use design such as that of the Kahului Town Center project.

The continued revitalization of the Wailuku Redevelopment Area and the Wailuku Civic Center District also provides the opportunity to provide infill housing close to jobs and services in a manner that will strengthen the economic vitality of Wailuku Town, provide diverse housing options and shorten commuting times, and maintain Wailuku Town as the County seat of government and Civic Center.

An analysis of infill opportunities in Wailuku Town indicates significant opportunities to develop housing on vacant or underutilized lands currently entitled for development. These units would be in areas of higher density such as Lower Main Street and Happy Valley, as well as new units in Pihāna and Waiehu along Kālekihi Highway. The net densities of multi-family housing should be at least 15 to 25 units per acre which is compatible with existing densities of complexes such as Iao Parkside and Parkview Square in Wailuku.

Wai'ale

The Wai'ale planned growth area is recommended to be a compact, mixed-use town with park land, open space, a county fair grounds, an elementary or intermediate school developed in coordination with the Waikapu Tropical Plantation Project, and commercial uses. Wai'ale will be located south of Maui Lani, and it is bounded to the west by Honouliuli Highway and to the east by Kūihelani Highway. While proximate to Kahului, Wailuku, and Waikapu, the Wai'ale town should be a distinct community, clearly separate from existing towns. Wai'ale is the largest proposed town on the island and the largest planned growth area proposed for the Wailuku-Kahului community plan region.

Planned Growth Area Rationale

At build-out, the Wai'ale planned growth area will provide roughly 50% of the additional residential units needed in the Central Maui region and will help to address the housing needs of Maui residents. With a recommended 60% (40% mix of single-family to multi-family housing units, low to moderate average lot size, and strong capacity to provide affordable housing), Wai'ale will provide housing options to address resident housing demand. The Wai'ale planned growth area is proximate to Wailuku employment opportunities and infrastructure, has adequate highway access and transit connectivity, and has favorable topography.

To prevent sprawl and further urbanization of prime agricultural resource land, a hard edge must be maintained around Wai'ale town. A network of greenbelts, open space, and parks will be utilized to contain urban development, maintain a clear distinction between existing communities and the new town, and to prevent urbanization of agricultural lands south of the site. The planned growth area is currently bounded on at least two sides by roads which will help to contain the new community. The north portion

of the Wai'ale area, identified as *Wai'ale Workforce Housing* on Figure 8.1, will be an affordable housing complex of roughly 300 units on 50 acres. The *Wai'ale Workforce Housing* units will meet the median income and affordable housing criteria for workforce housing. A regional park will be established on the north edge of Wai'ale to provide a clear separation between the new community and Maui Lani and to allow the placement of sports fields. Preservation areas will be established to protect Hawaiian Burials and in-tract sand dunes. The Wai'ale project will also include lands to house the offices of the County Department of Parks and Recreation, a community center and a County fair grounds. Tables 8-5 and 8-6 provide planning standards and guidelines for this planned growth area.

Table 8 - 5: Wai'ale Workforce Housing Planned Growth Area – Planning Standards and Guidelines

Background Information:		Directed Growth Map #: C3
Project Name:	Wai'ale Workforce Housing	Gross Site Acreage: 50 Acres
Type of Growth:	Urban Expansion	
Planning Standards		Planning Guidelines
Dwelling Unit Count:	300 Units (+/-10%)	Residential Product Mix: 100% MF
Net Residential Density:	At least 10 du/acre	Parks and Open Space%: ≥ 20%
		Commercial: Neighborhood serving

Table 8 - 6: Wai'ale Planned Growth Area – Planning Standards and Guidelines

Background Information:		Directed Growth Map #: C3
Project Name:	Wai'ale New Town	Gross Site Acreage: 300 Acres
Type of Growth:	New Town	
Planning Standards		Planning Guidelines
Dwelling Unit Count:	2,254 Units (+/-10%)	Residential Product Mix: 60% SF 140% MF
Net Residential Density:	10 – 20 du/acre	Parks and Open Space%: ≥ 10%
		Commercial: Convenience Shopping Region Serving

Pu'unani

The Pu'unani planned growth area is intended to be a linear tract of single family residential units at the southwest edge of Wailuku. This urban expansion is located south of Kehalaui below Wailuku Heights and is bounded to the east by Honouliuli Highway. This planned growth area will mark the southern urban boundary of Wailuku Town.

Planned Growth Area Rationale

Pu'unani area is a roughly 240 residential unit expansion of the existing southern boundary of Wailuku Town. It is intended that infrastructure development be coordinated with neighboring developments including Kehalaui, Wai'ale and Waikapu Tropical Plantation Town.

Table 8 - 7: Pu'unani Planned Growth Area – Planning Standards and Guidelines

Background Information:		Directed Growth Map #: C3
Project Name:	Pu'unani Urban Expansion	Gross Site Acreage: 53 Acres
Type of Growth:	Urban Expansion	
Planning Standards		Planning Guidelines
Dwelling Unit Count:	240 Units (+/-10%)	Residential Product Mix: 100% SF
Net Residential Density:	6-8 du/acre	Parks and Open Space%: ≥ 20%
		Commercial: Neighborhood Serving

DIRECTED GROWTH PLAN

DIRECTED GROWTH PLAN

Through the area is zoned for agricultural use, water and wastewater infrastructure as well as transit access are in place. This expansion area consists of 53 acres. Table 8-7 provides planning standards and guidelines for this planned growth area:

Waikapu Tropical Plantation Town

The Waikapu Tropical Plantation Town planned growth area is situated in the vicinity of the Maui Tropical Plantation, and includes lands on both the mauka and makai sides of Honoapiʻilani Highway. Providing the urban character of a traditional country town, this area will have a mix of single family, multi-family and rural residences; park land; open space; commercial uses; and an elementary or intermediate school developed in coordination with the Waiʻale project. The area is located south of Waikapu along Honoapiʻilani Highway, and it will incorporate the integrated agricultural and commercial uses of the existing tropical plantation complex. This area is proximate to the Waiʻale planned growth area, providing additional housing in central Maui within the Waikapu-Kahului Community Plan region. As part of this project, parcels to the south of the project (identified as *Agricultural Preserve* on Figure 8-1) shall be protected in perpetuity for agricultural use through a conservation easement. At least 100 acres shall be dedicated to the County of Maui as an Agricultural Park administered pursuant to County regulations (identified as *Agricultural Park* on Figure 8-1). Alternatively, this area can be developed as a private agricultural park pursuant to the provisions of Maui County Code Chapter 19.30A, provided that lands in the Private Agricultural Park shall be made available to Maui farmers in accordance with County specifications executed through a unilateral agreement between the landowner and Maui County. The rural lots mauka of Honoapiʻilani Highway shall be developed using a Conservation Subdivision Design (CSD) Plan. The CSD plan shall provide access to approximately 8 miles of walking and bicycling trails and preserve mauka and makai views while protecting environmentally sensitive lands both along Waikapu stream and mauka of the subdivision.

Planned Growth Area Rationale

Keeping the tropical plantation as its town core, this area will become a self-sufficient small town with a recommended 60% / 40% mix of single-family and multi-family housing units in a walkable community that includes affordable housing in close proximity to Waikapu's employment centers. Schools, parks, transit infrastructure, water supply resources and other infrastructure should be developed efficiently, in coordination with neighboring developments including Waiʻale. Land for a police and fire station complex will be included with transit connection at the Waiʻale Road Bypass on the south and east sides of the area. Table 8-8 provides planning standards and guidelines for this planned growth area:

Background Information:		Directed Growth Map #: C3	
Project Name:	Tropical Plantation Town	Gross Site Acreage:	Urban - 292 Acres Rural - 135 Acres
Type of Growth:	Urban Expansion	Planning Guidelines:	Residential Product Mix: 60% SF / 40% MF
Dwelling Unit Count:	1,433 Units* (±10%) *Up to 89 of these units can be rural residences. Other total units allowed.		
Net Residential Density:	9 - 12 units/acre	Parks and Open Space%:	≥ 10%
		Commercial:	Convenience Shopping

Table 8 - 8. Tropical Plantation Town Planned Growth Area - Planning Standards and Guidelines

DIRECTED GROWTH PLAN

Waikapu - Kahului - Planned Protection Areas

The Waikapu-Kahului community plan area includes two planned protection areas. The region contains the largest resident population of all community plan areas, has dramatic views of the West Maui Mountains, and includes rural towns and rich cultural resources. Creating opportunities for recreational amenities will continue to be a priority as the area grows. Both planned protection areas are described, in brief, below.

Central Maui Regional Park

The Central Maui Regional Park is bordered by Kihelani Highway, Waiʻale, Honoapiʻilani Highway, and the existing Maui Lani Project District.

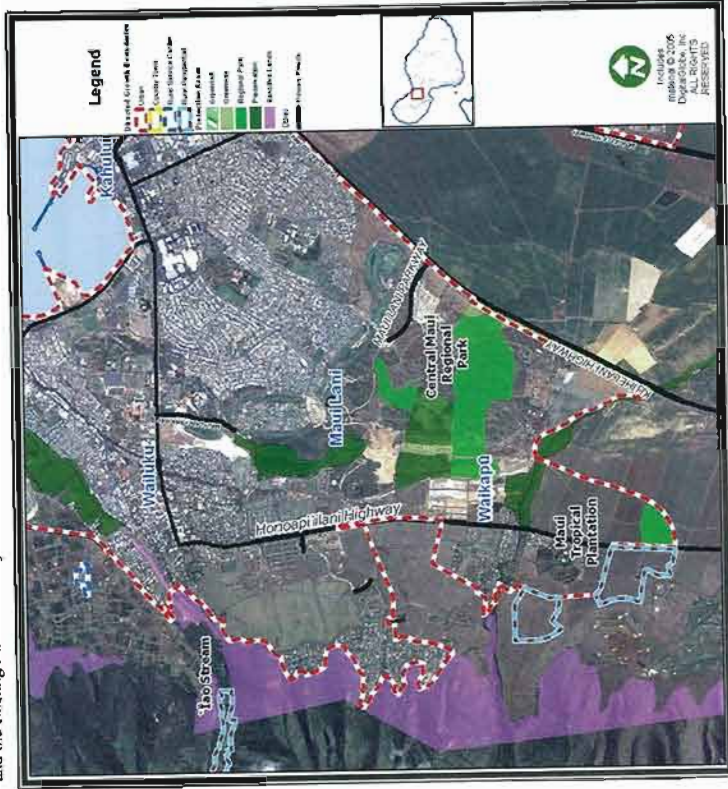


Figure 8-2: Central Maui Regional Park

DIRECTED GROWTH PLAN

The *Central Maui Regional Park* is a planned open space area surrounded by the Wai'ale mixed-use new town. It is envisioned that the park will be comprised of both passive and active park uses including a network of pedestrian and bicycle pathways. The park is intended to maintain a significant amount of open space and provide a distinct separation between the Waikapu and Kahului communities. The park's design should allow for the placement of sports fields with suitable topography for sports usage. The park will also protect rich historical and cultural resources which are spread throughout the Central Maui Dune system. The *Central Maui Regional Park* will be established north of the Wai'ale planned growth area, proximate to a high concentration of existing and proposed residential and industrial uses, Pomaika'i Elementary School, and the primary employment center on the island. With an area of 125 – 150 acres, the *Central Maui Regional Park* will also provide an area for the offices of the County Department of Parks and Recreation, a community center, and a location for the annual County Fair. The distinct boundaries of the park, specific location of the recreational uses, and the precise amenities will be defined during the Wailuku – Kahului Community Plan Update and the Wai'ale project review and approval process.

Iao Stream Cultural Corridor Park

The *Iao Stream Cultural Corridor Park* is a linear open space corridor intended to protect the remains of the Hale ki'i and Pihana Kalani heiau and other important cultural resources. The park extends from the makai portions of 'Iao Stream and runs approximately 3/4 miles upstream from Waiehu Beach Road, flanking 'Iao Stream. The *Iao Stream Cultural Corridor Park* is adjacent to Wailuku's residential and industrial areas. It is envisioned that the protected area will incorporate trail systems, restroom facilities and pedestrian linkages to provide lateral and mauka-makai access to surrounding neighborhoods and business districts.



Figure 8 - 3: Iao Cultural Corridor Park.



October 7, 2011

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Mr. William Spence, Director
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 Attn: Ms. Simone Bosco

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Spence,

Thank you for your letter dated July 22, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). Having worked closely with the original community-based visioning and conceptual planning for the Wai'ale community that was initiated in August 2005, the evolution of the conceptual master plan has included consultation with various County of Maui departments. Within the context of the preparation of the *Draft Maui Island Plan*, the conceptual master plan has not significantly changed. Through the completion of technical studies of the project area as part of the environmental planning for Wai'ale, site specific information has been compiled that has resulted in the refinements and modifications to the concept plan. As provided or represented in testimony to the General Plan Advisory Committee (GPAC) and Planning Commission and a meeting with the Planning Department prior to completing and publishing the EISP (dated August 2010), the overall conceptual master plan has not significantly changed. If the Planning Department feels that the resultant conceptual master plan, as presented and assessed in the EISP and Draft EIS, is not substantially consistent with the *Draft Maui Island Plan*, we request that the necessary revisions be made to the *Draft Maui Island Plan* to avoid any inconsistencies.

In general, we feel that the details of the Wai'ale master plan will be addressed appropriately at the more detailed community planning and urban design under the requirements of the Project District zoning process

As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your specific comments.

1. We concur with the Department's Long Range Division's support for the location of the Wai'ale master-planned community. Per your comments, Sections 1.8.3, 1.8.7 and 5.2.2 of the Final EIS will be revised to include the following text:

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During the Draft EIS public review period, the County Planning Department's Long Range Division wrote: "The Division supports the location of the Wai'ale master-planned community. The proposed project falls within the proposed Urban Growth Boundaries of the draft Maui Island Plan, and thus conforms to an island growth strategy that encourages development of land in proximity to major work and employment centers and existing infrastructure."

2. Per your comments, the follow text has been added to Section 2.2.1 of the Final EIS:

The original conceptual master plan for the property included approximately 826 acres; comprising of 474 acres contiguous to Maui Lani, extending to Kuihelani Highway and East Waiko Road, and approximately 352 acres extending south from East Waiko Road along Kuihelani Highway. The project was envisioned as a master planned community that would incorporate a mix of land uses to support the projected future community growth in Central Maui, including affordable housing and the potential for a new civic center for the County of Maui.

However, ~~since that time~~, in consultation with the County Planning Department in the initial stages of formulating the Draft Maui Island Plan, the original project area has been reduced in scope ~~and~~ to fit within the population and land use projections for Year 2030. Thus, the lands south of Waikapū Stream (approximately 220 acres) were not included in the scaled back conceptual master plan. As currently planned, the entire project area is designated within the Urban Growth area under the Draft Maui Island Plan (December 2010). ~~Although the lands south of Waikapū Stream are still envisioned as a potential future urban expansion area, they are not included in this project.~~

While the ~~final~~ Draft Maui Island Plan ~~has not yet been adopted~~ is still under review by the Maui County Council and is not anticipated to be finalized and adopted until later this year, a major element of the Maui Island Plan ~~will be~~ is the Directed Growth Strategy, ~~which will include~~ including Directed Growth Maps specifying "urban growth boundaries" for the island of Maui. As of ~~the~~ the December 2010 draft, all of the subject lands north of Waikapū Stream are within the "urban growth boundary" of the Directed Growth Maps put forth by: 1) the Department of Planning; and 2) the General Plan Advisory Committee; and 3) the Maui Planning Commission. In addition, ~~various~~ various County and State governmental agencies have been consulted in the ~~development~~ preparation and refinement of the Wai'ale master plan.

The Wai'ale master plan has sought to incorporate the open space buffer between Maui Lani and Wai'ale as articulated in the Draft Maui Island Plan. Within the Wai'ale master plan, areas designated for park space and planned cultural preserves seek to provide that open space buffer. However, the rationale for designating a portion of lands within the northern portion of Wai'ale for planned County Housing is in part based on County Ordinance No.

3559. The County of Maui via Ordinance No. 3559 (Maui Business Park Phase II-Change in Zoning) required in part that A&B dedicate 50 acres to the County for affordable housing (40 acres), community center (7 acres) and park (3 acres). The specific location of these lands was described as being "...at the approximate location of the terminus of Kamehameha Avenue, near the new Maui Lani Park and Pomaikai Elementary School". This location in the northern portion of the property, is where infrastructure and roadway connections to Maui Lani would be the closest, cheapest and the fastest to build. Additionally, in order for these areas to be zoned and utilized for recreational park purposes, they must be situated within the Urban Growth Boundary (UGB), so that appropriate zoning can be eventually obtained through the County's zoning process (per Maui County Code Section 19.61.5.040 which states that regional parks must be situated either in the State Land Use "Urban" or "Rural" Districts).

- Per your comments, the following text will be added to Section 5.2.2 of the Final EIS:

The rationale behind the proposed Wai'ale master plan is to create a compact, mixed-use town with park land, open space, a middle school and commercial uses. Wai'ale will be located south of Maui Lani, and it is bounded on the west by various properties makai of Honoapi'iani Highway, to the south by Waikapū Stream, and to the east by Kuihelani Highway. While proximate to Kahului, Wailuku, and Waikapū, the Wai'ale community will have a distinct community, clearly separate from, but connected to existing towns.

As recommended in the Draft Maui Island Plan, the proposed Wai'ale project will provide roughly 50% of the additional residential units needed in the Central Maui region and will help to address the housing needs of Maui residents. With a mix of both single-family and multi-family housing units, and a strong potential to provide workforce housing, the proposed Wai'ale project will provide housing options to address resident housing demand. The Wai'ale project is proximate to Wailuku and Kahului employment opportunities and infrastructure, has adequate highway access and transit connectivity, and has favorable topography.

To prevent sprawl and urbanization of prime agricultural resource land, the conceptual plan calls for compact walkable neighborhoods integrated with a network of greenbelts, open space, and parks. With the inclusion of a regional park and existing open spaces, the master plan achieves a buffer to surrounding urban development (along the southern, eastern, and northern boundaries). Where there is a desire to provide connectivity to the surrounding communities, the plan provides for circulation (automobile and pedestrian/bicycle) and open space. Thus, the master plan provides a clear distinction between Maui Lani and the proposed Wai'ale project, and buffers Waikapū Stream with a linear greenway park. The Wai'ale project is currently bounded on the west and east by roads which help to define and provide access to the

new community. Based on consultation with the County Department of Housing and Human Concerns, forty (40) acres comprised of two parcels in the northern portion of Wai'ale project would be provided to the County for workforce housing of approximately 300 units comprised of single and multi-family housing. The key attributes of these lands are readily available infrastructure and roadway connections to Maui Lani that would facilitate cost effective workforce housing that could be implemented in the early phase of the community. In addition, the Wai'ale project will also provide residential units that will be priced to meet the County workforce housing policy.

The proposed Wai'ale project's mix of land uses is an essential component to providing alternatives to driving such as walking or biking. The location of commercial and retail establishments throughout Wai'ale provide for greater interaction, economic activity, and quality of life for residents and visitors. The Wai'ale project's open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, and an overall setting of enhanced environmental quality and community health. Uses envisioned include commercial or civic facilities such as restaurants, schools, pharmacies, supermarkets, parks, libraries and/or bookstores, shops, and possibly theatres. Providing such facilities within the community will reduce the number of personal motorized vehicle trips and possibly the high costs of private car ownership.

The cumulative impacts of the proposed project were discussed in Section 7.2 of the Draft EIS, and further addressed in the Final EIS as follows:

Wai'ale will make lasting contributions to preserving the archaeological and cultural resources through the implementation of a series of short-term and long-term preservation measures, as described in Section 4.1.

Short-Term Preservation Measures – The identification and implementation of appropriate short-term or interim site protection measures, including an archaeological monitoring plan. These include:

- Prior to construction commencement a meeting shall be held to inform all pertinent parties regarding the locations and buffer zones for all sites slated for preservation in or near areas of potential effect;
- The erection of temporary construction fencing (orange plastic) or other visible markings defining no-encroachment buffer zones around the perimeter of sensitive areas;
- Full-time ~~regular~~ monitoring of preservation sites during ~~and~~ construction activities; and
- Ensuring transition to permanent preservation measures following completion of construction.

Long-Term Preservation Measures – The identification and implementation of long-term or permanent site protection measures provide for the continued protection of archaeological and cultural resources. The two typical categories of long-term preservation are passive and active preservation, as described below:

- **Passive Preservation** – Sites in this category do not undergo any interpretive development, occur in areas that can be avoided by development, and are left as is. This category is sometimes referred to as "data banking." Most sites in this category are not intended to be permanently preserved, but are anticipated to undergo data recovery procedures in the future, presumably when improved data gathering techniques and refined analysis technologies are available or on large tracts of land where development is intended to take place in incremental phases; and
- **Active Preservation** – Sites in this category are chosen for their interpretive potential. Their selection may be based on aesthetic, academic, or cultural representation values. Different levels of interpretive development may be undertaken, including: stabilization, partial or complete restoration, and/or reconstruction. Signs may be involved, and details regarding access and protocols need to be worked out.
- **Cultural Preserves** - Approximately 33 acres is proposed to be set aside as cultural preserves where the greatest concentrations of burials occur. These areas are planned to be permanently preserved, and none of the burials within these cultural preserves are anticipated to undergo data recovery procedures in the future. This area is intended to be kapu and only accessed by lineal and/or cultural descendants, recognized and/or acknowledged cultural practitioners and for periodic maintenance and/or fire protection.

The preservation and protection of significant archaeological resources was discussed in Section 4.1 of the Draft EIS, and revised as described above. While the majority of the sand dunes within the property limits have been obliterated by human activities, there is a large portion of the site (approximately 28 acres) where there are relatively intact lithified sand dunes; its boundaries roughly coincide with a proposed cultural preserve (and where the highest concentration of burials resides).

3. We have reviewed the text that describes Wai'ale in the Draft Maui Island Plan, and believe the Wai'ale Conceptual Community Master Plan shown on Figure O-1 of the Draft EIS is largely consistent with the Maui Island Plan's vision for Wai'ale as quoted below from the Draft Maui Island Plan (December 2010):

"The Wai'ale planned growth area is recommended to be a compact, mixed-use town with park land, open space, an elementary or intermediate school developed in coordination with the Waikapū Tropical Plantation Project, and commercial uses. Wai'ale will be located south of Maui Lani, and it is bounded to the west by Honoapi'iani Highway and to the east by Kuihelani Highway. While proximate to Kahului, Wailuku, and Waikapū, the Wai'ale town should

be a distinct community, clearly separate from existing towns. Wai'ale is the largest proposed town on the island and the largest planned growth area proposed for the Wailuku-Kahului community plan region.

Planned Growth Area Rationale

At build-out, the Wai'ale planned growth area will provide roughly 50% of the additional residential units needed in the Central Maui region and will help to address the housing needs of Maui residents. With a recommended 60% / 40% mix of single-family to multi-family housing units, low to moderate average lot size, and strong capacity to provide affordable housing, Wai'ale will provide housing options to address resident housing demand. The Wai'ale planned growth area is proximate to Wailuku employment opportunities and infrastructure, has adequate highway access and transit connectivity, and has favorable topography.

To prevent sprawl and further urbanization of prime agricultural resource land, a hard edge must be maintained around Wai'ale Town. A network of greenbelts, open space, and parks will be utilized to contain urban development, maintain a clear distinction between existing communities and the new town, and to prevent urbanization of agricultural lands south of the site. The planned growth area is currently bounded on at least two sides by roads which will help to contain the new community. The north portion of the Wai'ale area, identified as Wai'ale Workforce Housing on Figure 8.1, will be an affordable housing complex of roughly 300 units on 40 acres. The Wai'ale Workforce Housing units will meet the median income and affordable housing criteria for workforce housing. A regional park will be established on the north edge of Wai'ale to provide a clear separation between the new community and Maui Lani..."

Per your comments, the following text will be added to a new Section 2.3.3 (Urban Design Principles) of the Final EIS:

During the Draft EIS public review period, the County Planning Department wrote on July 22, 2011: "Please discuss urban design principles contemplated for the project in the Final EIS." The urban design principles being considered for the project include the following:

Walkable Streets

Proposed major project roadways are shown on Figure O-1. Wai'ale will include the construction of new internal east-west and north-south roadways that will generally run parallel and perpendicular to Kiihelani Highway. Access will be provided via the property's proposed internal collector roadways' connections with Kiihelani Highway, East Waiko Road, Kamehameha Avenue, and Kuikahi Drive (See Figure O-1).

In addition, Kamehameha Avenue will be extended from its existing terminus near Pōmaika'i Elementary School to approximately 1,400 feet south of East Waiko Road and serve as an alternate (to Kiihelani Highway) north-south connection between Wai'ale, Maui Lani and Kahului. This road will consist of a two-lane travel way, turning medians, and sidewalks along both sides of the street, including extending the bike path. Roads A through E are collector roads that will consist of a two-lane travel way, turning medians, and sidewalks along both sides of the streets.

Compact Development

Ranging from traditional single family homes to multi-family dwellings with a variety of live-work opportunities, including the village mixed use districts and the County's workforce housing areas, there are approximately 276 acres planned for residential uses. Consistent with the Draft Maui Island Plan's Directed Growth Strategy for Central Maui, a total of approximately 2,550 residential units are planned at Wai'ale (including the County of Maui's planned 300 residential units). The number of dwelling units proposed within the Wai'ale Community would result in an average density of approximately 9 to 12 units per acre. With the village mixed use and multi-family residential uses achieving higher densities in close proximity to neighborhood and regional serving commercial uses, these densities would be characterized as compact development.

Neighborhood Connections

Wai'ale will include the construction of a new network of internal east-west and north-south roadways that will run parallel and perpendicular to Kiihelani Highway. Access will be provided via the property's proposed internal collector roadways' connections with Kiihelani Highway, East Waiko Road, Kamehameha Avenue, and Kuikahi Drive (See Figure O-1).

In addition, Kamehameha Avenue will be extended from its existing terminus near Pōmaika'i Elementary School to approximately 1,400 feet south of East Waiko Road and serve as an alternate (to Kiihelani Highway) north-south connection between Wai'ale, Maui Lani and Kahului. This road will consist of a two-lane travel way, turning medians, and a pedestrian/bike path. Roads A through E are collector roads that will consist of a two-lane travel way, turning medians, and a pedestrian/bike pathway. The design of the roadways will be based on standards set forth and accepted by the County during the later stages of community planning that would be provided for in Project District zoning process.

The alignment and spacing of Wai'ale's proposed internal roadways will provide greater neighborhood connections to and from Wai'ale, as well as the

adjoining Maui Lani development, and the established communities of Wailuku and Kahului beyond. Greater connectivity via roadways and open spaces to surrounding communities and within Waialeale will permit the extension of the County's bus transit system, and provide great transportation and mobility options for those who can and cannot drive.

Mixed Uses

Wai'ale's mix of land uses is an essential component to providing alternatives to driving such as walking or biking. The location of commercial and retail establishments throughout Wai'ale provide for greater interaction, economic activity, and quality of life for residents and visitors. Wai'ale's open space, parks, cultural preserves, and pedestrian/bicycle paths will provide for significant recreational benefits, protection of important habit and natural features, and an overall setting of enhanced environmental quality and community health. Uses envisioned include commercial or civic facilities such as restaurants, schools, pharmacies, supermarkets, parks, libraries and/or bookstores, shops, and possibly theatres.

Affordable and Diverse Housing

Wai'ale will provide homes priced for a range of consumer groups, including the workforce market segment in compliance with Chapter 2.96, Maui County Code (Residential Workforce Housing Policy). Wai'ale will create a socially integrated community with a "unique" sense of identity and character, capitalizing on its location and natural features. To achieve a socially integrated community, the project will provide multiple housing types of different sizes, such as large and small apartments, duplexes, townhomes, and/or single-family homes. To address the Residential Workforce Housing Policy, a percentage of new rental and/or for-sale housing will be provided. The Assessment of Economic and Fiscal Impacts (pages 1-2), Appendix P of the Draft EIS, includes a projected breakdown of the anticipated affordable units by income group and unit type for Wai'ale (see below). A total of approximately 563 affordable units in four income categories are projected based on the provisions of the current workforce housing policy. The actual allocation of affordable units would be based on discussions and agreement with the County Department of Housing and Human Concerns. Note that changes to the overall project unit count would affect the amount of affordable units required.

Single-Family

<u>Gap Income</u>	<u>62 units (20 percent)</u>
<u>Above Moderate Income</u>	<u>62 units (20 percent)</u>
<u>Moderate Income</u>	<u>93 units (30 percent)</u>
<u>Below Moderate Income</u>	<u>93 units (30 percent)</u>
<u>Total Affordable Single-family Housing Units</u>	<u>310 units</u>

Multi-Family

<u>Gap Income</u>	<u>50 units (20 percent)</u>
<u>Above Moderate Income</u>	<u>51 units (20 percent)</u>
<u>Moderate Income</u>	<u>76 units (30 percent)</u>
<u>Below Moderate Income</u>	<u>76 units (30 percent)</u>
<u>Total Affordable Multi-family Housing Units</u>	<u>253 units</u>

Parking and Transportation Demand

Wai'ale encompasses a total of 545 acres and it is anticipated that the total surface parking area will be less than 20 percent of the total development area (less than 100 acres). Where possible, any off-street parking associated with Village Mixed Use and Commercial uses will be located at the side or rear of buildings.

Village Mixed Use and Commercial developments will be encouraged to provide bicycle storage for building occupants, bicycle parking for visitors and spaces for carpool or shared vehicles to reduce single-occupancy motorized vehicle usage. At least one parking stall will be provided for shared vehicles within a ¼ mile walk distance of every residential area.

In addition, A&B will work with the County Department of Transportation prior to subdivision to identify the possible location of bus stops to ensure there is adequate area set aside for possible bus pull outs, shelters, benches, lighting and information displays.

Parks and Recreation

Wai'ale will be designed so that open spaces such as squares, mini-parks and plazas will be within a ¼ mile walking distance of Village Mixed Use, Commercial Multi- and Single-Family Residential areas. Furthermore, outdoor recreational facilities of at least one acre in size will be within a ½ mile of Village Mixed Use, Commercial, Multi- and Single-Family Residential areas.

Mr. William Spence
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 10 of 10

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

O:\p02\2399.03 Wai'ale Entitlements\EIS\DES\DES Comments - Responses\Responses\Final\BL-27 County Dr.doc

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COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET, ROOM NO. 434
WAILUKU, MAUI, HAWAII 96793

June 30, 2011

Mr. Grant Y. M. Chun, Vice President
A&B PROPERTIES, INC.
P. O. Box 156
Kahului, Maui, Hawaii 96733

Dear Mr. Chun:

**SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR
WAI'ALE; TMK: (2) 3-8-005:023 (POR.) AND 037, AND
3-8-007:071, 101 (POR.) AND 104.**

We reviewed the subject application and have the following comments:

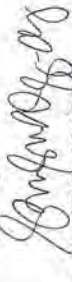
1. A road-widening lot may be required for the adjoining half of Wai'ale Road to provide for future 60 foot wide right-of-way and improved to County standards to include, but not be limited to pavement widening, construction of curb, gutter and sidewalk, street lights and relocation of utilities underground. Development Services Administration shall determine whether the aforementioned are enforceable by Maui County Code. If applicable, said lot shall be dedicated to the County upon completion of the improvements.
2. The applicant shall be responsible for all required improvements as required by Hawaii Revised Statutes, Maui County Code and rules and regulations.
3. As applicable, construction plans shall be designed in conformance with Hawaii Standard Specifications for Road and Bridge Construction dated 2006 and Standard Details for Public Works Construction, 1984, as amended.
4. As applicable, worksite traffic-control plans/devices shall conform to Manual on Uniform Traffic Control Devices for Streets and Highways, 2003.

Mr. Grant Y. M. Chun, Vice President
June 30, 2011
Page 2

5. The applicant shall develop master plans for traffic and drainage infrastructure improvements. The master plans shall address regional impacts and be developed in coordination with State and County master planning efforts. Planning parameters shall be developed in consultation with the Engineering Division of the Department of Public Works.

Please call Rowena M. Dagdag-Andaya at 270-7845 if you have any questions regarding this letter.

Sincerely,



DAVID C. GOODE
Director of Public Works

DCG:RMDA:js

xc: Highways Division
Engineering Division
Land Use Commission, State of Hawaii
PBR Hawaii & Associates, Inc.

S:\LUCAC\ZM\waiale_dms_35005023_037_3907071_101_104_16.wpd



October 7, 2011

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Fax: (808) 520-3161

Mr. David C. Goode, Director
County of Maui
Department of Public Works
200 South High Street, Room No. 434
Wailuku, Hawaii 96793

Attn: Ms. Rowena M. Dagdag-Andaya

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Goode,

Thank you for your letter dated June 30, 2011 addressed to Mr. Grant Chun of A&B Properties, Inc., regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

- i. Per your comments, the following paragraph will be added to Section 4.3 of the Final EIS:

During the Draft EIS public review period, the County Department of Public Works (DPW) wrote: "A road widening lot may be required for the adjoining half of Waiko Road to provide for a future 60-foot right-of-way, and improved to County standards to include, but not limited to pavement widening, construction of curb, gutter and sidewalks, street lights and relocation of utilities underground. Development Services Administration shall determine whether the aforementioned are enforceable by Maui County Code. If applicable, said lot shall be dedicated to the County upon completion of the improvements."

- ii. Per your comments, the following will be added to the end of Section 4.3 of the Final EIS:

During the Draft EIS public review period, DPW also wrote:

- The applicant shall be responsible for all required improvements as required by the Hawaii Revised Statutes and Maui County Code and rules and regulations.
- As applicable, construction plans shall be designed in conformance with Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and Standard Details for Public Works Construction, 1984, as amended.

Mr. David C. Goode
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 2

- As applicable, worksite traffic-control plans/devices will conform to Manual on Uniform Traffic Control Devices for Streets and Highways, 2003.
- The applicant shall develop master plans for traffic and drainage infrastructure improvements. The master plans shall address regional impacts and be developed in coordination with the State and County master planning efforts. Planning parameters shall be developed in consultation with the Engineering Division of the Department of Public Works.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

O:\Job23\2399.03 Wai'ale Entitlements\EIS\DEIS\DEIS Comments - Responses\Responses\Final\BL-14 County DPW.doc



ALAN M. ARAKAWA
MAYOR
OUR REFERENCE
YOUR REFERENCE

POLICE DEPARTMENT
COUNTY OF MAUI

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411



GARY A. YABUTA
CHIEF OF POLICE
CLAYTON N.Y.W. TOM
DEPUTY CHIEF OF POLICE

July 28, 2011

Mr. Michael Shibata
PBR Hawaii & Associates, Inc.
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, HI 96813

Dear Mr. Shibata:

SUBJECT: DEIS Wai'ale, Maui Hawaii – TMK (2) 3-8-005:0023 (por.) and 037,
and (2) 3-8-007: 071, 101 (por.), and 104

Thank you for your letter of May 31, 2011 requesting comments on the above subject.

We have reviewed the information submitted and have enclosed our comments. Thank you for giving us the opportunity to comment on the proposed project.

Very truly yours,



Assistant Chief Victor K. Ramos
for: GARY A. YABUTA
Chief of Police

Enclosure

c: William Spence, Maui County Planning Department
Dan Davidson, State Land Use Commission
Grant Chun, A & B Properties

COPY

TO : GARY YABUTA, CHIEF OF POLICE, MAUI POLICE DEPARTMENT
(Include) Also I
Separate the accompanying
provided by CPO
NC V. P. 7/11
07/11/11

VIA : CHANNELS

FROM : MELVIN JOHNSON JR., POLICE OFFICER III, WAILUKU COMMUNITY ORIENTED POLICE

SUBJECT : RESPONSE TO A REQUEST FOR COMMENTS REGARDING THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED WAI'ALE PROJECT

This communication is submitted as a response to a request for comments by PBR HAWAII & ASSOCIATES, Inc., Michael Shibata, regarding the Draft Environmental Impact Statement for the following project;

TITLE OF PROJECT : Wai'ale
 TMK NO. : (2) 3-8-005: 023 (por.) and 037, and (2) 3-8-007: 071, 101 (por.), and 104
 APPLICANT : A&B Properties (Grant Chum)
 LOCATION : Waikapu, Wailuku, Hawaii
 PROJECT AREA : Approximate 545 acres

Due to broad parameters in reviewing this project, consultant Michael Shibata was contacted and extension of comments deadline was requested. Deadline of 07/29/11 was agreed upon.

ROADWAYS AND TRAFFIC

Major roadways in the vicinity of the site include: Kuihelaani Highway (adjacent to and east of the site), Waiko Road (bisects the site), Honoapi'iani Highway and Wai'ale road (west of the site), and Kamehameha Avenue (north of the site).

Kuihelaani Highway is a 4 lane, 2 way State arterial highway running in a north-south direction between Kahului and Ma'alaea. Kuihelaani Highway has traffic signals and turning lanes at major intersections, including Waiko Road. The posted speed limit varies between 30 and 55 mph.

Waiko Road, which intersects the Kuihelaani Highway and divides the Wai'ale site into 2 sections, is a 2 lane, County and privately owned collector roadway connecting Honoapi'iani Highway and Kuihelaani Highway. The posted speed limit is 20 mph. Immediately east of Honoapi'iani Highway, Waiko Road provides access to a residential community, and is owned by the County. Further east, Waiko Road provides access to industrial and livestock land uses and is privately owned.

11) FAR APPEAL TO SUBMIT RESPONSE w/ LOW BIDDER INFO.
 Conf 7/11/11

Honoapi'iani Highway is a 2 lane, undivided State highway running in a north-south direction between Wailuku & Ma'alaea. The posted speed limit ranges between 30 and 55 mph near Waikapu. Honoapi'iani Highway has a left turn pocket into Waiko Road.

Wai'ale Road is a 2 lane road running north from Waiko Road. Wai'ale Road becomes Lower Main Street near Kaahumanu Avenue. Wai'ale Road has been extended and improved as part of the Waikapu affordable housing subdivision (adjacent to and west of the Wai'ale site). The county's roadway master plan proposes an extension of Wai'ale Road from Waiko Road south to Honoapi'iani Highway.

Kamehameha Avenue is a two lane, County collector roadway within the adjacent Maui Lani project that currently terminates just north of the Wai'ale site.

Portions of the Wai'ale site are currently leased to companies for various uses. These businesses generate traffic, including deliveries of goods and services and employees commuting to/from work.

RESPONSE:

In review of the submitted documents, the focus from the police perspective would be upon the safety of pedestrian and vehicular movement.

Traffic Impact Assessment Report was submitted within this Draft Environmental Impact Statement and reviewed. These roadway's in the vicinity of the site have seen a significant increase in use with the population rise of nearby residential neighborhoods in the Waikapu/Wailuku areas and the mitigation measures proposed to these roadway's, as outlined in the Traffic Impact Assessment Report, will have a positive impact on vehicular movement with consideration to the applicable speed limits and pedestrian safety. Mitigation measures outlined also address proposed future residential and business sites and the concerns/issues that are to arise out of projected increase in vehicular movement and residency in area.

Although it was determined that this project (when completed) would not affect the service area of police, any time roadways or areas are developed or expanded, the actual accessible areas requiring police service are increased, even though the geographical area may already be provided with police service. As these roadways and the area will extend with more residential and business properties, consideration must be given to crime prevention and deterrence. The most notable aspect for this concern is lighting during evening, late night and early morning hours. Congregation of the unlawful element, whether it's by status offense or by criminal offense, tends to occur in poorly lit areas that are easily accessible and away from the populace. This type of congregation usually leads to offenses such as Curfew Violations, Underage Drinking, Drug offenses, Littering and Criminal Property Damage. Although this concern would fall upon police services, by providing adequate lighting and minimizing the opportunities for this type of behavior to occur would not only benefit the police, but the county as a whole as damages to these areas would be expected to be less than if these areas had inadequate lighting.



October 7, 2011

PRINCIPALS

THOMAS WITTEN, ASIA
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Mr. Gary A. Yabuta, Chief of Police
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawaii 96793

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Chief Yabuta,

Thank you for your letter dated July 28, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

- i. Per your comments, the following paragraph will be added to Section 4.10.2 of the Final EIS:

During the Draft EIS public review period, the County Police Department wrote: "There are no objections to the progression of this project at this time, from the police standpoint, in regards to pedestrian and vehicular movement. However, consideration is requested for sufficient lighting to be installed for not only the safety of vehicular and pedestrian movement, but for crime prevention and deterrence as well."

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII

Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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For these reasons, it is strongly suggested that proper lighting for these roads be provided in order for not only the safety of vehicular movement but for crime prevention and deterrence as well.

It is also noted that this area has also been known to be a dumping area for derelict vehicles, household appliances and other various trash articles. Although this problem has been greatly reduced, consideration should be given to provide sufficient lighting during dark hours as well and any other type of preventive measure should be considered in order to deter this type of criminal activity.

CONCLUSION:

There are no objections to the progression of this project at this time, from the police standpoint, in regards to pedestrian and vehicular movement. However, consideration is requested for sufficient lighting to be installed for not only the safety of vehicular and pedestrian movement, but for crime prevention and deterrence as well.

Respectfully submitted for your review.

Off. Melvin JOHNSON Jr., E#10193
Police Officer III/District I Community Oriented Police
07/27/11 @ 0830 Hours

RECOMMEND OFF. JOHNSON'S
SUGGESTIONS BE TAKEN INTO
CONSIDERATION TO HELP ALLEVIATE
POTENTIAL CRIMINAL ACTIVITY.
Sgt. Dan Davidson
7-27-11 @ 0915

Hui O Na Wai Eha

Phone 808-242-8565
Fax 808-242-8565
Email jduey@maui.net

575-A Iao Valley Rd,
Wailuku, Maui, Hawaii 96793-3107

June 24, 2011

REF: Waiale E.I.S.

Mr. Vincent Shigekuni, V.P.
PBR & Associates, Hawaii, Inc.
1001 Bishop St.
ASB Tower, Suite 650
Honolulu, HI 96813

Aloha,

By way of introduction, I am John V. Duey, 42 year resident of Iao Valley and Pres. of Hui 'O Na Wai Eha. I have been heavily involved with the water issue here in Na Wai Eha since late 2003. I was a signatory to the CCH that we brought before CWRM and set thru all the 22 days of hearings. I have gained considerable knowledge about the waters of Na Wai Eha and central Maui. I have met in the past with Grant and have testified many, many times before the county Council and have met with our current and past mayors on the water problem here in central Maui. I was on the Mainland when the E.I.S. was released to the public. And just now have been going thru it. I have some problems with it. The water, of course.

Therefore I would like to be consulted and have the Hui listed as the same.

Sincerely



John V. Duey
575-A Iao Valley Rd.
Wailuku, HI 96793

P.S. If in question feel to Google my name.



June 30, 2011

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Mr. John V. Duey
575-A 'Iao Valley Road
Wailuku, Hawaii'i 96793

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Duey:

Thank you for your letter dated June 24, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). It appears from your letter that you are requesting that both Hui O Na Wai 'Eha and yourself (as an individual) be consulted parties to the Wai'ale EIS. Enclosed for your review and use are two copies of the Draft EIS. Since you are the President of Hui O Na Wai 'Eha, we are assuming that you can deliver one of the two copies to your organization.

Should you have any questions, please do not hesitate to contact us.

Thank you for participating in the EIS consultation process. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

Encl: Participant Letter
Wai'ale Draft EIS (CD Version)

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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1001 Bishop Street, Suite 313
Kapolei, Hawaii 96707-2005
Tel: (808) 521-5631
Fax: (808) 521-3163

June 30, 2011

Dear Participant:

Attached for your review is a Draft Environmental Impact Statement (DEIS) which was prepared in compliance of the State of Hawai'i EIS Law (Hawaii Revised Statutes, Chapter 343) and the State of Hawai'i EIS rules (Administrative Rules, Title 11, Chapter 200).

IF YOU RECEIVED A COPY OF THIS DEIS ON A CD (PDF FILE) AND WOULD LIKE A PRINTED HARD COPY, PLEASE CONTACT MICHAEL SHIBATA AT (808) 521-5631.

Title of Project: Wai'ale
Location: Island: Maui District: Wailuku
Tax Map Key: (2) 3-8-005: 023 (por.) and 037, and (2) 3-8-007: 071, 101 (por.), and 104

Applicant: A&B Properties, Inc.
P. O. Box 156
Kahului, Hawaii 96732
Contact: Grant Chun
Phone: (808) 872-4312; Fax: (808) 871-7497

Approving Agency/ Accepting Authority: State of Hawai'i
Land Use Commission
P.O. Box 2359
Honolulu, Hawaii 96804
Contact: Dan Davidson
Phone: (808) 587-3822; Fax: (808) 587-3827

Consultant: PBR HAWAII & Associates, Inc.
ASB Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813
Contact: Michael Shibata
Phone: (808) 521-5631; Fax: (808) 523-1402

Please send comments to the Applicant, Approving Agency/Accepting Authority, and Consultant.

Your comments must be received or postmarked by July 22, 2011.

Thank you for participating in the environmental impact statement review process.

Hui O Na Wai Eha

Phone: 808-242-8565
Fax: 808-542-8563
Email: julooj@maui.net

PBR HAWAII & Associates, Inc
ASB Tower, Suite 650
Honolulu, HI 96813

Title of Project: Wai'ale

Aloha

I have several issues about this project but I will only speak to the one that I know the most about, WATER.

I have a copy of the DEIS and have read all of the portions that pertain to WATER. I noticed that you failed to mention the 2 most notable sources of WATER. Well #7 which is the largest well in the T.H. per Stearns (1942) and a new billion gal. reservoir for raw WATER storage. I will start by saying that "all the cheap water is gone". You might have already found that out. Now if this project is approved you will have to pay, and pay and pay for potable WATER.

I question the statement that Waiale wells 1 & 2 "will not be used for the project" 1.8.2. pg.7 and stated again in 2 other places. Did A&B spend the money just to be able to say there is more good WATER in the Kahului aquifer? I don't think so. Do the math, add the .648mgd from these two wells to the Maui Lani wells at 1.07mgd and you get 1.72mgd subtract that from the stated WSS need of 2.8mgd and you are still short 1.08mgd. Now just where are you going to get the additional WATER? That is the big question.

The first source is of course Well # 7 which you neglected to mention. HC&S pumped well 7 from 1927 thru 1988 at an average of 21mgd. Of course as you know 1988 is when Wailuku Sugar Co. went out of business and HC&S got "free" WATER from the Na Wai Eha streams. And of course you know that Well #7 is brackish. And as I said "all of the cheap water is gone". And yes, it will cost A&B money to make the WATER potable. But look at it this way, it means no or fewer permits. The well is at 120' MSL as shown in figure 2-1. There is also existing piping up to the 185' level. The elevations for the project, as stated in 2.0 page 17, goes from 160' to 300' above MSL, so pumping would not be that costly. The tank at Kuikahi is at 270'. If a hydro plant was installed where the WATER drops from the reservoir just below Wailuku Heights down to Waihee ditch a vertical drop of 210', I am sure it would help generate power for the desalination plant for Well 7.


July 19, 2011

The second source of WATER is of course "raw WATER storage". Which would come from freshets and after a new IFS is established for Na Wai Eha, and the Iuleana users are taken care of per the Hawaii State water code (174-C). Which you also neglected to mention. I attended all of the WUDP meetings for the Central Maui WATER System. I adamantly prompted Carl Freedman of Haiku Designs to do some analysis on a 1 billion gallon reservoir at the existing Waiale reservoir site, which he did. I have also brought this idea forward to the past Mayor, the present Mayor, the Maui County Council, Water Resources Committee and Grant Chuun. I have been talking about this for 7 years now, see page 46 of the Central WUDP where Carl says the cost in 2008 dollars would have been 110 million. And on pages 58 thru 67 where he explains in detail the pros. and cons. of a large raw WATER storage reservoir.

As you know, the new IFS for the 4 streams of Na Wai Eha has not been settled. The Hawaii Supreme Court has agreed to hear our case. But, unlike Well 7 taking more of the WATERS of Na Wai Eha has many issues. Since the surface WATERS of Na Wai Eha have been designated, A&B will need to apply for a "new use" WUPA. That is not likely to happen as many others along with myself have already applied for "new use" WUPAS. At this date not even the "existing use" WUPA's have been issued. Although, you do not mention drilling in Iao you do know that the Iao aquifer is also designated and no more pumping will be allowed.

And speaking of aquifers, the Kahului Aquifer's SY is 1mgd. The latest MDWS monthly report shows the 12 month moving average for the Maui Lani wells 5,6, & 7 are already at 1.07mgd and the report does not reflect any wells that are not owned by MDWS. I did note that you say there are 4 other sources of WATER to beef up the SY of Kahului, 3.5 pg. 38. The statement concerning Haleakala and Kahalewai may be true, but to use Waiale reservoir as a source is not reliable. When HC&S shuts down then what? And to use percolated water from the existing cane fields & a golf course, which now surely contains contaminants as a source of recharge does not sound like safe drinking WATER to me. And of course what happens when HC&S shuts down completely are they going to keep throwing water on the ground?

Based on the critical WATER issue in Central Maui it leaves me no choice but to recommend 6.1 No action alternative for this project.

Sincerely

 John V. Duey
 Pres. Hui O Na Wai Eha.



October 7, 2011

Mr. John V. Duey, President
 Hui O Na Wai Eha
 575-A Iao Valley Road
 Wailuku, Hawaii 96793-3007

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Duey,

Thank you for your letter dated July 19, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

Comment: "I question the statement that Waiale wells 1 & 2 'will not be used for the project' 1.8.2 pg.7 and stated again in 2 other places. Did A&B spend the money just to be able to say there is more good WATER in the Kahului aquifer?"

Response: Water from Waiale Wells Nos. 1 and 2 will not be used for the Wai'ale project. The water from these wells will serve another A&B project being developed in Central Maui. However, these wells demonstrated the potential for the development of potable water source within the Central Maui region.

Comment: "Now just where are you going to get the additional WATER?"

Response: Section 4.8.1 of the Draft EIS identifies and discusses potential water sources for the project. Please understand that State of Hawai'i environmental law requires preparation of an environmental impact statement at the earliest practical time. This is often prior to the attainment of all necessary governmental land use approvals. As a result, it is recognized that certain issues will require further discussion, review and approvals by various governmental agencies in order to proceed and that aspects of a proposed project would be subject to modification through the subsequent governmental permitting and public review processes. The environmental review process acknowledges this circumstance and includes a section within the EIS to discuss such unresolved issues. For this reason, water supply has been listed and discussed as an unresolved issue in Section 7.5 of the Draft EIS. Additionally, Maui County Ordinance No. 3502, relating to water availability, insures that all new projects have a reliable source of water prior to development. The Ordinance provides that verification of a long term reliable supply of water be determined prior to any subdivision approval.

The following text will be added to Section 4.8.1 of the Final EIS:

- PRINCIPALS**
 THOMAS WITTEN, ASIA
 President
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Mr. John V. Duey
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 3

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent, or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector, which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, needs to be developed. The need for these improvements is discussed in the County's Water Use and Development Plan and also the Maui Island Plan.

We acknowledge your comments concerning Well 7 as a potential well source and your proposal for a new 1 billion gallon reservoir for raw water storage.

Comment: *"Although, you do not mention drilling in Iao you do know that the Iao aquifer is also designated and no more pumping will be allowed."*

Response: Per your comments concerning the 'Iao Aquifer system, the following paragraph will be added to Section 3.5 of the Final EIS:

The development of new groundwater sources from the 'Iao Aquifer system is not planned for the Wai'ale project. The 'Iao Aquifer system has been designated a State groundwater management area and as such is under the management of the CWRM. The CWRM regulates water withdrawals through a water use permit process. The sustainable yield of the aquifer is monitored and withdrawals are managed by the CWRM. This system of monitoring and management also examines potential impacts to the aquifer, including groundwater levels, the chloride content of pumped water, as well as potential effects due to impacts from climate change (lower rainfall/drought conditions). The CWRM has not modified the sustainable yield for the 'Iao Aquifer system since its designation as a State groundwater management area in 2003. Similarly, the development of new groundwater resources from the Waihe'e Aquifer system is not planned for the Wai'ale project.

Comment: *"And, speaking of aquifers, the Kahului Aquifer's SY is 1 mgd. The latest MDWS monthly report shows the 12 month moving average for the Maui Lani wells 5, 6, and 7 are already at 1.07 mgd...And of course what happens when HC&S shuts down completely are they going to keep throwing water on the ground?"*

Response: Section 3.5 of the Draft EIS will be amended to include the following language:

The CWRM's Water Resource Protection Plan notes a sustainable yield of 1 million gallons per day (MGD) for the Kahului Aquifer, commenting specifically that this "Sustainable Yield ignores significant importation of surface water into Kahului from outside the aquifer system area. This explains the ability to withdraw fresh

Mr. John V. Duey
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 3 of 3

water from the aquifer at significantly higher rates than the sustainable yield without apparent negative impacts (i.e. rising chloride concentrations or decreasing water levels)". ~~The State Commission on Water Resource Management (CWRM) has set the sustainable yield of the Kahului Aquifer at 1.0 million gallons per day (MGD) based on its estimate that approximately 20 percent of the rainfall directly on the 9.5-square mile area becomes recharged to the underlying groundwater and that 44 percent of this recharge can be safely pumped by wells. As mentioned above, this sustainable yield estimate, however, reflects natural recharge, i.e., rainfall only. As discussed below, the Kahului Aquifer is also fed by other sources and has long yielded significant amounts of brackish water far in excess of this sustainable yield figure. The aquifer has a long history of substantial pumping of brackish water by HC&S for sugarcane irrigation. In more recent years, the pumping has been reduced to the range of 25 MGD.~~

We acknowledge, but disagree with your comments concerning HC&S.

Comment: *"Based on the critical WATER issue in Central Maui it leaves me no choice but to recommend 6.1 No action alternative for this project."*

Response: We acknowledge your comment.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.



July 12, 2011

Mr. Dan Davidson, Executive Officer
State of Hawaii
Land Use Commission
Post Office Box 2359
Honolulu, Hawaii, 96804

Subject: Draft Environmental Impact Statement for Waialeale
Tax Map Key: (2) 3-8-005:023 (por.), 037, and (2) 3-8-007:071 (por.), and 104
Waiko Road and Kuihelani Highway
Wailuku, Maui, Hawaii

Dear Mr. Davidson,

Thank you for allowing us to comment on the Draft Environmental Impact Statement for the
subject project.

In reviewing our records and the information received, Maui Electric Company has no additional
comments to the subject project at this time.

Should you have any questions or concerns, please call me at 871-2341.

Sincerely,

Kyle Tamori
Staff Engineer

c: PBR Hawaii – Mr. Michael Shibata
A & B Properties, Inc. – Mr. Grant Chun



October 7, 2011

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Mr. Kyle Tamori, Staff Engineer
Maui Electric Company, Ltd.
210 West Kamehameha Avenue
P.O. Box 398
Kahului, Hawaii 96733-6898

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Tamori,

Thank you for your letter dated July 12, 2011 addressed to Mr. Dan Davidson of
the State of Hawaii's Land Use Commission, regarding the Waialeale Draft
Environmental Impact Statement (EIS). As the planning consultant for the applicant,
A&B Properties, Inc., we will be adding the following text at the end of Section
4.8.6 of the Final EIS:

During the Draft EIS public review period, MECO wrote: "In reviewing our
records and the information received, Maui Electric Company has no
additional comments to the subject project at this time."

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII

Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.



July 22, 2011

A&B Properties, Inc.,
PO Box 156, Kahului, HI 96732.
Attention: Grant Chun, Vice President

State of Hawaii Land Use Commission
PO Box 2359, Honolulu, HI 96804
Attention: Dan Davidson

PBR HAWAII & Associates, Inc.
ASB Tower, Suite 600, 1001 Bishop Street, Honolulu, HI 96813
Attention: Michael Shibata

Re: **Waialeale Development (DEIS) Comments**
TMK: (2) 3-8-95:23 (por.) and 37, and (2) 3-8-07:71, 101 (por.), and 104

Maui Tomorrow Foundation, Inc. (MTF) would like to be a "consulted party" during the environmental and land use permitting review of this proposed project.

MTF appreciates this opportunity to comment on the Draft EIS for Waialeale. MTF supports infill development which can connect to existing Kahului infrastructure, but we do have concerns about adequate infrastructure being available for this project and the significant changes in the project's master plan that are presenting a configuration of uses that were not reviewed or discussed during the recent Maui Island Plan citizen review process of Central Maui projects.

We would like to elaborate on our original comments from the project's EISPN.

2.2 Community Purpose and Need

HOUSING UNITS The DEIS suggests that Central Maui will have the largest share of future housing on the island- 4,850 units, with Waialeale comprising 2,550 of those. Several additional factors should be included in this analysis. Central Maui has 3,800 already entitled, but yet-to-be-built units, as well as hundreds of units presently on the market due to foreclosure. The Waialeale economic forecast predicts those units would be absorbed within 4 years, but the FEIS should also evaluate the project need with an alternate scenario of a 10 year absorption rate, which may be more realistic.

To illustrate this point, consider the original 1970's Maui Lani Project District time table. It was expected that the majority of the units would be built by 2000, but in fact the first installment was only in 1996. At least 600 Maui Lani units still remain unbuilt, 30 years after it was begun.

WATER Since Central Maui and South Maui share a common water supply and will be competing for the same resources, and since substantial growth has been planned for North

Kihei, that sizeable competing demand should also be evaluated and discussed. Is A&B's already LUC approved North Kihei Kawahine project (600 units) included in the Central Maui projections for purposes of this DEIS? The R&T Park Project District is now pursuing the addition of 1,200 new units that were not in the Maui Island Plan forecasts. How do these potential projects affect the need and demand for Waialeale? There are commercial/industrial projects and several thousand other South Maui fully entitled housing units and in need of water. All must comply with workforce housing requirements.

Section 2.3.1 Vision Statement

The project's vision statement still omits any reference to the cultural and historic significance of the region and the site, although this is discussed in section 4.2, Cultural Resources. Although we appreciate the standards set by Hana Pono seeking to find archaeological "proof" of the exact location of the Battle of Kakanilua in the area, we suggest that many historical events that have become legendary depend more on the moolelo than any "hard evidence." We ask that the consultants continue to work with the applicant to establish an appropriate memorial for this last great pre-contact battle site to regain its place in our history.

"Respect for the natural, historical and cultural significance of the land" is listed as a "community planning goal" for the project. MTF respectfully requests the applicant to take to heart the importance of preserving not one, but as many as possible of the remaining culturally significant natural sand dunes as possible. Regardless of the dunes being "pristine" or not, they are Wahi Pana, significant traditional properties. This status is recognized in the Wailuku-Kahului community plan.

The EISPN mentions a community goal to "capitalize on the views of Haleakala, West Maui mountains and significant landmarks" on the project site. The DEIS statements in section 4.7 Visual Resources section should be modified to support the cultural importance of these truly magnificent view planes.

3.2 Geology and Topography

MTF requested in our EISPN comments that there be specific discussion in the DEIS of the percentage of this 30 acre affordable housing site which is currently in natural dune formations and is likely to impact future burial sites?

DEIS Response: A Geological Reconnaissance Survey was performed. It produced a map (Fig 3-1) which indicates the presence of the remaining dune features. It does not include the Waialeale community master plan designations for reference, but it would appear from the Fig 3-1 map that no natural dunes occur in the proposed 30 acre affordable housing area. This is not accurate. One small dune area is present. **The issue is not discussed in the DEIS.**

The proposed 30-acre County affordable housing donation area is adjacent to the major concentrations of burials already found on the 5.45 acres. If the experience of Maui Lani is repeated here, numerous additional burials that were interred, not in the upper sections of the dunes themselves but at deeper levels, could be disturbed. This will occur when infrastructure is installed for the affordable housing, possibly delaying the project. **This potential impact is not even considered in the DEIS.**

Omissions in Geological Reconnaissance Report

The Geological Reconnaissance Report comes to a number of conclusions, without citing any standards, references or specific attributes of the dune features. It is customary in an environmental disclosure document to draw such conclusions only when based on factual data. Also, the report does not acknowledge that dune features are valued as a cultural resource, regardless of their being completely intact or not. This is supported in the Waialuku-Kahului Community Plan language which included the, "Puu One Sand Dune Formation from Kahului Harbor to Waikapu" among the list of "Significant Traditional Places" to be protected.

The Cultural Impact Assessment summary in Section 4.2 of the DEIS also refers to the unaltered sand dune formations north of Waiko road and Waikapu stream as "important cultural features."

Omission 1. The geological report concludes that the "majority of dune structures in the project area have been obliterated by human activity". However, no actual data is provided on the specific area (i.e. number of square meters) that was originally covered by sand dunes, versus the area of the remaining dunes.

"Majority" is not defined. Does it mean 50% of the dunes have been mined by the applicant and their lessees, or more? How does this compare to other sites in central Maui? What percentage of the natural dunes remain on the Maui Lani Dunes golf course? This should be made clear before the remaining dunes on the Waialeale project site are dismissed as degraded and worthless.

Omission 2. Observation reveals a number of substantial natural dune areas remain across the 545 acre site, but this is not well reflected in the DEIS. Because the cultural significance of the dunes is not discussed in the report, the accepting agency will not be informed which unprotected dunes may already have known burial features.

A large intact dune is present in the project site. Unpermitted sand mining at its south end in 2008 has already revealed the remains of 17 burials and grave items. The remainder of the undisturbed dune is likely to shelter burials. This dune is shown on the Fig 3-1 map. It appears to be located just east of the proposed Kamehameha Ave. extension where VMX and county housing is planned. Is it not as worthy of protection as the one larger dune preserved to the West?

Omission 3. The project consultants suggest that only one dune in the whole area is not "designated as degraded." No factual proof of other dunes on the site being "degraded" is provided. No specific standards by which to evaluate the state of the dunes as "degraded" are cited. Most dune areas in central Maui have had grazing activities, but no factual information is provided to offer a sound statement.

Omission 4. All dunes except the Area 1 burial preserve on the project site are also dismissed because they are not "low." Yet the Fig 3-1 map provides no elevation data about the various dunes mapped. No specific information is given on the elevation of the one dune proposed for preservation (this dune has approximately 50 documented burials.) Without this information, it is difficult to accept the assumptions put forth by the geological consultants.

MTF requests that the FEIS address the need for a larger contiguous cultural preserve area. If the project's intention is to "minimize further burial disturbance", the Maui Island Plan Draft map and its contiguous open space area should be considered.

3.5 Ground Water Resources and Water Quality

3

Potential on-site Wells

MTF requested in our EISPN comments that the EIS include water quality testing reports for the two potential on-site wells in Kahului aquifer.

DEIS Response: No specific data is included regarding these wells, except that water quality and quantity was good. It is mentioned that the wells are sited in the north west corner of the project, which is in the "10 year time of travel of the Wellhead Protection Area for the region." (App. M. p. 11). In essence, it appears that the entire project site could contribute to potential groundwater contamination of the wells, and this may be why they are not planned for use in the project's water supply. The FEIS should provide specific information.

Furthermore, because the Waialeale project land is close to major agricultural fields, MTF asks that prior to receiving any entitlements all water wells be thoroughly tested for both inorganic traces, e.g. nitrates, nitrites, chlorides, and for organic components, e.g. herbicides, pesticides, nematocides. The results should be included in the FEIS.

MTF requested in our EISPN comments that the Waialeale EIS include an analysis of the wells' potential yield if irrigation of the surrounding area is reduced incrementally due to the cessation of agricultural activities, and discuss proposed mitigations.

DEIS Response: The DEIS acknowledged that the Kahului aquifer benefits from additional recharge, but it did not specify the sources of that recharge, nor discuss impacts to the wells if the outside recharge was reduced. The DEIS fails to reveal much about the onsite wells.

Omissions in Discussion of Groundwater Resources:

The DEIS did not state in this section that the project site lies below the state DOH Underground Injection Control (UIC) line area, "generally denoting water that is unsuitable for drinking water purposes.". This was revealed in Appendix M Environmental Site Assessment report (p.7). The effect of this location on future groundwater sources for the project should be discussed in the FEIS.

Any proposed use levels of onsite wells 5129-04 and 05 should be discussed. If the project wells are potable, will they be used for irrigation in a dual water delivery system? Would such pumping impact the output of the nearby Maui Lani wells 5, 6 and 7 which the DEIS states are being used for the County system?

Have the onsite wells been tested for nitrates and other Ag contaminants?

No reports are provided in the preliminary Engineering report. The DEIS indicated that the wells are located in the north east corner of the property and the drainage report indicated that this is where natural drainage flows for the entire north section of the project area accumulate.

Given the numerous hazardous material breaches that have occurred on the project site over the years, the presence of a former landfill, and the historic fact of a contaminated well (5129-01) at the R.J. Reynolds orchard site immediately northeast and in the same hydrological sector as the two on site Waialeale wells (5129-04 and 05), water quality data on the wells should be provided as part of the FEIS.

The DEIS refers to "other potential drinking water systems including wells in Central Maui." Would this include prospective wells in Waikapu or Iao aquifers? If so, this should be discussed

4

during the Waiale EIS process to avoid segmentation of impacts. The regulatory review provided by CWRM and/or DOH should be built upon the EIS process, not substituted for it.

The DEIS does not reveal that 3 well permit applications have been submitted to the state CWRM by "Waiale Partners" on TMK (2) 3-6-002:003. These wells located in the WAIKAPU aquifer are listed as having a potential irrigation use of .667 mgd each. Is the Applicant engaged in prospective well partnerships with Waiuku Water Company, which also holds an interest in the land where the potential wells are sited?

The DEIS mentions the potential for onsite activities in the entire project area to potentially impact groundwater resources (p.39). It is mentioned that parks will be "advised" to use Integrated Pest Management (IPM) practices to minimize use of pesticides and fertilizers and their impacts to groundwater. The DEIS should discuss the cost implications of the parks using IPM and what will happen if they don't? The alternative of having less irrigated park space and more natural areas, such as the natural dune formations, should also be examined as a water conservation strategy.

There formerly was a major landfill next to this project's lands yet no potential impacts of the unlined Waikapu landfill to potential ground water quality is discussed in the water section of the DEIS. Will the applicant propose a monitoring well for the landfill, which adjoins the project site's north western boundary, since the landfill is exempt from state monitoring due to its age?

If the applicant is considering wells in the Kahului aquifer, which has a sustainable yield of only 1 mgd (half or one third of what is needed for the Waiale project), the future ability of the aquifer to provide the larger amount of water should be discussed in the FEIS relative to any future loss of artificial recharge potential to the aquifer as agricultural use of the lands shifts.

The FEIS should discuss whether the onsite wells benefit from any leakage from the Waihee ditch which is located in close proximity.

MTF requests that the FEIS address these unresolved groundwater quality impact issues that can have secondary and cumulative impacts and are required to be considered as part of the HRS 343 process.

Section 3.6. Fauna

Although the fauna survey does not reflect the fact, pueo (native Hawaiian owls) are often seen on the Waiale project site by local residents, especially in the gulch areas. Nene are also seen and have established a presence at nearby Waiale reservoir.

The DEIS consultant identified the manduca caterpillars and their habitat, but the DEIS did little to explain what habitat protection measures are being proposed for the endangered manduca moth.

MTF requests that the FEIS' C.I.A. contain more information from cultural practitioners regarding the connection of the pueo to these plains as well as a discussion of a range of specific measures proposed to protect habitat. for the nene, manduca and pueo.

4.1 Archaeological and Historic Resources

MTF requested in our EISPN comments that the EIS affirm the project site's connection to similar dunes in the Maui Lani Development area where nearly 300 burials have been inadvertently disturbed.

DEIS Response: the Cultural Resources section of the DEIS presented a very accurate view of the project site, its cultural resources and the region. It also made it clear that the project area is considered by kamaaina as part of the land of Waikapu, not "an extension of Kahului" as the applicant has offered.

MTF was concerned that the proposed Waiale Plan creates very minimal burial preserve areas, containing only those burial sites which have already been disturbed. This creates a risk of numerous additional burials being discovered and disturbed during future project development.

MTF requested in our EISPN comments that the DEIS include maps of all the remaining intact dune areas on the site and an alternative project design that avoids disturbance of these and other high probability burial area and sets aside a cultural preserve area designed to reduce the risk of future burial disturbance.

DEIS Response: A map was provided (Fig 3-1) in the DEIS.

Unfortunately it did not show the dunes in relationship to the proposed project master plan and preservation areas. It also had no information about dune characteristics.

We are pleased to see the unique beauty and cultural importance of the dune formations recognized by the consultants and to see the intention put forward not to relocate any further burials. **We request an alternative project Master Plan (a kind of mitigating action) put forth in the FEIS that supports these intentions with project design.**

MTF also requested in our EISPN comments that the EIS discuss the impacts of reclassification from AG to urban. Would that change allow new leases for sandmining on the remaining dunes to "grade the site?"

DEIS Response: the DEIS made no mention of future grading plans for the dunes other than putting forward the view of their geological consultant that the remaining dunes were not pristine and were designated "degraded."

Section 4.4 Noise Impacts

The DEIS describes noise levels in residences near Light Industrial areas of the project which would potentially exceed FHWA standards. The DEIS suggests that mitigation for the excessive noise levels would come through residential unit design.

MTF requests that the FEIS address how residential unit design requirements, needed to reduce noise to acceptable levels, may impact the costs of the county affordable housing units proposed near or adjacent to any Light Industrial area? if extra costs are involved, the FEIS should examine ways to mitigate those, or discuss alternative locations for the affordable housing.

Section 4.5 Air Quality Impacts

The DEIS describes potential air quality impacts in the Light Industrial zone from carcinogenic compounds (DPM) from truck emissions which will require another set of rules and enforcement to mitigate.

MTF requests that the FEIS address costs associated with enforcement of these mitigations in the industrial area. The protocol for enforcement should be clearly defined and discussed. Alternative locations for the affordable housing, where air quality impacts can be avoided, should also be examined to avoid long-term impacts to future residents.

4.6 Man-Made Hazards

MTF asked in our EISPN comments that the topic of the nearby landfill and its potential contamination of air, water or soils in the region be specifically discussed in the EIS document.

It is our understanding that the Waikapu landfill was unlined. It was closed before current health safety regulations pertaining to testing and safety of landfill operations were in place and has had several external dumping episodes since closing that triggered action by the DOH.

MTF requested that several potential Hazard Impacts be discussed: An analyses of the landfill and its potential contaminants be done and included in the Hazard Mitigation section of the EIS.

DEIS Response: A Phase I Environmental Site Assessment was done for the property, as is required, and included in the DEIS. On p. 2, the report acknowledged that it included “sampling or analyses of soil, groundwater or other materials.”

A few sentences were included in the report summary about the former landfill, noting it was a Recognized Environmental Condition (REC). The Site Assessment report stated that the consultants were informed by county staff that although no monitoring is required of the landfill because its closure pre-dates environmental regulations requiring such action, several gas monitoring wells have been installed on the Maui Lani development side of the landfill and a 300 ft buffer was established.

Omissions in Phase I Environmental Site Assessment:

The Site Assessment report, and DEIS did not discuss that these monitoring wells were a result of a state DOH condition which required the wells, a 300 ft buffer from residential uses and recorded deed restrictions. These conditions were adopted by the State Land Use Commission during its review of the Maui Lani VMX Subdivision adjacent to the north end of the landfill, according to the July 28, 2005 LUC minutes. The consultant stated that data from the monitoring wells is not publicly available, which seems unusual for an agency-mandated action.

The Site Assessment also did not discuss that the landfill site was used as an unpermitted stockpile area for hundreds of abandoned autos in mid-2006, until the state DOH cited the county and forced removal. Photos of car batteries, fluids and other hazardous waste strewn across the site are available online.

The Site Assessment did not include information that a contaminated groundwater well, Reynolds well No 1 (State site 5129-01), was located immediately to the north of the Waialeale parcel.

No specific information was provided in the full Site Assessment Report about the one groundwater testing sample done previously at the landfill by the same consultants, as part of the Maui Lani project. The one sample is summarized as having 8 metals present, all below state and federal maximum contamination levels. **It is customary to include a testing report detailing the specific types and levels of contaminants found, even if they are below regulatory action levels.**

While the Site Assessment Report was careful to state that “valuation reduction for environmental issues” does not apply to the project area, the surrounding uses are hardly typical of the usual subdivision. Various portions of the subject parcel were subject to a variety of environmental hazards including hazardous material spills, dumping of machinery and trash, animal wastes, contaminated soil storage and significant oil and automobile fluid contamination.

In summary, the proposed Waialeale community is surrounded by a former unlined landfill, a former scrap metal processing facility, shut down for repeated DOH violations, an animal feedlot, asphalt processing, farming, mining and other uses commonly known to have produced contaminants on the subject lands.

MT requests the FEIS to address omissions in the Site Assessment Report and their possible resolution at the project site. Please provide specific proof that one groundwater test sample is enough to draw reliable conclusions about the potential impacts of the Waikapu landfill, as well as the sample date of that sample.

Please discuss whether additional monitoring wells will be installed on the Waialeale side of the landfill site with regular testing done?

How will the project address DOH’s concerns about construction activities near the landfill, disturbing conditions there and releasing gases or leachate?

How will the proposed industrial area adjacent to the landfill address these concerns during construction?

Why did the 2007 Waialeale site plan propose a buffer adjacent to the landfill?

Please show a detailed site-map with the proposed 300 ft buffer from the landfill delineated and give an example of the deed restrictions that will be used for that buffer zone.

Please include information about any soil testing available from the landfill site that could determine what dust containment measures would be necessary to avoid impacts to nearby homes, parks and schools.

MTF also requested in our EISPN comments that the EIS address the nature of businesses and activities that are expected to be using the light industrial area and any impacts that these activities may have on nearby residences.

DEIS Response: DEIS states that 16 acres of Light Industrial land will provide space for uses such as, but not limited to warehouses, light manufacturing and processing. On page 96 it states that the “existing lessees may be relocated on site.” Existing lessees appear to include Tom’s Backhoe, Ameron International, Meilia Orchards Maui, Nobrigo’s ranch, TJ Gomes Trucking and others.

MT requests the FEIS discuss the existing Waialeale industrial area users and the compatibility of their activities with the new proposed residential use. Tom’s Backhoe

and Ameron International appear to be in, or nearby, the proposed County Affordable housing area (Fig 2 Map in the Site Assessment Report.) Will they remain as tenants?

4.7 Visual Resources

MTF requested in our EISPN comments that visual resources be discussed during the cultural impact assessment and archaeological review processes.

DEIS Response: A number of statements in the Cultural Impact Assessment statement did refer to the views of Mauna Kahalawai and Haleakala as well as the dunes, Waikapu stream and the burial areas as the cultural resources of the region that contribute to the proposed project site being a unique place. We appreciate the consultants willingness to share what they gathered from their interviewees.

MTF requests that the FEIS incorporate the Hana Pono (cultural consultant's) statement on p. 12 of the CIA: "Synthesis of Archival, Literary, and Oral Accounting" section into section 4.7. It clearly describes the connection of the views and land forms on the site.

4.8.3 Drainage System

MTF requested in our EISPN comments that the EIS discuss the project area's topography more accurately.

The discussion of drainage issues and features does not note the severe erosional features present on site, nor the presence or location of a number of prominent gulches, 10 feet deep or more.

Drainage System Omissions

The DEIS does not discuss drainage issues from the former landfill site nor does it discuss who will be responsible for managing the BMP retention basin maintenance plan that is being developed. Will that be the homeowners' association?

What level of funding will be required for regular maintenance of the basin? If the project is geared towards mostly affordable housing, will those costs be a burden?

MTF requests that the FEIS address these unresolved drainage issues which may have secondary and cumulative impacts.

Section 4.8.1 Water System

There is no water supply or infrastructure currently available for this project. In sect 7.5 of the DEIS (p.232) it is clearly stated that the water supply for the proposed project is an "Unresolved Issue." The DEIS also states that there is presently no potable water supply available for this project from the County system. (Appendix M, p. 12 County DWS response letter to Waiale EISPN)

Since the project will be required to develop a new water source, or sources, the DEIS should analyze the potential impacts of the various public trust resource water sources that it may consider tapping. It does not acknowledge any impacts on aquifers, existing users, or culturally protected resources that could be affected.

The Applicant's consultant told the state Office of Planning that impacts to aquifers would be discussed in the DEIS. The topic of impacts to Iao, Waikapu or Kahului aquifers, - all potential water sources for the project, was not discussed and implies a segmenting of potential impacts.

MTF requests that the FEIS address these unresolved water resource issues which may have secondary and cumulative impacts.

MTF requested in our EISPN comments that the EIS include updated information on the status of the proposed Waiale Water Treatment Facility and its impact on surface waters, stream, and aquifer health in the Na Wai Eha region.

DEIS Response: The DEIS did acknowledge that the Interim stream flow standards, set in June 2010, have been appealed and are not yet resolved.

Other important information influencing the creation of this facility was omitted from the DEIS.

Omissions in Water Supply Section:

The DEIS did not consider any long term impacts the dedication of 9 mgd of Waiehee stream water would have on local kuleana users or stream ecosystems.

The DEIS did not acknowledge that the surface waters of Na Wai Eha, including Waiehee stream, are designated a "State Surface Water Management Area" and subject to a water use permit process. The DEIS did not discuss that CWRM has not specifically allocated water use permit capacity for a 6 to 9 mgd surface water facility through the recent Water Use Permit process of the four streams. Without the permits, there will be no water available for the facility.

The DEIS did not discuss impacts the Waiale water treatment facility would have on available water for agriculture, or water available to restore stream flows and recharge Iao aquifer; or the fact that use of stream waters in the project area would recharge the Kahului aquifer instead of the Iao aquifer.

The DEIS on p. 80 suggests that in the WUDP analyses "the Waiale WTF is considered to be potentially the most cost effective solution to providing future water.." The DEIS did not inform readers that the consultants based this evaluation on the price of oil remaining below \$85/barrel.

Higher oil prices would prove more costly than an alternative location analyzed closer to Waiehu. This location, which was proposed by the Applicant at an earlier stage of treatment facility planning, needs to be discussed as an alternative in the FEIS.

MTF requests that the FEIS address these unresolved water supply issues that can have secondary and cumulative impacts and are required to be considered as part of the HRS 343 process.

MTF requested in our EISPN comments that the EIS should contain specific information about the project's expected peak potable and non-potable water needs, as well as planned water conservation measures by number of built units during various phases of construction.

DEIS Response: The DEIS gives an overall water demand of 1.9 mgd average and 2.8 mgd peak. In the preliminary Engineering Report it is acknowledged (p.13) that proposed parks will require 200,000 gpd of potable water that could be replaced by treated wastewater from an onsite facility.

On the other hand, the DEIS states that if a Wastewater Treatment Plant was built on-site, its entire output of .98 mgd could be used for irrigation onsite. It is not made clear in the DEIS exactly how much of the project's demand would be non-potable and what level of commitment the project has in minimizing use of potable water for non-potable purposes.

The proposed water usage levels cited in the Appendix M are based on the County's 2002 system standards. A 500 to 600 gpd usage per central Maui household appears low. Language in the DEIS and Appendix M (engineering report) gives no assurance that water conservation measures would be a priority for this development. The DEIS states that such features will be "considered."

MTF requests that the FEIS address these unresolved water demand management issues which may have secondary and cumulative impacts, and are required to be considered as part of the HRS 343 process.

Section 4.7.4 Wastewater Facilities

MTF requested in our EISPN comments that the EIS also examine other options to treat waste water through a new regional facility, without putting an additional burden on the aging and vulnerable coastal Kahului WWTF.

DEIS Response: The DEIS gave a short review of a proposed local WWTP with a 1 mgd capacity, but seems more committed to hooking up to the existing Kahului treatment plant.

No regional facility was mentioned or discussed. The County's November 2010 letter to the applicant stated that wastewater flows from the project will exceed the Kahului wastewater plant system capacity, and the County's Public Works Department recommended the applicant study a regional treatment facility that could service several proposed development project areas. Other important information was not included in the DEIS Wastewater Facilities discussion.

Omissions in Wastewater Facilities Section:

The Applicants informed the state Department of Planning that the DEIS would "identify whether any capacity or facility improvements to Kahului facility would be required to accommodate increased flows from the project." The DEIS only stated they would be willing to participate in such improvements, rather than identifying what improvements would be needed. This approach segments project impacts.

The DEIS does not address impacts of another 1 mgd of sewage going to the overburdened Kahului plant and what specific mitigations, such as installation of reclaimed water lines to recycle an equivalent amount of effluent at the plant, are proposed.

DEIS Appendix M Engineering Report (p. 22) states that 116 acres of parks and green areas on the site will require an average irrigation demand, depending on weather conditions. The consultant's calculations compute this as 8,000 gal per acre per day, or a total of 1 mgd. This is more water than even sugar cane uses (5,000 to 6,000 gal acre day). The DEIS should clarify what the actual irrigation needs of the green areas are, versus what they may be able to absorb.

The DEIS does not address other non-potable sources for the project's onsite irrigation needs if no treatment plant is built? On page 22 of the Engineering report average demand is listed as 1 mgd.; is this accurate?

The DEIS should include evidence that the applicants discussed the concept of a regional wastewater facility with owners of other nearby proposed projects. It should not be dismissed with no research or explanation.

The Draft Maui Island Plan process included long discussions on the need to transition new large central Maui developments away from reliance on the Kahului treatment plant and towards a new central Maui facility located out of the coastal hazard zone. The apparent intention of this project to connect into the Kahului facility, and not commit to participation in a new regional facility goes directly against this important community goal. The DEIS should give criteria for the choice of options made by the applicant.

MTF requests that the FEIS address these unresolved wastewater management issues which may have secondary and cumulative impacts, and are required to be considered as part of the Ch 343 process.

Section 4.8.5 Solid Waste

MTF requested in our EISPN comments that the EIS estimate the amount of construction waste to be generated during the project and identify where the waste will be disposed of. Would the project trigger the need for another construction waste disposal site?

DEIS Response: No estimate is given. No mention is made of using a construction landfill. A Solid Waste Management Plan is promised, but not provided in the DEIS.

MTF requests that the FEIS address the lack of data regarding solid waste management issues. This should be done during the EIS process where documents will be available for public review. This will help avoid unintended secondary and cumulative impacts, as required by the HRS 343 process.

4.9.4.3 Housing

MTF requested in our EISPN comments that the EIS discuss what portion of the 2,550 units will be affordable for working families and in what price range? Also whether the 300 units of County affordable housing will count as part of the project total to meet requirements of the Workforce Housing ordinance?

DEIS Response: the DEIS avoids discussion of percentages or target numbers of affordable housing units on-site or a price range for these units. The DEIS states that the project is geared primarily to the affordable market but this is not defined.

The DEIS does not make clear whether the 300 County workforce housing units will be counted towards workforce housing requirements or is it meeting the requirements of the applicant's previously LUC approved Maui Business Park?

The DEIS does not make clear who will assume infrastructure costs for the proposed County affordable housing or discuss who will be responsible if the county affordable housing area is impacted by the adjacent landfill? Does the county have an agreement with the developer?

The DEIS does not discuss if the county workforce housing on-site will be both single and multi-family, or whether it will be in both the north and south portions of the property.

MTF requests that the FEIS address the lack of specific, detailed data regarding affordable units planned for the project. This project has been under discussion for 6 years and information must be available to inform the public and decision makers.

5.2.1 Countywide Policy Plan (An adopted part of the County's General Plan)

The CWPP has many policies that support communities where it is easy and safe to walk or bike to school, work, shopping and play.

Although the DEIS refers to the walkable nature of the proposed community, it would appear from Map O-1 that access from the largest proposed County affordable housing area, adjacent to the former Waikapu landfill, over to the proposed commercial area along Kūihelani Hwy would not be walkable. It would require an automobile, or a bike ride along several busy roadways.

This same area, with 30 acres of land proposed for affordable housing is shown as open space/greenway or park on the maps approved by the General Plan Advisory Committee, Maui Planning Commission and supported by the County Department of Planning.

The CWPP policies support planning to "make walking and bicycling transportation safe and easy between communities." The proposed green way in this section would have met that need. However, the plan shown in Fig O-1 Master Plan shows no connectivity between the two areas and the only walking/bike path in the affordable area is around or over the burial preserve.

There is an appearance that this was less desirable land, bordered by the landfill on one side and separated by a high sand dune/burial site from the rest of the project. It appears that those who live here, with the greatest need of transportation alternatives, will be offered the fewest choices.

MTF requests that the FEIS address why this 30 acre site was chosen to fulfill the required donation requirements of Ordinance 3559, despite the draft Maui Island Plan preference to see the area as an open space buffer to protect cultural sites and minimize impacts from the former landfill.

Why were other areas of the project, equally close to Pomaikai School and the proposed new middle school and community center, not proposed? How will residents of the proposed affordable housing area be given opportunities to safely walk and bike to shop and use community facilities?

Are there specific infrastructure reasons why the affordable housing components of both Maui Lani and Waiale are designated for the same area where the landfill, a former EPA CERCL (Comprehensive Environmental Response, Contamination and Liability) site, is located?

5.2.2 Land Use Conformance: Draft Maui Island Plan Map

Open Space/Cultural Preservation Element

The DEIS should clearly acknowledge that MIP maps approved by the GPAC, Maui Planning Commission and Maui Planning Director show a very different configuration for park/ cultural preserve area. These maps had specific planning objectives in mind. Although the DEIS refers to the "extensive planning process" the project underwent in 2005 (p. 180). There is no

discussion in the DEIS that this public consultation process continued in a more neutral and public setting throughout the two year Maui Island Plan review, and a very different concept was supported for Waiale.

MTF requests that the FEIS provide a comparison of the two proposed maps (Draft MIP Map and Waiale Master Plan Map) on the basis of the following four community objectives for the region, heard during the MIP process:

- 1) Create a community built around an urban oasis, to soften a very industrial area- this would be accomplished through a large contiguous open space to allow natural dune formations to be protected; connect rather than separate the main known burial concentrations; and preserve a sense of place.
- 2) Create a substantial buffer area between the urban density of Kahului and the developing area of Waikapu
- 3) Create a large natural buffer between the Waikapu landfill site and any future residences, and use the space for walking trails and bikeways that will connect across the project site and not compete with traffic.
- 4) Use the open space as a memorial to the legendary battle of Kakanilua and the thousands who died amid the sand dunes on the central plain of Maui, helping to preserve Maui's history and also to avoid impacts to other likely burial concentrations.

It should be noted that the project's cultural consultants also concur that the remaining sand dune formations are what gives the site its unique sense of place. Preservation of only one dune does not meet the Vision Statement goals of the project, nor does it comply with the Wailuku-Kahului Community Plan or support the conclusions of the project's CIA process.

County Affordable Housing Area Element

The county affordable housing area discussed during MIP public meetings was sensibly located near the existing and proposed schools and shopping. On the Draft MIP maps, the lands adjacent to the Waikapu landfill were designated as open space, potential burial preserve, and a greenway with bike paths connecting Maui Lani VMX and the Waiale project. The need for similar landfill buffer lands in the Maui Lani VMX drew considerable discussion among state Land Use commissioners, Urban Design Review Board members and Planning commissioners.

Section 5.2.3 Wailuku –Kahului Community Plan Conformance

The Wailuku-Kahului Community Plan has many policies relating to cultural and historic preservation in the region, including protection for Puu One sand dunes. The historic and cultural importance of the site should be clearly acknowledged in relationship to the community plan policies.

MTF requests that the EIS have specific facilities and dedications to memorialize the important historical events of the region. This should be clearly discussed in the DEIS in regard to the project's conformance with state and local plans.

Section 6.0 Alternatives Section

6.3 Alternative Project Design

The DEIS suggests the project design is "largely in concert with the Draft Maui Island Plan," but the project appears to ignore the map of the Waiale area preferred and recommended by ALL reviewing bodies to date.

The alternative scenarios described in section 6.3 do not include:

- a) an alternative with a larger natural preserve area,
- b) an alternative with fewer units or
- c) an alternative where no community facilities are in proximity to the former landfill.

All of these are important variations of the project to consider.

The concept that any reduction in units in the proposed project will result in shortages of housing in Central Maui is hard to justify in light of the substantial number of units already approved for the applicant's Kahului Town Center, proposed by the same applicant at their North Kihai project (Kaiwahine), and the high unit count projects already entitled and being proposed by their fellow large landowners in central Maui and the north Kihai area.

The statement that there are few large parcels on Maui designated for residential development in the Maui Island Plan is not consistent with the list of large north Kihai acreages: Kaonoulu, Haleakala, Makena, Wailea 670 and the central Maui projects proposed for Waikapu (Tropical Plantation) and Wailuku (Hale Mua), all within the urban growth boundary.

On top of these are the un-built, fully entitled portions of Kehalani and Maui Lani. There is no proof that a Waiale project with 2000 units rather than 2500, would have any serious effects on the pool of available housing for working families in central Maui a decade or two in the future.. This is not even bringing the 6000 units proposed in the UGB for the Lahaina area into the discussion.

HAR 11-200-16 requires a genuine discussion of alternative site plans for a project site where sensitive environmental or cultural resources are found.

7) *Historic perspective.*

(1) *The draft EIS shall describe in a separate and distinct section alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected. The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks. Examples of alternatives include:*

- (1) *The alternative of no action;*
- (2) *Alternatives requiring actions of a significantly different nature which would provide similar benefits with different environmental impacts;*
- (3) *Alternatives related to different designs or details of the proposed actions which would present different environmental impacts;*

Alternative designs for the Waiale project must be offered to provide opportunities to minimize impacts on sensitive cultural resources and respect the history of a place where a new community is being proposed.

The unintended result of providing minimal burial preservation areas is that all future burials encountered elsewhere on the remaining 500 acres will either be relocated or fragmented into culturally isolated features. The alternative should provide an analysis of the Maui Island Plan Draft Map as part of the EIS process.

MTF requests that the EIS include maps showing alternative views of historic/cultural preservation areas and open space, including those supported by the GPAC, Maui Planning Commission and Maui Planning Director. Several maps and narratives should be provided, showing expanded versions of the proposed Cultural Preserve area that would reduce the risk of more inadvertent burial disturbances. In particular Preservation Area 3 should be expanded to include the entire dune system it adjoins.

Sect 7.2 Cumulative and Secondary Impacts

The DEIS does not mention or address secondary and cumulative impacts to natural and cultural resources that a project demanding up to 3 mgd of water a day at buildout is likely to engender. Which aquifers will be used? What agricultural activities will cease, if millions of gallons of water a day is extracted from either streams or groundwater? What other projects will NOT be built in order to provide the water for Waiale?

The DEIS does not address any significant plan to reduce potable water demand in the project, even though it is located in a very arid area. The DEIS makes no commitment to identify a reliable source of non-potable water for the extensive irrigated areas proposed. It is possible the source would be more stream water from an HC&S ditch. Will sugar be hurt?

The DEIS does not address cumulative impacts on reefs and water quality in Kahului if the project succeeds in transferring 1 mgd of its waste water to that vulnerable and outdated facility. Secondary and cumulative impacts regarding long term health affects of the site are not discussed in the DEIS, except to emphasize that the site has been cleaned up and there are no potential risk factors.

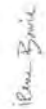
The Waikapu landfill is a major risk factor that is downplayed. Architects on the Urban Design Review board were firm in stating that Maui Lani not build warehouses in its 300 ft landfill setback on the Maui Lani side of the landfill, based on their personal experiences with landfill leaks.

8. Consultation Process

MTF requested in our EISPN comments that the EIS include interviews of the various Maui-Lahai Island Burial Commission members, and members of the public who also came to share their concerns. The commission and citizens have asked for years that the destructive sand mining of this site be halted and the burials be left in peace.

HAR rules require that opposing views be included in the discussion of project impacts.

Mahalo for this opportunity to offer our comments.


Irene Bowie
Executive Director

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October 7, 2011

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Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 48

Response: As noted in the first paragraph of Section 2.2 of the Draft EIS, ACM Consultants, Inc. (ACM) was retained by A&B Properties, Inc., to analyze each of the specified segments of the real estate market as it relates to Waialeale. In particular, ACM studied economic trends and demographics, and supply and demand factors for residential, commercial and industrial properties. Residential properties included single-family residences, single-family house lots, and condominium units. Commercial and industrial properties included vacant developable lots as well as improved properties. In the process, ACM gathered as much information as possible on real estate activity on Maui while focusing primarily on the Central Maui market. Based on their assessment of historical annual absorption rates, the current short term supply of units was estimated to last approximately 4 years. We have to rely on their presumably greater experience and expertise in this topic.

WATER

Comment: "Since Central Maui and South Maui share a common water supply and will be competing for the same resources; and since substantial growth has been planned for North Kihei, that sizeable competing demand should also be evaluated and discussed. Is A&B's already LUC approved North Kihei Kawahine project (600 units) included in the Central Maui projections for purposes of this DEIS? The R&T Park Project District is now pursuing the addition of 1,200 new units that were not in the Maui Island Plan forecasts. How do these potential projects affect the need and demand for Waialeale?"

Response: Section 4.8.1 of the Draft EIS identifies and discusses potential water sources for the project. In response to your comment concerning the greater Central Maui region, we offer the following:

The State Water Code (Chapter 174C, Hawaii Revised Statutes) and Maui County Code Chapter 14.02 require the preparation of a Water Use and Development Plan (WUDP). The WUDP is the primary long range plan of the Maui Department of Water Supply (DWS). The WUDP directs the management of water resources in a manner that is consistent with the County's land use plans and policies and serves as a guideline for the use and commitment of water resources and funds.

As part of a recent update process for the WUDP, a "Central District: Final Candidate Strategies Report" was prepared by Haiku Design & Analysis in June 2009. The report notes that water consumption for the Central District system (which includes Central Maui and South Maui) is expected to grow from about 22 MGD in 2005 to about 34 MGD in 2030, an increase of about 12 MGD. To meet this increased demand, the report recommends proceeding with the Waialeale water treatment facility (WTF) negotiations and approvals to the extent possible pending determination of assurance of long term water availability and price. The report further notes that the Waialeale WTF is considered to be potentially the most cost effective solution to providing needed future water. This information is from the second paragraph on page 41 in Section 3.6 of the Draft EIS.

Dear Ms. Bowie:

Thank you for your letter dated July 22, 2011 regarding the Waialeale Draft Environmental Impact Statement. As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments:

Comment: "Maui Tomorrow Foundation, Inc. (MTF) would like to be a "consulted party" during the environmental and land use permitting review of this proposed project."

Response: We believe that your organization's receipt of the Environmental Impact Statement Preparation Notice (EISP/N) and mailing comments on said document already establishes your organization as a "consulted party" in the EIS process.

Comment: "MTF appreciates this opportunity to comment on the Draft EIS for Waialeale. MTF supports infill development which can connect to existing Kahului infrastructure, but we do have concerns about adequate infrastructure being available for this project and the significant changes in the project's master plan that are presenting a configuration of uses that were not reviewed or discussed during the recent Maui Island Plan citizen review process of Central Maui projects."

Response: While we disagree with your statement, we acknowledge your concerns.

HOUSING UNITS

Comment: "The DEIS suggests that Central Maui will have the largest share of future housing on the island- 4,850 units, with Waialeale comprising 2,550 of those. Several additional factors should be included in this analysis. Central Maui has 3,800 already entitled, but yet-to-be-built units, as well as hundreds of units presently on the market due to foreclosure. The Waialeale economic forecast predicts those units would be absorbed within 4 years, but the FEIS should also evaluate the project need with an alternate scenario of a 10 year absorption rate, which may be more realistic."

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 3 of 48

The WUDP also considered other potential strategies, including new basal groundwater wells to the north of the existing Central District system (into the north half of the Waie'e Aquifer and the Kahakuloa Aquifer). However, the anticipated costs of developing these wells and the related transmission system are high and the anticipated yields are uncertain. Other resource strategies examined included developing transmission lines eastward to the Hai'ū Aquifer and the desalination of brackish water, however, both of these strategies entail substantial development and operational costs. This information is from the second paragraph on page 41 in Section 3.6 of the Draft EIS.

As previously noted, the WUDP is the primary long range plan of the DWS. The WUDP directs the management of water resources in a manner that is consistent with the County's land use plans and policies and serves as a guideline for the use and commitment of water resources and funds. In turn, the MIP is the guiding document for future growth on the island of Maui to the year 2030. The MIP notes that the development of additional water sources is crucial for the Central Maui water system. The plan includes a long range implementation plan to address capital improvements, including water source development and related infrastructure. While there are sufficient amounts of groundwater resources to serve current and projected needs, the infrastructure to make this water available needs to be developed.

VISION STATEMENT

Comment: "The project's vision statement still omits any reference to the cultural and historic significance of the region and the site, although this is discussed in Section 4.2, Cultural Resources."

Response: As noted in Section 2.3.1 of the Draft EIS, the quoted vision statement was developed through the community-based planning process. In defense of the participants, we do not believe the lack of reference to cultural and historic resources in the vision statement was intentional or purposeful. In fact, the key community planning goals and objectives includes "Respect the natural, historical, and cultural significance of the land."

Comment: "Although we appreciate the standards set by Hana Pono seeking to find archaeological "proof" of the exact location of the Battle of Kakanilua in the area, we suggest that many historical events that have become legendary depend more on the moolelo than any "hard evidence." We ask that the consultants continue to work with the applicant to establish an appropriate memorial for this last great pre-contact battle site to regain its place in our history."

Response: We concur that a memorial for the Battle of Kakanilua should be established at an appropriate location.

Comment: "Respect for the natural, historical and cultural significance of the land" is listed as a "community planning goal" for the project. MTF respectfully requests the applicant to take to heart the importance of preserving not one, but as many as possible of the remaining culturally

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 4 of 48

significant natural sand dunes as possible. Regardless of the dunes being "pristine" or not, they are Wahi Pana, significant traditional properties. This status is recognized in the Wailuku-Kahului community plan."

Response: In keeping with the objectives and policies of the Wailuku-Kahului Community Plan, the applicant retained a consultant to identify all cultural resources located within the project area. In addition, given the condition of the remaining resources, the applicant is proposing recommendations to mitigate potential adverse impacts on cultural resources. As noted in Section 4.2 of the Final EIS:

A large percentage of the project sits on remnants of previously altered sand dunes... As part of the past archaeological investigations numerous archaeological survey trenches were dug throughout the property, providing reasonable confidence ~~that~~ that the largest concentration of burials have been identified and will be preserved in the over 30 acres of planned cultural preserves...

...While the majority of the dunes with the property limits have been obliterated by human activities, there is a large portion of the site (approximately 28 acres) where there ~~is~~ are relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the areas being proposed as a cultural preserve (and where the highest concentration of burials resides). There are opportunities to include appropriate interpretive signage concerning the geological, historical and cultural significance of the Pu'u One sand dune complex.

Comment: "The EISPN mentions a community goal to "capitalize on the views of Haleakala, West Maui mountains and significant landmarks" on the project site. The DEIS statements in section 4.7 Visual Resources section should be modified to support the cultural importance of these truly magnificent view planes."

Response: Per your comments, Section 4.7 of the Final EIS will be revised to read as follows:

The property is located at a lower elevation than the nearest portion of Honoapi'iani Highway. The proposed development of the property will not obstruct views of Haleakala, Iao Valley, and the Mauna Kahalawai, or Waikapu Stream. During the Draft EIS public review period, Maui Tomorrow noted "...the cultural importance of these truly magnificent view planes." The approximately 28 acre remnant of the Pu'u One sand dunes will be preserved and will be visible from surrounding areas within and outside of the property.

GEOLOGY AND TOPOGRAPHY

Comment: "MTF requested in our EISPN comments that there be specific discussion in the DEIS of the percentage of this 30 acre affordable housing site which is currently in natural dune

formations and is likely to impact future burial sites?...it would appear from the Fig 3-1 map that no natural dunes occur in the proposed 30 acre affordable housing area. This is not accurate. One small dune area is present. The issue is not discussed in the DEIS."

Response: Figure 4-1 of the Draft EIS shows the 30 acre affordable housing site and the portion of the large remnant sand dune which is located in the southeastern corner. Per your comments, Section 4.2 of the Final EIS will be revised as follows:

A large percentage of the project sits on remnants of previously altered sand dunes. Due to the underlying sandy nature of much of the property there is the potential for discovering additional burials during earth-disturbance activities. As part of the past archaeological investigations numerous archaeological survey trenches were dug throughout the property, providing reasonable confidence ~~that~~ that the largest concentration of burials have been identified and will be preserved in the over 30 acres of planned cultural preserves. Should additional burials be inadvertently encountered during the construction activities, work will cease immediately in the immediate vicinity of the burial(s) and the burial(s) will be protected. The archaeological contractor shall immediately contact SHPD, which will assess the significance of the burial(s) and recommend appropriate mitigation measures, if necessary. The applicant acknowledges that burial preservation in place is preferable over relocation.

Comment: *"If the experience of Maui Lani is repeated here, numerous additional burials that were interred, not in the upper sections of the dunes themselves but at deeper levels, could be disturbed. This will occur when infrastructure is installed for the affordable housing, possibly delaying the project. This potential impact is not even considered in the DEIS."*

Response: Your concerns are acknowledged but please know that the proposed 30-acre County Housing site is located in the western side of the property, where massive grading was undertaken, and only two burials have been identified to date.

Comment: *"The Geological Reconnaissance Report comes to a number of conclusions, without citing any standards, references or specific attributes of the dune features. It is customary in an environmental disclosure document to draw such conclusions only when based on factual data."*

Response: The geotechnical consultant considered the following in determining dune features: geomorphology and location, as well as bedding planes and grain size. These standards, along with their professional experience, knowledge and judgment as trained professionals in the fields of geology and geotechnical engineering were used to assess the condition of the dunes. The authors of the report are professional geologists and/or engineers, and are responsible for the conclusions of their report. They are more than qualified to conduct and report on a geological reconnaissance of the site, but profess no expertise in the field of cultural resources.

Comment: *"Also, the report does not acknowledge that dune features are valued as a cultural resource, regardless of their being completely intact or not. This is supported in the Wailuku-Kahului Community Plan language which included the, "Pu'u One Sand Dune Formation from Kahului Harbor to Waikapu" among the list of "Significant Traditional Places" to be protected."*

Response: The Geological Reconnaissance survey was not intended to address any dune features as a cultural resource. As noted earlier, in keeping with the objectives and policies of the Wailuku-Kahului Community Plan, the applicant retained a cultural consultant to identify all cultural resources located within the project area. In addition, given the condition of the remaining resources, the applicant is proposing recommendations to mitigate potential adverse impacts on cultural resources. We acknowledge references to the "Pu'u One Sand Dune Formation from Kahului Harbor to Waikapu" within the Wailuku-Kahului Community Plan. As part of the Wai'ale master plan over 30 acres of are proposed for cultural preserves. This is in addition to other open space areas planned within the project. We believe that this is a substantial commitment to preservation that is not replicated within other developments in the Pu'u One sand dune formation.

Comment: *"The Cultural Impact Assessment summary in Section 4.2 of the DEIS also refers to the unaltered sand dune formations north of Waiko road and Waikapu stream as 'important cultural features'."*

Response: We concur that is a reasonable summarization from the quote from the Cultural Impact Assessment (CIA).

Comment: *"Omission 1. The geological report concludes that the "majority of dune structures in the project area have been obliterated by human activity". However, no actual data is provided on the specific area (i.e. number of square meters) that was originally covered by sand dunes, versus the area of the remaining dunes."*

Response: Your observation is correct. While a regional land use history was provided in Section 2.1.3 of the Draft EIS, it is unlikely that there are any records available that would yield the specific area that was originally covered by sand dunes.

Comment: *"'Majority' is not defined. Does it mean 50% of the dunes have been mined by the applicant and their lessees, or more? How does this compare to other sites in central Maui?"*

Response: Figure 3.1 of the Draft EIS clearly shows what portions of the site include remaining sand dune structures. On the occasions that the word "majority" is cited in Geolabs, Inc.'s Geological Reconnaissance survey report, the following is stated:

In the southern part of the site, south of Waiko Road, the former dune lands were flattened and tilled for the cultivation of sugar cane. The north central portion of the site includes some small clusters of dunes. However, these dune clusters have

been degraded by long-standing ranching activities and other agricultural use. The north western portion of the site has been heavily disturbed by sand mining, stockpiling and agricultural use. However, this area also includes the larger and comparatively more representative examples of the remaining dune structures within the site.

Clearly Geolabs, Inc. is citing various human activities that resulted in the obliteration of the majority of the dunes within the project limits, including agriculture.

Central Maui is a large area and after reviewing an older aerial photo ca. 1966, it is difficult to tell how much of the original sand dunes were altered by sugar cultivation, but assuming that the lithified sand dunes were concentrated between Kahului Harbor to Waikapū, then clearly the development of Wailuku and Kahului, and sugar cultivation yielded what remains.

Comment: "What percentage of the natural dunes remain on the Maui Lani Dunes golf course? This should be made clear before the remaining dunes on the Waialea project site are dismissed as degraded and worthless."

Response: Geolabs, Inc.'s report states that **much better examples of lithified dunes on Maui are found at** [emphasis added] Keoupiulani Regional Park, which has some of the most pristine remnant dunes on Maui; Halekiri-Pihana Heiau State Monument; and, **the Dunes at Maui Lani Golf Course**[emphasis added]." As noted above, it is not possible to accurately determine how much of the original sand dunes were altered.

Comment: "Omission 2. Observation reveals a number of substantial natural dune areas remain across the 545 acre site, but this is not well reflected in the DEIS."

Response: Figure 3-1 was included in the Draft EIS to show the locations of remaining dune structures across the site.

Comment: "Because the cultural significance of the dunes is not discussed in the report, the accepting agency will not be informed which unprotected dunes may already have known burial features."

Response: As previously noted, the Geological Reconnaissance survey was not intended to address any dune features as a cultural resource. The State Historic Preservation Division (SHPD) has reviewed and approved the Archaeological Inventory Survey (AIS) and Data Recovery Plan & Preservation Plan. SHPD's approval letters were included as Appendix F and H of the Draft EIS.

Comment: "A large intact dune is present in the project site. Unpermitted sand mining at its south end in 2008 has already revealed the remains of 17 burials and grave items. The remainder of the undisturbed dune is likely to shelter burials. This dune is shown on the Fig 3-1 map. It appears to be located just east of the proposed Kamehameha Ave. extension where VMX

and country housing is planned. Is it not as worthy of protection as the one larger dune preserved to the West?"

Response: The site was surveyed by the project archaeologist, Scientific Consultant Services, Inc., and there were no burials discovered and there is no apparent reason to preserve it (on the basis of burials or as an example of a lithified sand dune structure).

Comment: "Omission 3. The project consultants suggest that only one dune in the whole area is not "designated as degraded." No factual proof of other dunes on the site being "degraded" is provided. No specific standards by which to evaluate the state of the dunes as "degraded" are cited. Most dune areas in central Maui have had grazing activities, but no factual information is provided to offer a sound statement."

Response: The geotechnical consultant considered the following in determining dune features: geomorphology and location, as well as bedding planes and grain size. These standards, along with their professional experience, knowledge and judgment as trained professionals in the fields of geology and geotechnical engineering were used to assess the condition of the dunes.

Comment: "Omission 4. All dunes except the Area 1 burial preserve on the project site are also dismissed because they are not "low." Yet the Fig 3-1 map provides no elevation data about the various dunes mapped. No specific information is given on the elevation of the one dune proposed for preservation (this dune has approximately 50 documented burials.) Without this information, it is difficult to accept the assumptions put forth by the geological consultants."

Response: As previously noted, the geotechnical consultant considered the following in determining dune features: geomorphology and location, as well as bedding planes and grain size. These standards, along with their professional experience, knowledge and judgment as trained professionals in the fields of geology and geotechnical engineering were used to assess the condition of the dunes.

Comment: "MTF requests that the FEIS address the need for a larger contiguous cultural preserve area. If the project's intention is to "minimize further burial disturbance", the Maui Island Plan Draft map and its contiguous open space area should be considered."

Response: The second paragraph of page 218 in Section 6.3 of the Draft EIS did address the impact of a higher density project that would result in the reduction of buildable area, which, depending on the land use plan, could allow for a larger contiguous cultural preserve area.

GROUND WATER RESOURCES AND WATER QUALITY

Comment: "MTF requested in our EISP/N comments that the EIS include water quality testing reports for the two potential on-site wells in Kahului aquifer."

DEIS Response: No specific data is included regarding these wells, except that water quality and quantity was good. It is mentioned that the wells are sited in the north west corner of the project, which is in the "10 year time of travel of the Wellhead Protection Area for the region." (App. M, p. 11). In essence, it appears that the entire project site could contribute to potential groundwater contamination of the wells, and this may be why they are not planned for use in the project's water supply. The FEIS should provide specific information.

Furthermore, because the Waiale project land is close to major agricultural fields, MTF asks that prior to receiving any entitlements all water wells be thoroughly tested for both inorganic traces, e.g. nitrates, nitrites, chlorides, and for organic components, e.g. herbicides, pesticides, nematocides. The results should be included in the FEIS.

MTF requested in our EISPN comments that the Waiale EIS include an analysis of the wells potential yield if irrigation of the surrounding area is reduced incrementally due to the cessation of agricultural activities, and discuss proposed mitigations.

DEIS Response: The DEIS acknowledged that the Kahului aquifer benefits from additional recharge, but it did not specify the sources of that recharge, nor discuss impacts to the wells if the outside recharge was reduced. The DEIS fails to reveal much about the onsite wells."

Response: It is important to clarify that the two wells mentioned in Sections 3.5 and 4.8.1 of the Draft EIS are not intended to serve as water supply for the proposed Wai'ale project. This was noted in the third sentence in the second paragraph of page 39 in Section 3.5 of the Draft EIS, "...water from these wells is not planned for use by Wai'ale..." These wells were cited only for the purpose of demonstrating the potential for the development of potable water sources in the Central Maui region, in this case, the Kahului aquifer. Maui Lani Wells Nos. 5, 6 and 7, which were drilled in the Kahului aquifer and are hooked up to the DWS' Central Maui system are further evidence of this potential.

Specific data on and analysis of Waiale Wells Nos. 1 and 2 was not provided in the Draft EIS because they are not part of the planned water source for the Wai'ale project. However, water quality reports were prepared as part of the Engineering Reports for Waiale Wells Nos. 1 and 2. These reports are available from the State Department of Health. Also, as noted in Section 3.5 of the Draft EIS, best management practices for the future use of the property will be implemented to mitigate potential groundwater contamination. These measures are described on page 39 in Section 3.5 of the Draft EIS.

Any water well that ultimately does source the Wai'ale project, as with all public water systems, will comply with regular water sampling and reporting requirements. This would include the preparation of periodic water quality reports as required by law.

Lastly, irrigation of the area surrounding the on-site wells could contribute to the yield of the Wai'ale wells and, if reduced, could impact the wells' yields. However, the Kahului Aquifer has significant sources of water outside of the aquifer area itself, as noted in the Commission on Water Resource Management's Water Resource Protection Plan's comments relative to its 1 MGD estimate of sustainable yield for Kahului Aquifer:

"Sustainable Yield ignores significant importation of surface water into Kahului from outside the aquifer system area. This explains the ability to withdraw fresh water from the aquifer at significantly higher rates than the sustainable yield without apparent negative impacts (i.e. rising chloride concentrations or decreasing water levels)."

Comment: "The DEIS did not state in this section that the project site lies below the state DOH Underground Injection Control (UIC) line area, "generally denoting water that is unsuitable for drinking water purposes." This was revealed in Appendix M Environmental Site Assessment report (p.7). The effect of this location on future groundwater sources for the project should be discussed in the FEIS."

Response: As previously noted, all public water systems include regular water sampling and reporting requirements that will need to be followed. This would include preparation of periodic water quality reports as required by law. As recommended, the following text will be added after the fifth paragraph in Section 3.5 of the Final EIS:

The Underground Injection Control (UIC) program serves to protect the quality of Hawaii's underground sources of drinking water from chemical, physical, radioactive, and biological contamination that could originate from injection well activity. Underground Injection Wells are wells used for injecting water or other fluids into a groundwater aquifer. The State Department of Health Administrative Rules, Title 11, Chapter 23 provides conditions governing the location, construction, and operation of injection wells so that injected fluids do not migrate and pollute underground sources of drinking water. Section 4 of the Rules gives the criteria for classifying aquifers into those that are designated as underground sources of drinking water and those that are not. The boundary between non-drinking water aquifers and underground sources of drinking water is generally referred to as the "UIC Line". Restrictions on injection wells differ, depending on whether the area is inland (mauka) or seaward (makai) of the UIC line. The UIC Map for Maui shows that Wai'ale is located seaward of the UIC line.

Comment: "Any proposed use levels of onsite wells 5129-04 and 05 should be discussed. If the project wells are potable, will they be used for irrigation in a dual water delivery system? Would such pumping impact the output of the nearby Maui Lani wells 5, 6, and 7 which the DEIS states are being used for the County system?"

Have the onsite wells been tested for nitrates and other Ag contaminants?

No reports are provided in the preliminary Engineering report. The DEIS indicated that the wells are located in the north east corner of the property and the drainage report indicated that this is where natural drainage flows for the entire north section of the project area accumulate.

Given the numerous hazardous material breaches that have occurred on the project site over the years, the presence of a former landfill, and the historic fact of a contaminated well (5129-01) at the R.J. Reynolds orchard site immediately northeast and in the same hydrological sector as the two on site Waiale wells (5129-04 and 05), water quality data on the wells should be provided as

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 11 of 48

part of the FEIS.”

Response: As noted above, Waiale Wells Nos. 1 and 2 (5129-04 and 5129-05) are not intended to serve as water supply for the proposed Wai'ale project. This is noted in the third sentence in the second paragraph of page 39 in Section 3.5 of the Draft EIS, “...water from these wells is not planned for use by Wai'ale...” However, water quality reports were prepared as part of the Engineering Reports for Waiale Wells Nos. 1 and 2. Sampling included an extensive list of contaminants including nitrates, pesticides and herbicides, the results of which met drinking water standards. These reports are available from the State Department of Health (DOH).

Also, as noted in Section 3.5 of the Draft EIS, best management practices for the future use of the property will be implemented to mitigate potential groundwater contamination. These measures are described on page 39 in Section 3.5 of the Draft EIS.

Any water well that ultimately does source the Wai'ale project, as with all public water systems, will comply with regular water sampling and reporting requirements. This would include the preparation of periodic water quality reports as required by law.

As noted in the last paragraph on page 38 in Section 3.5 of the Draft EIS: “The applicant, on its own and in collaboration with other parties, is also pursuing other potential drinking water sources, including new water wells in Central Maui.” Any potential groundwater source will need DOH approval. It is up to DOH to determine what data is needed from surrounding wells, to make a determination on approving a new groundwater source.

Comment: “The DEIS refers to “other potential drinking water systems including wells in Central Maui.” Would this include prospective wells in Waikapu or Iao aquifers? If so, this should be discussed during the Waiale EIS process to avoid segmentation of impacts. The regulatory review provided by CWRM and/or DOH should be built upon the EIS process, not substituted for it.”

Response: As noted in the Draft EIS, the applicant is also pursuing other potential drinking water sources. This could include new wells within the Waikapū Aquifer, although there are no definitive plans at this time. No new wells are planned in the Iao Aquifer. Section 4.8.1 of the Draft EIS identifies and discusses potential water sources for the project.

Please note that Section 4.8.1 of the Final EIS will be amended to include the following language:

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent, or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Waituku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector, which could also

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 12 of 48

source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, needs to be developed. The need for these improvements is discussed in the County's Water Use and Development Plan and also the Maui Island Plan.

Comment: “The DEIS does not reveal that 3 well permit applications have been submitted to the state CWRM by “Waiale Partners” on TMK (2) 3-6-002:003. These wells located in the WAIKAPU aquifer are listed as having a potential irrigation use of .667 mgd each. Is the Applicant engaged in prospective well partnerships with Waituku Water Company, which also holds an interest in the land where the potential wells are sited?”

Response: To clarify, the “Waiale Partners” is not an A&B company, nor does A&B have an interest in “Waiale Partners”. Further, the applicant is not engaged in any prospective well partnerships with Waituku Water Company.

Comment: “The DEIS mentions the potential for onsite activities in the entire project area to potentially impact groundwater resources (p.39). It is mentioned that parks will be “advised” to use Integrated Pest Management (IPM) practices to minimize use of pesticides and fertilizers and their impacts to groundwater. The DEIS should discuss the cost implications of the parks using IPM and what will happen if they don't? The alternative of having less irrigated park space and more natural areas, such as the natural dune formations, should also be examined as a water conservation strategy.”

Response: Per your comments, Section 3.5 of the Final EIS will be revised to read as follows:

As recommended by DWS, the operators of proposed active parks and schools will be advised to implement Integrated Pest Management (management practices to prevent groundwater contamination from over-reliance and overuse of fertilizers and pesticides). Integrated Pest Management strategies for turf management could include: careful selection of turf species; careful site preparation to ensure proper drainage and avoid saturated areas; proper irrigation amount and frequency; and proper mowing height and schedule. These are strategies that may require more labor but could result in cost savings in water, fertilizer, and pesticide application, as well as the costs of replacing turf, and in the worst case, of groundwater remediation.

Per your comments, the following paragraph will be added before the second to the last paragraph of Section 6.3 of the Final EIS:

During the Draft EIS public review period, Maui Tomorrow Foundation suggested an “alternative of having less irrigated park space and more natural areas, such as the natural dune formations, should also be examined as a water conservation strategy.” Similarly, the Sierra Club Maui Group suggested “A larger contiguous

preserve area, which includes as many remaining intact dunes as possible, should be discussed as one project alternative." This alternative would be similar to the proposed project. The major difference is that Maui Tomorrow Foundation and the Sierra Club Maui Group are suggesting replacing some of the proposed active park space for more passive "park" space. The negative aspects of this alternative is that there would be less areas for exercise and active sports, and more areas that might attract illegal dumping and other activities, including brushfires. The positive aspects are that there would be more open spaces that do not require management costs, lower water demand, and less play noise, and preserving the remnant dunes desired by some.

Comment: *"There formerly was a major landfill next to this project's lands yet no potential impacts of the unlined Waikapu landfill to potential ground water quality is discussed in the water section of the DEIS. Will the applicant propose a monitoring well for the landfill, which adjoins the project site's north western boundary, since the landfill is exempt from state monitoring due to its age?"*

Response: Any water well that ultimately does source the Wai'ale project, as with all public water systems, will comply with regular water sampling and reporting requirements. This would include the preparation of periodic water quality reports as required by law. Regarding the Waikapu Landfill which did not receive waste after 1989 and which was closed in 1991, some 20 years ago, we anticipate that the DOH would determine the need for any future monitoring well relating to the landfill.

Comment: *"If the applicant is considering wells in the Kahului aquifer, which has a sustainable yield of only 1 mgd (half or one third of what is needed for the Waiale project), the future ability of the aquifer to provide the larger amount of water should be discussed in the FEIS relative to any future loss of artificial recharge potential to the aquifer as agricultural use of the lands shifts."*

Response: With regard to the sustainable yield of the Kahului aquifer, Section 3.5 of the Final EIS, which describes the Kahului Aquifer, will be amended to include the following language:

The CWRM's Water Resource Protection Plan notes a sustainable yield of 1 million gallons per day (MGD) for the Kahului Aquifer, commenting specifically that this "Sustainable Yield ignores significant importation of surface water into Kahului from outside the aquifer system area. This explains the ability to withdraw fresh water from the aquifer at significantly higher rates than the sustainable yield without apparent negative impacts (i.e. rising chloride concentrations or decreasing water levels)"

Section 3.5 of the Draft EIS also noted that any future reductions due to reduced irrigation return flow from agricultural activities would be offset by less pumpage from the aquifer for agricultural irrigation.

Comment: *"The FEIS should discuss whether the onsite wells benefit from any leakage from the Waihee ditch which is located in close proximity."*

Response: As noted previously, Section 3.5 of the Draft EIS describes the main contributing sources of recharge beyond direct rainfall. Since portions of the Waihee ditch is either piped or lined, there is not likely to be any significant leakage.

Comment: *"MTF requests that the FEIS address these unresolved groundwater quality impact issues that can have secondary and cumulative impacts and are required to be considered as part of the HRS 343 process."*

Response: Through our previous responses we have addressed the potential issues you cited. As noted in Section 3.5 of the Draft EIS, best management practices for the future use of the property will be implemented to mitigate potential groundwater contamination. These measures are described on page 39 in Section 3.5 of the Draft EIS. Also as previously noted, all public water systems include regular water sampling and reporting requirements that will need to be followed to insure water quality standards are met. This would include preparation of periodic water quality reports as required by law. The cumulative and secondary impacts of the alternative water sources were addressed in Section 7.2 of the Draft EIS.

FAUNA

Comment: *"Although the fauna survey does not reflect the fact, pueo (native Hawaiian owls) are often seen on the Waiale project site by local residents, especially in the gulch areas. Nene are also seen and have established a presence at nearby Waiale reservoir."*

Response: Per your comments, the following paragraph will be added to Section 3.8 of the Final EIS:

During the Draft EIS public review period, Maui Tomorrow Foundation wrote: "Although the fauna survey does not reflect the fact, pueo (native Hawaiian owls) are often seen on the Waiale project site by local residents, especially in the gulch areas. Nene are also seen and have established a presence at nearby Waiale reservoir."

Comment: *"The DEIS consultant identified the manduca caterpillars and their habitat, but the DEIS did little to explain what habitat protection measures are being proposed for the endangered manduca moth."*

Response: As noted in Section 3.8 of the Draft EIS, the applicant, in cooperation with the U.S. Fish and Wildlife Service (USFWS) will develop an appropriate mitigation plan for the Blackburn's sphinx moth (*Manduca blackburni*) at the property. The USFWS has been consulted and has offered assistance in the development of a mitigation plan to avoid any

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 15 of 48

"take" of the Blackburn's sphinx moth. The USFWS provided comments to the Draft EIS regarding the Blackburn's sphinx moth and their comments will be included in the Final EIS. Please note that the project site is not within any designated critical habitat area for the Blackburn's Sphinx moth.

Comment: "MTF requests that the FEIS' C.I.A. contain more information from cultural practitioners regarding the connection of the pueo to these plains as well as a discussion of a range of specific measures proposed to protect habitat, for the nene, manduca and pueo."

Response: As part of the Draft EIS review, comments were received from Hōkūāio Pellegrino concerning sightings of the pueo, nene and the Blackburn's sphinx moth in the vicinity of the project. As noted previously, an appropriate mitigation plan for the Blackburn's sphinx moth will be developed in cooperation with the USFWS. As noted in the Flora and Fauna Study, included as Appendix D of the Draft EIS, no nene (Hawaiian geese) or pueo were observed in the kiawe forest habitat found at the property. However, based on yours and other public review comments, the following paragraph will be added to Section 3.8 of the Final EIS

*During the Draft EIS public review period, Maui Tomorrow Foundation wrote:
"Although the fauna survey does not reflect the fact, pueo (native Hawaiian owls) are often seen on the Waialea project site by local residents, especially in the gulch areas. Nene are also seen and have established a presence at nearby Waialea reservoir."*

ARCHAEOLOGICAL AND HISTORIC RESOURCES

Comment: "MTF, requested in our EISPN comments that the EIS affirm the project site's connection to similar dunes in the Maui Lani Development area where nearly 300 burials have been inadvertently disturbed."

"DEIS Response: the Cultural Resources section of the DEIS presented a very accurate view of the project site, its cultural resources and the region. It also made it clear that the project area is considered by kamaaina as part of the land of Waikapu, not "an extension of Kahului" as the applicant has offered."

Response: We thank you for your assessment that "the Cultural Resources section of the DEIS presented a very accurate view of the project site, its cultural resources and the region". As a point of clarification, when you refer to "an extension of Kahului" you may be referring to the vision statement developed through the community-based planning process:

Create a socially integrated community with a "unique" sense of identity and character, capitalizing on its location and natural features. As an extension of Kahului "Dream City," it will be a community that makes both visitors and residents feel "welcome" and plans for the long-range community and civic

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 16 of 48

facilities to support the central Maui region.

Comment: "MTF was concerned that the proposed Waialea Plan creates very minimal burial preserve areas, containing only those burial sites which have already been disturbed. This creates a risk of numerous additional burials being discovered and disturbed during future project development."

Response: Two phases of Archaeological Inventory Survey (AIS) were performed by Scientific Consultant Services, Inc. (SCSI) in the project area. The survey program was developed in consultation with SHPD. Phase I fieldwork was conducted between June 23, 2008 and September 4, 2008. Phase II fieldwork was conducted intermittently over a six-day period between September 9, 2009 and September 16, 2009. Multiple field tasks were completed during the AIS. Pedestrian surveys were conducted in order to assess project area geographical features, areas of recent disturbance, identify archaeological sites, and select locations for subsurface examination. All portions of the project area were surveyed. The primary component of the AIS was representative testing of the project area not previously subject to sampling. Mechanically excavated stratigraphic trenches (ST) were placed in areas thought to potentially contain subsurface archaeological deposits and to provide a sample of testing across the project area. These trenches allowed for assessing sediment matrix types across a large area, the results in turn providing some evidence for past and present land utilization. A total of 287 trenches were excavated during Phase I and Phase II of this project. Figure 7 of the AIS (See Appendix E of the Draft EIS) depicts the location of each excavated trench per phase. Since extensive subsurface was conducted and little was discovered, there is adequate confidence that the areas being set aside for preservation are adequate.

Comment: "MTF, requested in our EISPN comments that the DEIS include maps of all the remaining intact dune areas on the site and an alternative project design that avoids disturbance of these and other high probability burial area and sets aside a cultural preserve area designed to reduce the risk of future burial disturbance."

DEIS Response: A map was provided (Fig 3-1) in the DEIS.

Unfortunately it did not show the dunes in relationship to the proposed project master plan and preservation areas. It also had no information about dune characteristics.

We are pleased to see the unique beauty and cultural importance of the dune formations recognized by the consultants and to see the intention put forward not to relocate any further burials. We request an alternative project Master Plan (a kind of mitigating action) put forth in the FEIS that supports these intentions with project design.

Response: As noted in the previous response, based on the extensive archaeological survey and testing conducted throughout the project site, no "other high probability burial" areas are expected beyond the areas already proposed for cultural preserves.

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 17 of 48

Figure 3-1 of the Draft EIS characterized the site into three dune "types" ("dune structure", "obliterated area" and "heavily impacted area"). As requested, Figure 3-1a will be included in the Final EIS which composites the results of the geological survey with the Conceptual Community Master Plan. If your goal is to preserve all existing dune structures, then Figure 3-1a would show what areas proposed for development would need to be converted to open space. The density (increased height) of the remaining development areas would then need to increase.

Comment: "MTF also requested in our EISPN comments that the EIS discuss the impacts of reclassification from AG to urban. Would that change allow new leases for sandmining on the remaining dunes to "grade the site?"

DEIS Response: the DEIS made no mention of future grading plans for the dunes other than putting forward the view of their geological consultant that the remaining dunes were not pristine and were designated "degraded."

Response: The agricultural impact of Wai'ale was discussed on pages 34-36, 112-113 and 135-136 of the Draft EIS. A State Land Use District Boundary Amendment (SLUDBA) from "Agricultural" to "Urban", if granted, is not connected to a decision to grant any new leases for sand mining on the dunes not being proposed as cultural preserves. As noted in the Draft EIS, sand mining at the site has ceased.

NOISE IMPACTS

Comment: *"The DEIS describes noise levels in residences near Light Industrial areas of the project which would potentially exceed FHWA standards. The DEIS suggests that mitigation for the excessive noise levels would come through residential unit design."*

MTF requests that the FEIS address how residential unit design requirements, needed to reduce noise to acceptable levels, may impact the costs of the county affordable housing units proposed near or adjacent to any Light Industrial area? If extra costs are involved, the FEIS should examine ways to mitigate those, or discuss alternative locations for the affordable housing."

Response: We appreciate your comments and would like to note that Section 4.4 of the Final EIS will be revised as follows:

Measures to control or mitigate impacts to ambient noise levels during ~~operation~~ operation include... All residential units shall be designed to minimize interior noise levels. These design measures shall be established to maintain noise levels at interior spaces to less than an L_{in} of 45 dBA. Measures to meet the 45 dBA L_{in} standard may include, but are not be limited to, using perimeter walls, sound-rated interior walls between uses, landscaping and setbacks, installing double-pane windows and/or air conditioners on the side facing noise sources, or other site planning and building placement that could

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 18 of 48

reduce or eliminate the light-of-sight between the noise source and residential units...

Certain design measures such as landscaping and setbacks which would be part of any new development, could be implemented at minimal additional costs. It is possible that one or more design measures to mitigate exterior noise may result in extra costs, but it should be remembered that with the land being donated by A&B, there are no land costs associated with the County affordable housing units.

AIR QUALITY IMPACTS

Comment: *"The DEIS describes potential air quality impacts in the Light Industrial zone from carcinogenic compounds (DPM) from truck emissions which will require another set of rules and enforcement to mitigate."*

MTF requests that the FEIS address costs associated with enforcement of these mitigations in the industrial area. The protocol for enforcement should be clearly defined and discussed. Alternative locations for the affordable housing, where air quality impacts can be avoided, should also be examined to avoid long-term impacts to future residents."

Response: Per your comments, we are adding the following paragraph to Section 4.5 of the Final EIS:

According to the U.S. Environmental Protection Agency (EPA), EPA's National Clean Diesel Campaign (NCDC) promotes clean air strategies by working with manufacturers, fleet operators, air quality professionals, environmental and community organizations, and state and local officials to reduce diesel emissions. As a result of EPA regulations, diesel engines manufactured today are cleaner than ever. Recent diesel rulemakings have focused on light- and heavy-duty highway vehicles, non-road diesel equipment, locomotive and marine engines, and large ocean-going vessels. As part of the Energy Policy Act of 2005, the Diesel Emissions Reduction Act (DERA) authorized funding of up to \$200 million annually for FY2007 through FY2011 to help fleet owners reduce diesel emissions. In January 2011, President Barack Obama signed the Diesel Emissions Reduction Act of 2010 (S. 3973/H.R. 6482), which authorizes \$500 million in diesel clean-up funds over the next five years. According to an EPA website: "DERA is a successful federal program from both an economic and public health perspective. Within NCDC's West Coast Collaborative, comprised of EPA Regions 9 and 10, DERA grant projects produce over \$3 billion in public health benefits, and for every federal dollar invested an average of \$38 dollars in health benefits is realized."

Additionally, the last sentence at the end of Section 4.5 of the Final EIS will be revised to read:

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 19 of 48

Implementation of Control Measures AQ6 and AQ7 would reduce the operational air quality effects to less than adverse. Additionally, with the continued implementation of DERA, DPM from diesel-fueled trucks are likely to be reduced in future years.

MAN-MADE HAZARDS

Comment: "MTF asked in our EISPN comments that the topic of the nearby landfill and its potential contamination of air, water or soils in the region be specifically discussed in the EIS document."

It is our understanding that the Waikapu landfill was unlined. It was closed before current health safety regulations pertaining to testing and safety of landfill operations were in place and has had several external dumping episodes since closing that triggered action by the DOH.

MTF requested that several potential Hazard Impacts be discussed:
An analysis of the landfill and its potential contaminants be done and included in the Hazard Mitigation section of the EIS."

Response: The available information on the former Waikapū Landfill was provided in Section 4.6 of the Draft EIS and the Phase I Environmental Site Assessment (ESA) (See Appendix M).

Comment: "DEIS Response: A Phase I Environmental Site Assessment was done for the property, as is required, and included in the DEIS. On p. 2, the report acknowledged that it included no sampling or analyses of soil, groundwater or other materials."

Response: The former landfill was identified as a Recognized Environmental Condition (REC), however, recommendations for addressing REC's are not required under the ASTM/EPA standards for a Phase I ESA. Actual sampling of soil, air, groundwater and/or building materials is typically not conducted during a Phase I ESA. The Phase I ESA is generally considered the first step in the process of environmental due diligence. Standards for performing a Phase I site assessment have been promulgated by the US EPA and are based in part on ASTM in Standard E1527-05. If a site is considered contaminated, a Phase II Environmental Site Assessment may be conducted, a more detailed investigation involving chemical analysis for hazardous substances and/or petroleum hydrocarbons.

Comment: "A few sentences were included in the report summary about the former landfill, noting it was a Recognized Environmental Condition (REC). The Site Assessment report stated that the consultants were informed by county staff that although no monitoring is required of the landfill because its closure pre-dates environmental regulations requiring such action, several gas monitoring wells have been installed on the Maui Lani development side of the landfill and a 300 ft buffer was established."

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 20 of 48

Omissions in Phase I Environmental Site Assessment:
The Site Assessment report, and DEIS did not discuss that these monitoring wells were a result of a state DOH condition which required the wells, a 300 ft buffer from residential uses and recorded deed restrictions. These conditions were adopted by the State Land Use Commission during its review of the Maui Lani VMX Subdivision adjacent to the north end of the landfill, according to the July 28, 2005 LUC minutes. The consultant stated that data from the monitoring wells is not publicly available, which seems unusual for an agency-mandated action."

Response: We appreciate the background you provided concerning the Maui Lani monitoring wells. The statement that several gas monitoring wells had been installed at the landfill and a 300 foot buffer was established was derived from an interview with Mr. Eric Yamashige of the County's Solid Waste Division. Mr. Yamashige also stated that the data from the monitoring wells is not publicly available.

Comment: "The Site Assessment also did not discuss that the landfill site was used as an unpermitted stockpile area for hundreds of abandoned autos in mid- 2006, until the state DOH cited the county and forced removal. Photos of car batteries, fluids and other hazardous waste strewn across the site are available online."

Response: Our environmental consultant, Bureau Veritas, reviewed this information and noted that the scrap vehicles/items were removed from the landfill by the end of 2006, and the site was closed under DOH oversight. Their assessment is that the former presence of dumped autos/items on the adjoining property in this particular instance does not likely represent potential impacts to the subject property.

Comment: "The Site Assessment did not include information that a contaminated groundwater well, Reynolds well No 1 (State site 5129-01), was located immediately to the north of the Waiale parcel."

Response: Our environmental consultant reviewed the DOH Groundwater Contamination Maps from 2004, which list this well with a detectable concentration of pesticide, dibromochloropropane (DBCP). However, the DBCP level was reported as very low and "non-quantifiable", below the drinking water maximum contaminant level (MCL).

Comment: "No specific information was provided in the full Site Assessment Report about the one groundwater testing sample done previously at the landfill by the same consultants, as part of the Maui Lani project. The one sample is summarized as having 8 metals present, all below state and federal maximum contamination levels. It is customary to include a testing report detailing the specific types and levels of contaminants found, even if they are below regulatory action levels."

Response: Per our environmental consultant, the single groundwater sample collected at the landfill for the Maui Lani development was collected by a different consultant, Harding Lawson Associates (HLA), and the information was obtained from a HLA letter report in the State Department of Health (DOH) file, dated July 23, 1993. This letter merely summarized the groundwater sampling and results and did not include any

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 21 of 48

detailed information such as laboratory data. The full groundwater sampling report was not included in the DOH file.

Comment: "While the Site Assessment Report was careful to state that "valuation reduction for environmental issues," does not apply to the project area, the surrounding uses are hardly typical of the usual subdivision. Various portions of the subject parcel were subject to a variety of environmental hazards including hazardous material spills, dumping of machinery and trash, animal wastes, contaminated soil storage and significant oil and automobile fluid contamination."

Response: Per our environmental consultant, the section of the Phase I ESA that states "valuation reduction for environmental issues does not apply" (in Section 2.3) is referencing information obtained from the "user" of the Phase I ESA, which is A&B Properties, Inc. This is merely stating that, because the property is not being sold or purchased, the issue of valuation reduction is not applicable. This statement is not related to the actual environmental conditions at or near the subject property.

Comment: "In summary, the proposed Waiale community is surrounded by a former unlined landfill, a former scrap metal processing facility, shut down for repeated DOH violations, an animal feedlot, asphalt processing, farming, mining and other uses commonly known to have produced contaminants on the subject lands."

MT requests the FEIS to address omissions in the Site Assessment Report and their possible resolution at the project site. Please provide specific proof that one groundwater test sample is enough to draw reliable conclusions about the potential impacts of the Waikapu landfill, as well as the sample date of that sample."

Response: In response to your request that we "provide specific proof that one groundwater test sample is enough to draw reliable conclusions" about the adjoining landfill, our environmental consultant has indicated that additional groundwater testing may provide more evidence of potential impacts to the subject property; however, even extensive groundwater testing would not provide "specific proof" that there are no impacts from the adjoining landfill.

Comment: "Please discuss whether additional monitoring wells will be installed on the Waiale side of the landfill site with regular testing done?"

How will the project address DOH's concerns about construction activities near the landfill, disturbing conditions there and releasing gases or leachate?
How will the proposed industrial area adjacent to the landfill area address these concerns during construction?

Why did the 2007 Waiale site plan propose a buffer adjacent to the landfill?
Please show a detailed site-map with the proposed 300 ft buffer from the landfill delineated and give an example of the deed restrictions that will be used for that buffer zone.

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 22 of 48

Please include information about any soil testing available from the landfill site that could determine what dust containment measures would be necessary to avoid impacts to nearby homes, parks and schools."

Response: Regarding the Waikapū Landfill which did not receive waste after 1989 and which was closed in 1991, some 20 years ago, we anticipate that the DOH would determine the need for any future monitoring well relating to the landfill. The applicant expects to cooperatively work with the DOH regarding future development adjacent to the former landfill to address potential concerns. Per our master plan, planned residential areas have been set back some 300 feet from the former landfill site. A map showing the extent of the 300 foot residential buffer will be included in the Final EIS (See Figure O-1). As needed and in coordination with the DOH, appropriate deed restrictions would be developed. Since residential use is not currently allowed, there is no urgency to prepare such deed restrictions at this time. We are not aware of any soil testing information available relating to the former landfill. We need to reiterate that the former landfill was a County facility and as an adjacent landowner, the applicant should not have to bear total responsibility for its environmental impacts, if any. Under State and Federal environmental response laws, environmental contamination which impacts an adjacent property would typically be the responsibility of the owner of the property from which the contamination originated and/or other potentially responsible parties who may have contributed to such contamination.

Comment: "MTF also requested in our EISP comments that the EIS address the nature of businesses and activities that are expected to be using the light industrial area and any impacts that these activities may have on nearby residences."

Response: As noted in the last paragraph in Section 2.3.2 of the Draft EIS: "To meet regional and area demands and to provide for an additional employment center for Wai'ale, approximately 16 acres are planned to provide an area for light industrial type users and businesses such as, but not limited to, warehousing/distribution and light manufacturing/processing facilities. Heavy industrial uses, including businesses that generate loud noises or noxious fumes will not be allowed."

Comment: "DEIS Response: DEIS states that 16 acres of Light Industrial land will provide space for uses such as, but not limited to warehouses, light manufacturing and processing. On page 96 it states that the "existing lessees may be relocated on site." Existing lessees appear to include Tom's Backhoe, Ameron International, Melita Orchards Maui, Nobriaga's ranch, TJ Gomes Trucking and others."

MT requests the FEIS discuss the existing Waiale industrial area users and the compatibility of their activities with the new proposed residential use. Tom's Backhoe and Ameron International appear to be in, or nearby, the proposed County Affordable housing area (Fig 2 Map in the Site Assessment Report.) Will they remain as tenants?"

Response: As a point of clarification, the text on page 96 in Section 4.9.4 of the Draft EIS that was quoted, actually stated: "As the construction of Wai'ale is phased on the

property, existing lessees will be relocated within the property **and/or eventually relocated off-site...** [emphasis added]

VISUAL RESOURCES

Comment: "MTF requested in our EISPN comments that visual resources be discussed during the cultural impact assessment and archaeological review processes."

DEIS Response: A number of statements in the Cultural Impact Assessment statement did refer to the views of Mauna Kahalawai and Haleakala as well as the dunes, Waikapu stream and the burial areas as the cultural resources of the region that contribute to the proposed project site being a unique place. We appreciate the consultant's willingness to share what they gathered from their interviewees.

MTF requests that the FEIS incorporate the Hana Pono (cultural consultant's) statement on p. 12 of the CIA: "Synthesis of Archival, Literary, and Oral Accounting" section into section 4.7. It clearly describes the connection of the views and land forms on the site."

Response: Per your comments, the following text will be added in Section 4.2 of the Final EIS:

The project area, mostly in the ahupua'a of Waikapu, with a portion in Wailuku, extending through the Pu'uone Sand Dunes and out into Ke Kula o Kama'oma'o is situated in a unique location in the Valley Isle. With unobstructed near bi-coastal views of Haleakala and Mauna Kahalawai, portions of intact sand dunes, burials, and bordering Waikapu stream, the project has the opportunity to capitalize on these cultural resources by educating the community and protecting them for future generations. The sand dunes blown across the isthmus over millennia along with the large alluvial plain washed down eons ago by the slow erosion of Mauna Kahalawai sit on top of a lava foundation created by flows from Haleakala.

DRAINAGE SYSTEM

Comment: "MTF requested in our EISPN comments that the EIS discuss the project area's topography more accurately."

The discussion of drainage issues and features does not note the severe erosional features present on site, nor the presence or location of a number of prominent gulches, 10 feet deep or more."

Response: Per your comments, the description of the topography in Section 3.2 of the Final EIS will be revised to read as follows:

The property is located in the western area of the isthmus of Maui. The project site generally slopes in an east or northeasterly direction with an average slope of approximately two to three percent. Elevations range from 154 to 308 feet mean

sea level (MSL). The south project site has been graded to have fairly consistent land slopes while the north side has more rolling terrain and a few small gulches. The existing contours within the north side can be described as having non-definitive grade variations. Substantial elevation differences occur along the western side of the north area of the property. The property is generally flat along the eastern boundary along Kauholaani Highway, with a gentle slope rising from the northeastern to the northwestern corner. At its lowest point (at the northeastern corner), the property is approximately 160 feet above mean sea level (msl). Higher elevations occur along the western edge of East Waiko Road at approximately 300 above msl. Slopes generally increase from the north to the south, and the topography of the property at the southern tip is approximately 200 feet above msl. Waikapu Stream borders the southwestern edge of the property. With a gentle overall terrain, the average slope is about three percent or less.

Comment: *"Drainage System Omissions. The DEIS does not discuss drainage issues from the former landfill site nor does it discuss who will be responsible for managing the BMP retention basin maintenance plan that is being developed. Will that be the homeowners' association?"*

What level of funding will be required for regular maintenance of the basin? If the project is geared towards mostly affordable housing, will those costs be a burden?"

MTF requests that the FEIS address these unresolved drainage issues which may have secondary and cumulative impacts."

Response: The Waikapu landfill site is at a higher elevation than the adjacent Wai'ale project. The embankment area will contribute some surface runoff to the Wai'ale project. Any offsite flows will be accounted for in the construction plans for the project. The applicant would likely propose to install an interceptor swale along the project boundary to capture any surface runoff before it enters the Wai'ale site. A similar surface interceptor ditch was installed as part of the Maui Lani Village Mixed Use development which lies just north of the former landfill site.

Per your comments, Section 4.8.3 of the Final EIS will be revised as follows:

A maintenance plan will be developed for managing the BMPs for Wai'ale by one or more community associations to be established by the applicant. The plan will include requirements for the community association(s) for removing accumulated sediments and debris, maintaining vegetation, and performing regular inspections so that the BMPs operate effectively into the future.

The requirements for retention basins and for their maintenance is standard practice and is now required of any homeowner of a newer project, whether the project is "affordable" or not. Section 4.8.3 of the Draft EIS addresses planned drainage mitigation measures and their impacts.

WATER SYSTEM

Comment: *"There is no water supply or infrastructure currently available for this project. In sect 7.5 of the DEIS (p.232) it is clearly stated that the water supply for the proposed project is an "Unresolved Issue." The DEIS also states that there is presently no potable water supply available for this project from the County system. (Appendix M, p. 12 County DWS response letter to Waiale EISPN)*

Since the project will be required to develop a new water source, or sources, the DEIS should analyze the potential impacts of the various public trust resource water sources that it may consider tapping. It does not acknowledge any impacts on aquifers, existing users, or culturally protected resources that could be affected.

The Applicant's consultant told the state Office of Planning that impacts to aquifers would be discussed in the DEIS. The topic of impacts to Iao, Waikapu or Kahului aquifers, - all potential water sources for the project, was not discussed and implies a segmenting of potential impacts."

Response: Section 4.8.1 of the Draft EIS identifies and discusses potential water sources for the project. Please note that Section 4.8.1 of the Final EIS will be amended to include the following language:

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent, or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Kō'olau Aquifer sector, which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, needs to be developed. The need for these improvements is discussed in the County's Water Use and Development Plan and also the Maui Island Plan.

We also offer the following. The State Water Code (Chapter 174C, Hawaii Revised Statutes) and Maui County Code Chapter 14.02 require the preparation of a Water Use and Development Plan (WUDP). The WUDP is the primary long range plan of the Maui Department of Water Supply (DWS). The WUDP directs the management of water resources in a manner that is consistent with the County's land use plans and policies and serves as a guideline for the use and commitment of water resources and funds.

As part of a recent update process for the WUDP, a Central District: Final Candidate Strategies Report was prepared by Haiku Design & Analysis in June 2009. The report notes that water consumption for the Central District system is expected to grow from about 22 MGD in 2005 to about 34 MGD in 2030, an increase of about 12 MGD. To meet this increased demand, the report recommends proceeding with the Wai'ale water treatment facility (WTF) negotiations and approvals to the extent possible pending

determination of assurance of long term water availability and price. The report further notes that the Wai'ale WTF is considered to be potentially the most cost effective solution to providing needed future water. This information is from the second paragraph on page 41 in Section 3.6 of the Draft EIS.

The WUDP also considered other potential strategies, including new basal groundwater wells to the north of the existing Central District system (into the north half of the Waihe'e Aquifer and the Kahakuloa Aquifer). However, the anticipated costs of developing these wells and the related transmission system are high and the anticipated yields are uncertain. Other resource strategies examined included developing transmission lines eastward to the Haikū Aquifer and the desalination of brackish water, however, both of these strategies entail substantial development and operational costs. This information is from the second paragraph on page 41 in Section 3.6 of the Draft EIS.

As previously noted, the WUDP is the primary long range plan of the DWS. The WUDP directs the management of water resources in a manner that is consistent with the County's land use plans and policies and serves as a guideline for the use and commitment of water resources and funds. In turn, the MIP is the guiding document for future growth on the island of Maui to the year 2030. The MIP notes that the development of additional water sources is crucial for the Central Maui water system. The plan includes a long range implementation plan to address capital improvements, including water source development and related infrastructure. While there are sufficient amounts of groundwater resources to serve current and projected needs, the infrastructure to make this water available needs to be developed.

Also, as described in Sections 3.5 and 3.6 of the Draft EIS, there are existing agencies (such as the Commission on Water Resource Management and the County Department of Water Supply) that analyze and monitor water demand and supply.

Section 3.5 of the Final EIS includes a detailed discussion of the Kahului Aquifer and will be amended to include the following language:

The CWRM's Water Resource Protection Plan notes a sustainable yield of 1 million gallons per day (MGD) for the Kahului Aquifer, commenting specifically that this "Sustainable Yield ignores significant importation of surface water into Kahului from outside the aquifer system area. This explains the ability to withdraw fresh water from the aquifer at significantly higher rates than the sustainable yield without apparent negative impacts (i.e. rising chloride concentrations or decreasing water levels)"

Comment: *"MTF requests that the FEIS address these unresolved water resource issues which may have secondary and cumulative impacts."*

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 27 of 48

Response: As previously noted, the cumulative and secondary impacts of the alternative water sources were addressed in Section 7.2 of the Draft EIS.

Comment: "MTF requested in our EISP/N comments that the EIS include updated information on the status of the proposed Waiale Water Treatment Facility and its impact on surface waters, streams, and aquifer health in the Na Wai Eha region."

DEIS Response: The DEIS did acknowledge that the interim stream flow standards, set in June 2010, have been appealed and are not yet resolved.

Other important information influencing the creation of this facility was omitted from the DEIS.

Omissions in Water Supply Section: The DEIS did not consider any long term impacts the dedication of 9 mgd of Waihee stream water would have on local kuleana users or stream ecosystems.

The DEIS did not acknowledge that the surface waters of Na Wai Eha, including Waihee stream, are designated a "State Surface Water Management Area" and subject to a water use permit process. The DEIS did not discuss that CWRM has not specifically allocated water use permit capacity for a 6 to 9 mgd surface water facility through the recent Water Use Permit process of the four streams. Without the permits, there will be no water available for the facility."

Response: The proposed Wai'ale WTF would not impact the status quo as it would not involve the additional diversion of water from the Na Wai 'Eha streams. Since there will be no additional diversion of water, there would be no additional adverse impacts over the status quo, including that relating to kuleana users or stream ecosystems. The Draft EIS in Section 4.8.1 acknowledges that the proposed Wai'ale WTF would be subject to other decisions, such as those mentioned in your letter. Please note that the CWRM has yet to make any water use permit decisions for Na Wai 'Eha surface water, thus the statement that "CWRM has not specifically allocated water use permit capacity for a 6 to 9 mgd surface water facility through the recent Water Use Permit process of the four streams" is misleading. The process is still ongoing, and no decisions have been made. We do acknowledge the statement that "Without the permits, there will be no water available for the facility."

Comment: "The DEIS did not discuss impacts the Waiale water treatment facility would have on available water for agriculture, or water available to restore stream flows and recharge Iao aquifer; or the fact that use of stream waters in the project area would recharge the Kahului aquifer instead of the Iao aquifer."

The DEIS on p. 80 suggests that in the WUDP analyses "the Waiale WTF is considered to be potentially the most cost effective solution to providing future water.. " The DEIS did not inform readers that the consultants based this evaluation on the price of oil remaining below \$85/barrel.

Higher oil prices would prove more costly than an alternative location analyzed closer to Waiehu. This location, which was proposed by the Applicant at an earlier stage of treatment

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 28 of 48

facility planning, needs to be discussed as an alternative in the FEIS."

Response: As noted previously, the proposed Wai'ale WTF would not involve the additional diversion of water from the Na Wai 'Eha streams. Since there will be no additional diversion of water, there would be no additional adverse impacts over the status quo. The WUDP did include discussion of an alternative WTF location in Waihe'e. However, the WUDP concluded that the Waihe'e location was deemed more expensive than the Wai'ale location, due in part to transmission infrastructure requirements and site acquisition. Regarding your comment concerning oil prices, it should be noted that water wells require pumps that are also impacted by energy costs.

Comment: "MTF requests that the FEIS address these unresolved water supply issues that can have secondary and cumulative impacts and are required to be considered as part of the HRS 343 process."

Response: As previously noted, the cumulative and secondary impacts of the alternative water sources were addressed in Section 7.2 of the Draft EIS.

Comment: "MTF requested in our EISP/N comments that the EIS should contain specific information about the project's expected peak-potable and non-potable water needs, as well as planned water conservation measures by number of built units during various phases of construction."

DEIS Response: The DEIS gives an overall water demand of 1.9 mgd average and 2.8 mgd peak. In the preliminary Engineering Report it is acknowledged (p.13) that proposed parks will require 200,000 gpd of potable water that could be replaced by treated wastewater from an onsite facility.

On the other hand, the DEIS states that if a Wastewater Treatment Plant was built on-site, its entire output of .98 mgd could be used for irrigation onsite. It is not made clear in the DEIS exactly how much of the project's demand would be non-potable and what level of commitment the project has in minimizing use of potable water for non-potable purposes."

Response: The calculation of the project's total non-potable demand was provided in the last paragraph of 4.8.2 of the Draft EIS: "The total area of the parks and buffers is approximately 116 acres. Assuming an average irrigation rate of 5/16 inches per day, the average irrigation demand would be approximately 990,000 gpd. Effluent may also be used for roadway landscaping areas. The irrigated area for roadway landscaping is approximately 17 acres. Based on an average irrigation rate of 5/16 inches per day, the average irrigation demand would be approximately 140,000 gpd. Thus, the total irrigation for the parks, buffer areas and roadway landscaping would be approximately 1,130,000 gpd. This irrigation demand may vary depending on weather conditions."

The commitment of using treated R-1 water quality effluent if an on-site wastewater treatment plant is built was provided in the first sentence of the second to the last paragraph of Section 4.8.2 of the Draft EIS, which stated: "If an WWTP is necessary to

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 29 of 48

treat the wastewater generated by Wai'ale, then **effluent reuse and/or disposal will be necessary.**" [emphasis added]

Comment: "The proposed water usage levels cited in the Appendix M are based on the County's 2002 system standards. A 500 to 600 gpd usage per central Maui household appears low. Language in the DEIS and Appendix M (engineering report) gives no assurance that water conservation measures would be a priority for this development. The DEIS states that such features will be "considered."

MTF requests that the FEIS address these unresolved water demand management issues which may have secondary and cumulative impacts, and are required to be considered as part of the HRS 343 process."

Response: We did a search for the word "considered" and found no instances used in conjunction with water conservation measures. In fact, in several instances in the Draft EIS, it is stated that A&B Properties, Inc. is committed to water conservation strategies to reduce consumption, conserve resources and minimize water demands. Please refer to pages 11, 39, 81, 119, and 169 of the Draft EIS.

WASTEWATER FACILITIES

Comment: "MTF requested in our EISPN comments that the EIS also examine other options to treat waste water through a new regional facility, without putting an additional burden on the aging and vulnerable coastal Kahului WWTF."

DEIS Response: The DEIS gave a short review of a proposed local WWTP with a 1 mgd capacity, but seems more committed to hooking up to the existing Kahului treatment plant.

No regional facility was mentioned or discussed. The County's November 2010 letter to the applicant stated that wastewater flows from the project will exceed the Kahului wastewater plant system capacity, and the County's Public Works Department recommended the applicant study a regional treatment facility that could service several proposed development project areas. Other important information was not included in the DEIS Wastewater Facilities discussion."

Response: Section 4.8.2 of the Draft EIS includes discussion of an on-site wastewater treatment plant to serve the Wai'ale project. As proposed, this on-site plant would not burden the existing Kahului WWRF. Plans for any regional plant to serve other future projects would require specific information concerning these other projects (location, unit counts, development schedules and financial commitment) in order to commence any preliminary engineering analysis. The applicant has had discussions with representatives of the planned Maui Tropical Plantation project, however their anticipated development schedule is not consistent with Wai'ale's. The applicant also met with the Director of the DEM. The Director indicated that any regional sewage treatment plant solution should be properly advanced and pursued by the DEM.

Comment: "Omissions in Wastewater Facilities Section: The Applicants informed the state

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 30 of 48

Department of Planning that the DEIS would "identify whether any capacity or facility improvements to Kahului facility would be required to accommodate increased flows from the project." The DEIS only stated they would be willing to participate in such improvements, rather than identifying what improvements would be needed. This approach segments project impacts.

The DEIS does not address impacts of another 1 mgd of sewage going to the overburdened Kahului plant and what specific mitigations, such as installation of reclaimed water lines to recycle an equivalent amount of effluent at the plant, are proposed."

Response: We acknowledge your comment, but a study would need to be conducted to determine what improvements would be needed. As noted in the last sentence of the third paragraph on page 83 in Section 4.8.2 of the Draft EIS: "The County also stated that there may be room to upgrade the Kahului WWRF, but a study needs to be conducted on whether expansion is possible." Given that the Kahului WWRF is a County facility, it would be presumptuous for us to assume that we know their plant and their projected demands well enough to make any such determination. We would assume that an appropriate environmental review would subsequently be conducted by the County based on those planned improvements. Further, as previously noted, the applicant also met with the Director of the DEM. The Director indicated that any regional sewage treatment plant solution should be properly advanced and pursued by the DEM.

Comment: "DEIS Appendix M Engineering Report (p. 22) states that 116 acres of parks and green areas on the site will require an average irrigation demand, depending on weather conditions. The consultant's calculations compute this as 8,000 gal per acre per day, or a total of 1 mgd. This is more water than even sugar cane uses (5,000 to 6,000 gal acre day). The DEIS should clarify what the actual irrigation needs of the green areas are, versus what they may be able to absorb."

The DEIS does not address other non-potable sources for the project's onsite irrigation needs if no treatment plant is built? On page 22 of the Engineering report average demand is listed as 1 mgd.; is this accurate?"

Response: We are relying on a licensed civil engineering firm, Austin Tsutsumi & Associates, Inc. for the calculation of average irrigation demand.

Per your comments, Section 4.8.2 of the Final EIS will be revised to read as follows:

Due to the climate of the region, automatic landscape irrigation will be accommodated for commercial, mixed-use and multi-family residential developments, utilizing non-drinking quality water (such as brackish water wells) and/or R-1 water sources as available.

Comment: "The DEIS should include evidence that the applicants discussed the concept of a regional wastewater facility with owners of other nearby proposed projects. It should not be dismissed with no research or explanation."

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 31 of 48

The Draft Maui Island Plan process included long discussions on the need to transition new large central Maui developments away from reliance on the Kahului treatment plant and towards a new central Maui facility located out of the coastal hazard zone. The apparent intention of this project to connect into the Kahului facility, and not commit to participation in a new regional facility goes directly against this important community goal. The DEIS should give criteria for the choice of options made by the applicant.

MTF requests that the FEIS address these unresolved wastewater management issues which may have secondary and cumulative impacts, and are required to be considered as part of the Ch 343 process."

Response: As previously noted, Section 4.8.2 of the Draft EIS includes discussion of an on-site wastewater treatment plant to serve the Wai'ale project. As proposed, this on-site plant would not burden the existing Kahului WWRF. Plans for any regional plant to serve other future projects would require specific information concerning these other projects (location, unit counts, development schedules and financial commitment) in order to commence any preliminary engineering analysis. The applicant has had discussions with representatives of the planned Maui Tropical Plantation project, however their anticipated development schedule is not consistent with Wai'ale's. Further, as previously noted, the applicant also met with the Director of the DEM. The Director indicated that any regional sewage treatment plant solution should be properly advanced and pursued by the DEM.

SOLID WASTE

Comment: "MTF requested in our EISPN comments that the EIS estimate the amount of construction waste to be generated during the project and identify where the waste will be disposed of. Would the project trigger the need for another construction waste disposal site?"

DEIS Response: No estimate is given. No mention is made of using a construction landfill."

Response: The amount of construction waste to be generated during construction is difficult to estimate. As contractors review plans and provide bids to construct portions of the project, it is not in their financial interest to overestimate the amount of construction materials needed for a project (resulting in excessive construction waste). In fact, contractors and builders are financially motivated to minimize construction waste.

Per your comments, Section 4.8.5 of the Final EIS will be revised with the following text:

A&B Properties, Inc. will work with contractors to minimize the amount of solid waste generated during the construction.

Waste from site preparation and construction will be stored, handled, and properly disposed so as to divert the maximum amount of waste material caused by the development away from the County's landfill.

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 32 of 48

Wastes generated by site preparation will primarily consist of vegetation, rocks, and debris from clearing, grubbing, and grading. As much as practical, soil and rocks displaced from grading and clearing will be used as fill within the site. This will include proposed open space and park areas.

Green waste from grubbing will either be chipped into mulch for use on site or will be taken to green waste recycling centers. Currently there are three green waste recycling centers on Maui: Maui Eko Systems, Inc., Maui Earth Compost & Soil Mixes, and Campaign Recycle Maui. All of these are located in Central Maui.

Phasing of the project will minimize the amount of green waste generated at any one time. In addition, if large amounts of green waste are expected from an individual phase, delivery will be coordinated with the green waste recycling centers to ensure that there is adequate capacity among the centers to accept the anticipated amount of vegetation.

Construction waste will consist of waste lumber, concrete, and other building materials. Very little demolition material is expected, as the site is primarily vacant lands. The project will develop and implement a waste management and recycling program to maintain clean construction sites, maximize material recycling, and minimize disposal truck traffic impacts. This recycling program will incorporate the "Three Rs" of effective construction waste management:

- Reduce: by preventing waste before it happens through efficient design
- Reuse: by using materials removed during demolition (such as rocks and concrete) on site
- Recycling: by separating recyclable materials from non-recyclable materials and supplying these recyclable materials to a recycler for use as new products

During construction, a job-site recycling plan will be developed and, as much as possible, construction and demolition waste will be recycled. Separate containers will be provided for separate types of construction waste, which will be separated from municipal solid waste. Maui Scrap Metal accepts cardboard and metal for recycling. Maui Earth Compost & Soil Mixes accepts drywall. Maui Eko Systems, Inc., and Campaign Recycle Maui accept clean, untreated lumber. Remaining types of wastes may be recycled if a local recycling vendor is available. Otherwise, non-recyclable construction wastes will be disposed in the construction and demolition landfill near Ma'alaea.

Comment: "A Solid Waste Management Plan is promised, but not provided in the DEIS.

MTF requests that the FEIS address the lack of data regarding solid waste management issues. This should be done during the EIS process where documents will be available for public review.

This will help avoid unintended secondary and cumulative impacts, as required by the HRS 343 process."

Response: As requested, a Solid Waste Management Plan will be provided in the Final EIS as Appendix Q (See attached).

HOUSING

Comment: "MTF requested in our EISPN comments that the EIS discuss what portion of the 2,550 units will be affordable for working families and in what price range? Also whether the 300 units of County affordable housing will count as part of the project total to meet requirements of the Workforce Housing ordinance."

DEIS Response: the DEIS avoids discussion of percentages or target numbers of affordable housing units on-site or a price range for these units. The DEIS states that the project is geared primarily to the affordable market but this is not defined.

The DEIS does not make clear whether the 300 County workforce housing units will be counted towards workforce housing requirements or is it meeting the requirements of the applicant's previously LUC approved Maui Business Park?"

Response: As stated in the Draft EIS, Wai'ale is envisioned to include approximately 2,550 residential units. This includes approximately 300 affordable units to be developed by the County of Maui on 40 acres that will be conveyed to the County. Additionally, the remaining portion of the Wai'ale project (2,250 units) would also be subject to the provisions of the Maui Residential Workforce Housing Policy, Chapter 2.96, Maui County Code. An Assessment of Economic and Fiscal Impact, included as Appendix P of the Draft EIS, includes a projected breakdown of the anticipated affordable units by income group and unit type for Wai'ale (see below). A total of approximately 563 affordable units in four income categories are projected based on the provisions of the current workforce housing policy. The actual allocation of affordable units would be based on discussions and agreement with the County Department of Housing and Human Concerns. Note that changes to the overall project unit count would affect the amount of affordable units required.

Single-Family

Gap Income	62 units (20 percent)
Above Moderate Income	62 units (20 percent)
Moderate Income	93 units (30 percent)
Below Moderate Income	93 units (30 percent)
Total Affordable Single-family Housing Units	310 units

Multi-Family

Gap Income	50 units (20 percent)
Above Moderate Income	51 units (20 percent)

Moderate Income	76 units (30 percent)
Below Moderate Income	76 units (30 percent)
Total Affordable Multi-family Housing Units	253 units

Comment: *"The DEIS does not make clear who will assume infrastructure costs for the proposed County affordable housing or discuss who will be responsible if the county affordable housing area is impacted by the adjacent landfill? Does the county have an agreement with the developer?"*

Response: The County will be provided the land and would be responsible for the infrastructure costs associated with the proposed County affordable housing. Details of the land contribution would need to be worked out with the County.

Comment: *"The DEIS does not discuss if the county workforce housing on-site will be both single and multi-family, or whether it will be in both the north and south portions of the property."*

MTF requests that the FEIS address the lack of specific, detailed data regarding affordable units planned for the project. This project has been under discussion for 6 years and information must be available to inform the public and decision makers."

Response: Since the County Housing project is a County project, the actual details in terms of percentage and location of single- and multi-family units would be determined by the County. However, as shown on Figure O-1 of the Draft EIS, both County Housing parcels (30 acres plus 10 acres) are located in the northern portion of the property, where infrastructure and roadway connections to Maui Lani would be the closest, cheapest and the fastest to build.

COUNTYWIDE POLICY PLAN

Comment: *"The CWPP has many policies that support communities where it is easy and safe to walk or bike to school, work, shopping and play."*

Although the DEIS refers to the walkable nature of the proposed community, it would appear from Map O-1 that access from the largest proposed County affordable housing area, adjacent to the former Waikapu landfill, over to the proposed commercial area along Kuhielani Hwy would not be walkable. It would require an automobile, or a bike ride along several busy roadways.

This same area, with 30 acres of land proposed for affordable housing is shown as open space/greenway or park on the maps approved by the General Plan Advisory Committee, Maui Planning Commission and supported by the County Department of Planning.

The CWPP policies support planning to "make walking and bicycling transportation safe and easy between communities." The proposed green way in this section would have met that need.

However, the plan shown in Fig O-1 Master Plan shows no connectivity between the two areas and the only walking/bike path in the affordable area is around or over the burial preserve.

There is an appearance that this was less desirable land, bordered by the landfill on one side and separated by a high sand dune/burial site from the rest of the project. It appears that those who live here, with the greatest need of transportation alternatives, will be offered the fewest choices.

MTF requests that the FEIS address why this 30 acre site was chosen to fulfill the required donation requirements of Ordinance 3559, despite the draft Maui Island Plan preference to see the area as an open space buffer to protect cultural sites and minimize impacts from the former landfill.

Why were other areas of the project, equally close to Pomaikai School and the proposed new middle school and community center, not proposed? How will residents of the proposed affordable housing area be given opportunities to safely walk and bike to shop and use community facilities?'

Response: As shown on Figure O-1 of the Draft EIS, both County Housing parcels (30 acres plus 10 acres) are located within a quarter mile (walking distance) of proposed mixed use areas. Portions of the larger, 30-acre parcel would be located within a quarter mile of the proposed Maui Lani Village Mixed-Use area. The proximity of the 30-acre County Housing project provides an additional market for the commercial components of the Maui Lani Village Mixed-Use area. The smaller, 10-acre parcel would be located within a quarter mile of the proposed Wai'ale Village Mixed-Use area.

There are locational benefits to both County Housing sites. As previously mentioned, the larger of the two is within walking/biking distance of the proposed Maui Lani Village Mixed-Use area which will provide both shopping and employment opportunities. Additional employment opportunities will be located across the street at the proposed Light Industrial area, and it is likely that the County bus service can be extended to the front of this County Housing site. The larger County Housing parcel also surrounds a proposed County park, abuts a proposed area for the expansion of the Maui Lani Regional Park and through these parks provides an unobstructed, traffic-free, safe route to/from Pōmaika'i Elementary School.

The smaller of the two County Housing sites is within walking distance of the Wai'ale Village Mixed-Use area where shopping and employment opportunities will be available. It will also be within walking distance of Pōmaika'i Elementary School, a proposed middle school site, a proposed community center site and the proposed Wai'ale Regional Park. It is likely that the County bus service can be extended to the front of this County Housing site as well. Both County Housing sites will be "livable communities," permitting walkable, live, work, play, shop and study opportunities for residents, who won't have to rely on expensive-to-operate, personal vehicle ownership for the sole means of transportation.

The Wai'ale master plan has sought to incorporate the open space buffer between Maui Lani and Wai'ale as articulated in the *Draft Maui Island Plan*. Within the Wai'ale master plan, areas designated for park space and planned cultural preserves seek to provide that open space buffer. However, the rationale for designating a portion of lands within the northern portion of Wai'ale for planned County Housing is in part based on County Ordinance No. 3559. The County of Maui via Ordinance No. 3559 (Maui Business Park Phase II-Change in Zoning) required in part that A&B dedicate 50 acres to the County for affordable housing (40 acres), community center (7 acres) and park (3 acres). The specific location of these lands was described as being "...at the approximate location of the terminus of Kamehameha Avenue, near the new Maui Lani Park and Pomaikai Elementary School". This location in the northern portion of the property, is where infrastructure and roadway connections to Maui Lani would be the closest, cheapest and the fastest to build. Additionally, in order for these areas to be zoned and utilized for recreational park purposes, they must be situated within the Urban Growth Boundary (UGB) so that appropriate zoning can be eventually obtained through the County's zoning process (per Maui County Code Section 19.615.040 which states that regional parks must be situated either in the State Land Use "Urban" or "Rural" Districts).

Comment: "Are there specific infrastructure reasons why the affordable housing components of both Maui Lani and Wai'ale are designated for the same area where the landfill, a former EPA CERCL (Comprehensive Environmental Response, Contamination and Liability) site, is located?"

Response: We cannot comment on the reasons for the Maui Lani Affordable Housing project location, but as previously mentioned, both proposed Wai'ale County Housing parcels (30 acres plus 10 acres) are located in the northern portion of the property, consistent with the provisions of County Ordinance No. 3559 and where infrastructure and roadway connections to Maui Lani would be the closest, cheapest and the fastest to build.

LAND USE CONFORMANCE

Comment: "The DEIS should clearly acknowledge that MIP maps approved by the GPAC, Maui Planning Commission and Maui Planning Director show a very different configuration for park/cultural preserve area. These maps had specific planning objectives in mind. Although the DEIS refers to the "extensive planning process" the project underwent in 2005 (p. 180). There is no discussion in the DEIS that this public consultation process continued in a more neutral and public setting throughout the two year Maui Island Plan review, and a very different concept was supported for Waiale."

Response: We believe the "MIP maps" you are referring to were reproduced in the Draft EIS as Figures 5-1, 5-2 and 5-3. We have reviewed the text that describes Wai'ale in the Draft Maui Island Plan (MIP), and believe the Wai'ale Conceptual Master Plan shown on Figure O-1 of the Draft EIS is largely consistent with the MIP's vision for Wai'ale (quoted below).

The Wai'ale planned growth area is recommended to be a compact, mixed-use town with park land, open space, an elementary or intermediate school developed in coordination with the Waikapū Tropical Plantation Project, and commercial uses. Wai'ale will be located south of Maui Lani, and it is bounded to the west by Honoapi'iiani Highway and to the east by Kuihelani Highway. While proximate to Kahului, Wailuku, and Waikapū, the Wai'ale town should be a distinct community, clearly separate from existing towns. Wai'ale is the largest proposed town on the island and the largest planned growth area proposed for the Wailuku-Kahului community plan region.

Planned Growth Area Rationale

At build-out, the Wai'ale planned growth area will provide roughly 50% of the additional residential units needed in the Central Maui region and will help to address the housing needs of Maui residents. With a recommended 60% / 40% mix of single-family to multi-family housing units, low to moderate average lot size, and strong capacity to provide affordable housing, Wai'ale will provide housing options to address resident housing demand. The Wai'ale planned growth area is proximate to Wailuku employment opportunities and infrastructure, has adequate highway access and transit connectivity, and has favorable topography.

To prevent sprawl and further urbanization of prime agricultural resource land, a hard edge must be maintained around Wai'ale Town. A network of greenbelts, open space, and parks will be utilized to contain urban development, maintain a clear distinction between existing communities and the new town, and to prevent urbanization of agricultural lands south of the site. The planned growth area is currently bounded on at least two sides by roads which will help to contain the new community. The north portion of the Wai'ale area, identified as Wai'ale Workforce Housing on Figure 8.1, will be an affordable housing complex of roughly 300 units on 50 acres. The Wai'ale Workforce Housing units will meet the median income and affordable housing criteria for workforce housing. A regional park will be established on the north edge of Wai'ale to provide a clear separation between the new community and Maui Lani...

Please understand that the cultural preservation areas shown on the Wai'ale master plan reflect the actual cultural preservation areas approved by the SHPD in 2010. We believe that these were intended to be broadly defined in the Maui Island Plan, which preceded the actual designation of these areas, until their specific location could be determined. The Wai'ale master plan has sought to incorporate the open space buffer between Maui Lani and Wai'ale as articulated in the Draft Maui Island Plan. Within the Wai'ale master plan, areas designated for park space and planned cultural preserves seek to provide that open space buffer.

Comment: "MTF requests that the FEIS provide a comparison of the two proposed maps (Draft MIP Map and Waiale Master Plan Map) on the basis of the following four community objectives for the region, heard during the MIP process:

- 1) Create a community built around an urban oasis, to soften a very industrial area- this would be accomplished through a large contiguous open space to allow natural dune formations to be protected; connect rather than separate the main known burial concentrations; and preserve a sense of place.
- 2) Create a substantial buffer area between the urban density of Kahului and the developing area of Waikapu
- 3) Create a large natural buffer between the Waikapu landfill site and any future residences, and use the space for walking trails and bikeways that will connect across the project site and not compete with traffic.
- 4) Use the open space as a memorial to the legendary battle of Kakanilua and the thousands who died amid the sand dunes on the central plain of Maui, helping to preserve Maui's history and also to avoid impacts to other likely burial concentrations."

Response: As previously noted, we have reviewed the text that describes Wai'ale in the Draft Maui Island Plan (MIP), and believe the Wai'ale master plan shown on Figure O-1 of the Draft EIS is largely consistent with the MIP's vision for Wai'ale (quoted above).

Comment: "It should be noted that the project's cultural consultants also concur that the remaining sand dune formations are what gives the site its unique sense of place. Preservation of only one dune does not meet the Vision Statement goals of the project, nor does it comply with the Wailuku-Kahului Community Plan or support the conclusions of the project's CIA process."

Response: We acknowledge your opinion but do not concur with your interpretation of the Vision Statement goals, Wailuku-Kahului Community Plan or the conclusion of the CIA. We believe a commitment to set aside a total of approximately 33 acres is significant and represents a substantial commitment by the applicant to retain significant portions of the dunes. We are not aware of any other example in Wailuku, Kahului, Waikapū or Maui Lani (other than the golf course – which has limited public access).

COUNTY AFFORDABLE HOUSING AREA

Comment: "The county affordable housing area discussed during MIP public meetings was sensibly located near the existing and proposed schools and shopping. On the Draft MIP maps, the lands adjacent to the Waikapu landfill were designated as open space, potential burial preserve, and a greenway with bike paths connecting Maui Lani VMX and the Waiale project. The need for similar landfill buffer lands in the Maui Lani VMX drew considerable discussion among state Land Use commissioners, Urban Design Review Board members and Planning commissioners."

Response: As previously mentioned, both County Housing sites are sensibly located and will be "livable communities," permitting walkable, live, work, play, shop and study opportunities for residents, who won't have to rely on expensive-to-operate, personal

vehicle ownership for the sole means of transportation. Neither of the two proposed County Housing sites are located adjacent to the former Waikapū landfill.

WAILUKU-KAHULUI COMMUNITY PLAN CONFORMANCE

Comment: *"The Wailuku-Kahului Community Plan has many policies relating to cultural and historic preservation in the region, including protection for Puu One sand dunes. The historic and cultural importance of the site should be clearly acknowledged in relationship to the community plan policies."*

Response: The relationship of Wai'ale to the Wailuku-Kahului Community Plan was discussed on pages 188-190 in Section 5.2.3 of the Draft EIS.

Comment: *"MTF requests that the EIS have specific facilities and dedications to memorialize the important historical events of the region. This should be clearly discussed in the DEIS in regard to the project's conformance with state and local plans."*

Response: While interpretive signage and educational opportunities were mentioned on page 57 in Section 4.2 of the Draft EIS, the following text will be added to the "Discussion" on page 190 in Section 5.2.3 of the Final EIS:

Long-Term Preservation Measures – *The identification and implementation of long-term or permanent site protection measures provide for the continued protection of archaeological and cultural resources. The two typical categories of long-term preservation are passive and active preservation, as described below:*

- **Passive Preservation** – *Sites in this category do not undergo any interpretive development, occur in areas that can be avoided by development, and are left as is. This category is sometimes referred to as "data banking." Most sites in this category are not intended to be permanently preserved, but are anticipated to undergo data recovery procedures in the future, presumably when improved data gathering techniques and refined analysis technologies are available or on large tracts of land where development is intended to take place in incremental phases; and*
- **Active Preservation** – *Sites in this category are chosen for their interpretive potential. Their selection may be based on aesthetic, academic, or cultural representation values. Different levels of interpretive development may be undertaken, including: stabilization, partial or complete restoration, and/or reconstruction. Signs may be involved, and details regarding access and protocols need to be worked out.*
- **Cultural Preserves** - *Approximately 33 acres are proposed to be set aside as cultural preserves where the greatest concentrations of burials occur. These areas are planned to be permanently preserved, and none of the*

burials within these cultural preserves are anticipated to undergo data recovery procedures in the future. These areas are intended to be kapu and only accessed by lineal and/or cultural descendants, recognized and/or acknowledged cultural practitioners and for periodic maintenance and/or fire protection.

Comment: *"The DEIS suggests the project design is "largely in concert with the Draft Maui Island Plan," but the project appears to ignore the map of the Waiale area preferred and recommended by ALL reviewing bodies to date."*

Response: As noted elsewhere, we have reviewed the text that describes Wai'ale in the Draft Maui Island Plan (MIP), and believe the Wai'ale master plan shown on Figure O-1 of the Draft EIS is largely consistent with the MIP's vision for Wai'ale (quoted above).

As noted previously, the cultural preservation areas shown on the Wai'ale master plan reflect the actual cultural preservation areas approved by the SHPD in 2010. We believe that these were intended to be broadly defined in the *Maui Island Plan*, which preceded the actual designation of these areas, until their specific location could be determined. The Wai'ale master plan has sought to incorporate the open space buffer between Maui Lani and Wai'ale as articulated in the *Draft Maui Island Plan*. Within the Wai'ale master plan, areas designated for park space and planned cultural preserves seek to provide that open space buffer. However, the rationale for designating a portion of lands within the northern portion of Wai'ale for planned County Housing is in part based on County Ordinance No. 3559. The County of Maui via Ordinance No. 3559 (Maui Business Park Phase II-Change in Zoning) required in part that A&B dedicate 50 acres to the County for affordable housing (40 acres), community center (7 acres) and park (3 acres). The specific location of these lands was described as being "...at the approximate location of the terminus of Kamehameha Avenue, near the new Maui Lani Park and Pomaikai Elementary School".

ALTERNATIVES

Comment: *"The alternative scenarios described in section 6.3 do not include:*

- a) an alternative with a larger natural preserve area,*
- b) an alternative with fewer units or*
- c) an alternative where no community facilities are in proximity to the former landfill.*

All of these are important variations of the project to consider."

Response: Per your comments, the following paragraph will be added to Section 6.3 of the Final EIS:

During the Draft EIS public review period, Maui Tomorrow Foundation suggested an "alternative of having less irrigated park space and more natural areas, such as

the natural dune formations, should also be examined as a water conservation strategy. Similarly, the Sierra Club Maui Group suggested "A larger contiguous preserve area, which includes as many remaining intact dunes as possible, should be discussed as one project alternative." This alternative would be similar to the proposed project. The major difference is that Maui Tomorrow Foundation and the Sierra Club Maui Group are suggesting replacing some of the proposed active park space for more passive "park" space. The negative aspects of this alternative is that there would be less areas for exercise and active sports, and more areas that might attract illegal dumping and other activities, including brushfires. The positive aspects are that there would be more open spaces that do not require management costs, lower water demand, and less play noise, and preserving the remnant dunes desired by some.

Per your comments, Section 6.3 of the Final EIS will be revised to accommodate "an alternative where no community facilities are in proximity to the former landfill";

A higher density project that kept the same residential unit count as proposed and recommended by the Draft Maui Island Plan (2,550 units) would reduce the buildable area (a positive benefit) and possibly reduce the quantity of surface runoff (a positive benefit). During the Draft EIS public review period, Maui Tomorrow Foundation suggested "an alternative where no community facilities are in proximity to the former landfill" – this would be achievable under a higher density project that would reduce the buildable area. Another potential benefit of this alternative is that it would likely be easier to serve by bus and correspondingly increase ridership. However, this alternative was rejected because the residential buildings would be larger and taller and at much higher densities. Moreover, this alternative would not result in as wide a range of residential product types. Implementation of this alternative will not avoid; infrastructure impacts (solid waste, wastewater and additional stormwater runoff generated on-site); visual impacts (appearance of the property changing from vacant lands to a master-planned development); the loss of employment on the property from the lessees businesses (assuming they do not relocate elsewhere); traffic impacts; and construction-related impacts (such as construction noise, construction equipment exhaust emissions, temporary traffic disruption, and the potential for fugitive dust and soil erosion).

Per your comments, the following will be added to the last paragraph of Section 6.3 of the Final EIS to accommodate "an alternative with fewer units":

Conversely, as suggested by Maui Tomorrow Foundation and the Sierra Club during the Draft EIS public review period, a significant decrease in units would result in different impacts. A significant reduction in housing units would result in the housing objectives articulated in the Directed Growth Strategy and the Maui Island Plan not being met. Wai'ale is being expected to provide the majority of

needed housing units in Central Maui to the year 2030 (2,550 housing units of the total 5,073 housing units). This alternative was rejected because: 1) a reduction in housing units at Wai'ale would alternatively mean that other areas would need to be designated for future growth; 2) Given the extensive community review process undertaken to date this would appear an undesirable alternative; and 3) any reduction in total units would also reduce the amount of affordable units developed. A decrease in units would result in higher per unit development costs, as the cost of basic infrastructure (roadways and utilities) would still be incurred but prorated over fewer units. Such a scenario could jeopardize the project's financial feasibility.

Comment: "The concept that any reduction in units in the proposed project will result in shortages of housing in Central Maui is hard to justify in light of the substantial number of units already approved for the applicant's Kahului Town Center, proposed by the same applicant at their North Kihei project (Kaiwahine), and the high unit count projects already entitled and being proposed by their fellow large landowners in central Maui and the north Kihei area.

The statement that there are few large parcels on Maui designated for residential development in the Maui Island Plan is not consistent with the list of large north Kihei acreages: Kaonoulu, Haleakala, Makena, Wailea 670 and the central Maui projects proposed for Waikapu (Tropical Plantation) and Wailuku (Hale Maa), all within the urban growth boundary.

On top of these are the un-built, fully entitled portions of Kehalani and Maui Lani. There is no proof that a Waiale project with 2000 units rather than 2500, would have any serious effects on the pool of available housing for working families in central Maui a decade or two in the future.. This is not even bringing the 6000 units proposed in the UGB for the Lahaina area into the discussion."

Response: As noted in the first paragraph of Section 2.2 of the Draft EIS, ACM Consultants, Inc. (ACM) was retained by A&B Properties, Inc., to analyze each of the specified segments of the real estate market as it relates to Wai'ale. In particular, ACM studied economic trends and demographics, and supply and demand factors for residential, commercial and industrial properties. Residential properties included single-family residences, single-family house lots, and condominium units. Commercial and industrial properties included vacant developable lots as well as improved properties. In the process, ACM gathered as much information as possible on real estate activity on Maui while focusing primarily on the Central Maui market. Based on their assessment of historical annual absorption rates, the current short term supply of units was estimated to last approximately 4 years.

As articulated in the Directed Growth Strategy and the Maui Island Plan, Wai'ale is being expected to provide the majority of needed housing units in Central Maui to the year 2030 (2,550 housing units of the total 5,073 housing units). A reduction in housing units at Wai'ale would alternatively mean that other areas would need to be designated for future growth.

Comment: "HAR 11-200-16 requires a genuine discussion of alternative site plans for a project site where sensitive environmental or cultural resources are found.

7) *Historic perspective.*
(f) The draft EIS shall describe in a separate and distinct section alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected. The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks. Examples of alternatives include:

- (1) The alternative of no action;*
- (2) Alternatives requiring actions of a significantly different nature which would provide similar benefits with different environmental impacts;*
- (3) Alternatives related to different designs or details of the proposed actions which would present different environmental impacts;*

Alternative designs for the Waiale project must be offered to provide opportunities to minimize impacts on sensitive cultural resources and respect the history of a place where a new community is being proposed.

The unintended result of providing minimal burial preservation areas is that all future burials encountered elsewhere on the remaining 500 acres will either be relocated or fragmented into culturally isolated features. The alternative should provide an analysis of the Maui Island Plan Draft Map as part of the EIS process."

Response: As previously noted, per your comments, the following paragraph will be added to Section 6.3 of the Final EIS:

During the Draft EIS public review period, Maui Tomorrow Foundation suggested an "alternative of having less irrigated park space and more natural areas, such as the natural dune formations, should also be examined as a water conservation strategy." Similarly, the Sierra Club Maui Group suggested "A larger contiguous preserve area, which includes as many remaining intact dunes as possible, should be discussed as one project alternative." This alternative would be similar to the proposed project. The major difference is that Maui Tomorrow Foundation and the Sierra Club Maui Group are suggesting replacing some of the proposed active park space for more passive "park" space. The negative aspects of this alternative is that there would be less areas for exercise and active sports, and more areas that might attract illegal dumping and other activities, including brushfires. The positive aspects are that there would be more open spaces that do not require management costs, lower water demand, and less play noise, and preserving the remnant dunes desired by some.

Per your comments, the second to the last paragraph of Section 6.3 of the Final EIS will be revised to accommodate "an alternative where no community facilities are in proximity to the former landfill":

A higher density project that kept the same residential unit count as proposed and recommended by the Draft Maui Island Plan (2,550 units) would reduce the buildable area (a positive benefit) and possibly reduce the quantity of surface runoff (a positive benefit). During the Draft EIS public review period, Maui Tomorrow Foundation suggested "an alternative where no community facilities are in proximity to the former landfill" – this would be achievable under a higher density project that would reduce the buildable area. Another potential benefit of this alternative is that it would likely be easier to serve by bus and correspondingly increase ridership. However, this alternative was rejected because the residential buildings would be larger and taller and at much higher densities. Moreover, this alternative would not result in as wide a range of residential product types. Implementation of this alternative will not avoid: infrastructure impacts (solid waste, wastewater and additional stormwater runoff generated on-site); visual impacts (appearance of the property changing from vacant lands to a master-planned development); the loss of employment on the property from the lessees businesses (assuming they do not relocate elsewhere); traffic impacts; and construction-related impacts (such as construction noise, construction equipment exhaust emissions, temporary traffic disruption, and the potential for fugitive dust and soil erosion).

Per your comments, the following will be added to the last paragraph of Section 6.3 of the Final EIS to accommodate "an alternative with fewer units":

Conversely, as suggested by Maui Tomorrow Foundation and the Sierra Club during the Draft EIS public review period, a significant decrease in units would result in different impacts. A significant reduction in housing units would result in the housing objectives articulated in the Directed Growth Strategy and the Maui Island Plan not being met. Wai'ale is being expected to provide the majority of needed housing units in Central Maui to the year 2030 (2,550 housing units of the total 5,073 housing units). This alternative was rejected because: 1) a reduction in housing units at Wai'ale would alternatively mean that other areas would need to be designated for future growth; 2) Given the extensive community review process undertaken to date this would appear an undesirable alternative; and 3) any reduction in total units would also reduce the amount of affordable units developed. A decrease in units would result in higher per unit development costs, as the cost of basic infrastructure (roadways and utilities) would still be incurred but prorated over fewer units. Such a scenario could jeopardize the project's financial feasibility.

Comment: "MTF requests that the EIS include maps showing alternative views of historic/cultural preservation areas and open space, including those supported by the GPAC, Maui Planning Commission and Maui Planning Director. Several maps and narratives should be provided, showing expanded versions of the proposed Cultural Preserve area that would reduce the risk of more inadvertent burial disturbances. In particular, Preservation Area 3 should be

expanded to include the entire dune system it adjoins."

Response: As previously noted, we believe that the maps you are referring to were reproduced in the Draft EIS as Figures 5-1, 5-2 and 5-3. While we appreciate your concerns, as previously noted, all portions of the project area were surveyed. Mechanically excavated stratigraphic trenches (ST) were placed in areas thought to potentially contain subsurface archaeological deposits and to provide a sample of testing across the project area. These trenches allowed for assessing sediment matrix types across a large area, the results in turn providing some evidence for past and present land utilization. A total of 287 trenches were excavated. Figure 7 of the AIS (See Appendix E of the Draft EIS) depicts the location of each excavated trench per phase. Since extensive subsurface was conducted and little was discovered, there is adequate confidence that the areas being set aside for preservation are adequate.

CUMULATIVE AND SECONDARY IMPACTS

Comment: "The DEIS does not mention or address secondary and cumulative impacts to natural and cultural resources that a project demanding up to 3 mgd of water a day at buildout is likely to engender. Which aquifers will be used? What agricultural activities will cease, if millions of gallons of water a day is extracted from either streams or groundwater? What other projects will NOT be built in order to provide the water for Wai'ale?"

Response: The Wai'ale project is in the very beginning stages of seeking the necessary land use approvals and reviews. As such, it will be a number of years before it is known whether the project will indeed be allowed to proceed—and certainly a number of years before water service is required. The applicant is diligently exploring a number of alternatives for water source for this project, but it is not unusual that at this early stage of a project, infrastructure specifics—like water source—have not been finalized. It is an undisputable fact, however, that this project will not be built unless a viable source of water is available at that time.

As noted previously, the island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent, or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available needs to be developed. The need for these improvements is discussed in the WUDP and also the *Maui Island Plan*. Given these vast resources, it is not likely that projects will not be built in order to provide water for the Wai'ale project—the necessary infrastructure just needs to be built. It is not envisioned that any agricultural activities will cease as a result of the water needs of this project.

Comment: "The DEIS does not address any significant plan to reduce potable water demand in the project, even though it is located in a very arid area."

Response: Water conservation measures were provided on pages 81 and 82 in Section 4.8.1 of the Draft EIS.

Comment: "The DEIS makes no commitment to identify a reliable source of non-potable water for the extensive irrigated areas proposed. It is possible the source would be more stream water from an HC&S ditch. Will sugar be hurt?"

Response: The Draft EIS did identify a non-potable water source. Section 4.8.2 in the Final EIS has been amended as follows:

If a WWTP is necessary to treat the wastewater generated by Wai'ale, then effluent reuse and/or disposal will be necessary. The primary method of effluent reuse would be landscape irrigation. The WWTP/wastewater reclamation facility would produce approximately 980,000 gpd of R-1 water quality effluent, which would allow for irrigation reuse with minimal restrictions. The estimated irrigation demand, based on the County of Maui's Water System Standards, is approximately 200,000 gpd. Therefore, if ~~4-11-04~~ the R-1 water quality effluent can be utilized, it will reduce the drinking quality water demand that would be used for irrigation by about 200,000 ~~980,000~~ gpd. Possible on-site areas for irrigation reuse are the parks, open space areas, playing fields associated with a proposed middle school site and community center, and roadway landscaping. The reuse of effluent for on-site irrigation would be implemented in consultation with all applicable parties. Separate distribution irrigation waterlines will be required to convey the R-1 water to the irrigation reuse areas.

Additionally, other non-potable sources include brackish wells. Any use of water would seek to mitigate any adverse impacts to sugar cultivation.

Comment: "The DEIS does not address cumulative impacts on reefs and water quality in Kahului if the project succeeds in transferring 1 mgd of its waste water to that vulnerable and outdated facility."

Response: Based on the comments received from the County's Department of Environmental Management, concerning the limited capacity of the Kahului WWRF, the applicant has planned for an on-site treatment facility. As previously noted, a study would need to be conducted to determine what improvements would be needed for any expansion of the existing Kahului WWRF. Given that the Kahului WWRF is a County facility, it would be presumptuous for us to assume that we know their plant and their projected demands well enough to make any such determination. We would assume that an appropriate environmental review would subsequently be conducted by the County based on those planned improvements. Further, as previously noted, the applicant also

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 47 of 48

met with the Director of the DEM. The Director indicated that any regional sewage treatment plant solution should be properly advanced and pursued by the DEM.

Comment: "Secondary and cumulative impacts regarding long term health affects of the site are not discussed in the DEIS, except to emphasize that the site has been cleaned up and there are no potential risk factors."

Response: While we disagree with your characterization of Section 4.6 of the Draft EIS ("site has been cleaned up and there are no potential risk factors"), it is our understanding that if any impacts will be mitigated, then there are no secondary and cumulative impacts.

Comment: "The Waikapu landfill is a major risk factor that is downplayed. Architects on the Urban Design Review board were firm in stating that Maui Lani not build warehouses in its 300 ft landfill setback on the Maui Lani side of the landfill, based on their personal experiences with landfill leaks."

Response: The applicant expects to cooperatively work with appropriate governmental agencies, including the DOH, regarding future development adjacent to the former landfill to address potential concerns. Per our master plan, planned residential areas have been set back some 300 feet from the former landfill site. As noted in the last sentence of the third paragraph on page 75 in Section 4.6 of the Draft EIS, "Similar to Maui Lani, the closest planned residential area within Wai'ale is situated approximately 300 feet distant from the Waikapu Landfill."

CONSULTATION PROCESS

Comment: "MTF requested in our EISP comments that the EIS include interviews of the various Maui-Lanai Island Burial Commission members, and members of the public who also came to share their concerns. The commission and citizens have asked for years that the destructive sand mining of this site be halted and the burials be left in peace."

Response: The Cultural Impact Assessment prepared by Hana Pono LLC (Hana Pono) and included in the Draft EIS included interviews with James Ballao, member and the Wailuku representative of the Maui-Lanai Island Burial Council, as well as Clare Apana, Ron Jacinto, Hokuao Pellegrino and Leslie Vida.

Comment: "HAR rules require that opposing views be included in the discussion of project impacts."

Response: We concur that HAR 11-200-16 does state that "...a statement shall include **responsible** [emphasis added] opposing views..." These rules guided how the EIS is being revised to incorporate your comments.

Ms. Irene Bowie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 48 of 48

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

Encl: Solid Waste Management Plan

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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**WAI'ALE COMMUNITY
SOLID WASTE MANAGEMENT PLAN**

Wai'ale Community Description

The Wai'ale property is located in the Kahului Isthmus Region of the island of Maui, Hawaii'i. According to the United States Geological Survey (USGS), Wailuku, Hawaii'i, 7.5-minute topographic quadrangle map, a small portion of the subject property is located in the Wailuku district and the remaining subject property is located in the Waikapū district. The property comprises approximately 545 acres of land covering all or a portion of five tax map key (TMK) parcels.

- TMK (2) 3-8-005: 023 (portion)/Alexander & Baldwin, Inc.
- TMK (2) 3-8-005: 037/Alexander & Baldwin, Inc.
- TMK (2) 3-8-007: 071/Alexander & Baldwin, Inc.
- TMK (2) 3-8-007: 101 (portion)/Alexander & Baldwin, Inc.
- TMK (2) 3-8-007: 104/Alexander & Baldwin, Inc.

Kuihelani Highway borders the property on the east. East Waiko Road intersects Kuihelani Highway and divides the property into two sections, one section lies north of East Waiko Road comprised of approximately 422 acres and the other south of East Waiko Road comprised of approximately 123 acres. Current access to the property is off of East Waiko Road and Kuihelani Highway.

Wai'ale is envisioned to be a community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways. Approximately 2,550 residential units are proposed for Wai'ale, including approximately 300 residential units within the 40 acres to be contributed to the County of Maui.

The Environmental Impact Statement (EIS) process is anticipated to be completed in 2011. State Land Use Commission approval of the subject land use petition (Docket No. A10-789) is anticipated in late 2012, followed by County approvals (Community Plan Amendment, Project District Phases I, II, and III through about 2014). The construction of Wai'ale is expected to commence after Project District Phase II and III applications are approved. Full urban development of the property is anticipated to be substantially completed within 10 years.

Current Solid Waste Generated

Currently, significant quantities of solid waste are not being generated on the subject property from the current uses. As previously noted, the property is divided into two sections by East Waiko Road. The section north of East Waiko Road is comprised of approximately 422 acres and the section south of East Waiko Road is comprised of approximately 123 acres.

The section located north of East Waiko Road is currently leased to several tenants. Approximately 162 acres is leased to Brendan Balhazar, Gary Vares, and Manuel Lopes for cattle and horse grazing. Ameron International Corporation and T.J. Gomes occupy approximately 17 acres of the subject property for sand stockpiling. Hawaiian Cement previously occupied a portion of this land for sand mining operations, however, sand mining operations are no longer conducted at the subject property. Nobriga's Ranch, Inc. occupies approximately five acres for a cattle feed lot. Tom's Backhoe lease area occupies two acres and is used as a storage yard for construction and asphalt paving equipment. A portion of the property was previously used as a turf sod farm.

The section located south of East Waiko Road is currently fallow sugar cane fields, with an orchid farm and a former scrap yard. HC&S used most of this land for sugar cane cultivation until production ceased in about 2008. Melia Orchards Maui leases approximately 10 acres and specializes in orchid flowers used for hotels and restaurants. A portion of the property was formerly leased to a scrap metal company and some materials from the scrap yard still remain onsite. Additionally, portions of the property were observed with unauthorized dumping of appliances, furniture, automotive parts, and other materials.

Current Collection Services

The County provides residential curbside refuse pick up and disposal services in six major districts, including Central Maui (which includes Wailuku, Kahului and South Maui). Curbside refuse is picked up on Wednesdays on West and East Waiko Road manually. In Maui Lani, automated refuse pick up is provided on Anamuli Street on Mondays and Thursdays.

Construction Solid Waste Management

The construction of Wai'ale has the potential to impact the County's solid waste disposal operations. As required by the County, this solid waste management plan addresses waste generated by construction during build out of the Wai'ale project. The review of this solid waste management plan will be coordinated with the County's Department of Environmental Management Solid Waste Division for the disposal of on-site and construction-related waste material. A&B Properties, Inc.,

and/or its assigns, will work with contractors to minimize the amount of solid waste generated during the construction.

Coordination with the County and its Central Maui Landfill - Refuse & Recycling Center for the disposal/recycling of construction debris may be required. Disposal would be in accordance with appropriate regulations and standards.

Waste from site preparation and construction will be stored, handled, and properly disposed of to divert the maximum amount of waste material produced by the development of Wai'ale away from the County's landfill.

Waste generated by site preparation will primarily consist of vegetation, rocks, and debris from clearing, grubbing, and grading. As much as practical, soil and rocks displaced from grading and clearing will be used as fill within the property. This will include proposed open space and park areas.

Green waste from grubbing will either be chipped into mulch for use on the property or will be taken to green waste recycling centers. Currently there are three green waste recycling centers on Maui: Maui Eko Systems, Inc., Maui Earth Compost & Soil Mixes, and Campaign Recycle Maui. All of these are located in Central Maui.

Phasing of the project will minimize the amount of green waste generated at any one time. In addition, if large amounts of green waste are expected from an individual phase, delivery will be coordinated with the green waste recycling centers to ensure that there is adequate capacity among the centers to accept the anticipated amount of green waste.

Construction waste will consist of waste lumber, concrete, and other building materials. Very little demolition material is anticipated, as the site is primarily vacant lands. The project will implement a waste management and recycling program to maintain clean construction sites, maximize material recycling, and minimize disposal truck traffic impacts. The recycling program will incorporate the "Three Rs" of effective construction waste management:

- Reduce: by preventing waste before it happens through efficient design
- Reuse: by using materials removed during demolition (such as rocks and concrete) on site
- Recycling: by separating recyclable materials from non-recyclable materials and supplying these recyclable materials to a recycler for use as new products

During construction, a recycling plan will be implemented and, as much as possible, construction and demolition waste will be recycled. Containers will be provided for separate types of construction waste, which will then be separated

from municipal solid waste. Maui Scrap Metal accepts cardboard and metal for recycling. Maui Earth Compost & Soil Mixes accepts drywall. Maui Eko Systems, Inc., and Campaign Recycle Maui accept clean, untreated lumber. Remaining types of wastes may be recycled if a local recycling vendor is available. Otherwise, non-recyclable construction wastes will be disposed in the construction and demolition landfill near Mā'alaea.

Operational Solid Waste Management

As required by the County, this solid waste management plan addresses waste generated by construction during build out of the Wai'ale project. However, recycling will be encouraged after construction, and architects for individual businesses will be encouraged to provide space for individual dumpsters to separate recyclable materials, such as cardboard, plastic, aluminum and glass beverage containers from municipal solid waste.

ACM Consultants, Inc. (ACM) prepared an in-depth market study and economic and fiscal impact assessment for Wai'ale. Based on demographic statistics for Central Maui, ACM estimated that Wai'ale will have approximately 6,767 residents once the project is built out and in full operation. ACM anticipated that 95 percent of Wai'ale residents would be already living on Maui, with the remaining 5 percent, or about 338 residents, being in-migrant residents.

According to the United States Environmental Protection Agency (EPA), in 2006, individuals recycled 1.5 pounds of the individual waste generation rate of 4.6 pounds per day, for a net waste generation amount of 3.1 pounds per day. The EPA's figures include municipal solid waste (MSW) from homes, institutions such as schools and prisons, commercial sources such as restaurants and small businesses, and occasional industrial sources. MSW does not include wastes of other types or from other sources, including automobile bodies, municipal sludges, combustion ash, and industrial process wastes that might also be disposed in municipal waste landfills or combustion units. If all of future residents of the Wai'ale project were from outside of Maui, then the solid waste generated by the project is estimated to average approximately 23,715 pounds per day. However, since ACM estimates that 95 percent of Wai'ale's residents would already be living on Maui, then the estimated 338 residents will generate a total of approximately 1,048 pounds of solid waste per day.

In the *Public Facilities Assessment Update County of Maui (2007)*, R.M. Towill Corporation projected that the Central Maui Landfill (CML) would have adequate capacity to accommodate commercial and residential waste through the year 2025. This projection was arrived at by multiplying the County's de facto population projections by an estimate of pounds per person per day of waste generated and assumes that solid waste generated by industrial and commercial growth will be captured by a corresponding trend in projected population growth. The County's

Integrated Solid Waste Management Plan (ISWMP) (February 2009) indicates that the majority of the County's waste goes to the Central Maui Landfill which is projected to reach capacity in the year 2026. However, as proposed under the ISWMP, through various initiatives, including the increased diversion of waste materials through recycling and composting, the landfill capacity could be extended to the year 2042.

Future Collection Services

A&B Properties, Inc., or its assigns, will need to apply for new service for the single-family residential units by opening a residential solid waste account with the County's Department of Environmental Management. Rules for refuse collection are provided in the Maui County Code, Chapter 15-108.

It is anticipated that in the Village Mixed-Use, multi-family residential, commercial, industrial and institutional areas, private refuse collection services will be relied upon.

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From: Sierra Club, Maui Group
PO Box 791180
Paia, HI 96779

July 30, 2011

To: A&B Properties, Inc.,
PO Box 156, Kahului, HI 96732.
Attention: Grant Chun, Vice President

Aloha to A&B staff and consultants and LUC staff

Mahalo for providing this opportunity to share our comments and for allowing extra time to receive them. Sierra Club Maui Group (SCMG) has tracked this proposal for some time: from the 2004 proposal to donate 475 acres to Maui county for a new civic center and affordable housing; to the 2005 Waiale community planning meetings; to the General Plan update review process.

SCMG was one of the original advocates for the donation of 50 acres for affordable housing as a condition of the Maui Business Park land use entitlements. It is disappointing to read this document and see no justification of why the bulk of the land donated for the County's affordable housing area is proposed to be located next to the unlined former Waikapu landfill. We would encourage the applicant and reviewing agencies to reconsider that decision.

Protection of Traditional Burial Grounds

While the current proposed application is to reclassify 545 acres from Agriculture to Urban, we would respectfully request that the Land Use Commission should consider that about 100 acres of this land, containing intact culturally significant Puu One (inland sand dunes) and numerous traditional burials, both known and unknown, should be reclassified, not from state Agriculture to Urban, but from Agriculture to Conservation.

We understand that the applicant will not be submitting this kind of request to the Commission, however, it helps if Commissioners are at least aware of the potential value of portions of the subject parcel. Former SHPD Maui Branch head, Dr. Melissa Kirkendall, offered her view, reported in the minutes of the Maui-Lanai Island Burial Council in January of 2004. Ms Kirkendall spoke in regard to the numerous burials that were being displaced as sand mining operations were conducted in the Waiale dunes (part of current project site). Dr. Kirkendall's remarks were summarized in the minutes. She suggested that:

"...sites should be seen as one whole site. Due to finding reports, knowledge of burials and the area, there is an extreme high probability that the site is a cemetery. Question before Council should be if mining should be allowed on an area having all the traditional characteristics of Hawaiian family burial area."

At least three other major dune complexes extend north south across the Waiale project site besides the dune system/ burial ground Ms. Kirkendall was referencing. One of those dunes has already revealed more than a dozen burials, when a portion was sand mined without a permit in 2008.

The question before the applicants and the Commission should be: what is the extent of the ancient cemetery on these lands? Is it confined to the one dune proposed for preservation, or does it extend to the other dunes which are equally tall, more intact and magnificent?

Project consultant SCS suggested in the AIS for the project area that higher elevation sand dunes, those of 250 to 350 ft amsl or more appear to hold a greater concentration of burials. Although the DEIS provides a sand dune map and report, no elevations are included for the various sand dune systems.

This question regarding the probable extent of future burial features on the Waialeale site is not answered in this DEIS. No precautionary mitigation is proposed except for trench testing (rarely effective) or monitoring (too late for effective preservation planning.) Cultural access to the site has mapped elevations along the three most prominent undisturbed dune systems in the project site: their elevations range from 250 to 300 ft amsl.

Hundreds of dune burial site locations are already known due to disturbances during various construction phases of the adjoining Maui Lani development. Maps indicate that those burials are also clustered along the roughly north-south axis of the natural dune systems. It would appear that the dune systems once found in Maui Lani continued south into the lands now proposed for the Waialeale development. Three major north-south concentrations of burials exist in parallel dunes in the Maui Lani project. One concentration would correspond to the Waialeale project preserve area number 1. The next Maui Lani concentration appears to align with the dune system where Waialeale preservation area 3 is proposed.

One of the shortcomings of the Waialeale burial preservation plan is that it is fragmented. Preservation area 3 will be around 2 acres, shaped around the known burial sites from the sand mined portion of the dune. The remaining portions of this dune system extend north and south for thousands of feet and are also likely to hold more burials. A 10 to 12 acre preservation area along the length of the dune would prevent future disturbances, yet it is not even discussed as an option. Preserve area 3 is the only location where recovered grave goods indicate Alii burials. Two niho palaoa were recovered with the remains in this locale.

Act 50 Compliance: Cultural Impact Mitigation

Specific compliance with Act 50, evaluation of cultural impacts, is not discussed in the body of the DEIS by name. Act 50 requires all environment review documents include disclosure of the effects that a proposed action will have not only on environmental resources, but also on the welfare, social welfare and the cultural practices of the community and the state. The law requires an EA or EIS to address those impacts which may be identified. The project has completed a Cultural Impact Assessment (CIA) to address requirements of Act 50. The CIA correctly concludes that the project will have potential impacts on native Hawaiian cultural practices which must be mitigated.

The project's Cultural Impact Assessment recommended a number of worthy actions: protection for Pu'u One (sand dunes) as cultural resources, protection of views to the mountains; protection of native pueo; protection of Waikapu stream as a cultural resource; and recommendation that future burial finds be left in place. A CIA is required under Act 50 to evaluate cultural impacts of any proposed action. If

cultural impacts are revealed through the CIA process, the DEIS must consider the recommendations of the CIA to address those impacts.

The Waialeale DEIS does not address those recommendations in a forthright manner. For example, the DEIS quotes the CIA re: the cultural importance of the Pu'u One, but accepts a consultant's report that does not consider the cultural value of the dune features. While the CIA speaks of protecting "dunes" the DEIS describes cultural preservation as protecting a single dune. While the consultants refer to the importance of various view planes in the project site, the DEIS concludes that no public view planes exist. An so it goes.

The presence of numerous burial features given significance criteria "e" in the site should trigger an Ethnographic Inventory Survey. The process is described in HAR 13-284-5:

"An ethnographic survey may be undertaken when the SHPD concludes that historic properties which may be significant under criterion "e" of paragraph 13-284-6(b) (5) are present or are likely to be present within the project area and when the project area is known to have been used by members of an ethnic community at least fifty years ago or by preceding generations."

An ethnographic survey has specific standards which must be met, unlike the CIA. Given the importance of this site, and the risk of numerous other burial displacements, such a level of investigation is warranted.

It is noteworthy for example, that the CIA did not include interviews with two individuals who are both cultural practitioners in the area. One, Ms Apana was quoted as not wanting her interview transcript released. The other, Mr. Pellegrino was described as only willing to have a prepared written statement used. In consultation with these individuals, both indicated a willingness to participate in an Ethnographic Survey based on clear standards. Ms Apana also wanted to make clear that she wanted her CIA interview transcript to be released, but that it was incomplete. Her request was not that it not be released, but that it be completed before it was released, to insure that it accurately reflected her views. Apparently, there was not time in the DEIS production schedule to do that.

An ethnographic survey would be the first step in evaluating this ancient burial ground to be recognized as a traditional cultural property under Department of the Interior standards. The DEIS should consider this action as part of the proposed mitigations for identified impacts to cultural resources and traditional practices the proposed project will have.

Our comments that follow concern areas of DEIS that do not provide adequate information, or which may unfortunately, provide inaccurate or misleading information.

2.2 Community Purpose and Need

No real proof is given in the DEIS that this project is needed in its present form or would be tied to lower housing costs. The DEIS analyses of community need does not include the role other large residential/commercial mixed use projects proposed in south and central Maui since Waialeale project began, would play in the market. The DEIS does not discuss what happens if Waialeale gets approved but not built for many years, as has happened with other projects proposed by the same landowner.

2.31 Vision statement

The Waiale vision statement emphasizes the project's commitment to a sense of place. The proposed project design obliterates most of the unique landforms, Pu'u One, which currently define the project site. This fact is sidestepped in the DEIS discussion and the narrative suggests that only one "relatively intact" dune remains. Ironically this dune has been seriously impacted by sand mining, while other unspoiled dunes to the east are designated as "degraded" with no proof. The DEIS should include a site plan that adapts to natural features if it intends to preserve a "sense of place."

3.2 Geology and Topography

The Geology Survey and analyses appears to try to justify destruction of remaining dunes except one burial preserve. This seems to be based upon the fact that the burial dune is higher than the others, but no data is given. Is the difference in height 20 ft, 10 ft or 4 ft? The DEIS does not inform us, yet a firm conclusion is drawn about the worth of the dunes. The project's archaeologist suggests that dunes of 250 ft or more amsl were preferred for burials. All the major dune systems in the Waiale project fall in that height range.

The fig 3-1 map of the dunes is inaccurate and misleading. Reports and photos offered by cultural practitioners show a number of robust, intact dune systems running north-south from the east to the west of the project site. Several of the dune systems besides the one proposed burial preserve, have crests that appear to tower 30 ft or more, over the surrounding lower lands. These dune systems are not the solitary peaks or fragments as shown on fig. 3-1 map, but continuous ridges, peaks, valleys marching on for thousands of feet with spectacular views to the west. They do not show signs of erosion or trampling by grazing animals as is suggested in the consultant's summary in the DEIS. The shaded lands shown surrounding the "dune structures" on the fig 3-1 map are designated as a "heavily impacted area" when, in fact, they are natural rolling meadows, swales and kiawe thickets bordered by an occasional ranching fence and road. These areas have had no sand mining. They have not been modified for ranching to any great extent. They have not been graded or planted. They do not have trash deposits. The designation "heavily impacted" appears completely unjustified and misleading.

Designating the remaining dunes, save one, "degraded" and therefore expendable, goes against the policies and implementing actions of the Waiuku-Kahului Community Plan. The plan lists the entire Pu'u One dune system, as "wahi pana"- significant traditional places and important cultural resources. The geological research in the DEIS does not appear adequate, and it runs counter to the conclusions of the Cultural Resources consultants.

The Geology report lists no references, and does not explain how the consultant arrived at the conclusion that the remaining dunes can be "designated degraded." Is there a set of standards used to grade dunes? If so how many inland dunes on Maui meet those standards? None of this information is provided. No dunes in central Maui have complete intact native plant cover, they are similar to the Waiale dunes in that regard.

The "relatively intact dune" proposed for preservation by the applicant and their consultants is actually heavily impacted and reconstructed from 5 years of extensive sand mining. This can be verified by discussions in the MLJ Burial Council minutes.

Even the claim in the report that the majority of the natural dunes in the project area are obliterated, is not backed up with facts and is not accurate. The relative worth of the Waiale dunes, and their cultural importance, is not accurately described, therefore the impact caused by their proposed destruction cannot be determined from the DEIS.

3.5 Ground Water Resources and Water Quality

Groundwater impacts. No test data is provided for the specific water quality and proposed use of the project's two onsite wells; or any proposed future wells offsite. The EISPN referred to the two onsite wells as potential potable water sources for the proposed community. The FEIS needs to clearly explain why that proposed use has changed to irrigation.

Will the onsite irrigation wells with their stated pumping capacity of .6 mgd be used to meet landscape demands? What are those irrigation demands? 200,000 gpd was mentioned in one section of the DEIS, while up to 1 mgd was mentioned in the appendix (Appendix M Engineering report)

What impact would the project's existing irrigation wells have on the Kahului aquifer and the numerous other wells using it? What happens if the artificial recharge of the aquifer from cane irrigation declines? Do the wells count on leakage from the Waihee ditch for their aquifer recharge, and therefore, present impacts to surface waters?

Are new potable wells for the project proposed in adjoining Waikapu or Iao aquifers? If so what would be the impact of the project's 1 to 2 mgd demand on either of those aquifers? According to State Water Commission data, Waikapu aquifer already has wells claiming to want 1.7 mgd of pumpage, equalling over half the aquifer's projected sustainable yield of 3 mgd. Where does this project fit into the demand that will be placed on this aquifer?

Even if the project's water source is not yet known, the DEIS should discuss the potential impacts and mitigations of the possible alternative scenarios, just as was done with the prospective water storage tank sites. These would be part of the cumulative impacts.

It appears that the ground water below the project site is at risk from further contamination. The DEIS discusses parks needing to avoid pesticides to lessen risks to the groundwater quality. Is this because of the Maui Lani wells nearby or the Consolidated Baseyard well? This should be made clear.

Is ground water from the project site considered to be below the DOH Underground Injection Control line? Could groundwater be affected by the Waikapu landfill or former hazardous materials that leaked into the earth from former tenants of the project site? What are the nitrate levels for groundwater in the project's wells? Water quality test data referred to in the DEIS appears scanty.

The DEIS should provide a discussion of the Reynolds well no. 1 (state well 5129-01) located on the neighboring parcel to the north. This well was once part of the county system and is now sealed. What contaminants were present in the well water, or why was it abandoned? It is located on former A&B land leased to the Reynolds fruit orchard farm and it would be assumed that the applicants are aware of its status. All of this information should be made clear in the FEIS as it may indicate conditions that could affect groundwater conditions on the project site.

3.6. Fauna

The interviewees in the Cultural Impact Assessment all mention the Pueo frequenting the project area. Whether or not these native birds were noted in the flora and fauna survey, the DEIS should acknowledge the cultural impact if their habitat is disturbed, to be in compliance with Article XII section 7 of the State Constitution which protects traditional cultural practices.

If the Pueo loses its habitat, families will have difficulty being connected to their 'aumakua. While the flora and fauna survey seems well researched, the DEIS should include at least preliminary mitigation proposals for habitat preserves for the endangered Sphinx moth found on site. Nothing is discussed.

A map showing potential Blackburn Sphinx moth preserve areas on site; discussions of habitat enhancement or restoration strategies; or plans for off site mitigations should be included in the DEIS. To not do so is to segment project impacts and actions and ignore secondary and cumulative impacts of the proposed project. Previous planning discussions of the entire project did not have knowledge of the Sphinx moth onsite, so plans did not accommodate its habitat.

4.1 and 4.2 Archaeological and Historic Resources/Cultural Resources

Archaeological and cultural resources on the project site include the natural landforms (Pu'u One dunes), native birds observed by cultural consultants and interviewees, views to the peaks and valleys of Mauna Kahalawai and Haleakala, Waikapu stream, possible traditional travel routes, numerous known and unknown burials and other cultural sites. All these cultural resources are referred to in the CIA for the project.

The DEIS dismisses the views, dismisses all but one sand dune as unimportant, and does not protect areas of likely additional burials. The "sandhills of Waikapu," are described in the works of nineteenth-century historians, as being the location of the great battle of Kakanilua. No plan is discussed to include any historic reference to the battle in the project's preserves or educational displays, although it is very likely the site includes a portion of the plains where the battle took place over several days.

The original 1977 FEIS for the Maui Lani development, which, ironically was then named the "Waiale Development" stated (p. III-12) that the sand hills below Wailuku were called Kakanilua and the Maui Lani site was "probably the site of the Battle of Sandhills." Since such battles, according to the mo olelo which have been handed down, were not confined to one compact location, but spread over the plain, it is likely that the present day project site, besides being a traditional burial ground also served as an ancient battle ground.

Waiale's sandhills appear to be the southern extensions of those found in the Maui Lani project area. The Waiale lands lie immediately to the south of Maui Lani, along Kalaniopu'u's 1776 marching route from Ma alaea Bay. At least one burial found in the Waiale project site had evidence of a spear wound and ornaments belonging to a high ranking ali'i were found in preserve area 3.

None of these archaeological, cultural and historic resources appear to be adequately addressed in the portions of the DEIS that discuss proposed development plans.

- a) Existing viewsheds are not mapped or evaluated for cultural importance.

- b) Potential burial areas are dismissed because test units were dug, however the sand mining reports for the same project area reflect that numerous burials have consistently been found in many areas where substantial test trenches had been dug.

- c) A plan for avoidance of likely burial sites needs to be included in the EIS discussion.
- d) Sufficient natural area needs to be set aside for endangered native Blackburn sphinx moth and native bird habitat

- e) Sand dune elevations need to be mapped, since the consultant SCS suggests that burials are associated with dunes at elevations from 250 to 350 ft or more amsl.

The CIA consultants recommend protecting sand dunes, not just one dune, and not relocating any future burials that may be found. The project's site plan does not adequately address mitigation of impacts to cultural resources such as dunes, significant viewsheds, Pueo, Nene, Blackburn sphinx moth and probable burials.

The proposed bike/walking trail around and through the largest burial preserve area does not appear to be compatible with the community desire to have burial areas be as undisturbed as possible. If a different rationale is being proposed, it should be discussed in the DEIS.

A larger contiguous preserve area, which includes as many remaining intact dunes as possible, should be discussed as one project alternative. The dunes provide outstanding viewsheds, habitat for native flora and fauna and opportunities for restoration of native dryland plants, minimizing the project's water demand. This preserve area could follow the map adopted as part of the Maui Island Plan process (Fig 5-1 through 3, that features a large contiguous open space area, with a number of sand dunes intact.

Section 4.5 Air Quality Impacts

The EIS doesn't reveal what enforcement of strict emission controls needed to make air quality acceptable in the Light Industrial zone would cost, and how it would be accomplished. If it can not be practically implemented, will residents be forced to endure unhealthy levels of DPM from diesel fumes? Alternative locations for housing should be included if air quality standards can not be met. Most new housing on Maui is not created this near to industrial uses.

4.6 Man-Made Hazards

The Phase I Environmental Site Assessment included in the DEIS (Appendix M) acknowledges that it did not include "sampling or analyses of soil, groundwater or other materials." Other Phase I Assessments that we have reviewed included this level of information.

It is especially troubling that so little information is provided regarding ground water samples from the adjoining Waikapu Landfill site. We addressed the need to include information regarding the various hazardous material sites located on or near the property in our EISPN comments. We appreciate that some information is being included in the DEIS, but feel that it needs to have more recent data included as well. If not now, when will this information be revealed to decision makers?

Plans to monitor the landfill site should also be discussed as well as reasons that the green buffer around the landfill site, proposed in the Maui Island Plan USB map (Fig 5-1 to 3) adopted by GPAC, Maui Planning Commission and supported by County long range planning was ignored in the Waiale Master Plan.

4.7 Visual Resources

View sheds seem overlooked as a feature of this land except in the Cultural Resources section. The recommendations of this section should be brought into the project's general discussion and planning.

Views are cultural resources. Kupuna refer to particular views carrying cultural knowledge and significance. One kupuna shared his thoughts of the alignment of sites on the various sand dunes in the Waiale project area. He pointed to the notches and pu'u (hills) visible along the ridge of Mauna Kahaalawai to the west. As the seasons pass, he pointed out the setting sun moves along the mountain ridge, touching certain points. One must stand in a certain location, that offers its own unique viewplane to experience this. This knowledge was passed from generation to generation.

Dismissing the value of the view planes and natural systems on this site simply because they are not included in a County report, is shortsighted and not supported by the project's own cultural consultants. Onsite view planes should be mapped and planning should reflect their importance.

Section 4.7.4 Wastewater Facilities

A new regional wastewater facility for the central Maui area is not discussed in the DEIS. This was requested in the County DEM comment letter. The proposed onsite 1 mgd capacity facility also gets very little review. Would this plant impact the potable well on the neighboring Consolidated Baseyard property if it had to use injection wells to dispose of effluent?

The EIS does not include a Sewage Impact Study which compares the relative merits and disadvantages of using the Kahului WWTP to an onsite plant, to a new regional plant. The DEIS does not identify "capacity or facility improvements to the Kahului facility that would be required to accommodate increased flows from the project." This was an assurance made to the State Office of Planning.

The onsite projects calculations for use of treated reclaimed water seem inconsistent with figures in the water demand section. The consultants estimate 1 mgd of reclaimed water would be needed for landscape irrigation. Elsewhere is it estimated 200,000 gpd would be needed. If no wastewater plant is built on site, will 1 mgd of potable water be used for landscaping? Is there another non-potable source? This information should be included in the DEIS, but is not.

Section 4.8.1 Water System

The DEIS acknowledges that the water supply for the proposed project is an "Unresolved Issue." County water is not available, and a new source will need to be developed.

The DEIS spends more time discussing water tank storage options than potential water sources. Project water demand will be 1 to 2.8 mgd. Proposed conservation planning measures are vague. Proposed groundwater sources are vague. Cultural, economic and natural resource impacts of the proposed Waiale surface water treatment plant are not even mentioned. The County's Water Use and Development Plan ranked the Waiale treatment option economical only if oil prices were below \$85/barrel. This is unlikely to be the case, and the implications should be discussed.

The Waiale EISPN mentioned the possible potable use of the two onsite wells that were being drilled. Now the DEIS informs us that those wells will be for irrigation. There is not discussion why this choice has been made. There is no discussion of what level of irrigation pumping is expected from the wells, only that their capacity is .6mgd, each and only one is expected to be used at a time. No discussion is provided of what impact this may have on other nearby wells in the same aquifer. There are no water quality reports for the Waiale wells.

It would appear that the project will have a number of secondary and cumulative impacts associated with its water supply, that are being segmented out of the DEIS discussion where they belong.

4.8.3 Drainage System

Potential drainage impacts from the former Waikapu landfill site should be investigated and discussed in the DEIS and they are not. The landfill appears to be at higher elevation than the portions of the project proposed for affordable housing, parks and school. Earlier Master Plans had a retention basin in the project's north east corner. Now this area is shown as a part of a regional park. The former design had a park more centrally located to receive runoff from the surrounding urbanized surfaces. The DEIS needs to discuss why a different configuration was chosen to absorb potential flow in the project.

Section 4.8.5 Solid Waste

A Solid Waste Management Plan is promised, but not provided in the DEIS. No specific information is given about the amount of waste expected to be generated by the project during construction as a percentage of available landfill capacity, yet it is continually emphasized that Waiale is one of the largest proposed community projects proposed in the new Urban Growth Boundaries of the Maui Island Plan. This information was promised to the State Office of Planning in the Waiale comment response letter.

4.9.4.3 Housing

The DEIS does not reveal what percentage or numbers of units will be affordable. Most environmental documents include this information for decision makers. If the project has a private water system, will affordable units pay the same rates as market based units? Will those metrics work out to support a private system? These real world considerations affect the viability of this project and needed information should be provided.

4.10.1 Schools

The DEIS acknowledges the need for an additional middle school to serve central Maui as part of the additional population levels of children living in the Waiale project, but it does not discuss the fact that both central Maui high schools are already at capacity. In fact, very little information regarding impacts to school population is provided.

No list is given of the number of elementary, middle and high school students expected to be generated as is customary in such large projects. Instead it is claimed on p.99 of the DEIS that the project at full build out will only result in an in-migration of 328 new residents and 58 new students.

The EIS gives no factual basis for the assumption that 95% of the project's residents will already live on Maui. Also, there is no breakdown of whether potential buyers of the property will move from other areas of Maui and what impact that would have on the need for a new high school to serve the expected growth of central Maui. In short, the DEIS appears to avoid considering the impacts to local high schools that 6,767 residents of Waiale could have.

The proposed Waiale middle school is projected to have either 600 (wastewater calculations) or 820 (traffic trip generation analyses) students. If those students already fit in the existing middle schools (Iao and Waena), there would be no need for a new middle school. Logically, if those same students need a new middle school, in 3 years they will need a space in a high school. If Baldwin and Maui High will have that capacity, it should be demonstrated in the DEIS, otherwise the impacts of the 600 middle school students should be mitigated with a discussion of a new high school. The review of Waiale project in the Maui Island Plan Directed growth chapter (c. 2007 p. 94) projected the project would generate 428 high school students. It is not enough to assume that the agreement to pay educational impact fees relieves the applicant of this discussion of impacts.

School site:

It appears the school site is located in an area of sand dune formations and is at risk for disturbing burials on the site. The DEIS also reveals that indoor noise levels in the proposed middle school site are likely to exceed federal standards and need to be mitigated by building design standards. The costs of these mitigations is not discussed. Do they add 10%, 20% or 30% to building design and construction? Do school sites customarily need to accommodate for excessive noise levels? Noise impacts to the school site is discussed under Noise but not under Schools. This is confusing to agencies, decision makers and the public.

5.2.2 Land Use Conformance Maui Island Plan Map

As we noted in our EISPN comments, the proposed Waiale master plan map ignores considerable community input that came during the Maui Island Plan directed growth review process. Sierra Club requests any reviewing agencies to consider the proposed project is not in compliance with the Draft MIP, because its DEIS has ignored the content of the MIP maps, except for the outline.

The DEIS avoids any discussion of why the project has chosen to ignore the need strongly supported by community members for a large continuous open space buffer area in the project plan. The DEIS does not even acknowledge that the General Plan Advisory Committee (GPAC) version of the Urban Growth Boundary (UGB) map for Central Maui (Fig 5-3) in the DEIS specifically **excludes** this proposed open space/buffer area from the proposed UGB lines.

The message was very clear: the open space area on the GPAC Directed Growth map should not be considered for future development due to culturally important features or hazardous sites to be avoided. Regardless of this community feedback, the Waiale master Plan map (fig 0-1) in the DEIS indicated that only a portion of the proposed area should be utilized for park/open space/preserve purposes. The rest was proposed for intense development: Commercial, Light Industrial, Residential and Village Mixed Use.

The DEIS claims that its master plan was designed "largely in concert with the tenets of the Maui Island Plan" and that archaeological, geological and other studies were then used to formulate the master plan, but once again, the reality is, the DEIS does not even refer to the suggested open space concept in the Maui Island Plan UGB Directed Growth maps. This "alternative project design" should have been discussed in section 6 of the DEIS, but once again it was ignored.

Section 5.2.3 Wailuku –Kahului Community Plan Conformance

The Waiale DEIS proposes a project that does not conform to the Cultural Resources section of the Wailuku-Kahului Community Plan.

Cultural Resources: Goal

Identification, protection, preservation, enhancement, and where appropriate, use of cultural practices and sites, historic sites and structures, and cultural landscapes and view planes that:

1. Provide a sense of history and define a sense of place for the Wailuku-Kahului region; and

2. Preserve and protect native Hawaiian rights and practices customarily and traditionally exercised for subsistence, cultural and religious purposes in accordance with Article XII, Section 7, of the Hawaii State Constitution, and the Hawaii Supreme Court's PASH opinion, 79 HAW. 425 (1995).

Preservation of the Pu'u One and burial grounds of the proposed Waiale project site are important parts of meeting both aspects of the community plan's Cultural Resources goal. The Pu'u One provide the Waiale site with its unique sense of place and historic connection to the events of the past, such as the battle of Kakanilua. The presence of Pu'u One and burial sites also allows native Hawaiians to exercise traditional and customary rights in accordance with Article XII, Section 7, of the Hawaii State Constitution, and the Hawaii Supreme Court's PASH opinion, 79 HAW. 425 (1995).

The DEIS, in contrast, proposes to define the majority of the dunes as "degraded" and preserve only one dune section which contains around 60 burial features. The importance of the other intact dunes, even those which have been associated with other burials, is ignored.

The Waiale Project as proposed does not conform to the Cultural Resources goals, objectives and policies of the Wailuku-Kahului Community Plan and its DEIS fails to adequately address the following:

- 1) The unique Pu'u One dune formations found throughout the project site are cultural features, as noted in the Community Plan, and destruction of any of them impacts the exercise traditional and customary rights in accordance with Article XII, Section 7, of the Hawaii State Constitution. Preserving one dune does not mitigate this loss.
- 2) The history of the Waiale site includes the battle of Kakanilua and in order to "Provide a sense of history and define a sense of place for the Wailuku-Kahului region," appropriate recognition of that battle should be made part of the project design. The DEIS denies any relationship of the Kakanilua battle to the Waiale site, although the 1977 AIS for the original Maui Lani project
- 3) Avoiding displacement of additional traditional burials on the site. Hawaiian culture places great importance on protection of na iwi in their final resting place, as Edward Ayau has written:

"Hawaiians believe that they were nourished from foods fertilized by the bones of their ancestors. The na iwi are seen to release the mana of the deceased into the land, invigorating the land with the spiritual energy required to sustain it and those that rely upon it for survival." The DEIS is silent on the topic of strategies for avoiding future burials.

6.0 Alternatives

The DEIS does not meet the standards of HAR §11-200-17 (f)

(f) The draft EIS shall describe in a separate and distinct section alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected. The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks. Examples of alternatives include:

- (1) The alternative of no action;
 - (2) Alternatives requiring actions of a significantly different nature which would provide similar benefits with different environmental impacts;
 - (3) Alternatives related to different designs or details of the proposed actions which would present different environmental impacts;
 - (4) The alternative of postponing action pending further study; and,
 - (5) Alternative locations for the proposed project.
- In each case, the analysis shall be sufficiently detailed to allow the comparative evaluation of the environmental benefits, costs, and risks of the proposed action and each reasonable alternative. For any agency actions, the discussion of alternatives shall include, where relevant, those alternatives not within the existing authority of the agency.

Specifically, the DEIS does not describe:

"...alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected. The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks."

The following alternatives were not described in the Waiale DEIS:

- 1) Alternatives to increase the size of the proposed preserve or open space areas to protect culturally significant resources (i.e. Pu'u One, traditional burials and flora and fauna habitat.) This alternative could also positively affect water demand for the project.
- 2) Alternative locations for the 30-acre maui county affordable housing land donation to move housing away from the former landfill and industrial noise and fumes.
- 3) Alternative design which included an off-site regional WWTP to serve the project.
- 4) Alternative of postponing action pending further study, since the project is not prepared to discuss its future water sources, wastewater disposal location, noise mitigation costs and dozens of other topics.

- 5) Alternative of a reduced unit count to reduce water/sewage impacts, limit development in the former landfill area and provide protection for cultural resources.
- 6) The alternative project design indicated on the MIP directed growth map.

HAR 11-200-17 (f) requires that an EIS not only describe these types of alternative actions, but also provide a "rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions."

All of these alternatives would enhance environmental quality within the project and in general. Instead alternatives were offered that decreased open space, or kept current unit counts but increased density, creating larger taller buildings. In short, decision makers are being asked to evaluate the DEIS and the potential project with large amounts of vital information withheld and very limited discussion of alternative project designs.

7. 1 Short-Term uses of Environmental Resources and Long-Term Productivity

This section attempts to justify the project need and benefits by selectively citing data and minimizing actual conditions. For example:

The DEIS concludes that long term risks to health and safety are not expected, yet the project is surrounded by past and present sources of harmful and hazardous substances, including an unlined unmonitored landfill.

In addressing cultural preservation, the DEIS first minimizes the extent of cultural resources and then inflates the quality of what is being offered for preservation. The DEIS describes "most of the property as being "heavily" decimated" then mentions that there is a "large portion of the site, (defined as "approximately 28 acres") where there is a relatively intact lithified sand dune" that will be preserved.

The DEIS does not define the terms "most of the site" or "large portion of the site." The entire site is 545 acres. This would not make 28 acres "a large portion of the site." In fact, 28 acres would be about .5 % of the site. On the other hand, at least 100 acres of the approximately 450 acre northern sector of the proposed project has high, undisturbed dunes that extend for several thousand feet. These dunes are not "decimated" at all and are likely to contain undisturbed burials; however, their true nature is not being revealed in the DEIS.

Ironically, the one supposedly "relatively intact lithified sand dune" that is proposed for preservation has actually been extensively sand mined and refilled with other sand deposits to shore up dozens of redeposited burials. A review of MLI Burial Commission minutes between 2003 and 2006 provides blow by blow descriptions of the extensive disturbance and attempted restoration of various sections of this 28 acre dune. Of course it should be preserved, along with the 60 individual burials, but it should not be held up as being in superior condition than several undisturbed dunes outside of the sand mining area on the same parcel.

7.2 Cumulative and Secondary Impacts

The DEIS fails to address cumulative and secondary impacts of its water source options. Sourcing up to 2 mgd of surface water from Na Wai Eha could have impacts to cultural practices, local agriculture and native stream life. Sourcing the water from Iao, Kahului or Waikapu aquifers could have impacts on sustainable yield and other users in those aquifers.

The DEIS fails to address cumulative and secondary impacts of sending an additional 1 mgd of sewage to Kahului WWTP or how that will comply with HAR 11-54-1.1 which defines an anti-degradation policy for state waters. Equally, the impacts of an onsite sewage system to a shall water table and a location probably within the UIC is not discussed.

The DEIS fails to address cumulative and secondary impacts to schools, especially high schools. In the County's draft Directed Growth Strategy document from 2007, the Waiale project was estimated to have 3560 units on 524 acres and generate 752 elementary age students, 363 intermediate students and 428 high school students. The DEIS does not include any discussion of respective numbers of students except to estimate that only 57 new to Maui students will be associated with the build out of the project. No mitigations are discussed for the high school students generated by the project.

The DEIS fails to address cumulative and secondary impacts to cultural resources if remaining sand dunes are allowed to be separated from their cultural context and destroyed. Impacts to traditional and customary Hawaiian rights are not adequately discussed and considered in the project's planning to be in compliance with Act 50 during the EIS process.

CONCLUSION:

The State Land Use Commission should not find this document acceptable until it provides considerable more information regarding a wide variety of topics referred to in these comments. Of especial concern is the lack of meaningful discussion regarding alternatives to the action as proposed.

Once again we appreciate the opportunity to offer these comments.

Sierra Club Maui Group
by Lucienne de Naie, Conservation Chair



October 7, 2011

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SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Ms. de Naie,

Thank you for your letter dated July 30, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

Comment: "SCMG was one of the original advocates for the donation of 50 acres for affordable housing as a condition of the Maui Business Park land use entitlements. It is disappointing to read this document and see no justification of why the bulk of the land donated for the County's affordable housing area is proposed to be located next to the unlined former Waikapu landfill. We would encourage the applicant and reviewing agencies to reconsider that decision."

Response: We appreciate Sierra Club Maui Group's (SCMG) continued support of the donation of 50 acres. Part of the rationale for designating a portion of lands within the northern portion of Wai'ale for planned County Housing is in part based on County Ordinance No. 3559. The County of Maui via Ordinance No. 3559 (Maui Business Park Phase II-Change in Zoning) required in part that A&B dedicate 50 acres to the County for affordable housing (40 acres), community center (7 acres) and park (3 acres). The specific location of these lands was described as being "...at the approximate location of the terminus of Kamehameha Avenue, near the new Maui Lani Park and Pomaikai Elementary School".

Per your comments, the following will be added to Section 2.2 of the Final EIS:

Ms. Lucienne de Naie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 51

The Wai'ale master plan has sought to incorporate the open space buffer between Maui Lani and Wai'ale as articulated in the Draft Maui Island Plan. Within the Wai'ale master plan, areas designated for park space and planned cultural preserves seek to provide that open space buffer. However, the rationale for designating a portion of lands within the northern portion of Wai'ale for planned County Housing is in part based on County Ordinance No. 3559. The County of Maui via Ordinance No. 3559 (Maui Business Park Phase II-Change in Zoning) required in part that A&B dedicate 50 acres to the County for affordable housing (40 acres) community center (7 acres) and park (3 acres). The specific location of these lands was described as being "...at the approximate location of the terminus of Kamehameha Avenue, near the new Maui Lani Park and Pomaikai Elementary School". This location in the northern portion of the property, is where infrastructure and roadway connections to Maui Lani would be the closest, cheapest and the fastest to build. Additionally, in order for these areas to be zoned and utilized for recreational park purposes, they must be situated within the Urban Growth Boundary (UGB) so that appropriate zoning can be eventually obtained through the County's zoning process (per Maui County Code Section 19.615.040 which states that regional parks must be situated either in the State Land Use "Urban" or "Rural" Districts).

Comment: "Protection of Traditional Burial Grounds

While the current proposed application is to reclassify 545 acres from Agriculture to Urban, we would respectfully request that the Land Use Commission should consider that about 100 acres of this land, containing intact culturally significant Pu'u One (inland sand dunes) and numerous traditional burials, both known and unknown, should be reclassified, not from state Agriculture to Urban, but from Agriculture to Conservation.

We understand that the applicant will not be submitting this kind of request to the Commission, however, it helps if Commissioners are at least aware of the potential value of portions of the subject parcel. Former SHPD Maui Branch head, Dr. Melissa Kirkendall, offered her view, reported in the minutes of the Maui-Lanai Island Burial Council in January of 2004. Ms Kirkendall spoke in regard to the numerous burials that were being displaced as sand mining operations were conducted in the Waiale dunes (part of current project site). Dr. Kirkendall's remarks were summarized in the minutes. She suggested that:

"...sites should be seen as one whole site. Due to finding reports, knowledge of burials and the area, there is an extreme high probability that the site is a cemetery. Question before Council should be if mining should be allowed on an area having all the traditional characteristics of Hawaiian family burial area."

At least three other major dune complexes extend north south across the Waiale project site besides the dune system/burial ground Ms. Kirkendall was referencing.

One of those dunes has already revealed more than a dozen burials, when a portion was sand mined without a permit in 2008.

Ms. Lucienne de Naie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 3 of 51

The question before the applicants and the Commission should be: what is the extent of the ancient cemetery on these lands? Is it confined to the one dune proposed for preservation, or does it extend to the other dunes which are equally tall, more intact and magnificent?

Project consultant SCS suggested in the AIS for the project area that higher elevation sand dunes, those of 250 to 350 ft amsl or more appear to hold a greater concentration of burials.

Although the DEIS provides a sand dune map and report, no elevations are included for the various sand dune systems.

This question regarding the probable extent of future burial features on the Waiale site is not answered in this DEIS. No precautionary mitigation is proposed except for trench testing (rarely effective) or monitoring (too late for effective preservation planning.) Cultural access to the site has mapped elevations along the three most prominent undisturbed dune systems in the project site: their elevations range from 250 to 300 ft amsl.

Hundreds of dune burial site locations are already known due to disturbances during various construction phases of the adjoining Maui Lani development. Maps indicate that those burials are also clustered along the roughly north-south axis of the natural dune systems. It would appear that the dunes systems once found in Maui Lani continued south into the lands now proposed for the Waiale development. Three major north-south concentrations of burials exist in parallel dunes in the Maui Lani project. One concentration would correspond to the Waiale project preserve area number 1. The next Maui Lani concentration appears to align with the dune system where Waiale preservation area 3 is proposed.

One of the shortcomings of the Waiale burial preservation plan is that it is fragmented. Preservation area 3 will be around 2 acres, shaped around the known burial sites from the sand mined portion of the dune. The remaining portions of this dune system extend north and south for thousands for feet and are also likely to hold more burials. A 10 to 12 acre preservation area along the length of the dune would prevent future disturbances, yet it is not even discussed as an option. Preserve area 3 is the only location where recovered grave goods indicate Aii'i burials. Two niho palaoa were recovered with the remains in this locale."

Response: As described in Section 4.2 of the Final EIS:

A large percentage of the project sits on remnants of previously altered sand dunes. Due to the underlying sandy nature of much of the property there is the potential for discovering additional burials during earth-disturbance activities. As part of the past archaeological investigations numerous archaeological survey trenches were dug throughout the property, providing reasonable confidence ~~assure~~ that the largest concentration of burials have been identified and will be preserved in the over 30 acres of planned cultural preserves...

As noted in the second paragraph on page 49 of the Draft EIS, Appendix E contains the complete archaeological inventory survey (AIS). Also, Appendix F of the Draft EIS is the February 28, 2010 letter from the State Historic Preservation Division (SHPD) accepting the subject AIS.

Full-time archaeological monitoring shall occur during future ground altering disturbance at the property which contain natural, sandy matrices that are relatively undisturbed. In addition, two recommendations were proposed for State Site No. 50-50-04-5504¹: 1) a predetermined area of the sand berm should be closely monitored for the recovery of any other displaced human remains; and 2) a Burial Treatment Plan will be prepared and submitted to the State Department of Land and Natural Resources Historic Preservation Division (SHPD) and Maui/Lāna'i Islands Burial Council (MLIBC) for review.

To address the burial treatment plan for State Site No. 50-50-04-5504 as well as State Site No. 50-50-04-6679 comprising the former Hawaiian Cement sand mining area, a Final Burial Site Component of a Data Recovery Plan and Preservation Plan for State Sites Nos. 50-50-04-5504 and -6679 ("preservation plan") was prepared by Archaeological Services Hawaii, LLC (ASH) (See Appendix G). The preservation plan proposes the preservation in place of inadvertent burial features of State Site Nos. 50-50-04-5504 and -6679 consisting of 33 partially intact primary burial features, 13 burial pits which are highly probable to contain human skeletal remains, 6 disturbed, possible primary burials, and secondarily deposited/scattered of human skeletal remains with no primary/in situ component representing 36 individuals. The preservation plan includes the relocation of two partially intact primary burial features and five secondary scatters. These burial features will be preserved within five established preservation areas totaling in excess of 30 acres. Additionally, State Sites Nos. 50-50-04-4200, -4201 and -4202, comprising five burial features and a multi-stepped terrace are also preserved in place within Preservation Area 1 (largest preserve) pursuant to a previously accepted burial treatment and preservation plan (Kennedy and Moore 1998).

The preservation plan was reviewed by the MLIBC in July 2010 and the SHPD subsequently accepted the preservation plan by letter dated September 13, 2010 (See Appendix H of the Draft EIS).

State Site No. 50-50-04-1508 is the currently utilized, small section of Spreckels Ditch, located in the eastern portion of the property, has been documented and no further work recommended. State Site No. 50-50-04-6578 has also been documented and sampled with no further work recommended.

Short-Term Preservation Measures – The identification and implementation of appropriate short-term or interim site protection measures, including an archaeological monitoring plan. These include:

- Prior to construction commencement a meeting shall be held to inform all pertinent parties regarding the locations and buffer zones for all sites slated for preservation in or near areas of potential effect;
- The erection of temporary construction fencing (orange plastic) or other visible markings defining no-encroachment buffer zones around the perimeter of

¹ The above mentioned burials were inadvertently identified by ASH archaeologists.

- Full-time monitoring of preservation sites during construction activities; and
- Ensuring transition to permanent preservation measures following completion of construction.

Long-Term Preservation Measures – The identification and implementation of long-term or permanent site protection measures provide for the continued protection of archaeological and cultural resources. The two typical categories of long-term preservation are passive and active preservation, as described below:

- **Passive Preservation** – Sites in this category do not undergo any interpretive development, occur in areas that can be avoided by development, and are left as is. This category is sometimes referred to as "data banking." Most sites in this category are not intended to be permanently preserved, but are anticipated to undergo data recovery procedures in the future, presumably when improved data gathering techniques and refined analysis technologies are available or on large tracts of land where development is intended to take place in incremental phases; and
- **Active Preservation** – Sites in this category are chosen for their interpretive potential. Their selection may be based on aesthetic, academic, or cultural representation values. Different levels of interpretive development may be undertaken, including: stabilization, partial or complete restoration, and/or reconstruction. Signs may be involved, and details regarding access and protocols need to be worked out.
- **Cultural Preserves** - Approximately 33 acres are proposed to be set aside as cultural preserves where the greatest concentrations of burials occur. These areas are planned to be permanently preserved, and none of the burials within these cultural preserves are anticipated to undergo data recovery procedures in the future. These areas are intended to be kapu and only accessed by lineal and/or cultural descendants, recognized and/or acknowledged cultural practitioners and for periodic maintenance and/or fire protection. The plan for preservation, any landscaping and reinterment is provided in the Preservation Plan (See Appendix G of the Draft EIS).

A&B Properties, Inc. and its archaeological contractors will comply with all State and County laws and rules regarding the preservation of archaeological and historic sites. Should historic remains such as artifacts; burials, concentrations of shell or charcoal be inadvertently encountered during the construction activities, work will cease immediately in the immediate vicinity of the find and the find will be protected. The archaeological contractor shall immediately contact SHPD, which will assess the significance of the find and recommend appropriate mitigation measures, if necessary.

Based on the extensive subsurface testing that was conducted and the SHPD-approved archaeological inventory survey and the burial treatment plan, there is adequate confidence that the areas being set aside for preservation are adequate.

Comment: "Act 50 Compliance: Cultural Impact Mitigation

Specific compliance with Act 50, evaluation of cultural impacts, is not discussed in the body of the DEIS by name. Act 50 requires all environment review documents include disclosure of the effects that a proposed action will have not only on environmental resources, but also on the welfare, social welfare and the cultural practices of the community and the state. The law requires an EA or EIS to address those impacts which may be identified. The project has completed a Cultural Impact Assessment (CIA) to address requirements of Act 50. The CIA correctly concludes that the project will have potential impacts on native Hawaiian cultural practices which must be mitigated."

Response: Per your comments, the first sentence of the first paragraph in Section 4.2 of the Final EIS will be revised to read as follows:

In compliance with Act 50, Hana Pono, LLC (Hana Pono) prepared a cultural impact assessment (CIA) for the property to identify traditional customary practices within and in the vicinity of the property. The purpose of Act 50 "is to: (1) Require that environmental impact statements include the disclosure of the effects of a proposed action on the cultural practices of the community and State; and (2) Amend the definition of "significant effect" to include adverse effects on cultural practices."

Comment: "The project's Cultural Impact Assessment recommended a number of worthy actions: protection for Pu'u One (sand dunes) as cultural resources, protection of views to the mountains; protection of native puao; protection of Waikapu stream as a cultural resource; and recommendation that future burial finds be left in place. A CIA is required under Act 50 to evaluate cultural impacts of any proposed action. If cultural impacts are revealed through the CIA process, the DEIS must consider the recommendations of the CIA to address those impacts."

Response: As stated in the last paragraph of 55 in Section 4.2 of the Draft EIS: "The CIA finds that the property "resides in a culturally significant and unique land area. There are potential adverse effects to the remaining cultural resources extant on the property that can be mitigated with proper community consultation and proactive planning on the part of the developers. The CIA notes that A&B Properties, Inc. has done much in seeking to protect the known cultural resources on the property, creating approximately 33 acres of cultural preserves and minimizing the need for relocation of burials." Hana Pono's recommendations (in italics) and comments on how the applicant has or is prepared to address them follow."

Comment: "The Waiale DEIS does not address those recommendations in a forthright manner. For example, the DEIS quotes the CIA re: the cultural importance of the Pu'u One, but accepts a consultant's report that does not consider the cultural value of the dune features. While the CIA speaks of protecting "dunes" the DEIS describes cultural preservation as protecting a single dune."

Response: As noted in the first paragraph of page 13 of the CIA "Potential Effects of Development & Proposed Recommendations": "It should be noted that A&B Properties Inc. has done much in seeking to protect the known cultural resources on the property, creating more than 30 acres of cultural preserves and minimizing the need for relocation of burials." Hana Pono was aware of A&B's cultural preservation plan.

Comment: "While the consultants refer to the importance of various view planes in the project site, the DEIS concludes that no public view planes exist. An[*sic*] so it goes."

Response: We disagree that the Draft EIS "concludes that no public view planes exist." A search of the word "view" in the CIA, revealed the following text: "With unobstructed near bi-coastal views of Haleakala and Mauna Kahalawai, portions of intact sand dunes, burials, and bordering Waikapu stream, the project has the opportunity to capitalize on these cultural resources by educating the community and protecting them for future generations." We believe that statements in Section 4.7 of the Draft EIS are not inconsistent with above text from the CIA:

The property is situated within Central Maui. The slopes of Haleakala (East Maui Mountains), Waikapū Valley, and Mauna Kahalawai (West Maui Mountains) are visible from the site. However, the property itself is not considered a scenic or unique scenic corridor or area, except for a large remnant of the Pu'u One sand dunes. Waikapu Stream borders the southern boundary of the property...

The property is located at a lower elevation than the nearest portion of Honoapi'iani Highway. The proposed development of the property will not obstruct views of Haleakalā, 'Iao Valley, and the Mauna Kahalawai, or Waikapū Stream. The approximately 28 acre remnant of the Pu'u One sand dunes will be preserved and will be visible from surrounding areas within and outside of the property.

Comment: "The presence of numerous burial features given significance criteria "e" in the site should trigger an Ethnographic Inventory Survey. The process is described in HAR 13-284-5:

"An ethnographic survey may be undertaken when the SHPD concludes that historic properties which may be significant under criterion "e" of paragraph 13-284-6(b) (5) are present or are likely to be present within the project area and when the project area is known to have been used by members of an ethnic community at least fifty years ago or by preceding generations."

An ethnographic survey has specific standards which must be met, unlike the CIA. Given the importance of this site, and the risk of numerous other burial displacements, such a level of investigation is warranted.

It is noteworthy for example, that the CIA did not include interviews with two individuals who are both cultural practitioners in the area. One, Ms Apana was quoted as not wanting her interview transcript released. The other, Mr. Pellegrino was described as only willing to have a prepared written statement used. In consultation with these individuals, both indicated a willingness to participate in an Ethnographic Survey based on clear standards. Ms Apana also wanted to make clear that she wanted her CIA interview transcript to be released, but that it was

Ms. Lucienne de Naie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 8 of 51

incomplete. Her request was not that it not be released, but that it be completed before it was released, to insure that it accurately reflected her views. Apparently, there was not time in the DEIS production schedule to do that.

An ethnographic survey would be the first step in evaluating this ancient burial ground to be recognized as a traditional cultural property under Department of the Interior standards. The DEIS should consider this action as part of the proposed mitigations for identified impacts to cultural resources and traditional practices the proposed project will have."

Response: HAR 13-284-1 defines "ethnographic documentation" as "the form of mitigation that records and analyzes a reasonable and adequate amount of information about a significant historic property through interviews with knowledgeable individuals and the study of historical source materials." HAR 13-284-1 also defines "ethnographic inventory survey" as "the process of identifying and documenting historic properties in a delineated area, gathering information through interviews with individuals knowledgeable about the area and a study of historical source materials."

Other research on the term "ethnography" would indicate focusing on a particular ethnic group.

It would appear that with the completion of the SHPD-approved archaeological inventory survey (AIS), which was prepared and processed per HAR 13-284-5, and the completion of the CIA, the key elements of both ethnographic documentation and an ethnographic inventory survey focusing on Native Hawaiian culture has in fact been completed. A key element is "interviews with knowledgeable individuals." As noted in the fifth paragraph of page 2 of the CIA:

*The approach taken in this study was two-fold. Foremost, historical, involving as appropriate, a review of: mahele (land division of 1848), land court, census and tax records, previously published or recorded **ethnographic interviews** (emphasis added) and oral histories; community studies, old maps and photographs and other archival documents. Secondly, an in-depth study involving **oral interviews with living persons with ties, either lineal or cultural, to the project area and the surrounding region** (emphasis added).*

Page 3 of the CIA includes the following statements:

*Data gathered combined **oral interviews of knowledgeable kupuna and families/individuals with long-standing ties to the area** (emphasis added) with all available written and recorded background information.*

*Tasks completed for oral interviews included: **identification of appropriate individuals to be interviewed, determination of legitimate ties to project area and surrounding region, interview recorded in writing and by digital audiocassette, transcription of interview, compilation of pertinent data** (emphasis added).*

Ms. Lucienne de Naie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 9 of 51

It should also be noted that the SHPD has never required preparation of an ethnographic survey during its review of the project's archaeological inventory survey and burial treatment and preservation plan.

There appears to have been a misunderstanding between the CIA consultant, and Ms. Apana and Mr. Pellegrino. Hana Pono, the CIA consultant, has subsequently contacted both individuals to resolve this matter. Hana Pono sent letters to Ms. Apana and Mr. Pellegrino requesting their confirmation to include their interview transcripts in the CIA. Hana Pono did not receive a response back from both individuals, therefore the interview transcripts were not included in the CIA.

Per your comments, the first paragraph in Section 4.2 of the Final EIS will be revised to read:

In compliance with Act 50, Hana Pono, LLC (Hana Pono) prepared a cultural impact assessment (CIA) for the property to identify traditional customary practices within and in the vicinity of the property. The purpose of Act 50 "is to: (1) Require that environmental impact statements include the disclosure of the effects of a proposed action on the cultural practices of the community and State; and (2) Amend the definition of "significant effect" to include adverse effects on cultural practices." The CIA was conducted in accordance with the OEQC Guidelines for Assessing Cultural Impacts and includes archival research and interviews with people knowledgeable of the property and the surrounding area. During the Draft EIS public review period, two of the interviewees who appeared to have initially declined to allow their interview transcripts be published with the CIA wrote that they had actually wanted their interviews to be included. Upon receiving these comments, Hana Pono sent letters, dated August 31, 2011, to the two interviewees requesting their confirmation to include their interview transcripts in the CIA. Since Hana Pono did not receive responses from the two interviewees, their interview transcripts were not included in the CIA. Findings of the CIA and other relevant information are summarized below. Appendix 1 contains the complete cultural impact assessment.

Comment: "Our comments that follow concern areas of DEIS that do not provide adequate information, or which may unfortunately, provide inaccurate or misleading information.

2.2 Community Purpose and Need

No real proof is given in the DEIS that this project is needed in its present form or would be tied to lower housing costs. The DEIS analyses of community need does not include the role other large residential/commercial mixed use projects proposed in south and central Maui since Waiale project began, would play in the market. The DEIS does not discuss what happens if Waiale gets approved but not built for many years, as has happened with other projects proposed by the same landowner."

Response: Your comments are acknowledged but you must realize they differ from ACM's on assessment of the residential market (summarized in Section 2.2 of the Draft EIS and reproduced in its entirety as Appendix O). The "proof" was provided in the second to last paragraph of Section 2.2 of the Draft EIS, which stated:

Most importantly, the Wai'ale Master Plan Development will be primarily targeted toward the workforce market segment. Statistical evidence has clearly shown that regardless of conditions, this market segment has the most demand. Although the pricing of the project units have not been determined, this development will give entry level market participants an opportunity for home ownership.

The third and fourth paragraphs of Section 2.2 of the Draft EIS also addressed the potential for competition from other residential projects.

ACM determined that there are approximately 2,300 new housing units (single family residential, condominium and residential house lots) either currently available in the market or which will become available in the short-term future. ACM estimated that based on historical annual absorption rates of the real estate markets, the current short term supply of units is expected to last approximately four years (2,300 units of supply ÷ 580 units of average annual absorption).

Long term housing supply, as being recommended in the Maui Island Plan by the County of Maui (County) Department of Planning, the Maui Planning Commission and the General Plan Advisory Committee, is estimated to be 11,623 housing units. Although this count is based on a 20-year span, it is difficult to gauge the timing of these projects until construction actually begins. However, ACM noted that economic changes, community intervention, market conditions or internal issues with the developers may affect the feasibility of these projects. In reality, some of these projects may never be approved or be built out by 2030. For this reason, the number of units of potential supply that will actually be developed is expected to be lower than the County-estimated supply of 11,623 units. ACM also noted that "Without an adequate supply of new construction projects, the resulting shortage of housing typically causes prices in general to move up. As a result, those at the bottom end of the income scale usually find it most difficult to purchase real estate. Historically, supply has lagged demand and is a significant limiting factor in the affordability of real estate in the Maui market."

Per your comments, the following text will be added to Section 2.2 of the Final EIS:

During the Draft EIS public review period, the Sierra Club Maui Group asked: "The DEIS does not discuss what happens if Wai'ale gets approved but not built for many years..." As alluded to above, "sales difficulties" are often market-, and economy-related. But that is the risk that all residential developers face. Government's role in facilitating affordability is to ensure there is competition in pricing through adequate supply.

We have to rely on their presumably greater experience and expertise on this topic.

Comment: "2.31 Vision statement
The Wai'ale vision statement emphasizes the project's commitment to a sense of place. The proposed project design obliterates most of the unique landforms, Pu'u One, which currently define the project site. This fact is sidestepped in the DEIS discussion and the narrative suggests that only one "relatively intact" dune remains. Ironically this dune has been seriously impacted by sand mining, while other unspoiled dunes to the east are designated as "degraded" with no proof. The DEIS should include a site plan that adapts to natural features if it intends to preserve a 'sense of place."

Response: The development of the site was discussed on page 33 in Section 3.2 of the Draft EIS. Per your comments, this section has been revised in the Final EIS as follows:

Wai'ale will require both excavation and embankment for the construction of new roadways, building pad areas, and drainage structures. Overall, the property will be graded to maintain the existing drainage patterns. Proposed roadway slopes will vary between 0 and 12 percent. Embankments will have a maximum slope of two feet horizontal to one-foot vertical. Where elevation drops are required, retaining walls will be installed with heights ranging from two to six feet. Designated archaeological sites and the largest intact lithified sand dune will remain undisturbed as cultural preserves. A park buffer will also be maintained along the property's boundary with Waikapu Stream.

While Wai'ale will alter how the land is currently used, the proposed improvements are relatively insignificant compared to the overall geological character of the region. Construction activities, such as grading, will alter the topography of the property to accommodate the Wai'ale community. While most of the property has been heavily ~~disturbed~~ disturbed, there is a large portion of the site (approximately 28 acres) where there ~~is~~ are relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the proposed cultural preserves (and where the highest concentration of burials reside). Appropriate engineering, design and construction measures will be implemented to minimize potential erosion due to grading of soils during construction. Further information on soils and grading is provided in Section 3.3 below.

As you note in your letter, your assessment of the remaining sand dunes on the site differs from a qualified geologist's. As described in Section 3.2 of the Final EIS:

Geolabs, Inc. (Geolabs) was retained by A&B Properties, Inc. to conduct an on-ground field reconnaissance survey and geological mapping of in-situ dune features at the property (See Appendix B). In conducting their survey, Geolabs considered the following in determining dune features: geomorphology and location, as well as bedding planes and grain size. These standards, along with their professional experience, knowledge and judgment as trained professionals in

the fields of geology and geotechnical engineering were used to assess the condition of the dunes. During the course of the field reconnaissance, Geolabs did not find natural sand dunes that could be considered to be pristine geological features [emphasis added]. The majority of the dunes within the project limits have essentially been obliterated by human activities...

Much better examples of lithified dunes on Maui can be found at Keoupolani Regional Park, which contains some of the most pristine remnant dunes on Maui [emphasis added]; Haleki'i Pihana Heiau State Monument; and, the Dunes at Maui Lani Golf Course. Good dune examples elsewhere in Hawai'i are the Kahuku area of the north shore of O'ahu, Waimānalo on O'ahu; and, to an extent, in the northwest part of the island of Moloka'i.

The Draft EIS did include a conceptual plan (See Figure O-1) that adapts to natural features if it intends to preserve a "sense of place." As described in Section 3.2 of the Final EIS:

While most of the property has been heavily ~~disturbed~~ disturbed, there is a large portion of the site (approximately 28 acres) where there ~~is a~~ are relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the proposed cultural preserves (and where the highest concentration of burials reside).

Comment: "3.2 Geology and Topography

The Geology Survey and analyses appears to try to justify destruction of remaining dunes except one burial preserve. This seems to be based upon the fact that the burial dune is higher than the others, but no data is given. Is the difference in height 20 ft, 10 ft or 4 ft? The DEIS does not inform us, yet a firm conclusion is drawn about the worth of the dunes. The project's archaeologist suggests that dunes of 250 to 350 ft or more amsl were preferred for burials. All the major dune systems in the Waialeale project fall in that height range."

Response: The geotechnical consultant considered the following in determining dune features: geomorphology and location, as well as bedding planes and grain size. These standards, along with their professional experience, knowledge and judgment as trained professionals in the fields of geology and geotechnical engineering were used to assess the condition of the dunes. As previously noted, Section 4.2 of the Final EIS states:

A large percentage of the project sits on remnants of previously altered sand dunes. Due to the underlying sandy nature of much of the property there is the potential for discovering additional burials during earth-disturbance activities. As part of the past archaeological investigations numerous archaeological survey trenches were dug throughout the property, providing reasonable confidence ~~that the~~ that the largest concentration of burials have been identified and will be preserved in the over 30 acres of planned cultural preserves.

As noted in the second paragraph on page 49 in Section 4.1 of the Draft EIS, Appendix E contains the complete archaeological inventory survey. Also, attached as Appendix F is the February 28, 2010 letter from the SHPD accepting the subject AIS.

Comment: "The fig 3-1 map of the dunes is inaccurate and misleading. Reports and photos offered by cultural practitioners show a number of robust, intact dune systems running north-south from the east to the west of the project site. Several of the dune systems besides the one proposed burial preserve, have crests that appear to tower 30 ft or more, over the surrounding lower lands. These dune systems are not the solitary peaks or fragments as shown on fig 3-1 map, but continuous ridges, peaks, valleys marching on for thousands of feet with spectacular views to the west. They do not show signs of erosion or trampling by grazing animals as is suggested in the consultant's summary in the DEIS. The shaded lands shown surrounding the "dune structures" on the fig 3-1 map are designated as a "heavily impacted area" when, in fact, they are natural rolling meadows, swales and kiawe thickets bordered by an occasional ranching fence and road. These areas have had no sand mining. They have not been modified for ranching to any great extent. They have not been graded or planted. They do not have trash deposits. The designation "heavily impacted" appears completely unjustified and misleading."

Response: As you note in your letter, your assessment of the remaining sand dunes on the site differs from a qualified geologist's. If the "reports and photos offered by cultural practitioners" were included with your comments, then the applicant's geological consultant could review and comment on whether the cultural practitioner's findings are "justified" from a geological standpoint. As previously noted, the geotechnical consultant considered the following in determining dune features: geomorphology and location, as well as bedding planes and grain size. These standards, along with their professional experience, knowledge and judgment as trained professionals in the fields of geology and geotechnical engineering were used to assess the condition of the dunes.

Comment: "Designating the remaining dunes, save one, "degraded" and therefore expendable, goes against[sic] the policies and implementing actions of the Wailuku-Kahului Community Plan. The plan lists the entire Pu'u One dune system, as "wahi pana" - significant traditional places and important cultural resources. The geological research in the DEIS does not appear adequate, and it runs counter to the conclusions of the Cultural Resources consultants."

Response: We acknowledge references to the "Pu'u One Sand Dune Formation from Kahului Harbor to Waikapu" within the Wailuku-Kahului Community Plan. As part of the Wai'ale master plan over 30 acres are proposed for cultural preserves. This is in addition to other open space areas planned within the project. We believe that this is a substantial commitment to preservation that is not replicated within other developments in the Pu'u One sand dune formation.

Comment: "The Geology report lists no references, and does not explain how the consultant arrived at the conclusion that the remaining dunes can be "designated degraded." Is there a set of standards used to grade dunes? If so how many inland dunes on Maui meet those standards? None of this information is provided. No dunes in central Maui have complete intact native plant cover, they are similar to the Waialeale dunes in that regard."

Ms. Lucienne de Naie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 14 of 51

The "relatively intact dune" proposed for preservation by the applicant and their consultants is actually heavily impacted and reconstructed from 5 years of extensive sand mining. This can be verified by discussions in the MLI Burial Council minutes.

Even the claim in the report that the majority of the natural dunes in the project area are obliterated, is not backed up with facts and is not accurate. The relative worth of the Waiale dunes, and their cultural importance, is not accurately described, therefore the impact caused by their proposed destruction cannot be determined from the DEIS."

Response: As previously noted, the geotechnical consultant considered the following in determining dune features: geomorphology and location, as well as bedding planes and grain size. These standards, along with their professional experience, knowledge and judgment as trained professionals in the fields of geology and geotechnical engineering were used to assess the condition of the dunes.

We do not disagree with the second paragraph of your above comments. Please note that "relatively intact" is not synonymous with "pristine". As the last three paragraphs of Section 3.2 of the Draft EIS stated:

*Geolabs, Inc. (Geolabs) was retained by A&B Properties, Inc. to conduct an on-ground field reconnaissance survey and geological mapping of in-situ dune features at the property (See Appendix B). During the course of the field reconnaissance, **Geolabs did not find natural sand dunes that could be considered to be pristine geological features** [emphasis added]. The majority of the dunes within the project limits have essentially been obliterated by human activities.*

In the section of the property south of East Waiko Road, the former dune lands were flattened and tilled for the cultivation of sugar cane.

*In the section of the property north of East Waiko Road, are some small clusters of dunes particularly in the north central area. However, these dune clusters have been degraded by longstanding ranching activities and other agricultural uses. **The northwestern portion of the site has been heavily disturbed by sand mining** [emphasis added], stockpiling and agricultural use. **However, this area also includes the larger and comparatively more representative examples of the remaining dune structures within the property.** [emphasis added] Figure 3-1 contains a mapping of natural lithified sand dunes remaining on the property.*

Per the third paragraph of your above comments, the last paragraph of 55 in Section 4.2 of the Draft EIS states:

The CIA finds that the property "resides in a culturally significant and unique land area. There are potential adverse effects to the remaining cultural resources extant on the property that can be mitigated with proper community consultation and proactive planning on the part of the developers. The CIA notes that A&B Properties, Inc. has done much in seeking to protect the known cultural resources

Ms. Lucienne de Naie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 15 of 51

on the property, creating approximately 33 acres of cultural preserves and minimizing the need for relocation of burials."

Comment: "3.5 Ground Water Resources and Water Quality

Groundwater impacts. No test data is provided for the specific water quality and proposed use of the project's two onsite wells; or any proposed future wells offsite. The EISPN referred to the two onsite wells as potential potable water sources for the proposed community. The FEIS needs to clearly explain why that proposed use has changed to Irrigation.

Will the onsite irrigation wells with their stated pumping capacity of .6 mgd be used to meet landscape demands?"

Response: It is important to clarify that the two wells mentioned in Sections 3.5 and 4.8.1 of the Draft EIS (Waiale Wells Nos. 1 and 2) are not irrigation wells nor are they intended to serve as water supply for the proposed Wai'ale project. This was noted in the third sentence in the second paragraph of page 39 in Section 3.5 of the Draft EIS, "...water from these wells is not planned for use by Wai'ale..." These wells were cited only for the purpose of demonstrating the potential for the development of potable water sources in the Central Maui region, in this case, the Kahului Aquifer. Specific data on and analysis of Waiale Wells Nos. 1 and 2 was not provided in the Draft EIS because they are not part of the planned water source for the Wai'ale project. However, water quality reports were prepared as part of the Engineering Reports for Waiale Wells Nos. 1 and 2. These reports are available from the State Department of Health.

Comment: "What are those irrigation demands? 200,000 gpd was mentioned in one section of the DEIS, while up to 1 mgd was mentioned in the appendix (Appendix M Engineering report)"

Response: The potential irrigation demand is provided in Section 4.8.2 of the Final EIS:

If ~~a~~ WWTP is necessary to treat the wastewater generated by Wai'ale, then effluent reuse and/or disposal will be necessary. The primary method of effluent reuse would be landscape irrigation. The WWTP/wastewater reclamation facility would produce ~~approximately 980,000 gpd of~~ R-1 water quality effluent, which would allow for irrigation reuse with minimal restrictions. The estimated irrigation demand, based on the County of Maui's Water System Standards, is approximately 200,000 gpd. Therefore, if ~~it~~ ~~is~~ ~~the~~ R-1 water quality effluent can be utilized, it will reduce the drinking quality water demand that would be used for irrigation by about 200,000,000,000 gpd. Possible on-site areas for irrigation reuse are the parks, open space areas, playing fields associated with a proposed middle school site and community center, and roadway landscaping. The reuse of effluent for on-site irrigation would be implemented in consultation with all applicable parties. Separate distribution irrigation waterlines will be required to convey the R-1 water to the irrigation reuse areas...

The total area of the parks and buffers is approximately 116 acres. Assuming an average irrigation rate of 5/16 inches per day, the average irrigation demand would be approximately 990,000 gpd. Effluent may also be used for roadway landscaping areas. The irrigated area for roadway landscaping is approximately 17 acres. Based on an average irrigation rate of 5/16 inches per day, the average irrigation demand would be approximately 140,000 gpd. Thus, the total irrigation for the parks, buffer areas, and roadway landscaping would be approximately 1,130,000 gpd. This irrigation demand may vary depending on weather conditions. However, the expectation is that all of the effluent produced by the WWTP will be used for irrigation, except during significant rain events.

Comment: "What impact would the project's existing irrigation wells have on the Kahului aquifer and the numerous other wells using it? What happens if the artificial recharge of the aquifer from cane irrigation declines? Do the wells count on leakage from the Waihee ditch for their aquifer recharge, and therefore, present impacts to surface waters?"

Are new potable wells for the project proposed in adjoining Waikapu or Iao aquifers? If so what would be the impact of the project's 1 to 2 mgd demand on either of those aquifers? According to State Water Commission data, Waikapu aquifer already has wells claiming to want 1.7 mgd of pumpage, equalling over half the aquifer's projected sustainable yield of 3 mgd. Where does this project fit into the demand that will be placed on this aquifer?

Even if the project's water source is not yet known, the DEIS should discuss the potential impacts and mitigations of the possible alternative scenarios, just as was done with the prospective water storage tank sites. These would be part of the cumulative impacts."

Response: As noted previously, Wai'ale Wells Nos. 1 and 2 are not irrigation wells nor are they intended to serve as water supply for the proposed Wai'ale project. Section 4.8.1 of the Draft EIS identifies and discusses potential water sources for the project. Please note that Section 4.8.1 of the Final EIS will be amended to include the following language:

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent, or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector, which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, needs to be developed. The need for these improvements is discussed in the County's Water Use and Development Plan and also the Maui Island Plan.

Section 3.5 of the Draft EIS includes a detailed discussion of the Kahului Aquifer and will be amended in the Final EIS to include the following language:

The CWRM's Water Resource Protection Plan notes a sustainable yield of 1 million gallons per day (MGD) for the Kahului Aquifer, commenting specifically that this "Sustainable Yield ignores significant importation of surface water into Kahului from outside the aquifer system area. This explains the ability to withdraw fresh water from the aquifer at significantly higher rates than the sustainable yield without apparent negative impacts (i.e. rising chloride concentrations or decreasing water levels)." The State Commission on Water Resource Management (CWRM) has set the sustainable yield of the Kahului Aquifer at 1.0 million gallons-per-day (MGD) based on its estimate that approximately 20 percent of the rainfall directly on the 9.5-square mile area becomes recharged to the underlying groundwater and that 44 percent of this recharge can be safely pumped by wells. As mentioned above, this sustainable yield estimate, however, reflects natural recharge, i.e., rainfall only. As discussed below, the Kahului Aquifer is also fed by other sources and has long yielded significant amounts of brackish water far in excess of this sustainable yield figure. The aquifer has a long history of substantial pumpage of brackish water by HC&S for sugarcane irrigation. In more recent years, the pumpage has been reduced to the range of 25 MGD.

New wells within the Waikapū Aquifer are a possibility, although there are no definitive plans at this time. No new wells are planned in the Iao Aquifer. Your comments concerning the sustainable yield of the Waikapū Aquifer are acknowledged. Any new wells drilled in these aquifers would have to be permitted by the CWRM and thus will be within the allowable sustainable yield of the respective aquifers.

It should be noted that any future reductions due to reduced irrigation return flow from agricultural activities would be offset by less pumpage from the aquifer for agricultural irrigation. Since 100 percent of the Waihe'e ditch is either piped or lined, there is not likely to be any significant leakage.

Comment: "It appears that the ground water below the project site is at risk from further contamination. The DEIS discusses parks needing to avoid pesticides to lessen risks to the groundwater quality. Is this because of the Maui Lani wells nearby or the Consolidated Baseyard well? This should be made clear."

Response: As noted in Section 3.5 of the Draft EIS, best management practices for the future use of the property will be implemented to mitigate potential groundwater contamination. These measures are described on page 39 in Section 3.5 of the Draft EIS. The discussion concerning parks stems from comments received from the DWS. As noted in the last sentence of the third to the last paragraph on page 39 in Section 3.5 of the Draft EIS, "As recommended by DWS [emphasis added], the operators of proposed active parks and schools will be advised to implement Integrated Pest Management (management practices to protect ground water contamination from fertilizers and pesticides)." This paragraph in Section 3.5 of the Final EIS has been revised to read as follows:

To mitigate potential groundwater contamination, best management practices (BMPs) for the future use of the property will be implemented. Covenants will be imposed which inform potential homebuyers that activities at the property could impact the ~~groundwater~~ groundwater beneath the property, requires compliance with all applicable environmental and other governmental laws, rules and regulations and requires efforts to ~~protect~~ prevent groundwater contamination from fertilizers, pesticides, metals, petroleum products, solvents and other contaminants. Industrial users will be required to protect groundwater contamination from metals, petroleum products, solvents and other contaminants, including runoff collection and treatment and to institute spill prevention containment and control programs. As recommended by DWS, the operators of proposed active parks and schools will be advised to implement Integrated Pest Management (management practices to ~~protect~~ prevent groundwater contamination from over-reliance and overuse of fertilizers and pesticides). Integrated Pest Management strategies for turf management could include: careful selection of turf species; careful site preparation to ensure proper drainage and avoid saturated areas; proper irrigation amount and frequency; and proper mowing height and schedule. These are strategies that may require more labor but could result in cost savings in water, fertilizer, and pesticide application, as well as the costs of replacing turf, and in the worst case, of groundwater remediation.

Comment: "Is ground water from the project site considered to be below the DOH Underground Injection Control line?"

Response: As noted previously, Waiale Wells Nos. 1 and 2 are not intended to serve as water supply for the proposed Wai'ale project. However, per your comments, the following text will be added in Section 3.5 of the Final EIS:

The Underground Injection Control (UIC) program serves to protect the quality of Hawai'i's underground sources of drinking water from chemical, physical, radioactive, and biological contamination that could originate from injection well activity. Underground Injection Wells are wells used for injecting water or other fluids into a groundwater aquifer. The State Department of Health Administrative Rules, Title 11, Chapter 23 provides conditions governing the location, construction, and operation of injection wells so that injected fluids do not migrate and pollute underground sources of drinking water. Section 4 of the Rules gives the criteria for classifying aquifers into those that are designated as underground sources of drinking water and those that are not. The boundary between non-drinking water aquifers and underground sources of drinking water is generally referred to as the "UIC Line". Restrictions on injection wells differ, depending on whether the area is inland (mauka) or seaward (makai) of the UIC line. The UIC Map for Maui shows that Wai'ale is located seaward of the UIC line.

Comment: "Could groundwater be affected by the Waikapu landfill or former hazardous materials that leaked into the earth from former tenants of the project site? What are the nitrate

levels for groundwater in the project's wells? Water quality test data referred to in the DEIS appears scanty.

The DEIS should provide a discussion of the Reynolds well no. 1 (state well 5129-01) located on the neighboring parcel to the north. This well was once part of the county system and is now sealed. What contaminants were present in the well water, or why was it abandoned? It is located on former A&B land leased to the Reynolds fruit orchard farm and it would be assumed that the applicants are aware of its status. All of this information should be made clear in the FEIS as it may indicate conditions that could affect groundwater conditions on the project site."

Response: As previously noted, Waiale Wells Nos. 1 and 2 are not intended to serve as water supply for the proposed Wai'ale project. This was noted in the third sentence in the second paragraph of page 39 in Section 3.5 of the Draft EIS, "...water from these wells is not planned for use by Wai'ale..." These wells were cited only for the purpose of demonstrating the potential for the development of potable water sources in the Central Maui region, in this case, the Kahului Aquifer. Specific data on and analysis of Waiale Wells Nos. 1 and 2 was not provided in the Draft EIS because they are not part of the planned water source for the Wai'ale project. However, water quality reports were prepared as part of the Engineering Reports for Waiale Wells Nos. 1 and 2. Sampling included an extensive list of contaminants including nitrates, pesticides and herbicides, the results of which met drinking water standards. These reports are available from the State Department of Health. Our environmental consultant reviewed the DOH Groundwater Contamination Maps from 2004, which list the Reynolds well with a detectable concentration of pesticide, dibromochloropropane (DBCP). However, the DBCP level was reported as very low and "non-quantifiable", below the drinking water maximum contaminant level (MCL). Water from this well is not planned for use at Wai'ale.

Comment: "3.6. Fauna

The interviewees in the Cultural Impact Assessment all mention the Pueo frequenting the project area. Whether or not these native birds were noted in the flora and fauna survey, the DEIS should acknowledge the cultural impact if their habitat is disturbed, to be in compliance with Article XII section 7 of the State Constitution which protects traditional cultural practices.

If the Pueo loses its habitat, families will have difficulty being connected to their 'aumakua."

Response: Based on other public review comments, the following paragraph will be added in Section 3.8 of the Final EIS:

During the Draft EIS public review period, Maui Tomorrow Foundation wrote: "Although the fauna survey does not reflect the fact, pueo (native Hawaiian owls) are often seen on the Waiale project site by local residents, especially in the gulch areas. Nene are also seen and have established a presence at nearby Waiale reservoir."

Per your comments, the following text will be added in Section 3.8 of the Final EIS:

During the Draft EIS public review period, the Sierra Club Maui Group wrote: "The interviewees in the Cultural Impact Assessment all mention the Pueo frequenting the project area. Whether or not these native birds were noted in the flora and fauna survey, the DEIS should acknowledge the cultural impact if their habitat is disturbed, to be in compliance with Article XII section 7 of the State Constitution which protects traditional cultural practices. If the Pueo loses its habitat, families will have difficulty being connected to their "aumakua."

Comment: "While the flora and fauna survey seems well researched, the DEIS should include at least preliminary mitigation proposals for habitat preserves for the endangered Sphinx moth found on site. Nothing is discussed."

A map showing potential Blackburn Sphinx moth preserve areas on site; discussions of habitat enhancement or restoration strategies, or plans for off site mitigations should be included in the DEIS. To not do so is to segment project impacts and actions and ignore secondary and cumulative impacts of the proposed project. Previous planning discussions of the entire project did not have knowledge of the Sphinx moth onsite, so plans did not accommodate its habitat."

Response: As noted in Section 3.8 of the Draft EIS, the applicant, in cooperation with the U.S. Fish and Wildlife Service (USFWS) will develop an appropriate mitigation plan for the Blackburn's sphinx moth (*Manduca blackburni*) at the property. The USFWS has been consulted and has offered assistance in the development of a mitigation plan to avoid any "take" of the Blackburn's sphinx moth. The USFWS provided comments to the Draft EIS regarding the Blackburn's sphinx moth and their comments will be included in the Final EIS. Please note that the project site is not within any designated critical habitat area for the Blackburn's Sphinx moth.

Comment: "4.1 and 4.2 Archaeological and Historic Resources/Cultural Resources

Archaeological and cultural resources on the project site include the natural landforms (Pu'u One dunes), native birds observed by cultural consultants and interviewees, views to the peaks and valleys of Mauna Kahalawai and Haleakala, Waikapu stream, possible traditional travel routes, numerous known and unknown burials and other cultural sites. All these cultural resources are referred to in the CIA for the project.

The DEIS dismisses the views, dismisses all but one sand dune as unimportant, and does not protect areas of likely additional burials. The "sandhills of Waikapu," are described in the works of nineteenth-century historians, as being the location of the great battle of Kakanilua. No plan is discussed to include any historic reference to the battle in the project's preserves or educational displays, although it is very likely the site includes a portion of the plains where the battle took place over several days.

The original 1977 FEIS for the Maui Lani development, which, ironically was then named the "Waiale Development" stated (p. III-12) that the sand hills below Wailuku were called Kakanilua and the Maui Lani site was "probably the site of the Battle of Sandhills." Since such

battles, according to the mo'olelo which have been handed down, were not confined to one compact location, but spread over the plain, it is likely that the present day project site, besides being a traditional burial ground also served as an ancient battle ground.

Waiale's sandhills appear to be the southern extensions of those found in the Maui Lani project area. The Waiale lands lie immediately to the south of Maui Lani, along Kalaniopu'u's 1776 marching route from Ma'alaea Bay. At least one burial found in the Waiale project site had evidence of a spear wound and ornaments belonging to a high ranking ali'i were found in preserve area 3."

Response: As previously noted, Section 4.2 of the Final EIS states:

A large percentage of the project sits on remnants of previously altered sand dunes. Due to the underlying sandy nature of much of the property there is the potential for discovering additional burials during earth-disturbance activities. As part of the past archaeological investigations numerous archaeological survey trenches were dug throughout the property, providing reasonable confidence ~~as to the~~ that the largest concentration of burials have been identified and will be preserved in the over 30 acres of planned cultural preserves.

As noted in the second paragraph on page 49 in Section 4.1 of the Draft EIS, Appendix E contains the complete AIS. Also, attached as Appendix F is the February 28, 2010 letter from the SHPD accepting the subject AIS.

We concur that historic reference to, or educational displays for the Battle of Kakanilua should be established in the appropriate location.

Comment: "None of these archaeological, cultural and historic resources appear to be adequately addressed in the portions of the DEIS that discuss proposed development plans.

a) Existing viewsheds are not mapped or evaluated for cultural importance."

Response: We disagree that existing views were not evaluated for cultural importance. As previously noted, Section 4.7 of the Draft EIS stated:

The property is situated within Central Maui. The slopes of Haleakala (East Maui Mountains), Waikapu Valley, and Mauna Kahalawai (West Maui Mountains) are visible from the site. However, the property itself is not considered a scenic or unique scenic corridor or area, except for a large remnant of the Pu'u One sand dunes. Waikapu Stream borders the southern boundary of the property...

The property is located at a lower elevation than the nearest portion of Honoapi'iani Highway. The proposed development of the property will not obstruct views of Haleakala, Iao Valley, and the Mauna Kahalawai, or Waikapu Stream. The approximately 28 acre remnant of the Pu'u One sand dunes will be preserved and will be visible from surrounding areas within and outside of the

property.

Comment: "

b) *Potential burial areas are dismissed because test units were dug, however the sand mining reports for the same project area reflect that numerous burials have consistently been found in many areas where substantial test trenches had been dug."*

Response: Potential burial areas were not "dismissed". As noted in the last paragraph of page 49 in Section 4.1 of the Draft EIS:

The previous archaeological investigations have revealed definite patterns concerning historic properties within the property. First and foremost, the ubiquity of burials in sandy locations is recognizable. However, burials do not appear to occur throughout the entire property. Based on the information in hand, they appear clustered in areas of higher elevation dunes. The burials do not appear as isolates but rather occur in sizeable groupings. That a fairly high proportion of burials occur in this locale may be attributed, at least partially, to the nature of the area: large sand dune systems. These lands would have been quite economically-poor areas for traditional practices, particularly farming and habitation (given the perceived lack of readily available fresh water). Other classes of historic properties that have been documented on the subject parcel include habitation (terrace, imu) and more modern constructions (water irrigation ditches). The limit of archaeological site types in the area is brought more into focus when compared with the overall settlement pattern of the wider Wailuku/Waikapū region.

Comment: "

c) *A plan for avoidance of likely burial sites needs to be included in the EIS discussion."*

Response: Section 4.1 of the Final EIS notes that, "As part of the past archaeological investigations numerous archaeological survey trenches were dug throughout the property, providing reasonable confidence ~~assurances~~ that the largest concentration of burials have been identified and will be preserved in the over 30 acres of planned cultural preserves." Despite the fact that these archaeological investigations indicate that burials do not appear throughout the entire property, as stated in Section 4.1 of the Final EIS, "Full-time archaeological monitoring shall occur during future ground altering disturbance at ~~Precautionary archaeological monitoring is recommended for portions of the property~~ which contain natural, sandy matrices that are relatively undisturbed."

Comment: "

d) *Sufficient natural area needs to be set aside for endangered native Blackburn sphinx moth and native bird habitat"*

Response: Please note that the project site is not within any designated critical habitat area for the Blackburn's Sphinx moth. As noted in the Flora and Fauna Study, included as Appendix D of the Draft EIS, no nene were observed in the kiawe forest habitat found at the property. However, should the planned parks and open spaces at the project attract the Hawaiian geese, appropriate mitigation measures will be undertaken. As also indicated in the Flora and Fauna Study (page 14), no Hawaiian hoary bats were found at the property and the existing habitat does not appear to be ideal for this species. However, should there be sightings of the Hawaiian hoary bat at the property, appropriate mitigation measures will be implemented.

Comment: "

e) *Sand dune elevations need to be mapped, since the consultant SCS suggests that burials are associated with dunes at elevations from 250 to 350 ft or more amsl."*

Response: According to SCS, there are several mediums to assess the sand dune elevations, from USGS topographical maps (included in the AIS report) to even aerial photographs. We've indicated that most of the project area does not contain dunes to this elevation and thus, it may be one reason burials were not found in the 280+ trenches. Also, please note that Geolabs did not identify any pristine, natural dunes in the area. Thus, the elevation of the natural dunes has been altered through time.

Comment: "*The CIA consultants recommend protecting sand dunes, not just one dune, and not relocating any future burials that may be found. The project's site plan does not adequately address mitigation of impacts to cultural resources such as dunes, significant viewsheds, Pūeo, Nene, Blackburn sphinx moth and probable burials."*

Response: Per your comments on the recommendations of the CIA consultants, please note that the last paragraph of 55 in Section 4.2 of the Draft EIS states:

The CIA finds that the property "resides in a culturally significant and unique land area. There are potential adverse effects to the remaining cultural resources extant on the property that can be mitigated with proper community consultation and proactive planning on the part of the developers. The CIA notes that A&B Properties, Inc. has done much in seeking to protect the known cultural resources on the property, creating approximately 33 acres of cultural preserves and minimizing the need for relocation of burials."

We acknowledge your comments, but as we have replied elsewhere in this letter, we believe we did address mitigation of any impacts to cultural resources such as dunes, significant viewsheds, Nene, Blackburn's sphinx moth and probable burials.

Comment: "*The proposed bike/walking trail around and through the largest burial preserve area does not appear to be compatible with the community desire to have burial areas be as undisturbed as possible. If a different rationale is being proposed, it should be discussed in the DEIS."*

Ms. Lucienne de Naie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 24 of 51

Response: Please be advised that the largest burial preserve will not have a trail through it. As part of the Maui/Lana'i Island Burial Council's (MLIBC) review of the project's Burial Component of a Data Recovery Plan and Preservation Plan on July 28, 2010, it was requested that the proposed trail through the largest preserve be deleted. The Wai'ale Conceptual Master Plan (See Figure O-1) reflects this. Also at that time, the MLIBC made no comments to delete the perimeter trail around the largest preserve.

Comment: *"A larger contiguous preserve area, which includes as many remaining intact dunes as possible, should be discussed as one project alternative. The dunes provide outstanding viewsheds, habitat for native flora and fauna and opportunities for restoration of native dryland plants, minimizing the project's water demand. This preserve area could follow the map adopted as part of the Maui Island Plan process (Fig 5-1 through 3, that features a large contiguous open space area, with a number of sand dunes intact."*

Response: Per your comments, the following paragraph will be added in Section 6.3 of the Final EIS:

During the Draft EIS public review period, Maui Tomorrow Foundation suggested an "alternative of having less irrigated park space and more natural areas, such as the natural dune formations, should also be examined as a water conservation strategy." Similarly, the Sierra Club Maui Group suggested "A larger contiguous preserve area, which includes as many remaining intact dunes as possible, should be discussed as one project alternative." This alternative would be similar to the proposed project. The major difference is that Maui Tomorrow Foundation and the Sierra Club Maui Group are suggesting replacing some of the proposed active park space for more passive "park" space. The negative aspects of this alternative is that there would be less areas for exercise and active sports, and more areas that might attract illegal dumping and other activities, including brushfires. The positive aspects are that there would be more open spaces that do not require management costs, lower water demand, and less play noise, and preserving the remnant dunes desired by some.

Comment: *"Section 4.5 Air Quality Impacts*

The EIS doesn't reveal what enforcement of strict emission controls needed to make air quality acceptable in the Light Industrial zone would cost, and how it would be accomplished. If it can not be practically implemented, will residents be forced to endure unhealthy levels of DPM from diesel fumes? Alternative locations for housing should be included if air quality standards can not be met. Most new housing on Maui is not created this near to industrial uses."

Response: Per your comments, we are adding the following paragraph in Section 4.5 of the Final EIS:

According to the U.S. Environmental Protection Agency (EPA), EPA's National Clean Diesel Campaign (NCDC) promotes clean air strategies by working with

Ms. Lucienne de Naie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 25 of 51

manufacturers, fleet operators, air quality professionals, environmental and community organizations, and state and local officials to reduce diesel emissions. As a result of EPA regulations, diesel engines manufactured today are cleaner than ever. Recent diesel rulemakings have focused on light- and heavy-duty highway vehicles, non-road diesel equipment, locomotive and marine engines, and large ocean-going vessels. As part of the Energy Policy Act of 2005, the Diesel Emissions Reduction Act (DERA) authorized funding of up to \$200 million annually for FY2007 through FY2011 to help fleet owners reduce diesel emissions. In January 2011, President Barack Obama signed the Diesel Emissions Reduction Act of 2010 (S. 3973/H.R. 6482), which authorizes \$500 million in diesel clean-up funds over the next five years. According to an EPA website: "DERA is a successful federal program from both an economic and public health perspective. Within NCDC's West Coast Collaborative, comprised of EPA Regions 9 and 10, DERA grant projects produce over \$3 billion in public health benefits, and for every federal dollar invested an average of \$38 dollars in health benefits is realized."

Additionally, the last sentence at the end of Section 4.5 of the Final EIS will be revised to read:

Implementation of Control Measures AQ6 and AQ7 would reduce the operational air quality effects to less than ~~adverse~~. Additionally, with the continued implementation of DERA, DPM from diesel-fueled trucks are likely to be reduced in future years.

Comment: *"4.6 Man-Made Hazards*

The Phase I Environmental Site Assessment included in the DEIS (Appendix M) acknowledges that it did not include "sampling or analyses of soil, groundwater or other materials." Other Phase I Assessments that we have reviewed included this level of information."

Response: Actual sampling of soil, air, groundwater and/or building materials is typically not conducted during a Phase I Environmental Site Assessment (ESA). The Phase I ESA is generally considered the first step in the process of environmental due diligence. Standards for performing a Phase I ESA have been promulgated by the EPA and are based in part on ASTM in Standard E1527-05. If a site is considered contaminated, a Phase II ESA may be conducted, a more detailed investigation involving chemical analysis for hazardous substances and/or petroleum hydrocarbons.

Comment: *"It is especially troubling that so little information is provided regarding ground water samples from the adjoining Waikapu Landfill site. We addressed the need to include information regarding the various hazardous material sites located on or near the property in our EISPN comments. We appreciate that some information is being included in the DEIS, but feel that it needs to have more recent data included as well. If not now, when will this information be revealed to decision makers?"*

Plans to monitor the landfill site should also be discussed as well as reasons that the green buffer around the landfill site, proposed in the Maui Island Plan UGB map (Fig 5-1 to 3) adopted by GPAC, Maui Planning Commission and supported by County long range planning was ignored in the Waiale Master Plan."

Response: The available information on the former Waikapū Landfill was provided in Section 4.6 of the Draft EIS and the Phase I ESA (See Appendix M). The former landfill was identified as a Recognized Environmental Condition (REC). It should be noted that the Waikapū Landfill did not receive waste after 1989 and was closed in 1991, some 20 years ago. We anticipate that the State Department of Health (DOH) would determine the need for any future monitoring well relating to the landfill. The applicant expects to cooperatively work with the DOH regarding future development adjacent to the former landfill to address potential concerns. Per our master plan, planned residential areas have been set back some 300 feet from the former landfill site. We need to reiterate that the former landfill was a County facility and as an adjacent landowner, the applicant should not have to bear total responsibility for its environmental impacts, if any. Under State and Federal environmental response laws, environmental contamination which impacts an adjacent property would typically be the responsibility of the owner of the property from which the contamination originated and/or other potentially responsible parties who may have contributed to such contamination.

Comment: "4.7 Visual Resources

View sheds seem overlooked as a feature of this land except in the Cultural Resources section. The recommendations of this section should be brought into the project's general discussion and planning."

Response: We disagree that the Draft EIS overlooked viewsheds. As previously noted, a search of the word "view" in the CIA, revealed the following text: "With unobstructed near bi-coastal views of Haleakala and Mauna Kahalawai, portions of intact sand dunes, burials, and bordering Waikapū stream, the project has the opportunity to capitalize on these cultural resources by educating the community and protecting them for future generations." As previously noted, we believe that the first and fourth paragraphs in Section 4.7 of the Draft EIS are not inconsistent with above text from the CIA:

The property is situated within Central Maui. The slopes of Haleakalā (East Maui Mountains), Waikapū Valley, and Mauna Kahalawai (West Maui Mountains) are visible from the site. However, the property itself is not considered a scenic or unique scenic corridor or area, except for a large remnant of the Pu'u One sand dunes. Waikapū Stream borders the southern boundary of the property...

The property is located at a lower elevation than the nearest portion of Honoapi'iani Highway. The proposed development of the property will not obstruct views of Haleakalā, Iao Valley, and the Mauna Kahalawai, or Waikapū Stream. The approximately 28 acre remnant of the Pu'u One sand dunes will be preserved and will be visible from surrounding areas within and outside of the

property.

Comment: "Views are cultural resources. Kupuna refer to particular views carrying cultural knowledge and significance. One kupuna shared his thoughts of the alignment of sites on the various sand dunes in the Waiale project area. He pointed to the notches and pu'u (hills) visible along the ridge of Mauna Kahalawai to the west. As the seasons pass, he pointed out the certain sun moves along the mountain ridge, touching certain points. One must stand in a certain location, that offers its own unique viewplane to experience this. This knowledge was passed from generation to generation."

Response: Per your comments, the following paragraph will be added in Section 4.7 of the Draft EIS:

During the Draft EIS public review period, the Sierra Club Maui Group commented that: "Views are cultural resources. Kupuna refer to particular views carrying cultural knowledge and significance. One kupuna shared his thoughts of the alignment of sites on the various sand dunes in the Waiale project area. He pointed to the notches and pu'u (hills) visible along the ridge of Mauna Kahalawai to the west. As the seasons pass, he pointed out the setting sun moves along the mountain ridge, touching certain points. One must stand in a certain location, that offers its own unique viewplane to experience this. This knowledge was passed from generation to generation."

Comment: "Dismissing the value of the view planes and natural systems on this site simply because they are not included in a County report, is shortsighted and not supported by the project's own cultural consultants. Onsite view planes should be mapped and planning should reflect their importance."

Response: We disagree that the Draft EIS dismissed the value of the view planes. A search of the word "view" in the CIA, revealed the following text: "With unobstructed near bi-coastal views of Haleakala and Mauna Kahalawai, portions of intact sand dunes, burials, and bordering Waikapū stream, the project has the opportunity to capitalize on these cultural resources by educating the community and protecting them for future generations." As previously noted, we believe that the first and fourth paragraphs in Section 4.7 of the Draft EIS are not inconsistent with above text from the CIA.

Comment: "Section 4.7.4 Wastewater Facilities

A new regional wastewater facility for the central Maui area is not discussed in the DEIS. This was requested in the County DEM comment letter."

Response: Based on the comments received from the County Department of Environmental Management, concerning the limited capacity of the Kahului WWRF, the applicant has planned for an on-site treatment facility. Section 4.8.2 of the Draft EIS includes discussion of an on-site wastewater treatment plant to serve the Wai'ale project. As proposed, this on-site plant would not burden the existing Kahului WWRF. Plans for

any regional plant to serve future projects would require specific information concerning these other projects (location, unit counts, development schedules and financial commitment) in order to commence any preliminary engineering analysis. The applicant has had discussions with representatives of the planned Maui Tropical Plantation project, however their anticipated development schedule is not consistent with Wai'ale's. The applicant also met with the Director of the DEM. The Director indicated that any regional sewage treatment plant solution should be properly advanced and pursued by the DEM.

Comment: *"The proposed onsite 1 mgd capacity facility also gets very little review. Would this plant impact the potable well on the neighboring Consolidated Baseyard property if it had to use injection wells to dispose of effluent?"*

Response: If an on-site wastewater treatment facility (WWTF) is constructed, the effluent injection wells would be located more than ¼ mile from any existing potable water wells, as required by the State Department of Health. Therefore, the injection wells are not expected to negatively impact the Consolidated Baseyard wells.

Comment: *"The EIS does not include a Sewage Impact Study which compares the relative merits and disadvantages of using the Kahului WWTP to an onsite plant, to a new regional plant. The DEIS does not identify "capacity or facility improvements to the Kahului facility that would be required to accommodate increased flows from the project." This was an assurance made to the State Office of Planning."*

Response: As previously noted, based on the comments received from the County Department of Environmental Management, concerning the limited capacity of the Kahului WWRF, the applicant has planned for an on-site treatment facility. Regarding the possible expansion of the Kahului WWRF, a study would need to be conducted to determine what improvements would be needed for any expansion of the existing Kahului WWRF. Given that the Kahului WWRF is a County facility, it would presumptuous for us to assume that we know their plant and their projected demands well enough to make any such determination. As noted above, the applicant also met with the Director of the DEM. The Director indicated that any regional sewage treatment plant solution should be properly advanced and pursued by the DEM.

Further analysis will be undertaken as part of the detailed engineering design process for this project, and the County will be consulted to discuss what improvements to the existing County wastewater system may be needed. If conveying the project's wastewater to the Kahului facility for treatment is allowed, then a more detailed study will be undertaken to determine the most feasible alternative.

Comment: *"The onsite projects calculations for use of treated reclaimed water seem inconsistent with figures in the water demand section. The consultants estimate 1 mgd of reclaimed water would be needed for landscape irrigation. Elsewhere is it estimated 200,000 gpd would be needed. If no wastewater plant is built on site, will 1 mgd of potable water be used for landscaping? Is there another non-potable source? This information should be included in the DEIS, but is not."*

Response: The 200,000 gpd irrigation quantity is based on irrigating approximately 116 acres of parks and buffer areas at a rate of 1,700 gpd/acre. This rate is from the County of Maui, Department of Water Supply's Water System Standards (WSS), and is used to calculate the estimated average day water demand, assuming that potable water is used for irrigation. Therefore, if no wastewater plant is built on-site, then the potable water demand for the 116 acres would be 200,000 gpd.

If an on-site WWTF is constructed, then the primary method of effluent disposal would be on-site irrigation. The 116 acres of parks and buffer areas would be irrigated at a higher rate than the 1,700 gpd stated in the WSS, since the goal would be to dispose of all of the effluent. For effluent disposal, the irrigation rate was assumed to be 5/16 inch per day, which corresponds to an irrigation rate of 8,500 gpd/acre. If the 116 acres are irrigated with effluent, then the potable water demand could be decreased by 200,000 gpd.

Comment: *"Section 4.8.1 Water System*

The DEIS acknowledges that the water supply for the proposed project is an "Unresolved Issue." County water is not available, and a new source will need to be developed."

Response: In response to your comments, the following two introductory paragraphs will be added to Sections 3.5 and 7.5 of the Final EIS:

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Kō'olau Aquifer sector which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, need to be developed. The need for these improvements is discussed in the WUDP and also the Maui Island Plan.

The Maui Island Plan (MIP) is the guiding document for future growth on the island of Maui to the year 2030. Resident population estimates in the Draft MIP reflect 135,838 residents in year 2010, 157,390 residents in year 2020 and 176,687 residents in year 2030. The plan has designated the Wai'ale area for future residential growth, and is the largest component of future growth in the Central Maui region. The Draft MIP notes that the development of additional water sources is crucial for the Central Maui water system. The plan includes a long range implementation plan to address capital improvements, including water source development and related infrastructure.

Comment: *"The DEIS spends more time discussing water tank storage options than potential water sources. Project water demand will be 1 to 2.8 mgd. Proposed conservation planning measures are vague. Proposed groundwater sources are vague. Cultural, economic and natural*

resource impacts of the proposed Waiale surface water treatment plant are not even mentioned. The County's Water Use and Development Plan ranked the Waiale treatment option economical only if oil prices were below \$85/barrel. This is unlikely to be the case, and the implications should be discussed."

Response: Section 4.8.1 of the Draft EIS identifies and discusses potential water sources for the project and will be amended in the Final EIS to include the following language:

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent, or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector, which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, needs to be developed. The need for these improvements is discussed in the County's Water Use and Development Plan and also the Maui Island Plan.

Comment: "The Waiale EISPN mentioned the possible potable use of the two onsite wells that were being drilled. Now the DEIS informs us that those wells will be for irrigation. There is not discussion why this choice has been made. There is no discussion of what level of irrigation pumping is expected from the wells, only that their capacity is .6mgd, each and only one is expected to be used at a time. No discussion is provided of what impact this may have on other nearby wells in the same aquifer. There are no water quality reports for the Waiale wells."

Response: As noted previously, Waiale Wells Nos. 1 and 2 are not irrigation wells nor are they intended to serve as water supply for the proposed Wai'ale project. This was noted in the third sentence in the second paragraph of page 39 in Section 3.5 of the Draft EIS, "...water from these wells is not planned for use by Wai'ale..." These wells were cited only for the purpose of demonstrating the potential for the development of potable water sources in the Central Maui region, in this case, the Kahului aquifer. Specific data on and analysis of Waiale Wells Nos. 1 and 2 was not provided in the Draft EIS because they are not part of the planned water source for the Wai'ale project. However, water quality reports were prepared as part of the Engineering Reports for Waiale Wells Nos. 1 and 2. These reports are available from the State Department of Health.

Comment: "It would appear that the project will have a number of secondary and cumulative impacts associated with its water supply, that are being segmented out of the DEIS discussion where they belong."

Response: The cumulative and secondary impacts of the alternative water sources were addressed in Section 7.2 of the Draft EIS, and further addressed in the Final EIS as stated:

The applicant is diligently exploring a number of alternatives for water source for this project. All source alternatives will require further discussion, review, and

approval by applicable governmental agencies as the project proceeds. Additionally, Maui County Ordinance No. 3502, relating to water availability, insures that all new projects have a reliable source of water prior to development. The Ordinance provides that verification of a long term reliable supply of water be determined prior to any subdivision approval. In light of this requirement, cumulative impacts will be further addressed as new water sources are developed. Other proposed projects will be similarly required to meet the requirements of this Ordinance as their projects proceed through the development process.

There are two potential sources being considered for drinking water: treated surface water and groundwater. The Hawaii State Water Code (Chapter 174C, Hawaii Revised Statutes) and Maui County Code Chapter 14-02 require the preparation of a Water Use and Development Plan (WUDP). As noted in Sections 3.5 and 4.8.1, the WUDP is the primary long range plan of the County Department of Water Supply (DWS). The WUDP directs the management of water resources in a manner ~~a plan for the management of water resources~~ that is consistent with the County of Maui's land use plans and policies. ~~The WUDP and serves as a guideline for the use and commitment of water resources and funds. The DWS is in the process of updating the WUDP.~~

As part of ~~the~~ an update process for the WUDP, a "Central District: Final Candidate Strategies Report" was prepared by Haiku Design & Analysis in June 2009. The report notes that water consumption for the Central District system is expected to grow from about 22 MGD in 2005 to about 34 MGD in 2030, an increase of about 12 MGD. To meet this increased demand, the report recommends proceeding with the proposed Wai'ale Water Treatment Facility (WTF) negotiations and approvals to the extent possible pending determination of assurance of long term water availability and price. The report further notes that the Wai'ale WTF is considered to be potentially the most cost effective solution to providing needed future water. ~~The WUDP also considered other potential strategies, including new basal groundwater wells to the north of the existing Central District system into the north half of the Waiahe'e Aquifer and the Kahakuloa Aquifer.~~

~~The applicant acknowledges that the proposed Wai'ale WTF requires further discussion, review and approvals by various governmental agencies in order to proceed. An agreement with the County of Maui outlining the sharing of development costs for the proposed WTF, terms of use, the allocation of water and other matters will be required. This agreement will ultimately be subject to the review and approval of the Maui County Council. Also, the establishment of interim in-stream flow standards for the four streams which make up the Na Wai Uha, including Waiahe'e Stream, will need to be resolved.~~

~~The timing of completion of these potential source development alternatives will in large part, determine the particular water source for the project. All source alternatives will require further discussion, review, and approval by applicable~~

governmental agencies as the project proceeds. It is acknowledged that the proposed Wai'ale WTF will be subject to other decisions, as noted in Section 4.8.1, and that these decisions could result in a smaller treatment facility with lower capacity than currently planned. However, the proposed Wai'ale WTF would not involve a change to the status quo relative to the diversion of water from the Na Wai 'Eha streams. There will be no additional diversion. Since there will be no additional diversion of water, there would be no additional adverse impacts over the status quo.

The WUDP is the primary long range plan of the DWS. The WUDP directs the management of water resources in a manner that is consistent with the County's land use plans and policies and serves as a guideline for the use and commitment of water resources and funds. In turn, the Maui Island Plan is the guiding document for future growth on the island of Maui to the year 2030. The Draft Maui Island Plan notes that the development of additional water sources is crucial for the Central Maui water system. The plan includes a long range implementation plan to address capital improvements, including water source development and related infrastructure.

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent, or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available needs to be developed. The need for these improvements is discussed in the WUDP and also the Maui Island Plan. Any new wells drilled in these aquifers would have to be permitted by the CWRM and this will be within the allowable sustainable yields of the respective aquifers. This permitting process would insure that new wells do not result in adverse cumulative and secondary impacts to these aquifers.

Comment: "4.8.3 Drainage System
Potential drainage Impacts from the former Waikapu landfill site should be investigated and discussed in the DEIS and they are not."

Response: The former Waikapu landfill site is at a higher elevation than the adjacent Wai'ale project area. The embankment area will contribute some surface runoff to the Wai'ale project. Any offsite flows will be accounted for in the construction plans for the project. Austin Tsutsumi & Associates, Inc. (ATA) would likely propose to install an interceptor swale along the project boundary to capture any surface runoff before it enters the Waiale site. A similar surface interceptor ditch was installed as part of the Maui Lani Village Mixed Use development which lies just north of the former landfill site.

Comment: "The landfill appears to be at higher elevation than the portions of the project proposed for affordable housing, parks and school. Earlier Master Plans had a retention basin in the project's north east corner. Now this area is shown as a part of a regional park. The former design had a park more centrally located to receive runoff from the surrounding urbanized surfaces. The DEIS needs to discuss why a different configuration was chosen to absorb potential flow in the project."

Response: Upon further investigation, it was determined that the existing grades in the park area were too steeply sloped to be able to install a retention basin. For this reason, it was decided that the runoff from the northwest portion of the site (including the County Housing area) should be piped to the northeast corner of the site where a retention basin can more readily be installed.

Comment: "Section 4.8.5 Solid Waste

A Solid Waste Management Plan is promised, but not provided in the DEIS. No specific information is given about the amount of waste expected to be generated by the project during construction as a percentage of available landfill capacity, yet it is continually emphasized that Waiale is one of the largest proposed community projects proposed in the new Urban Growth Boundaries of the Maui Island Plan. This information was promised to the State Office of Planning in the Waiale comment response letter."

Response: As requested, a Solid Waste Management Plan will be provided in the Final EIS as Appendix Q (See attached).

Comment: "4.9.4.3 Housing

The DEIS does not reveal what percentage or numbers of units will be affordable. Most environmental documents include this information for decision makers. If the project has a private water system, will affordable units pay the same rates as market based units? Will those metrics work out to support a private system? These real world considerations affect the viability of this project and needed information should be provided."

Response: As stated in the Draft EIS, Wai'ale is envisioned to include approximately 2,550 residential units. This includes approximately 300 affordable units to be developed by the County of Maui on 40 acres that will be conveyed to the County. Additionally, the remaining portion of the Wai'ale project (2,250 units) would also be subject to the provisions of the Maui Residential Workforce Housing Policy, Chapter 2.96, Maui County Code. Appendix "P": Assessment of Economic and Fiscal Impacts (pages 1-2), to the Draft EIS, includes a projected breakdown of the anticipated affordable units by income group and unit type for Wai'ale (see below). A total of approximately 563 affordable units in four income categories are projected based on the provisions of the current workforce housing policy. The actual allocation of affordable units would be based on discussions and agreement with the County Department of Housing and Human Concerns. Note that changes to the overall project unit count would affect the amount of affordable units required.

Single-Family

Cap Income	62 units (20 percent)
Above Moderate Income	62 units (20 percent)
Moderate Income	93 units (30 percent)
Below Moderate Income	93 units (30 percent)
Total Affordable Single-family Housing Units	310 units

Multi-Family

Cap Income	50 units (20 percent)
Above Moderate Income	51 units (20 percent)
Moderate Income	76 units (30 percent)
Below Moderate Income	76 units (30 percent)
Total Affordable Multi-family Housing Units	253 units

At the current time, no distinction in water costs is envisioned between affordable and market priced units. Further analysis will be undertaken as part of the detailed engineering design process for this project. Please note that private water systems are regulated by the State Public Utilities Commission. Should the water system be dedicated to the County, homeowners would pay the prevailing County rate, which is based on usage.

Comment: "4.10.1 Schools

The DEIS acknowledges the need for an additional middle school to serve central Maui as part of the additional population levels of children living in the Waiale project, but it does not discuss the fact that both central Maui high schools are already at capacity. In fact, very little information regarding impacts to school population is provided."

Response: We understand that the State has released funds to acquire 77 acres of land for the proposed Kihei High School. When the new high school opens, the high school students who are currently commuting to both Central Maui high schools can instead attend the Kihei High School, relieving the demand on Central Maui high schools.

Comment: "No list is given of the number of elementary, middle and high school students expected to be generated as is customary in such large projects. Instead it is claimed on p.99 of the DEIS that the project at full build out will only result in an in-migration of 328 new residents and 58 new students."

Response: As noted in the last paragraph of Section 4.9.2 of the Draft EIS, ACM estimated that approximately 6,767 residents would be living within Wai'ale once the project was fully built out. For estimation purposes, of that amount, approximately 17 percent or 1,150 residents were estimated to be students. The amount of in-migrant students was estimated at approximately 58 students or 5 percent of the total. The State Department of Education (DOE) has established a school impact fee district for Central Maui and Wai'ale would be subject to such school impact fees. We understand that applicable assumptions concerning student generation rates for Central Maui are included in the school impact fee formula.

Comment: "The EIS gives no factual basis for the assumption that 95% of the project's residents will already live on Maui. Also, there is no breakdown of whether potential buyers of the property will move from other areas of Maui and what impact that would have on the need for a new high school to serve the expected growth of central Maui. In short, the DEIS appears to avoid considering the impacts to local high schools that 6,767 residents of Waiale could have."

Response: As noted in ACM's Assessment of Economic and Fiscal Impacts (See Appendix P of the Draft EIS), "For the purposes of this analysis, it was assumed that 95 percent will be already living on Maui, with the remaining 5 percent, or about 338 residents, being in-migrant residents." This was attributable to the fact that most in-migrants would generally select other areas of Maui to settle, closer to beaches and resort areas. The assumed market for Wai'ale residential buyers, are existing residents of Maui who already live and work in Kahului and Wailuku, who are commuting from outside Central Maui, or are current residents of Central Maui looking to move into a newer home or master-planned community, with new schools and parks. The DOE noted in their comments to the Wai'ale Draft EIS that they did not object to the assumption that 95 percent of Wai'ale's future residents would be from Maui.

Comment: "The proposed Waiale middle school is projected to have either 600 (wastewater calculations) or 820 (traffic trip generation analyses) students. If those students already fit in the existing middle schools (Iao and Waena), there would be no need for a new middle school. Logically, if those same students need a new middle school, in 3 years they will need a space in a high school. If Baldwin and Maui High will have that capacity, it should be demonstrated in the DEIS, otherwise the impacts of the 600 middle school students should be mitigated with a discussion of a new high school. The review of Waiale project in the Maui Island Plan Directed growth chapter (c. 2007 p. 94) projected the project would generate 428 high school students. It is not enough to assume that the agreement to pay educational impact fees relieves the applicant of this discussion of impacts."

Response: As noted in the Draft EIS, to accommodate the educational needs of children living in Wai'ale and the surrounding neighborhoods, a middle school will be needed within Wai'ale. This is based on the applicant's ongoing discussions with the DOE regarding the need for future school facilities in the region. As a result of these discussions it was determined that a proposed middle school site within the Wai'ale Conceptual Master Plan was needed.

As previously noted, the State has released funds to acquire 77 acres of land for the proposed Kihei High School. When the new high school opens, the high school students who are currently commuting to both Central Maui high schools can instead attend the Kihei High School, relieving the demand on Central Maui high schools.

Comment: "School site:

It appears the school site is located in an area of sand dune formations and is at risk for disturbing burials on the site. The DEIS also reveals that indoor noise levels in the proposed middle school site are likely to exceed federal standards and need to be mitigated by building

design standards. The costs of these mitigations is not discussed. Do they add 10%, 20% or 30% to building design and construction? Do school sites customarily need to accommodate for excessive noise levels? Noise impacts to the school site is discussed under Noise but not under Schools. This is confusing to agencies, decision makers and the public."

Response: As noted elsewhere in our responses to you regarding the potential for additional burials to be discovered on the property, as part of the past archaeological investigations numerous archaeological survey trenches were dug throughout the property, providing reasonable confidence that the largest concentration of burials have been identified and will be preserved in the over 30 acres of planned cultural preserves.

Per your comments on indoor noise levels in the proposed middle school site, we will add the following two paragraphs at the end of Section 4.10.1 of the Final EIS:

As noted in Section 4.4 of this Final EIS, the State Board of Education (BOE) has stated that schools should not be located at sites where exterior noise levels exceed 65 dBA L_{10} . The exterior noise level would not exceed the BOE standard. In addition, Wai'ale would need to comply with the State Department of Education (DOE) Educational Specifications (EDSPECS) for Middle/Intermediate Schools that state that interior noise levels in general school spaces should not exceed 50 dBA L_{eq} and the noise level in libraries and reading rooms should not exceed 45 dBA L_{eq} . Detailed site plans were not available to complete an interior noise level analysis. It is assumed that interior noise levels could exceed the State standards. Therefore, without noise control, Wai'ale could result in an adverse effect related to school land use compatibility.

To mitigate the impact of construction noise on the proposed middle school, the noise consultant suggests that all educational classrooms be designed in compliance with the DOE Educational Specifications (EDSPECS) for Middle/Intermediate Schools. In accordance with the guidelines, general school space shall meet a background ambient noise level of 45 dBA L_{eq} and libraries and main reading rooms shall meet a background ambient noise level of 50 dBA L_{eq} . Prior to occupancy, an acoustical engineer shall demonstrate that the applicable noise standards have been achieved in classrooms.

As noted above, "school sites customarily need to accommodate for excessive noise levels" per the State Department of Education (DOE) Educational Specifications (EDSPECS) for Middle/Intermediate Schools. Thus, the cost of this type of mitigation is assumed for all new schools.

Comment: "5.2.2 Land Use Conformance
Maui Island Plan Map

As we noted in our EISPN comments, the proposed Waiale master plan map ignores considerable community input that came during the Maui Island Plan directed growth review process. Sierra Club requests any reviewing agencies to consider the proposed project is not in

compliance with the Draft MIP, because its DEIS has ignored the content of the MIP maps, except for the outline.

The DEIS avoids any discussion of why the project has chosen to ignore the need strongly supported by community members for a large continuous open space buffer area in the project plan. The DEIS does not even acknowledge that the General Plan Advisory Committee (GPAC) version of the Urban Growth Boundary (UGB) map for Central Maui (Fig. 5-3) in the DEIS specifically excludes this proposed open space/ buffer area from the proposed UGB lines.

The message was very clear: the open space area on the GPAC Directed Growth map should not be considered for future development due to culturally important features or hazardous sites to be avoided. Irregardless of this community feedback, the Waiale master Plan map (fig 0-1) in the DEIS indicated that only a portion of the proposed area should be utilized for park/open space/preserve purposes. The rest was proposed for intense development: Commercial, Light Industrial, Residential and Village Mixed Use.

The DEIS claims that its master plan was designed "largely in concert with the tenets of the Maui island Plan" and that archaeological, geological and other studies were then used to formulate the master plan, but once again, the reality is, the DEIS does not even refer to the suggested open space concept in the Maui Island Plan UGB Directed Growth maps. This "alternative project design" should have been discussed in section 6 of the DEIS, but once again it was ignored."

Response: The Wai'ale master plan has sought to incorporate the open space buffer between Maui Lani and Wai'ale as articulated in the Draft Maui Island Plan. Within the Wai'ale master plan, areas designated for park space and planned cultural preserves seek to provide that open space buffer, consistent with the intent of the Maui Island Plan's Directed Growth Plan. In order for these areas to be zoned and utilized for recreational park purposes, they must be situated within the Urban Growth Boundary so that appropriate zoning can be eventually obtained through the County's zoning process. Please recognize that the cultural preservation areas shown on the Wai'ale Conceptual Master Plan reflect the actual cultural preservation areas approved by SHPD in 2010. We believe that these were intended to be broadly defined in the Maui Island Plan, which preceded the actual designation of these areas, until their specific location could be determined. The rationale for designating a portion of lands within the northern portion of Wai'ale for planned County Housing is in part based on County Ordinance No. 3559. The County of Maui via Ordinance No. 3559 (Maui Business Park Phase II-Change in Zoning) required in part that A&B dedicate 50 acres to the County for affordable housing (40 acres), community center (7 acres) and park (3 acres). The specific location of these lands was described as being "...at the approximate location of the terminus of Kamehameha Avenue, near the new Maui Lani Park and Pomaikai Elementary School". This location in the northern portion of the property, is where infrastructure and roadway connections to Maui Lani would be the closest, cheapest and the fastest to build.

Per your comments, the last four paragraphs in Section 2.2.1 of the Final EIS will be revised as follows:

The original conceptual master plan for the property included approximately 826 acres; comprising of 474 acres contiguous to Maui Lani, extending to Kuihelani Highway and East Waiko Road, and approximately 352 acres extending south from East Waiko Road along Kuihelani Highway. The project was envisioned as a master planned community that would incorporate a mix of land uses to support the projected future community growth in Central Maui, including affordable housing and the potential for a new civic center for the County of Maui.

However, ~~since that time~~ in consultation with the County Planning Department in the initial stages of formulating the Draft Maui Island Plan, the original project area has been reduced in scope ~~and~~ to fit within the population and land use projections for Year 2030. Thus, the lands south of Waikapu Stream (approximately 220 acres) were not included in the scaled back conceptual master plan. As currently planned, the entire project area is designated within the Urban Growth area under the Draft Maui Island Plan (December 2010). ~~Although the lands south of Waikapu Stream are still envisioned as a potential future urban expansion area, they are not included in this project.~~

While the ~~final~~ Draft Maui Island Plan ~~has not yet been adopted~~ is still under review by the Maui County Council and is not anticipated to be finalized and adopted until later this year, a major element of the Maui Island Plan ~~will be~~ is the Directed Growth Strategy, ~~which will include~~ including Directed Growth Maps specifying "urban growth boundaries" for the island of Maui. As of ~~July~~ the December 2010 draft, all of the subject lands north of Waikapu Stream are within the "urban growth boundary" of the Directed Growth Maps put forth by: 1) the Department of Planning; and 2) the General Plan Advisory Committee; and 3) the Maui Planning Commission. In addition, ~~various~~ County and State governmental agencies have been consulted in the ~~development~~ preparation and refinement of the Wai'ale master plan.

The Wai'ale master plan has sought to incorporate the open space buffer between Maui Lani and Wai'ale as articulated in the Draft Maui Island Plan. Within the Wai'ale master plan, areas designated for park space and planned cultural preserves seek to provide that open space buffer. However, the rationale for designating a portion of lands within the northern portion of Wai'ale for planned County Housing is in part based on County Ordinance No. 3559. The County of Maui via Ordinance No. 3559 (Maui Business Park Phase II-Change in Zoning) required in part that A&B dedicate 50 acres to the County for affordable housing (40 acres), community center (7 acres) and park (3 acres). The specific location of these lands was described as being "...at the approximate location of the terminus of Kamehameha Avenue, near the new Maui Lani Park and Pomaikai Elementary School". This location in the northern portion of the property, is where infrastructure and roadway connections to Maui Lani would be the closest, cheapest and the fastest to build. Additionally, in order for these areas to be zoned and utilized for recreational park purposes, they must be situated within the Urban

Growth Boundary (UGB) so that appropriate zoning can be eventually obtained through the County's zoning process (per Maui County Code Section 19.615.040 which states that regional parks must be situated either in the State Land Use "Urban" or "Rural" Districts).

Comment: "Section 5.2.3 Wailuku –Kahului Community Plan Conformance

The Wai'ale DEIS proposes a project that does not conform to the Cultural Resources section of the Wailuku-Kahului Community Plan.

Cultural Resources: Goal

Identification, protection, preservation, enhancement, and where appropriate, use of cultural practices and sites, historic sites and structures, and cultural landscapes and view planes that:

1. Provide a sense of history and define a sense of place for the Wailuku-Kahului region; and
2. Preserve and protect native Hawaiian rights and practices customarily and traditionally exercised for subsistence, cultural and religious purposes in accordance with Article XII, Section 7, of the Hawaii State Constitution, and the Hawaii Supreme Court's PASH opinion, 79 HAW. 425 (1995).

Preservation of the Pu'u One and burial grounds of the proposed Wai'ale project site are important parts of meeting both aspects of the community plan's Cultural Resources goal. The Pu'u One provide the Wai'ale site with its unique sense of place and historic connection to the events of the past, such as the battle of Kakanilua. The presence of Pu'u One and burial sites also allows native Hawaiians to exercise traditional and customary rights in accordance with Article XII, Section 7, of the Hawaii State Constitution, and the Hawaii Supreme Court's PASH opinion, 79 HAW. 425 (1995).

The DEIS, in contrast, proposes to define the majority of the dunes as "degraded" and preserve only one dune section which contains around 60 burial features. The importance of the other intact dunes, even those which have been associated with other burials, is ignored.

The Wai'ale Project as proposed does not conform to the Cultural Resources goals, objectives and policies of the Wailuku-Kahului Community Plan and its DEIS fails to adequately address the following:

- 1) The unique Pu'u One dune formations found throughout the project site are cultural features, as noted in the Community Plan, and destruction of any of them impacts the exercise traditional and customary rights in accordance with Article XII, Section 7, of the Hawaii State Constitution. Preserving one dune does not mitigate this loss.
- 2) The history of the Wai'ale site includes the battle of Kakanilua and in order to "Provide a sense of history and define a sense of place for the Wailuku-Kahului region," appropriate recognition of that battle should be made part of the project design. The DEIS denies any relationship of the Kakanilua battle to the Wai'ale site, although the 1977 AIS for the original Maui Lani project
- 3) Avoiding displacement of additional traditional burials on the site. Hawaiian culture places great importance on protection of na iwi in their final resting place, as Edward Ayau has written:
"Hawaiians believe that they were nourished from foods fertilized by the bones of their

ancestors. The na iwi are seen to release the mana of the deceased into the land, invigorating the land with the spiritual energy required to sustain it and those that rely upon it for survival. " The DEIS is silent on the topic of strategies for avoiding future burials. "

Response: In keeping with the objectives and policies of the Wailuku-Kahului Community Plan, the applicant retained a consultant to identify all cultural resources located within the project area. In addition, given the condition of the remaining resources, the applicant is proposing recommendations to mitigate potential adverse impacts on cultural resources. As noted in Section 4.2 of the Final EIS:

A large percentage of the project sits on remnants of previously altered sand dunes. As part of the past archaeological investigations numerous archaeological survey trenches were dug throughout the property, providing reasonable confidence ~~assurance~~ that the largest concentration of burials have been identified and will be preserved in the over 30 acres of planned cultural preserves...

... While the majority of the dunes with the property limits have been obliterated by human activities, there is a large portion of the site (approximately 28 acres) where there ~~is~~ are relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the areas being proposed as a cultural preserve (and where the highest concentration of burials resides). There are opportunities to include appropriate interpretive signage concerning the geological, historical and cultural significance of the Pu'u One sand dune complex.

Full-time archaeological monitoring shall occur during future ground altering disturbance at the property which contain natural, sandy matrices that are relatively undisturbed. In addition, two recommendations were proposed for State Site No. 50-50-04-5504²: 1) a predetermined area of the sand berm should be closely monitored for the recovery of any other displaced human remains; and 2) a Burial Treatment Plan will be prepared and submitted to SHPD and MLIBC for review.

To address the burial treatment plan for State Site No. 50-50-04-5504 as well as State Site No. 50-50-04-6679 comprising the former Hawaiian Cement sand mining area, a Final Burial Site Component of a Data Recovery Plan and Preservation Plan for State Sites Nos. 50-50-04-5504 and -6679 ("preservation plan") was prepared by Archaeological Services Hawaii, LLC (ASH) (See Appendix G). The preservation plan proposes the preservation in place of inadvertent burial features of State Site Nos. 50-50-04-5504 and -6679 consisting of 33 partially intact primary burial features, 13 burial pits which are highly probable to contain human skeletal remains, 6 disturbed, possible primary burials, and secondarily deposited/scatters of human skeletal remains with no primary/in situ component representing 36 individuals. The preservation plan includes the relocation of two partially intact primary burial features and five secondary scatters. These burial features will be preserved within five established preservation areas totaling in excess of 30 acres.

² The above mentioned burials were inadvertently identified by ASH archaeologists.

Additionally, State Sites Nos. 50-50-04-4200, -4201 and -4202, comprising five burial features and a multi-stepped terrace are also preserved in place within Preservation Area 1 (largest preserve) pursuant to a previously accepted burial treatment and preservation plan (Kennedy and Moore 1998).

The preservation plan was reviewed by the MLIBC in July 2010 and the SHPD subsequently accepted the preservation plan by letter dated September 13, 2010 (See Appendix H).

State Site No. 50-50-04-1508 is the currently utilized, small section of Spreckels Ditch, located in the eastern portion of the property, has been documented and no further work recommended. State Site No. 50-50-04-6578 has also been documented and sampled with no further work recommended.

Short-Term Preservation Measures – The identification and implementation of appropriate short-term or interim site protection measures, including an archaeological monitoring plan. These include:

- Prior to construction commencement a meeting shall be held to inform all pertinent parties regarding the locations and buffer zones for all sites slated for preservation in or near areas of potential effect;
- The erection of temporary construction fencing (orange plastic) or other visible markings defining no-encroachment buffer zones around the perimeter of sensitive areas;
- Full-time monitoring of preservation sites during construction activities; and
- Ensuring transition to permanent preservation measures following completion of construction.

Long-Term Preservation Measures – The identification and implementation of long-term or permanent site protection measures provide for the continued protection of archaeological and cultural resources. The two typical categories of long-term preservation are passive and active preservation, as described below:

- **Passive Preservation** – Sites in this category do not undergo any interpretive development, occur in areas that can be avoided by development, and are left as is. This category is sometimes referred to as "data banking." Most sites in this category are not intended to be permanently preserved, but are anticipated to undergo data recovery procedures in the future, presumably when improved data gathering techniques and refined analysis technologies are available or on large tracts of land where development is intended to take place in incremental phases; and
- **Active Preservation** – Sites in this category are chosen for their interpretive potential. Their selection may be based on aesthetic, academic, or cultural representation values. Different levels of interpretive development may be undertaken, including: stabilization, partial or complete restoration, and/or

reconstruction. Signs may be involved, and details regarding access and protocols need to be worked out.

- **Cultural Preserves** - Approximately 33 acres are proposed to be set aside as cultural preserves where the greatest concentrations of burials occur. These areas are planned to be permanently preserved, and none of the burials within these cultural preserves are anticipated to undergo data recovery procedures in the future. These areas are intended to be kapu and only accessed by lineal and/or cultural descendants, recognized and/or acknowledged cultural practitioners and for periodic maintenance and/or fire protection. The plan for preservation, any landscaping and reinterment is provided in the Preservation Plan (See Appendix G of the Draft EIS).

A&B Properties, Inc. and its archaeological contractors will comply with all State and County laws and rules regarding the preservation of archaeological and historic sites. Should historic remains such as artifacts, burials, concentrations of shell or charcoal be inadvertently encountered during the construction activities, work will cease immediately in the immediate vicinity of the find and the find will be protected. The archaeological contractor shall immediately contact SHPD, which will assess the significance of the find and recommend appropriate mitigation measures, as appropriate.

We concur that an appropriate memorial for the Battle of Kakamilua should be established in an appropriate location.

Comment: "6.0 Alternatives

The DEIS does not meet the standards of HAR §11-200-17 (f)

- (f) The draft EIS shall describe in a separate and distinct section alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected. The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks. Examples of alternatives include:

- (1) The alternative of no action;
- (2) Alternatives requiring actions of a significantly different nature which would provide similar benefits with different environmental impacts;
- (3) Alternatives related to different designs or details of the proposed actions which would present different environmental impacts;
- (4) The alternative of postponing action pending further study; and,
- (5) Alternative locations for the proposed project.

In each case, the analysis shall be sufficiently detailed to allow the comparative evaluation of the environmental benefits, costs, and risks of the proposed action and each reasonable alternative. For any agency actions, the discussion of alternatives shall include, where relevant, those alternatives not within the existing authority of the agency.

Specifically, the DEIS does not describe:

"...alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected. The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks."

The following alternatives were not described in the Waiale DEIS:

- 1) Alternatives to increase the size of the proposed preserve or open space areas to protect culturally significant resources (i.e. Pu'u One, traditional burials and flora and fauna habitat.) This alternative could also positively affect water demand for the project."

Response: Per your comments, the following paragraph will be added in Section 6.3 of the Final EIS:

During the Draft EIS public review period, Maui Tomorrow Foundation suggested an "alternative of having less irrigated park space and more natural areas, such as the natural dune formations, should also be examined as a water conservation strategy." Similarly, the Sierra Club Maui Group suggested "A larger contiguous preserve area, which includes as many remaining intact dunes as possible, should be discussed as one project alternative." This alternative would be similar to the proposed project. The major difference is that Maui Tomorrow Foundation and the Sierra Club Maui Group are suggesting replacing some of the proposed active park space for more passive "park" space. The negative aspects of this alternative is that there would be less areas for exercise and active sports, and more areas that might attract illegal dumping and other activities, including brushfires. The positive aspects are that there would be more open spaces that do not require management costs, lower water demand, and less play noise, and preserving the remnant dunes desired by some.

Comment: "

- 2) Alternative locations for the 30-acre maui county affordable housing land donation to move housing away from the former landfill and industrial noise and fumes."

Response: Per your comments, the following paragraph will be added in Section 6.3 of the Draft EIS:

Similar to Maui Tomorrow Foundation's comments, the Sierra Club Maui Group wrote: "Alternative locations for the 30-acre maui county affordable housing land donation to move housing away from the former landfill and industrial noise and fumes." Both proposed County Housing parcels (30 acres plus 10 acres) are located in the northern portion of the property, where infrastructure and roadway connections to Maui Lani would be the closest, cheapest and the fastest to build. If proximity to Maui Lani is important, then the proposed County Housing parcels could be relocated anywhere along the boundary with Maui Lani except for the proposed 28.4 acre cultural preserve. However, from other comments made by the

Sierra Club Maui Group ("...the need strongly supported by community members for a large continuous open space buffer area in the project plan..."), it would appear that the Sierra Club Maui Group would not prefer to relocate the proposed County Housing parcels along the boundary with Maui Lani. Alternative locations for the proposed County Housing parcels could be anywhere on the Wai'ale master plan. (See Figure O-1) where either proposed "Multi-Family" or "Village Mixed-Use" are shown, but were rejected because: 1) the portion of the project north of East Waiko Road would likely be closer, cheaper and faster to build than the portion of the property south of East Waiko Road; And 2) the portion of the project north of East Waiko Road is closer to Pōmaika'i Elementary School and the proposed middle school site, as well as the proposed Regional Park.

Comment: "

3) Alternative design which included an off-site regional WWTP to serve the project. "

Response: As previously noted, based on the comments received from the County Department of Environmental Management, concerning the limited capacity of the Kahului WWRF, the applicant has planned for an on-site treatment facility. As previously noted, plans for any regional plant to serve future projects would require specific information concerning these other projects (location, unit counts, development schedules and financial commitment) in order to commence any preliminary engineering analysis. The applicant has had discussions with representatives of the planned Maui Tropical Plantation project, however their anticipated development schedule is not consistent with Wai'ale's. The applicant also met with the Director of the DEM. The Director indicated that any regional sewage treatment plant solution should be properly advanced and pursued by the DEM.

Comment: "

4) Alternative of postponing action pending further study; since the project is not prepared to discuss its future water sources, wastewater disposal location, noise mitigation costs and dozens of other topics. "

Response: As requested, a new section "6.4 Alternative of Postponing Action Pending Further Study" will be added to the Final EIS. It will state:

Further study of any proposed development on the property would only be delaying what has long been proposed. As articulated in the Directed Growth Strategy and the Maui Island Plan, Wai'ale is being expected to provide the majority of needed housing units in Central Maui to the year 2030 (2,550 housing units of the total 5,073 housing units). A delay or loss of housing units at Wai'ale would alternately mean that other areas on Maui would need to be relied upon for future growth, including development outside of Waialuku-Kahului that would likely result in more and longer work related vehicular trips requiring greater energy consumption and transportation expenditures. There would be more "doubling up" at existing residences, with higher numbers of persons and families

residing under roof and increased demand for social services. The cost of housing would rise due to a limited supply of future housing units and existing Maui residents not able to find suitable housing may choose to leave Maui and relocate elsewhere where housing costs are lower. Therefore, this alternative was rejected, as it would not achieve the overall objectives for the project, which would provide needed housing and create a mixed-use community that will provide more employment opportunities to existing residents of the region, reducing the need for some residents to commute outside of Waialuku-Kahului to work. The potential benefit of this alternative (postponing action pending further study) is that while remaining underutilized, the site would provide open space. If the site were used for agricultural purposes, it could generate dust when portions of the site are graded, harvested and plowed. Implementation of this alternative will temporarily avoid: infrastructure impacts (solid waste, wastewater and water); visual impacts (appearance of the site changing from open fields to a master-planned urban development); the loss of employment on the site from the lessees businesses (assuming they do not relocate elsewhere); traffic impacts; and construction-related impacts (such as construction noise, construction equipment exhaust emissions, temporary traffic disruption, fugitive dust and soil erosion). Occasionally, however, agricultural cultivation, harvesting and plowing of the site will expose soils to the erosional forces of wind and rainfall.

Comment: "

5) Alternative of a reduced unit count to reduce water/sewage impacts, limit development in the former landfill area and provide protection for cultural resources. "

Response: Per your comments, the following will be added to Section 6.3 of the Final EIS to accommodate "an alternative with fewer units":

Conversely, as suggested by Maui Tomorrow Foundation and the Sierra Club during the Draft EIS public review period, a significant decrease in units would result in different impacts. A significant reduction in housing units would result in the housing objectives articulated in the Directed Growth Strategy and the Maui Island Plan not being met. Wai'ale is being expected to provide the majority of needed housing units in Central Maui to the year 2030 (2,550 housing units of the total 5,073 housing units). This alternative was rejected because: 1) a reduction in housing units at Wai'ale would alternately mean that other areas would need to be designated for future growth; 2) Given the extensive community review process undertaken to date this would appear an undesirable alternative; and 3) any reduction in total units would also reduce the amount of affordable units developed. A decrease in units would result in higher per unit development costs, as the cost of basic infrastructure (roadways and utilities) would still be incurred but prorated over fewer units. Such a scenario could jeopardize the project's financial feasibility.

Comment: "

6) *The alternative project design indicated on the MIP directed growth map.*

HAR 11-200-17 (f) requires that an EIS not only describe these types of alternative actions, but also provide a "rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions."

All of these alternatives would enhance environmental quality within the project and in general. Instead alternatives were offered that decreased open space, or kept current unit counts but increased density, creating larger taller buildings. In short, decision makers are being asked to evaluate the DEIS and the potential project with large amounts of vital information withheld and very limited discussion of alternative project designs."

Response: We have reviewed the text that describes Wai'ale in the Draft Maui Island Plan (MIP), and believe the Wai'ale Conceptual Master Plan shown on Figure O-1 of the Draft EIS is largely consistent with the Maui Island Plan's vision for Wai'ale (quoted above).

Comment: "

7. 1 Short-Term uses of Environmental Resources and Long-Term Productivity

This section attempts to justify the project need and benefits by selectively citing data and minimizing actual conditions. For example:

The DEIS concludes that long term risks to health and safety are not expected, yet the project is surrounded by past and present sources of harmful and hazardous substances, including an unlined unmonitored landfill."

Response: We disagree with your characterization of the Draft EIS ("The DEIS concludes that long term risks to health and safety are not expected..."). It is our understanding that if any impacts will be mitigated, then there are no secondary and cumulative impacts.

Comment: *"In addressing cultural preservation, the DEIS first minimizes the extent of cultural resources and then inflates the quality of what is being offered for preservation. The DEIS describes "most of the property as being "heavily" decimated", then mentions that there is a "large portion of the site, (defined as "approximately 28 acres") where there is a relatively intact lithified sand dune" that will be preserved."*

Response: We respectfully disagree with your portrayal that "...the DEIS first minimizes the extent of cultural resources and then inflates the quality of what is being offered for preservation." As previously noted, Section 4.2 of the Final EIS states:

A large percentage of the project sits on remnants of previously altered sand dunes. Due to the underlying sandy nature of much of the property there is the potential for discovering additional burials during earth-disturbance activities. As part of the past archaeological investigations numerous archaeological survey trenches were dug throughout the property, providing reasonable confidence ~~as#444444~~ that the

largest concentration of burials have been identified and will be preserved in the over 30 acres of planned cultural preserves [emphasis added]...

... While the majority of the dunes with the property limits have been obliterated by human activities, there is a large portion of the site (approximately 28 acres) where there ~~is~~ are relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the areas being proposed as a cultural preserve (and where the highest concentration of burials resides) [emphasis added].

Comment: *"The DEIS does not define the terms "most of the site" or "large portion of the site." The entire site is 545 acres. This would not make 28 acres "a large portion of the site." In fact, 28 acres would be about .5 % of the site. On the other hand, at least 100 acres of the approximately 430 acre northern sector of the proposed project has high, undisturbed dunes that extend for several thousand feet. These dunes are not "decimated" at all and are likely to contain undisturbed burials, however, their true nature is not being revealed in the DEIS."*

Response: We believe your calculation may be in error, as .5% of 545 acres would equal 2.725 acres and the applicant is proposing approximately 28.4 for the largest of the cultural preserves. We welcome reviewing your geological study that determined 100 acres of the site "has high, undisturbed dunes that extend for several thousand feet." We note that you reiterate that "these dunes...are likely to contain undisturbed burials" despite the fact that Sections 4.1 and 4.2 of the Draft EIS cited a subsurface archaeological survey was conducted and the results would indicate that the likelihood of additional inadvertent finds is low.

Comment: *"Ironically, the one supposedly "relatively intact lithified sand dune" that is proposed for preservation has actually been extensively sand mined and refilled with other sand deposits to shore up dozens of redeposited burials. A review of MLI Burial Commission minutes between 2003 and 2006 provides blow by blow descriptions of the extensive disturbance and attempted restoration of various sections of this 28 acre dune. Of course it should be preserved, along with the 60 individual burials, but it should not be held up as being in superior condition than several undisturbed dunes outside of the sand mining area on the same parcel."*

Response: As noted elsewhere in our responses to your letter, we agree that the northwestern portion of the site has been heavily disturbed by sand mining. Please note that "relatively intact" is not synonymous with "pristine". As described in Section 3.2 of the Final EIS:

Geolabs, Inc. (Geolabs) was retained by A&B Properties, Inc. to conduct an on-ground field reconnaissance survey and geological mapping of in-situ dune features at the property (See Appendix B). In conducting their survey, Geolabs considered the following in determining dune features: geomorphology and location, as well as bedding planes and grain size. These standards, along with their professional experience, knowledge and judgment as trained professionals in the fields of geology and geotechnical engineering, were used to assess the

condition of the dunes. During the course of the field reconnaissance, Geolabs did not find natural sand dunes that could be considered to be pristine geological features [emphasis added]. The majority of the dunes within the project limits have essentially been obliterated by human activities...

In the section of the property south of East Waiko Road, the former dune lands were flattened and tilled for the cultivation of sugar cane.

In the section of the property north of East Waiko Road, are some small clusters of dunes particularly in the north central area. However, these dune clusters have been degraded by longstanding ranching activities and other agricultural uses. **The northwestern portion of the site has been heavily disturbed by sand mining** [emphasis added], stockpiling and agricultural use. **However, this area also includes the larger and comparatively more representative examples of the remaining dune structures within the property** [emphasis added]. Figure 3-1 contains a mapping of natural lithified sand dunes remaining on the property...

Comment: "
7.2 Cumulative and Secondary Impacts

The DEIS fails to address cumulative and secondary impacts of its water source options. Sourcing up to 2 mgd of surface water from Na Wai 'Eha could have impacts to cultural practices, local agriculture and native stream life. Sourcing the water from Iao, Kahului or Waikapu aquifers could have impacts on sustainable yield and other users in those aquifers."

Response: Section 4.8.1 of the Draft EIS discusses the potential water sources for the project. The proposed Wai'ale WTF would not involve the additional diversion of water from the Na Wai 'Eha streams. Since there will be no additional diversion of water, there would be no additional adverse impacts over the status quo. The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent, or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Waituku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available needs to be developed. The need for these improvements is discussed in the Maui Water Use and Development Plan and also the *Maui Island Plan*. Any new wells drilled in these aquifers would have to be permitted by the CWRM and thus will be within the allowable sustainable yields of the respective aquifers.

In response to your comments, the following paragraphs will be added in Section 7.5 of the Final EIS:

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Waituku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, need to be developed. The need for these improvements is discussed in the WUDP and also the Maui Island Plan.

The Maui Island Plan (MIP) is the guiding document for future growth on the island of Maui to the year 2030. Resident population estimates in the Draft MIP reflect 135,838 residents in year 2010, 157,390 residents in year 2020 and 176,687 residents in year 2030. The plan has designated the Wai'ale area for future residential growth, and is the largest component of future growth in the Central Maui region. The Draft MIP notes that the development of additional water sources is crucial for the Central Maui water system. The plan includes a long range implementation plan to address capital improvements, including water source development and related infrastructure.

Comment: "*The DEIS fails to address cumulative and secondary impacts of sending an additional 1 mgd of sewage to Kahului WWTP or how that will comply with HAR 11-54-1.1 which defines an anti-degradation policy for state waters. Equally, the impacts of an onsite sewage system[sic] to a shall water table and a location probably within the UIC is not discussed."*

Response: Based on the comments received from the County Department of Environmental Management, concerning the limited capacity of the Kahului WWRF, the Applicant has planned for an on-site treatment facility. As previously noted, a study would need to be conducted to determine what improvements would be needed for any expansion of the existing Kahului WWRF. Given that the Kahului WWRF is a County facility, it would presumptuous for us to assume that we know their plant and their projected demands well enough to make any such determination. We would assume that an appropriate environmental review would subsequently be conducted by the County on those planned improvements. As noted previously, the applicant also met with the Director of the DEM. The Director indicated that any regional sewage treatment plant solution should be properly advanced and pursued by the DEM.

In addition, the following paragraph will be added after the last paragraph in Section 4.8.2 of the Final EIS:

As a back-up to disposal of treated effluent via project irrigation, injection wells will be installed. The boundary between non-drinking water aquifers and underground sources of drinking water is generally referred to as the "UIC Line". Restrictions on injection wells differ, depending on whether the area is inland (mauka) or seaward (makai) of the UIC line. The UIC Map for Maui shows that

Ms. Lucienne de Naie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 50 of 51

Wai'ale is located seaward of the UIC line. The effluent injection wells would be located more than ¼ mile from any existing potable water wells, as required by the State Department of Health. Therefore, the injection wells are not expected to adversely impact any existing potable water wells.

Comment: "The DEIS fails to address icumulative[sic] and secondary impacts to schools, especially high schools. In the County's draft Directed Growth Strategy document from 2007, the Wai'ale project was estimated to have 3560 units on 524 acres and generate 752 elementary age students, 363 intermediate students and 428 high school students. The DEIS does not include any discussion of respective numbers of students except to estimate that only 57 new to Maui students will be associated with the build out of the project. No mitigations are discussed for the high school students generated by the project."

Response: As noted in Section 4.10.1 of the Draft EIS:

To accommodate the educational needs of children living in Wai'ale and the surrounding neighborhoods, it is estimated that a middle school will be needed within Wai'ale. A&B Properties, Inc. has been coordinating with the DOE regarding a proposed site for the middle school within the Wai'ale conceptual master plan (See Figure O-1). The final configuration and design of the proposed middle school will need to be confirmed by the DOE.

The DOE has established a school impact fee district for Central Maui and Wai'ale would be subject to such school impact fees.

You may be interested to know that during the Draft EIS public review period, the State Department of Education did not cite cumulative and secondary impacts to schools, especially high schools. The mitigation for any impacts from high school students generated by the proposed project would be addressed via to the aforementioned school impact fees.

Comment: "The DEIS fails to address icumulative[sic] and secondary impacts to cultural resources if remaining sand dunes are allowed to be separated from their cultural context and destroyed. impacts to traditional and customary Hawaiian rights are not adequately discussed and considered in the project's planning to be in compliance with Act 50 during the EIS process."

Response: Per your comments, Section 7.2 of the Final EIS will be revised to read:

During the Draft EIS public review period, the Sierra Club Maui Group wrote: "The DEIS fails to address cumulative[sic] and secondary impacts to cultural resources if remaining sand dunes are allowed to be separated from their cultural context and destroyed. impacts to traditional and customary Hawaiian rights are not adequately discussed and considered in the project's planning to be in compliance with Act 50 during the EIS process." Wai'ale will make lasting contributions to preserving

Ms. Lucienne de Naie
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 51 of 51

the archaeological and cultural resources through the implementation of a series of short-term and long-term preservation measures, as described in Section 4.1.

Comment: "CONCLUSION:

The State Land Use Commission should not find this document acceptable until it provides considerable more information regarding a wide variety of topics referred to in these comments. Of especial concern is the lack of meaningful discussion regarding alternatives to the action as proposed."

Response: We acknowledge your comment but would like to note that the Land Use Commission will not be deciding on the acceptance of the EIS based on the Draft EIS but on the Final EIS. As part of the normal EIS process, the Final EIS will include your comments, our responses and any revisions to the Draft EIS as a result of the comments and responses. Per your comments, many revisions are being proposed to Section 6.0 of the Final EIS.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

Encl: Solid Waste Management Plan

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

**WAI'ALE COMMUNITY
SOLID WASTE MANAGEMENT PLAN**

Wai'ale Community Description

The Wai'ale property is located in the Kahului Isthmus Region of the island of Maui, Hawaii'i. According to the United States Geological Survey (USGS), Wailuku, Hawaii'i, 7.5-minute topographic quadrangle map, a small portion of the subject property is located in the Wailuku district and the remaining subject property is located in the Waikapū district. The property comprises approximately 545 acres of land covering all or a portion of five tax map key (TMK) parcels.

- TMK (2) 3-8-005: 023 (portion)/Alexander & Baldwin, Inc.
- TMK (2) 3-8-005: 037/Alexander & Baldwin, Inc.
- TMK (2) 3-8-007: 071/Alexander & Baldwin, Inc.
- TMK (2) 3-8-007: 101 (portion)/Alexander & Baldwin, Inc.
- TMK (2) 3-8-007: 104/Alexander & Baldwin, Inc.

Kuihelani Highway borders the property on the east. East Waiko Road intersects Kuihelani Highway and divides the property into two sections, one section lies north of East Waiko Road comprised of approximately 422 acres and the other south of East Waiko Road comprised of approximately 123 acres. Current access to the property is off of East Waiko Road and Kuihelani Highway.

Wai'ale is envisioned to be a community for residents to live, work, learn and play. Residential communities, including single-family homes and multi-family dwellings, will be connected to village mixed-use areas supported with commercial, retail, office, civic and other public facilities through a system of pedestrian/bicycle paths and greenways. Approximately 2,550 residential units are proposed for Wai'ale, including approximately 300 residential units within the 40 acres to be contributed to the County of Maui.

The Environmental Impact Statement (EIS) process is anticipated to be completed in 2011. State Land Use Commission approval of the subject land use petition (Docket No. A10-789) is anticipated in late 2012, followed by County approvals (Community Plan Amendment, Project District Phases I, II, and III through about 2014). The construction of Wai'ale is expected to commence after Project District Phase II and III applications are approved. Full urban development of the property is anticipated to be substantially completed within 10 years.

Current Solid Waste Generated

Currently, significant quantities of solid waste are not being generated on the subject property from the current uses. As previously noted, the property is divided into two sections by East Waiko Road. The section north of East Waiko Road is comprised of approximately 422 acres and the section south of East Waiko Road is comprised of approximately 123 acres.

The section located north of East Waiko Road is currently leased to several tenants. Approximately 162 acres is leased to Brendan Balhazar, Gary Vares, and Manuel Lopes for cattle and horse grazing. Ameron International Corporation and T.J. Gomes occupy approximately 17 acres of the subject property for sand stockpiling. Hawaiian Cement previously occupied a portion of this land for sand mining operations, however, sand mining operations are no longer conducted at the subject property. Nobriga's Ranch, Inc. occupies approximately five acres for a cattle feed lot. Tom's Backhoe lease area occupies two acres and is used as a storage yard for construction and asphalt paving equipment. A portion of the property was previously used as a turf sod farm.

The section located south of East Waiko Road is currently fallow sugar cane fields, with an orchid farm and a former scrap yard. HC&S used most of this land for sugar cane cultivation until production ceased in about 2008. Melia Orchards Maui leases approximately 10 acres and specializes in orchid flowers used for hotels and restaurants. A portion of the property was formerly leased to a scrap metal company and some materials from the scrap yard still remain onsite. Additionally, portions of the property were observed with unauthorized dumping of appliances, furniture, automotive parts, and other materials.

Current Collection Services

The County provides residential curbside refuse pick up and disposal services in six major districts, including Central Maui (which includes Wailuku, Kahului and South Maui). Curbside refuse is picked up on Wednesdays on West and East Waiko Road manually. In Maui Lani, automated refuse pick up is provided on Anamuli Street on Mondays and Thursdays.

Construction Solid Waste Management

The construction of Wai'ale has the potential to impact the County's solid waste disposal operations. As required by the County, this solid waste management plan addresses waste generated by construction during build out of the Wai'ale project. The review of this solid waste management plan will be coordinated with the County's Department of Environmental Management Solid Waste Division for the disposal of on-site and construction-related waste material. A&B Properties, Inc.,

and/or its assigns, will work with contractors to minimize the amount of solid waste generated during the construction.

Coordination with the County and its Central Maui Landfill - Refuse & Recycling Center for the disposal/recycling of construction debris may be required. Disposal would be in accordance with appropriate regulations and standards.

Waste from site preparation and construction will be stored, handled, and properly disposed of to divert the maximum amount of waste material produced by the development of Wai'ale away from the County's landfill.

Waste generated by site preparation will primarily consist of vegetation, rocks, and debris from clearing, grubbing, and grading. As much as practical, soil and rocks displaced from grading and clearing will be used as fill within the property. This will include proposed open space and park areas.

Green waste from grubbing will either be chipped into mulch for use on the property or will be taken to green waste recycling centers. Currently there are three green waste recycling centers on Maui: Maui Eko Systems, Inc., Maui Earth Compost & Soil Mixes, and Campaign Recycle Maui. All of these are located in Central Maui.

Phasing of the project will minimize the amount of green waste generated at any one time. In addition, if large amounts of green waste are expected from an individual phase, delivery will be coordinated with the green waste recycling centers to ensure that there is adequate capacity among the centers to accept the anticipated amount of green waste.

Construction waste will consist of waste lumber, concrete, and other building materials. Very little demolition material is anticipated, as the site is primarily vacant lands. The project will implement a waste management and recycling program to maintain clean construction sites, maximize material recycling, and minimize disposal truck traffic impacts. The recycling program will incorporate the "Three Rs" of effective construction waste management:

- Reduce: by preventing waste before it happens through efficient design
- Reuse: by using materials removed during demolition (such as rocks and concrete) on site
- Recycling: by separating recyclable materials from non-recyclable materials and supplying these recyclable materials to a recycler for use as new products

During construction, a recycling plan will be implemented and, as much as possible, construction and demolition waste will be recycled. Containers will be provided for separate types of construction waste, which will then be separated

from municipal solid waste. Maui Scrap Metal accepts cardboard and metal for recycling. Maui Earth Compost & Soil Mixes accepts drywall. Maui Eko Systems, Inc., and Campaign Recycle Maui accept clean, untreated lumber. Remaining types of wastes may be recycled if a local recycling vendor is available. Otherwise, non-recyclable construction wastes will be disposed in the construction and demolition landfill near Mā'alaea.

Operational Solid Waste Management

As required by the County, this solid waste management plan addresses waste generated by construction during build out of the Wai'ale project. However, recycling will be encouraged after construction, and architects for individual businesses will be encouraged to provide space for individual dumpsters to separate recyclable materials, such as cardboard, plastic, aluminum and glass beverage containers from municipal solid waste.

ACM Consultants, Inc. (ACM) prepared an in-depth market study and economic and fiscal impact assessment for Wai'ale. Based on demographic statistics for Central Maui, ACM estimated that Wai'ale will have approximately 6,767 residents once the project is built out and in full operation. ACM anticipated that 95 percent of Wai'ale residents would be already living on Maui, with the remaining 5 percent, or about 338 residents, being in-migrant residents.

According to the United States Environmental Protection Agency (EPA), in 2006, individuals recycled 1.5 pounds of the individual waste generation rate of 4.6 pounds per day, for a net waste generation amount of 3.1 pounds per day. The EPA's figures include municipal solid waste (MSW) from homes, institutions such as schools and prisons, commercial sources such as restaurants and small businesses, and occasional industrial sources. MSW does not include wastes of other types or from other sources, including automobile bodies, municipal sludges, combustion ash, and industrial process wastes that might also be disposed in municipal waste landfills or combustion units. If all of future residents of the Wai'ale project were from outside of Maui, then the solid waste generated by the project is estimated to average approximately 23,715 pounds per day. However, since ACM estimates that 95 percent of Wai'ale's residents would already be living on Maui, then the estimated 338 residents will generate a total of approximately 1,048 pounds of solid waste per day.

In the *Public Facilities Assessment Update County of Maui (2007)*, R.M. Towill Corporation projected that the Central Maui Landfill (CML) would have adequate capacity to accommodate commercial and residential waste through the year 2025. This projection was arrived at by multiplying the County's de facto population projections by an estimate of pounds per person per day of waste generated and assumes that solid waste generated by industrial and commercial growth will be captured by a corresponding trend in projected population growth. The County's

Integrated Solid Waste Management Plan (ISWMP) (February 2009) indicates that the majority of the County's waste goes to the Central Maui Landfill which is projected to reach capacity in the year 2026. However, as proposed under the ISWMP, through various initiatives, including the increased diversion of waste materials through recycling and composting, the landfill capacity could be extended to the year 2042.

Future Collection Services

A&B Properties, Inc., or its assigns, will need to apply for new service for the single-family residential units by opening a residential solid waste account with the County's Department of Environmental Management. Rules for refuse collection are provided in the Maui County Code, Chapter 15-108.

It is anticipated that in the Village Mixed-Use, multi-family residential, commercial, industrial and institutional areas, private refuse collection services will be relied upon.

O:\0623\2399.03 Waiale Entitlements\Solid Waste Management Plan\Solid Waste Management Plan FINAL 09-19-2011.doc



Mr. Grant Chun, Vice President
A&B Properties, Inc.
P.O. Box 156
Kahului, Hawaii 96732

July 20, 2011

SUBJECT: Comments to Waiale Draft Environmental Impact Statement

Dear Mr. Chun,

The Waikapū Community Association appreciates this opportunity to provide comments on the proposed Waiale community.

Recognizing that the community of Waikapū finds itself at a point in its history when many factors—economic, political, societal, and environmental—are poised to impact the small town character of this village and potentially irrevocably change its unique and historically significant aspects already lost in so many other places in Hawaii, the Waikapū Community Association has adopted a Statement of Values to articulate its expectations of proponents of development projects within the Waikapū region.

The Statement of Values is included with this letter, so that you may recognize the expectations this community has of developers to respect and protect the Waikapū that still is alive and well, and firmly rooted in its valuable and irreplaceable history. The Statement of Values also expressed the community's strong desire to see principles of smart and sustainable growth applied in harmony with a respect for its treasured past.

The Waikapū Community Association is encouraged to see evidence that some of the community's values are shared by the design team responsible for the Conceptual Master Plan for Waiale. There are many opportunities, still, to incorporate even more of those values in the plans for Waiale and to make the end product an addition to the region that the Waikapū community can support.

The following comments address the concerns expressed by members of the Waikapū community to the Waikapū Community Association in response to a request for

Waikapū Community Association
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comments. The Waikapū Community Association is in full agreement with these comments and urges you to adjust the plans for the Wai'ale community accordingly.

1. The Waikapū community's great concern is the prospect of losing its visual identity as a separate, recognizable small town entity in Central Maui. The Urban Growth Boundaries as proposed for the Maui Island Plan by the General Plan Advisory Committee are viewed as critical to preserving the separation between Waikapū and its Wailuku and Kahului neighbor cities, as they create an open space buffer mauka to makai to the north of Waikapū. The Wai'ale plan seeks to interrupt that open space buffer by inserting business/light industrial uses and a sizeable allocation for Courty housing in the north-west corner of the proposed community. The Waikapū Community Association strongly urges the restoration of those lands to open space use through inclusion in the proposed Regional Park. The proposed Community Center should be move south, preferably across the street in a south-west location, to provide for a contiguous area for open space park use.

2. The proposed protection of the open space buffer will also serve to make the development gain more relevance to the Hawaiian land use concept of Ahupua'a, providing a mauka to makai orientation of the community, more appropriately lining itself up with the existing Waikapū community. As proposed now, it reflects the questionable practice of allowing suburban sprawl to radiate out from a central urban core, in this case Kahului's. Such suburban sprawl has obliterated many precious small communities in the past; it is one of the Draft Maui Island Plan's stated policy objectives to protect such small communities where they still exist on Maui. Waikapū is just such a community worthy of protecting as a distinct small community with a strong identity.

3. The Ahupua'a land use concept of mauka to makai orientation should be used to reorient the Village Mixed Use focus of the southern parts of the proposed community towards neighboring Waikapū. This would provide increased community connectivity for pedestrian and bicycle traffic between Wai'ale and Waikapū; the Greenway Path should be redesigned to make connections into existing Waikapū.

4. Waikapu Stream is a most obvious and defining natural landform and resource that should be protected and integrated into the surrounding Wai'ale and Waikapū neighborhoods, providing a strong connection between the natural and built environments. Therefore, the 'Park' designation that is proposed must result in a preserved resource with public access for the use of the residents' enjoyment and health benefits and not just in a neglected buffer space in response to the flood zone. In the report's mention of existing recreational facilities that affect this project there is the recognition that there are no significant recreational facilities in Waikapū yet none, other than for a small neighborhood park, is being proposed for the south end of this project.

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5. The Draft Environmental Impact Statement does not include consideration of the impact on traffic flow through and around this proposed development from the Wai'ale Road Extension being planned by the County of Maui Department of Public Works. This extension should reasonably be expected to be completed well before any of the Wai'ale community is constructed, and should be expected to change regional traffic patterns considerably. While there is brief mention of this project, and the associated East Waiko Road Improvement project, in the Traffic Impact Analysis Report, the Draft EIS does not include any analysis of its impact. The Waikapū Community Association considers this notable deficiency in the document.

6. The Draft EIS provides little clarity as to the actual source of the required water supply for this development. Although the document provides discussion of potential sources that may be available, there are insufficient assurances that sufficient water supply will be developed. The Waikapū Community Association strongly urges that such assurances be required before the proposed applicant action be allowed to proceed.

7. A number of community members commented on their observation of native pue'o in the region proposed for the Wai'ale community. The report makes no mention of this bird, important in Hawaiian culture, in its inventory of fauna. The Waikapū Community Association is concerned that this conflict between community members' observations and the reports implied claim of absence will result in failure to take appropriate measures for habitat protection and preservation.

The Waikapū Community Association appreciates this opportunity to provide comments to the Draft Environmental Impact Statement. The members of this community look forward to their concerns being addressed in the Final EIS.

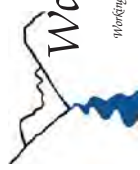
Respectfully,



Jacob Verkerke
President

Cc: Mr. Dan Davidson, State of Hawaii Land Use Commission
Mr. Michael Shibata, PBR Hawaii & Associates, Inc. ✓

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Waikapu Community Association

P.O. Box 3046, Wailuku, Hawaii 96793
Working together to enhance the quality of life for the residents of Waikapu through the preservation and appreciation of its history, natural environment, and values of its rural tradition.

STATEMENT OF VALUES

- Growth and development within the Waikapu boundaries (as defined by WCA) should respect the principals and values of traditional Maui rural towns and sustainable communities that enhance the quality of life for the residents. (See attached Statement of Values supplement).
- Maintain a physical and visual separation of communities by establishing a 'Green Belt' open space buffer zone around Waikapu that physically identifies Waikapu as a separate and unique community.
- Encourage the preservation of the Agricultural Lands Important to the State of Hawai'i (ALISH) - designated prime agricultural lands of Waikapu and those that surround Waikapu for agricultural production and activities.
- Preserve and enhance the ecological and natural physical systems (and their functions) within the Waikapu ahupua'a and those that surround and impact Waikapu. The integrity of these systems should not be limited by property lines and land ownership. (Work together with other communities and associations that are not within the WCA-defined boundaries but are still part of the Waikapu ahupua'a).
- Preserve the natural integrity of the Waikapu Stream as a community and Island natural resource and recognize its role as a central identity feature that binds Waikapu (the 'Spine' of the community).
- Preserve the public view corridors of Waikapu Valley, West Maui Mountains, the ocean, the plains of Central Maui, and Haleakala from public highways (Waikō Road, Wai'ale Road, and Honoapi'iiani Highway). Establish generous building setbacks and building height limits along these view corridors.
- Identify, evaluate and preserve historic and cultural landmarks such as the Waikapu Ahupua'a, Waikapu Cemetery, Waikapu Bridge on Honoapi'iiani Highway, architecture, archaeological sites, kuleana lands featuring ancient lo'i kalo and auwai irrigation systems, Kipapa style rock walls, and the mature and significant trees. Record and archive an oral historic account of Waikapu.
- Promote community participation and cooperation to fulfill the intent of the Statement of Values.

SUPPLEMENTAL STATEMENTS

- Discourage 'bedroom communities' and gated neighborhoods.
- Establish an identifiable public town center to serve as a gathering place and as the 'heart' of Waikapu (i.e. town square, commons, community center, plaza, community park.)
- Encourage mixed use development within a defined commercial/business core area and keeping in character with traditional rural towns of Hawai'i.
- Consider the establishment of zones for easily accessed smaller 'mom and pop' neighborhood corner grocery stores.
- Encourage 'green' and 'sustainable' practices such as recycling, reduction of carbon emissions, energy and water use efficiency, etc.
- Create a tiered and separated transportation system comprised of varying modes of transportation e.g. roadways, bikeways, walkways, pathways and trails as alternatives to the reliance on the use of cars. Layout patterns should consider ease of accessibility throughout the community.
- Create pedestrian-friendly neighborhood roadways with vehicular traffic calming designs and measures.
- Encourage the planning and installation of public infrastructural improvements as soon as their demand is recognized and to avoid any negative impact on the community due to their delay.
- Provide a variety of recreational facilities and opportunities for all ages to promote good physical health and preventive health care.
- Aspire to the 'Garden Town' concept with more vegetated open space and the planting of trees in all the common areas.



October 7, 2011

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President

Mr. Jacob Verkerke, President
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Wailuku, Hawaii 96793

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SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Verkerke,

Thank you for your letter dated July 20, 2011 addressed to Mr. Grant Chun of A&B Properties, Inc., regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

1. We concur that Waikapu currently has a "visual identity as a separate, recognizable small town entity in Central Maui." However, due to the horizontal distance (approximately 2,000 feet), the difference in elevation, existing development (Waikapu Gardens Subdivision), and the proposed Waikapu Country Town, the Wai'ale project will likely not be visible from either Waikapu or Honoapi'iiani Highway. The Wai'ale master plan has sought to incorporate the open space buffer between Maui Lani and Wai'ale as articulated in the *Draft Maui Island Plan*. Within the Wai'ale master plan, areas designated for park space and planned cultural preserves seek to provide that open space buffer. However, the rationale for designating a portion of lands within the northern portion of Wai'ale for planned County Housing is in part based on County Ordinance No. 3559. The County of Maui via Ordinance No. 3559 (Maui Business Park Phase II-Change in Zoning) required in part that A&B dedicate 50 acres to the County for affordable housing (40 acres), community center (7 acres) and park (3 acres). The specific location of these lands was described as being "...at the approximate location of the terminus of Kamehameha Avenue, near the new Maui Lani Park and Pomaikai Elementary School".
2. We also concur that Waikapu is "a community worthy of protecting as a distinct small community with a strong identity", and as noted above, is separate and distinct from the planned Wai'ale project.
3. In keeping with the ahupua'a land use concept, the project includes a linear buffer along Waikapu Stream. Ideally other landowners between Wai'ale and Waikapu would provide a similar greenway to allow for "community connectivity for pedestrian and bicycle traffic between Wai'ale and Waikapu".

4. We concur that "Waikapū Stream is a most obvious and defining natural landmark and resource that should be protected and integrated into the surrounding Wai'ale and Waikapū neighborhoods, providing a strong connection between the natural and built environments." We are assuming the small neighborhood park you are referring to in the south end of the Wai'ale project is the proposed 1.5 acre park in the center of the VMX area, however, it should be noted that there is a large, 14-acre park proposed at the southernmost edge of the project which would adjoin 8 acres of greenway along Waikapū Stream. Also proposed is approximately 3.5 acres of open space along Kuihelani Highway. We believe this provides a significant amount of open space within the portion of the project south of East Waiko Road.

5. The Traffic Impact Analysis Report (TIAR) accounted for and assigned traffic to the Wai'ale Road Extension, as is shown in Figures 6c, 8e, and 9e of the TIAR. The Wai'ale Road Extension forms the northbound approach to the intersection of East Waiko Road and Wai'ale Road.

6. Section 4.8.1 of the Draft EIS identifies and discusses potential water sources for the project. Please understand that State of Hawai'i environmental law requires preparation of an environmental impact statement at the earliest practical time. This is often prior to the attainment of all necessary governmental land use approvals. As a result, it is recognized that certain issues will require further discussion, review and approvals by various governmental agencies in order to proceed and that aspects of a proposed project would be subject to modification through the subsequent governmental permitting and public review processes. The environmental review process acknowledges this circumstance and includes a section within the EIS to discuss such unresolved issues. For this reason, water supply has been listed and discussed as an unresolved issue in Section 7.5 of the Draft EIS. Additionally, Maui County Ordinance No. 3502, relating to water availability, insures that all new projects have a reliable source of water prior to development. The Ordinance provides that verification of a long term reliable supply of water be determined prior to any subdivision approval.

Per your comments, the following paragraphs will be added to Section 3.5 of the Final EIS:

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Kō'olau Aquifer sector which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, need to be developed. The need for these improvements is discussed in the WUDP and also the Maui Island Plan.

The Maui Island Plan (MIP) is the guiding document for future growth on the island of Maui to the year 2030. Resident population estimates in the Draft MIP reflect 135,838 residents in year 2010, 157,390 residents in year 2020 and 176,887 residents in year 2030. The plan has designated the Wai'ale area for future residential growth, and is the largest component of future growth in the Central Maui region. The Draft MIP notes that the development of additional water sources is crucial for the Central Maui water system. The plan includes a long range implementation plan to address capital improvements, including water source development and related infrastructure.

7. Per your comments, the following paragraph will be added to Section 3.8 of the Final EIS:

During the Draft EIS public review period, Maui Tomorrow Foundation wrote: "Although the fauna survey does not reflect the fact, pueo (native Hawaiian owl) are often seen on the Wai'ale project site by local residents, especially in the gulch areas. Nene are also seen and have established a presence at nearby Wai'ale reservoir." As noted in the Flora and Fauna Study (pg. 12), Appendix D of the Draft EIS, no Hawaiian geese were observed in the kiawe forest habitat found at the property. The Waikapū Community Association also wrote: "A number of community members commented on their observation of native pueo in the region proposed for the Wai'ale community." Pueo frequent middle elevation pastures and scrub forests where human activity is minimal. Per biological consultant Robert Hobdy, he has not seen a pueo in some 40 years in Maui's central valley. The introduced barn owl (Tyto alba) is widespread in lower elevations, closer to human activities and structures. It is occasionally seen in the project area. It roosts in the forest corridor along Waikapū Stream during the day and does not fly unless disturbed. It becomes active during the evening when it is often seen just before dark. None of the commenters state that they personally have sighted the pueo, so it is possible that those that claim to have seen pueo in the area may have actually sighted the more common larger barn owl, which actually out-competes the pueo for food and is a predator on its young where their habitats overlap. Barn owls have no federal endangered species protections and no native Hawaiian cultural connections.

Mr. Jacob Verkerke
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 4 of 4

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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Community Association.doc

COMMENTS FOR DEIS FOR THE WAI'ALE PROJECT JULY 22, 2011

I was quite surprised to see that this DEIS was completed. I was asked to interview for the CIA (Cultural Impact Assessment). I went onsite with the interviewer K.T. au twice and once with Mr. Forcajio. The purpose was to show them burial sites and places of concern that I have about this project for my interview. The interviewer is well aware of my familiarity with this area and the burials here. When I last saw him I told him I needed better identification of some of the burial sites, especially the ones to be moved for Kamehameha Highway extension. I also told him I wanted to finish my interview and did not have much more to say.

I regularly walk this property and practice my kuleana to malama the iwi kupuna in the sand dunes. **Your CIA is deficient** in not including my cultural practice on this land. I am told that one of the highest kuleana is to care for the ancestors, the iwi kupuna. This I do gratefully for the knowledge that I have gained in their service is precious to my life. I am a trained practitioner of traditional and customary cultural practices associated with honoring and bringing peace to the land.

I was born a child of the sand dunes in Wailuku and have found great inner peace and strength as a result of doing my practice of honoring the ancestors here in the sand dunes of this project.

Will you recognize me as having a cultural practice on this land. You did not identify Hokuau Peigrino who also informed you that he is a cultural practitioner and has done extensive work on this land. Your CIA is inaccurate and incomplete. My concern for the treatment of the iwi kupuna and the aina. As Hokuau Peigrino emphasized to you the remaining sand dunes must be preserved. To continue with a plan for mixed use or multifamily, even single family use would be hewa with the information you already have about the probability of disturbing iwi as 100%. Will you impact my practice yes. Let's be honest your plan puts the dunes and the iwi in danger. For instance in the region of preservation 3 and 4 there are sand dunes still covered with vegetation. Do not put the iwi and the sand dunes in danger of being harmed. Can you give me a reason to justify plans for mixed use and multifamily use in this area?

I will continue with my comments at a later date, my understanding is that you will be considering all comments until August 1, 2011.

Clare Apana



October 7, 2011

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Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 3

"One of our interviewees accesses the portion of the property to the north of Waiko Road to conduct contemporary cultural practices, honoring the 'iwi kupuna for which she feels a sense of responsibility. Her contemporary or 'neo-traditional' cultural practices involve Hawaiian cultural practices as well as teachings she has learned from a variety of spiritual faiths. She has been walking through the areas of the project still containing remnants of the sand dunes for a few years now and feels something must be done to honor these people buried in the area."

Comments: *"I am told that one of the highest kuleana is to care for the ancestors, the iwi kupuna. This I do gratefully for the knowledge that I have gained in their service is precious to my life."*

I am a trained practitioner of traditional and customary cultural practices associated with honoring and bringing peace to the land.

I was born a child of the sand dunes in Wailuku and have found great inner peace and strength as a result of doing my practice of honoring the ancestors here in the sand dunes of this project.

Will you recognize me as having a cultural practice on this land."

Response: We acknowledge your comments but we are unable to make any determination concerning your qualifications as a trained cultural practitioner.

Comments: *"You did not identify Hokuau Peligrino who also informed you that he is a cultural practitioner and has done extensive work on this land. Your CIA is inaccurate and incomplete. My concern for the treatment of the iwi kupuna and the aina. As Hokuau Peligrino emphasized to you the remaining sand dunes must be preserved. To continue with a plan for mixed use or multifamily, even single family use would be hewa with the information you already have about the probability of disturbing iwi as 100%. Will you impact my practice yes. Let's be honest your plan plus the dunes and the iwi in danger. For instance in the region of preservation 3 and 4 there are sand dunes still covered with vegetation. Do not put the iwi and the sand dunes in danger of being harmed. Can you give me a reason to justify plans for mixed use and multifamily use in this area?"*

Response: With regard to your comment concerning Hokuau Peligrino and his cultural ties to the area, please note that Mr. Peligrino was also asked by Hana Pono to be interviewed for the CIA. Page 32 of the CIA specifically indicates that Mr. Peligrino declined to be digitally recorded for his interview and instead referenced a previous comment letter to A&B Properties, Inc. We apologize for any misunderstanding concerning the inclusion of his interview in the CIA. We understand that Hana Pono has since communicated with Mr. Peligrino regarding this matter

In response to comments from Mr. Peligrino and others, a Geological Reconnaissance Survey of the project site was undertaken by Geolabs, Inc. (Appendix B in the Draft EIS). This survey was to identify the remaining lithified sand dunes within the project. As noted in the survey report, the majority of the dunes within the project limits have essentially been obliterated by human activities, including sand mining, ranching and other

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Ms. Apana,

Thank you for your letter dated July 22, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

Comments: *"I was quite surprised to see that this DEIS was completed. I was asked to interview for the CIA (Cultural Impact Assessment). I went onsite with the interviewer K.Taua twice and once with Mr. Forcajio. The purpose was to show them burial sites and places of concern that I have about this project for my interview. The interviewer is well aware of my familiarity with this area and the burials here. When I last saw him I told him I needed better identification of some of the burial sites, especially the ones to be moved for Kamehameha Highway extension. I also told him I wanted to finish my interview and did not have much more to say."*

I regularly walk this property and practice my kuleana to malama the iwi kupuna in the sand dunes. Your CIA is deficient in not including my cultural practice on this land."

Response: As noted in your letter, you were interviewed for the cultural impact assessment (CIA) prepared by Hana Pono, LLC (Hana Pono) for the Wai'ale project. Appendix "A": Interview Transcripts (page 17 of the CIA) includes reference to two separate interviews conducted with you in January 2011 by Kumu Keli'i Tau'a and Kainoa Horcajo, representatives of Hana Pono. As noted therein, you declined to include your interview transcript as part of the CIA for the project, and per your request, the transcript of your interview was not included in the CIA. We apologize for any misunderstanding concerning the inclusion of your interview in the CIA prepared by Hana Pono. We understand that Hana Pono has communicated with you regarding this matter, and requested your confirmation to include your interview in the CIA. Since Hana Pono did not receive a response from you, the interview transcripts were not included in the CIA.

Additionally, please note the following reference in the CIA. On page 12 of the CIA, under the section entitled, "Current Uses, Practices & Resources of Project Area", the following is indicated:

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 3 of 3

agricultural uses. The survey notes that the larger and more representative example of these onsite dunes are slated for preservation within designated onsite cultural preserves. The survey report further indicates that better examples of lithified sand dunes on Maui can be found elsewhere.

Based on the extensive subsurface testing that was conducted as part of the archaeological inventory survey (AIS) and the approval of the AIS report by the State Historic Preservation Division (SHPD), there is adequate confidence that the areas being set aside for preservation are adequate.

As noted in Section 4.2 of the Final EIS, "A large percentage of the project sits on remnants of previously altered sand dunes. Due to the underlying sandy nature of much of the property there is the potential for discovering additional burials during earth-disturbance activities. As part of the past archaeological investigations numerous archaeological survey trenches were dug throughout the property, providing reasonable confidence ~~that~~ that the largest concentration of burials have been identified and will be preserved in the over 30 acres of planned cultural preserves. Should additional burials be inadvertently encountered during the construction activities, work will cease immediately in the immediate vicinity of the burial(s) and the burial(s) will be protected. The archaeological contractor shall immediately contact SHPD, which will assess the significance of the burial(s) and recommend appropriate mitigation measures, if necessary. The applicant acknowledges that burial preservation in place is preferable over relocation."

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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DEIS COMMENTS FOR WAI'ALE PROJECT to PBR CONSULTANTS AUGUST 1, 2011
Clare Apana
260 Halemeni Dr
Wailuku, Hawaii
Ph 8082144411 8082424189

I WOULD LIKE TO RECEIVE INFORMATION CONCERNING THIS PROJECT

Aloha e,

Please accept my addition to my original comments on Wai'ale project DEIS. I have been ill for the last week and apologize for this delay.

A&B proposes a project that they name Wai'ale located in the ahupua'a of Wailuku and Waikapu. About 2,245 residences in an area of 545 acres, along with business, multifamily and mixed use areas. They are seeking to change from Agricultural zoning to Urban.

The Land Use Commission (LUC) will be the accepting agency of the EIS. It has a duty to protect, promote and define the exercise of Native Hawaiian traditional and customary rights, practices and beliefs, and cultural resources. An analytical framework for State and County agencies to complete a proper analysis and for the LUC to adhere to, is set forth in *Ka Pa'akai O ka 'Aina vs Land Use Commission* by the Hawaii Supreme Court.

1. Identify and scope of valued cultural, historical or natural resources" in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area;
2. Extent to which those resources – including traditional and customary native Hawaiian rights- will be affected or impaired by the proposed action; and
3. Feasible action, if any, to be taken by the LUC to reasonably protect native Hawaiian rights if the are found to exist.

Cultural Impacts are not clearly identified in CIA or AIS. The project CIA fails to adequately identify cultural practices, cultural practitioners, adverse effects of the project to cultural practices, adverse effects of the proposed project upon myself, my practice upon this land, my cultural traditions. CIA is inadequate to identify impacts or offer suitable mitigation.

Incomplete AIS-No study of the ancient pohaku wall. In the past 2 years, I have asked project manager, Grant Chun, Hinano Rodrigues of SHPD who informed me that he would bring this to the archeologist Lisa Hazuka, various community experts and archeologists about the long line of pohaku across from the Ameron dump site and probably in the Cultural park on the project map. of the significance of this cultural feature. Project CIA interviewers were also taken to the pohaku site this year. No mention is made in any AIS or map of the project about them. This process has not been adequate to meet my concerns and manao for these lands.

Ethnographic study and Traditional Cultural place (TCP) study needs to be done. I spoke at length with project manager Grant Chun before CIA interviews were done about the need for this type of study and sent comments to the LUC. Results = CIA with no interview of myself or Hokuao Pellegrino were included. The CIA on page 17 incorrectly states that I declined to include my interview. I did not decline to include my comments. I did not get to complete my interview.

Please note that factual information concerning location of burials and where burial preservations would be located with GPS points was not available to allow me to make a better determination of the protection of the presently disturbed iwi and the potential for disturbance.

10.6.E. Process is necessary

This project area meets the TCP criteria and this should be studied in depth along with cultural effects to Kanaka Maoli. Native Hawaiian Organizations should be consulted, including the MLIBC and Malama Kakanilua and Maui Cultural Lands, Friends of Mokoula, Hui Pono O Ke Kanawai, OHA.

Future of Iwi Kupuna is threatened. I tried to find the remnant dunes features described by Geolabs on page 32 and 33 of the DEIS. I was not aware of any that had not been deformed or cut down by sand mining. In the area depicted by the dune map there are beautiful long (approximately 400-500 foot long dunes, with high dunes of over 200 feet. The cut dune and break in the dune appears to be from sand mining. These dunes look remarkably similar to the large burial preservation area #1. These are the dunes that

multifamily, Mixed Use and Single Family homes and roads may be built upon. This is an adverse cultural impact.

This impact can be avoided by keeping the entire dune area a preserve or green space. Do you plan to remove, grade down, or sand mine the dunes in the section? Expectation of finding iwi has the highest probability in the higher elevation of burials reported by project archeologist Dega.

Do you plan to change the contours of any of the sand dunes? Which ones and how? I would like to walk them with a representative from your company and suggest MLIBC be invited also to be able to know which dunes will be impacted by your plans.

At what elevation are the sand dunes in question in Geolabs report on page 33? No SANDMINING. MLIBC asked for cessation of sand mining in 2008.

These dunes are still considered cultural resources even if they may not be the most beautiful dunes in Maui. I find Geolabs comments insensitive to the high probability of desecrating more iwi kupuna on these less than perfect dunes. What is the most probable area of finding burials in this area? I think the remaining sand dunes don't you agree.

Loss of sand dunes will change forever and irreparably, cultural significance, landscape, and sense of place. Protecting the remaining sand dunes from buildings, roads and homes is important to practicing traditional Kanaka values.

This is an adverse cultural impact.

This impact can be avoided by keeping the entire dune area a preserve or green space. Do you plan to remove, grade down, or sand mine the dunes in the section? Expectation of highest probability in the higher elevation of burials reported by project archeologist Dega. Do you plan to alter any of the sand dunes? The height of the land before building? What and where will elevation changes be?

No SANDMINING. MLIBC asked for no more sand mining!

These dunes are still considered cultural resources even if they may not be the most beautiful dunes in Maui. I find Geolabs comments insensitive to the high probability of desecrating more iwi kupuna on these less than perfect dunes when they discuss putting roads and changing the shapes of the dunes.

One cultural practitioner's view of the iwi (bones of our ancestors).

By Edward Ayau
Ola na Iwi (The bones live).

Native Hawaiians believe that na iwi, the bones, are considered sacred after death because within them lies the mana, the spiritual essence of the person. The uhaue, or spirit, of the person is believed to hover near na iwi and thus, supreme care is taken to guard them. The burial of the deceased is considered a planting or cultivation that is followed by physical and spiritual growth; Hawaiians believe that they were nourished from foods fertilized by the bones of their ancestors. The na iwi are seen to release the mana of the deceased into the land, invigorating the land with the spiritual energy required to sustain it and those that rely upon it for survival.

It is the responsibility of the living to protect the family burial sites and to pass on the responsibility to the generations following in order to maintain family integrity. Central to the physical and spiritual well-being of Native Hawaiians is the inheritance of mana from their ancestral past. In turn, the ancestors care for and protect the living, affirming the interdependent relationship between them and their living descendants, whereby each cares for and protects the other.

The arrival of the colonists to Hawaii in 1779 led to significant social, economic and political changes. The population of Native Hawaiians dropped from 800,000 to 130,000. They were displaced from their traditional homelands and thus were unable to protect their ancestral burial sites. As assimilation efforts intensified, traditional practices and cultural values were gradually forgotten by most. Over the next century, looting, archaeological collection, erosion and construction resulted in the desecration and removal of thousands of ancestral Native Hawaiians. Many of the remains were taken to the United States and Europe to be studied and displayed in museums.

Native Hawaiians believe that the consequences of the separation of mana from the land are the economic, social, health, housing and political conditions they are currently dealing with. A fundamental means by which to heal both the living and those ancestral Hawaiians who await reunification with their homelands is to bring them together, to bury the na iwi and thus restore precious mana to the land and the families.

As I have visited and honored the kupuna on these lands, I agree with this statement by Mr. Ayau. Other people/practitioners, who I have brought to walk, pray, and offer respect in this area have gained personal insight. On one occasion, a woman of Kanaka decent was troubled with life situations. She shared with me that the "Kupuna gave her a message." On another occasion an artist was inspired by the land and the Kupuna. These experiences are evidence of a living relationship to this land and the iwi kupuna resting here. Protect them and their place of rest.

How will this project impact and protect the iwi not yet discovered?

The CIA suggests that preserving in place rather than moving is preferable. To be clear, preserving in place has meant leaving a burial in situ or recovering the iwi

kupuna, doing sand removal and scraping of lithified sand then replacing the iwi. This is preserving in place! This is unacceptable as a mitigation. There are the bones of my ancestors lying disturbed under blue tarps if they are still in place, covered by a wooden skip for years. Even after the preservation plan acceptance to preserve in place last year, nothing has been done to properly reinter them. Are the developers planning to alter the ground first, then preserve in place?

Mo'olelo

I stood at the site of a particular iwi kupuna who had no tarp left to shield him from the elements. Beneath the weather worn boards of the deteriorating bleached palette was the gleam of ivory smooth bones above the surface of the greyish brown sand. How long since this kupuna rested peacefully?

I brought the interviewer of the CIA here to pule. This kupuna would hold the mana for all the other who had been disturbed from their resting place to mine sand. In honor of those iwi kupuna, forgotten for years by those who should be, caring for them, we chanted. I wept and held onto the interviewer as we walked back to the car. I kept repeating these words "We can do better than this, we can do better than this, we can do better than this..."

What will you do immediately to take care of all of the disturbed iwi? The preserve areas must be given a real plan before you the developer has the gall to ask for any kind of land use change. Did you get what you needed from SHPD and MLJBC to proceed with your project?

Inconsistencies with the Burial Treatment Plan warrant readdressing the legality by which your archeologist presented this plan to the MLJBC.

- Burial Treatment Plan accepted by SHPD before MLJBC could study it?
- MLJBC to this day has not seen the real RTP with the additional (approximate) 120 pages in a document that was produced months after the acceptance of the RTP.
- The archeologist has not produced burial goods.
- Pertinent information about preservation areas 3 and 4 with juxtaposition to remaining dunes was not given to them.
- Area ali'i funerary goods were found is not defined
- NO plan for planting, preserving, paying for preserve areas
- No plan for reinterment of iwi kupuna

Are you leaving the iwi kupuna lying exposed and forgotten like garbage in the sand? You do have a preservation plan finally after years of discussion with the MLJBC. Can you properly reinter them? When? Who and how will you do this? Some Cultural Impacts and Effects perpetuated by development of project It seems A&B is attempting to build a large project in a place that now does not have water, on land that is not clearly belonging to them, disturbing ancient

palina (burial grounds) and degrading the natural sand dunes while making a preservation area and plan that does not even allow for proper burial and immediate reinterment of iwi, the true owners of this land, to remain in pitiful deteriorated conditions.

The cultural impacts upon this land started long ago. From Kamakau is this passage explaining this aspect.

...In the old days the inheritance of the family burial place, the caves and secret burial places of our ancestors was handed down from these to their descendants without the intrusion of a single stranger unless by consent of the descendant, so that whenever a death occurred the body was conveyed to its inheritance. These immovable barriers belonged to burial rights for all time. The rule of kings and chiefs and their land agents might change, but the burial rights of families survived on their lands. Here is one proof of the people's right to the land. With this right of the common people to the land is connected an inherent love of the land of one's birth inherited from one's ancestors, so that men do not wander from place to place but remain on the land of their ancestors. The Kana man does not wander to 'Ewa or Ko'olau, nor does the 'Ewa man change to Wai'alea. Whether rich or impoverished and barren, his love is unchanged; he cannot treat the land with contempt. However good the land on which he later lives he will wish to return to the land of his birth. The land so worthless in the eyes of a stranger is good to him. But today the habit of going away for an education or sailing abroad has undermined this old feeling for the land... (Kamakau 1961:376)

There is evidence of habitation in this area and of water (ie water worn stones in sediment and native testimony). What happened to the Olohe tribe who lived in the sand? What happened to the people of these lands? Your CIA says there are few Royal patents or LCA's. The AIS by Dega shows only one Royal Patent belonging originally to Cornwall. In the ruling of the case Boundaries of Pulehunui, many families are mentioned in connection to this area. Interestingly 10 families seemed to have lost their Royal Patents in this area for lack of identification of boundaries, yet just after this pulling of RPs, Cornwall is given a RP without a survey (Dega, AIS)? Have the boundaries been established to execute a true Royal Patent. Who is JD Marsh and why would he be able to give Cornwall a RP for the abpua'a of Waikapu? Did Claus Spreckles buy the end of a government lease to Cornwall? Do you have an official copy of the Royal patent to Cornwall?

A mitigation for disturbed Iwi Kupuna resting places and bones.

Can you locate families mentioned in this case and in the native testimony of this area? How do you show that you have made the effort to find the family of these iwi kupuna? Family names connected to RPs like Keaweamahi, Kapuhaha, Kamakau, Pipiui, Kuolala, Keakua, Mabooc, Kapuhaha, Kaa, Koa, Mahoe, Naansa, Poepoe, Namehaha, Kuibehoa, Makuakane...Are the Royal Patents in Waikapu to these families voided?

All of the sand dunes area can be changed to CONSERVATION not Urban.

This would afford this historical, culturally rich area and the burials greatest protection. Or leave this area in AG. URBAN = sand mining, uncontrolled grading =. Increased building density = Iwi Kupuna are in danger = I am not able to

practice my culture or traditional values.

I ask for these mitigations in addition to answers to any questions asked in the body of these comments. There is great chance to make the preservations and the remaining dunes a really fantastic cultural center. Please don't put a bike path in or around the preserve. Let's discuss its manao and kuleana first. I have been compiling names of interested community members and kupuna for the preservation areas

____ PRESERVE ALL REMAINING SAND DUNES-NO CONSTRUCTION, NO GRADING, NO SANDMINING

____ KEEP AGRICULTURE ZONING IN ALL SAND DUNE AND PRESERVATION AREAS OR AMEND TO CONSERVATION

____ SHOW CHAIN OF TITLE FROM 1846 OR BEFORE FOR THIS PROJECT AREA

____ IDENTIFY ALL ORIGINAL KULEANA OWNERS, ROYAL PATENTS, LAND COMMISSION AWARDS IN THIS PROJECT AREA to link families to ancestral lands. Start with all found in the case *The boundaries of Pulehuni*.

____ SHOW WHERE THE WATER FOR THIS PROJECT WILL BE OBTAINED

____ DISCUSS ANY IMPACTS TO MAUKA TO MAKAI FLOW OF WATER AND OCEAN RESOURCES

----- MAKE AVAILABLE AMERON SUP ARCHEOLOGICAL MONITORING RESULTS DUE 1994. AMERON SAND PIT IS IN PROJECT

____ PUT IN PLACE A PLAN FOR TREATMENT OF IWI FOUND OR DISTURBED TO BE APPROVED BY THEM/IBC and WAILUKU, WAIKAPU AHA MOKU COUNCILS.

Thank you for the opportunity to make these comments.

Clare Apana

Clare Apana for Malama Kakanilua

Applicant: A&B Properties, Inc., PO Box 156, Kahului, HI 96732. Grant Chun, Vice President, 872-4312. gchun@abprop.com

Executive Officer, 587-3822 Consultant: PBR HAWAII, 1001 Bishop Street, ASB Tower, Suite 650, Honolulu, HI 96813. Michael Shibata, Project Manager/Planner, 521-5631
Provide Applicant, with copies to the Accepting Authority and Consultant.



October 7, 2011

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President

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Executive Vice-President

RUSSELL CHUNG, FASLA, LEED AP
Executive Vice-President

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Ms. Clare Apana
260 Halenani Drive
Wailuku, HI 96793

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Ms. Apana,

Thank you for your letter dated August 1, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

Comment: "I WOULD LIKE TO RECEIVE INFORMATION CONCERNING THIS PROJECT"

Response: We appreciate your interest in the project. You will receive any notifications mailed to the public.

Comment: "The Land Use Commission (LUC) will be the accepting agency of the Final EIS. It has a duty to protect, promote and define the exercise of Native Hawaiian traditional and customary rights, practices and beliefs, and cultural resources. An analytical framework for State and County agencies to complete a proper analysis and for the LUC to adhere to, is set forth in Ka Pa'akai O ka 'Aina vs Land Use Commission by the Hawaii Supreme Court.

1. Identify and scope of valued cultural, historical or natural resources," in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area;
2. Extent to which those resources-including traditional and customary native Hawaiian rights-will be affected or impacted by the proposed action; and
3. Feasible action, if any, to be taken by the LUC to reasonably protect native Hawaiian rights if they are found to exist."

"Cultural Impacts are not clearly identified in CIA or AIS. The project CIA fails to adequately identify cultural practices, cultural practitioners, and adverse effects of the project to cultural practices, adverse effects of the proposed project upon myself, my practice upon this land, my cultural traditions. CIA is inadequate to identify impacts or offer suitable mitigation."

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 25

Response: Per item #1 above, "Current Uses, Practices, and Resources of Project Area" can be found on page 12 of the Cultural Impact Assessment (CIA) prepared by Hana Pono LLC (Hana Pono). This section of the CIA identifies the scope of valued cultural, historical or natural resources, which in this case are the Pu'u One sand dunes and Waikapū Stream. This section of the CIA also describes the extent of traditional and customary native Hawaiian rights that are exercised in the petition area. It appears that only one individual accesses the site for her "contemporary or 'neo-traditional' cultural practices" involving "Hawaiian cultural practices as well as teachings she has learned from a variety of spiritual faiths."

Per item #2 above, "Potential Effects of Development..." can be found on pages 13 and 14 of the CIA. The potential effects identified include: additional (inadvertently discovered burial) finds, the Pu'u One Sand Dunes, and Waikapū Stream. The CIA finds that "There are potential adverse effects to the remaining cultural resources extant on the property that can be mitigated with proper community consultation and proactive planning on the part of the developers. The CIA notes that A&B Properties, Inc. has done much in seeking to protect the known cultural resources on the property, creating approximately 33 acres of cultural preserves and minimizing the need for relocation of burials."

Per item #3 above, we cannot comment on what actions will "be taken by the LUC to reasonably protect native Hawaiian rights if they are found to exist", but we are hopeful that the Land Use Commission will recognize the CIA as an "analytical framework" to base any action required to protect native Hawaiian rights.

Comment: "Incomplete AIS-No study of the ancient pohaku wall. In the past two years, I have asked project manager, Grant Chun, Hinano Rodrigues of SHPD who informed me that he would bring this to the archeologist Lisa Hazuka, various community experts and archeologists about the long line of pohaku across from the Ameren[isic] dump site and probably in the Cultural park on the project map, of the significance of this cultural feature. Project CIA interviewers were also taken to the pohaku site this year. NO mention is made in any AIS or map of the project about them. This process has not been adequate to meet my concerns and manao for these lands."

Response: Please be advised that our archaeologists and cultural impact consultants were unable to confirm the presence of the ancient pohaku wall which you describe at the project site. It is their individual opinions that from what you describe, this line of rocks is not a cultural feature. From the size, nature, and placement of the rocks, it looked more like a boulder push pile.

Comment: "Ethnographic study and Traditional Cultural place (TCP) study needs to be done. I spoke at length with the project manager Grant Chun before CIA interviews were done about the need for this type of study and sent comments to the LUC. Results = CIA with no interview of myself or Hokaao Pellegrino were included. The CIA on page 17 incorrectly states that I declined to include my interview. I did not decline to include my comments. I did not get to complete my interview."

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 3 of 25

Response: We apologize for any misunderstanding concerning the inclusion of your interview in the CIA prepared by Hana Pono. We understand that Hana Pono has communicated with you regarding this matter (via enclosed letter dated August 31, 2011), requesting your confirmation to include your interview in the CIA. Since Hana Pono did not receive a response back from you, the interview transcripts were not included in the CIA.

Per your comments, the first paragraph in Section 4.2 of the Final EIS will be revised to read:

In compliance with Act 50, Hana Pono, LLC (Hana Pono) prepared a cultural impact assessment (CIA) for the property to identify traditional customary practices within and in the vicinity of the property. The purpose of Act 50 "is to: (1) Require that environmental impact statements include the disclosure of the effects of a proposed action on the cultural practices of the community and State; and (2) Amend the definition of "significant effect" to include adverse effects on cultural practices." The CIA was conducted in accordance with the OEQC Guidelines for Assessing Cultural Impacts and includes archival research and interviews with people knowledgeable of the property and the surrounding area. During the Draft EIS public review period, two of the interviewees who appeared to have initially declined to allow their interview transcripts be published with the CIA wrote that they had actually wanted their interviews to be included. Upon receiving these comments, Hana Pono sent letters, dated August 31, 2011, to the two interviewees requesting their confirmation to include their interview transcripts in the CIA. Since Hana Pono did not receive responses from the two interviewees, their interview transcripts were not included in the CIA. Findings of the CIA and other relevant information are summarized below. Appendix 1 contains the complete cultural impact assessment.

HAR 13-284-1 defines "ethnographic documentation" as "the form of mitigation that records and analyzes a reasonable and adequate amount of information about a significant historic property through interviews with knowledgeable individuals and the study of historical source materials." HAR 13-284-1 also defines "ethnographic inventory survey" as "the process of identifying and documenting historic properties in a delineated area, gathering information through interviews with individuals knowledgeable about the area and a study of historical source materials."

Other research on the term "ethnography" would indicate focusing on a particular ethnic group.

It would appear that with the completion of the State Historic Preservation Division (SHPD)-approved archaeological inventory survey (AIS), which was prepared and processed per HAR 13-284-5, and the completion of the CIA, the key elements of both ethnographic documentation and an ethnographic inventory survey focusing on Native Hawaiian culture has in fact been completed. A key element is "interviews with knowledgeable individuals." As noted in the fifth paragraph of page 2 of the CIA:

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 4 of 25

*The approach taken in this study was two-fold. Foremost, historical, involving as appropriate, a review of: mahele (land division of 1848), land court, census and tax records, previously published or recorded **ethnographic interviews** [emphasis added] and oral histories; community studies, old maps and photographs and other archival documents. Secondly, an in-depth study involving **oral interviews with living persons with ties, either lineal or cultural, to the project area and the surrounding region** [emphasis added].*

Page 3 of the CIA includes the following statements:

*Data gathered combined **oral interviews of knowledgeable kupuna and families/individuals with long-standing ties to the area** [emphasis added] with all available written and recorded background information.*

*Tasks completed for oral interviews included: **identification of appropriate individuals to be interviewed, determination of legitimate ties to project area and surrounding region, interview recorded in writing and by digital audiotape, transcription of interview, compilation of pertinent data** [emphasis added].*

In response to your comment on the "Traditional Cultural place (TCP) study", the applicant's archaeological consultant indicated that a Traditional Cultural Properties (TCP) study could be initiated if federal funding is involved in the project and Section 106 is applied. The applicant will not be using federal funds to develop its project.

Comment: "Please note that factual information concerning location of burials and where burial preservations would be located with GPS points was not available to allow me to make a better determination of the protection of the presently disturbed iwi and the potential for disturbance."

Response: The Data Recovery Plan and Preservation Plan, Appendix G in the Draft EIS, includes descriptions and maps of the burials within the site. The location of the cultural preservations are also shown on the Waialeale Conceptual Master Plan (See Figure O-1 in the Draft EIS).

Comment: "**106 E Process is necessary**"

This project area meets the TCP criteria and this should be studied in depth along with cultural effects to Kanaka Maoli. Native Hawaiian Organizations should be consulted, including the MLIBC and Malama Kākanilua and Maui Cultural Lands, Friends of Mokoula, Hui Pono O Ke Kanawai, OHA."

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 5 of 25

Response: According to the following website (http://www.neh.gov/grants/guidelines/Section_106_FAQs.htm):

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects that their federally funded activities and programs have on significant historic properties. "Significant historic properties" are those properties that are included in, or eligible for, the National Register of Historic Places. The National Register is a list of districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, and culture. The National Register is administered by the National Park Service in conjunction with the State Historic Preservation Offices (SHPOs).

The project is not included in the National Register of Historic Places and federal funds will not be used by the applicant in developing this project.

Comment: "**Future of Iwi Kupuna is threatened. I tried to find the remnant dunes features described by Geolabs on page 32 and 33 of the DEIS. I was not aware of any that had not been deformed or cut down by sand mining. In the area depicted by the dune map there are beautiful long (approximately 400-500 foot long dunes, with high dunes over 200 feet. The cut down and break in the dune appears to be from sand mining. These dunes look remarkably similar to the large burial preservation area #1. These are the dunes that multifamily, Mixed Use and Single Family homes and roads may be built on. This is an adverse cultural impact. This impact can be avoided by keeping the entire dune area a preserve or green space. Do you plan to remove, grade down, or sand mine the dunes in the section? Expectation of finding iwi has the highest probability in the higher elevation of burials reported by project archeologist Dega.**"

Do you plan to change the contours of any of the sand dunes?

Which ones and how? I would like to walk them with a representative from your company and suggest MLIBC be invited also to be able to know which dunes will be impacted by your plans.

At what elevation are the sand dunes in question in Geolabs report on page 33? No SANDMINING. MLIBC asked for cessation of sand mining in 2008.

These dunes are still considered cultural resources even if they may not be the most beautiful dunes in Maui. I find Geolabs comments insensitive to the high probability of desecrating more iwi kupuna on these less than perfect dunes. What is the most probable area of finding burials in this area? I think the remaining sand dunes don't you agree.

Loss of sand dunes will change forever and irreparably, cultural significance, landscape, and sense of place. Protecting the remaining sand dunes from buildings, roads and homes is important to practicing traditional Kanaka values.

This is an adverse cultural impact.

This impact can be avoided by keeping the entire area dune area a preserve or green space. Do you plan to remove, grade down, or sand mine the dunes in the section? Expectation of highest probability in the higher elevation of burials reported by project archeologist Dega. Do you plan to alter any of the sand dunes? The height of the land before building? What and where will elevation changes be?"

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 6 of 25

Response: As mentioned previously, sand mining is no longer occurring on the property. Section 3.2 of the Draft EIS discusses the on-ground field reconnaissance survey and geological mapping of in-situ dune features at the property undertaken by Geolabs, Inc. (See Appendix B of the Draft EIS). As noted therein, Geolabs did not find natural sand dunes that could be considered to be pristine geological features, as the majority of the dunes within the project have been obliterated by human activities. These include dunes that were flattened, tilled and utilized for sugar cultivation, ranching and other uses. The applicant has however, sought to preserve a large portion of the site wherein there are relatively intact lithified sand dunes. We note your statements that development on the portions of the property that contain sand dunes is an "adverse cultural impact."

In response to your questions regarding construction, Section 3.2 of the Final EIS state the following:

Wai'ale will require both excavation and embankment for the construction of new roadways, building pad areas, and drainage structures. Overall, the property will be graded to maintain the existing drainage patterns. Proposed roadway slopes will vary between 0 and 12 percent. Embankments will have a maximum slope of two feet horizontal to one-foot vertical. Where elevation drops are required, retaining walls will be installed with heights ranging from two to six feet. Designated archaeological sites and the largest intact lithified sand dune will remain undisturbed as cultural preserves. A park buffer will also be maintained along the property's boundary with Waikapū Stream.

While Wai'ale will alter how the land is currently used, the proposed improvements are relatively insignificant compared to the overall geological character of the region. Construction activities, such as grading, will alter the topography of the property to accommodate the Wai'ale community. While most of the property has been heavily ~~disturbed~~ disturbed, there is a large portion of the site (approximately 28 acres) where there ~~are~~ are relatively intact lithified sand dunes; its boundaries roughly coincide with the boundaries of the largest of the proposed cultural preserves (and where the highest concentration of burials reside). Appropriate engineering, design and construction measures will be implemented to minimize potential erosion due to grading of soils during construction. Further information on soils and grading is provided in Section 3.3 below.

Please be advised that as part of the subsequent more detailed engineering design phase for the project, detailed site improvement plans would be prepared. This would include grading plans for the overall project which would be subject to governmental review and approval.

We understand that staff members of the SHPD and members of the burial council have made site visits in the past.

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 7 of 25

As previously noted, based on the extensive subsurface testing that was conducted and the SHPD-approved archaeological inventory survey, there is reasonable confidence that the areas being set aside for preservation are adequate.

We acknowledge your comments regarding the Geolabs's geological reconnaissance survey. During the Environmental Impact Statement Preparation Notice (EISP/N) public review period, there were a few comments received regarding the sand dunes. To get a better understanding of the sand dunes, the applicant contacted Geolabs, a licensed geotechnical engineering firm to conduct the survey. Geolabs conducted the survey from a purely geotechnical point of view. Their scope of study was not to address the potential for additional burials within the remnant sand dune structures - that issue was directly addressed by Scientific Consultant Services, Inc. (SCSI) in their AIS report. As stated on pages 60 and 61 of the AIS (Appendix E of the Draft EIS):

As is well documented in the State, human burials are often found in sandy sediment. For the current project area, human burials were expected to be found in such sandy matrices, but more so in the natural sand dunes of Areas A, B, and C due to absence of modern agricultural disturbances (i.e., sugarcane). However, with the exception of Site -5504, in which evidence for three burials (one in situ and two scattered) was previously identified, no additional human burials were found. Various types of terrain (e.g., sand dune hilltops, hill slopes, flats, swales) were mechanically and manually excavated yet all were sterile. Site -5504 aside, the project area, at least the north half, is not devoid of human remains, as shown by the excavations of Moore and Kennedy (1998), the results of Archaeological Monitoring in the Hawaiian Cement areas, and the recovery project on Parcel 104. In addition, the adjacent Maui Lani Subdivision (north) is well known to also contain many burials interred within sandy matrices.

This begs the question: in over 287 excavated trenches, why were no burials identified during this project? Certainly sampling could be one reason, as 100% of the project area was not tested. Second, was depth a factor? A majority of the trenches were excavated to at least 1.5-2.0 mbs, certainly at depths containing burials in the area (see Previous Archaeology section above). Depth appears not to have been a factor. Third, could the lack of burials could be associated with lack of settlement in the area? This appears unlikely, given the large number of burials in the Hawaiian Cement areas and still the lack of habitation deposits in the area. Fourth, could the known burials be exclusively associated with the Battle of Kakanilua? This remains a possibility, although the battle text appears more to reflect the Maui Lani area than the current project area. Also, an analysis of the identified burials could reveal whether weaponry (slung stones, etc.) or skeletal trauma was present, to further associate with the battle. Finally, it is possible, given the state of the currently tested areas, that burials are most often found in the larger, undisturbed natural sand dunes. Much of the current project area has been subject to some form of grading/clearing through time. It is also possible that burials were more often to occur at higher elevations (c. 250-350 ft. a.m.s.l.) within a sand dune belt extending from the western/central portion of the current project

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 8 of 25

area through Maui Lani toward Wailuku.

Past research in the general environs of the current project area, combined with the presence of previously undocumented Site -6578 (the imu) and several previously identified burials, suggests that the current project parcel was not the location for primary settlement during Traditional or historic times. Burial is one site type identified in the project area, as well as a subsurface feature associating with transient use of one portion of the area. In the Waikapu area, the settlement pattern is such that a majority of the agricultural plots with associated habitations were situated above what is now the Honoapiilani Highway (c.400 ft. elevation), mostly near Waikapu Stream, and much upland from the current project area. The current parcel did not reveal evidence for agriculture, beyond modern sugar cane cultivation (no formal sites though). No evidence of permanent occupation was found; this not surprising considering the land type and surface. Permanent settlement is typically associated with stable land surfaces, not potentially shifting dune surfaces. In all, this isthmus area is somewhat a "barren zone", but differs from the "barren zone" of southeastern Maui in that the current parcel has deep, sandy stratigraphy while the latter consists of shallow soils overlying bedrock. Both these zones, however, were transitional environmental areas between coastal and upland resources. As such, they would have supported transient occupation more so than permanent settlement, with subsistence regimes being minimal. These zones compose an outer periphery to settlement core areas such as Wailuku.

As SCSi notes above, the primary indicator of burials and other archaeological finds is not elevation but the potential for settlement. Since the site was not environmentally suited for permanent settlement, SCSi concludes that this may be the reason for why no burials were found after excavating 287 trenches throughout the site.

Comment: "No SANDMINING, MLIBC asked for no more sand mining!"

These dunes are still considered cultural resources even if they may not be the most beautiful dunes in Maui. I find Geolabs comments insensitive to the high probability of desecrating more iwi kupuna on these less than perfect dunes when they discuss putting roads and changing the shapes of the dunes.

*One cultural practitioner's[sic] view of the iwi (bones of our ancestors),
By Edward Ayau
Ola na iwi (The bones live).*

Native Hawaiians believe that the iwi, the bones, are considered sacred after death because within them lies the mana, the spiritual essence of the person. The uhane, or spirit, of the person is believed to hover near na iwi and thus, supreme care is taken to guard them. The burial of the deceased is considered a planting or cultivation that is followed by physical and spiritual growth; Hawaiians believe that they were nourished from foods fertilized by the bones of their ancestors. The na iwi are seen to release the mana of the deceased into the land, invigorating the land with the spiritual energy required to sustain it and those that rely upon it for survival.

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 9 of 25

It is the responsibility of the living to protect the family burial sites and to pass on the responsibility to the generations following in order to maintain family integrity. Central to the physical and spiritual well-being of Native Hawaiians is the inheritance of mana from their ancestral past. In turn, the ancestors care for and protect the living, affirming the interdependent relationship between them and their living descendants[sic], whereby each cares for and protects the other.

The arrival of the colonists to Hawaii in 1779 led to significant social, economic and political changes. The population of Native Hawaiians dropped from 8000 000 to 130 000. They were displaced from their traditional homelands and thus were unable to protect their ancestral burial sites. AS assimilation efforts intensified, traditional practices and cultural values were gradually forgotten by most. Over the next century, looting, archaeological collection, erosion and construction resulted in the desecration and removal of thousands of ancestral Native Hawaiians. Many of the remains were taken to the United States and Europe to be studied and displayed in museums.

Native Hawaiians believe that the consequences of the separation of mana from the lands are the economic, social, health, housing and political conditions they are currently dealing with. A fundamental means by which to heal both the living and those ancestral Hawaiians who await reunification with their homelands is to bring them together, to bury the na iwi and thus restore precious mana to the land and the families.

As I have visited and honored the kupuna on these lands, I agree with this statement by Mr. Ayau. Other people, practitioners, who I have brought to walk, pray, and offer respect in this area have gained personal insight. On one occasion, a woman of kanaka decent was troubled with life situations. She shared with me that the "Kupuna gave her a message." On another occasion an artist was inspired by the land and the Kupuna. These experiences are evidence of a living relationship to this land and the iwi kupuna resting here. Protect them and their place of rest."

Response: As mentioned previously, no sand mining is occurring on the property. As mentioned previously, Geolabs, Inc. conducted the geological reconnaissance survey from a purely engineering geology and geotechnical engineering point of view. As previously mentioned, as part of the past archaeological investigations numerous (287) archaeological survey trenches were dug throughout the property, providing reasonable confidence that the largest concentration of burials have been identified and will be preserved in the over 30 acres of planned cultural preserves. We acknowledge the information referenced from Mr. Edward Ayau.

Comment: "How will this project impact and protect the iwi not yet discovered?"

The CIA suggests that preserving in place rather than moving is preferable. To be clear, preserving in place has meant leaving a burial in situ or removing the iwi kupuna, doing sand removal and scraping of lithified sand then replacing the iwi. This is preserving in place! This is unacceptable as mitigation. There are the bones of my ancestors lying disturbed under blue tarps if they are still in place, covered by a wooden skip for years. Even after the preservation plan acceptance to preserve in place last year, nothing has been done to properly reinter them. Are the developers planning to alter the ground first, then preserve in place?

Mo'olelo

I stood at the site of a particular iwi kupuna who had no tarp left to shield him from the elements. Beneath the weather worn boards of the deteriorating bleached palette was the gleam of ivory smooth bones above the surface of the grayish brown sand. How long since this kupuna rested peacefully?

I brought the interviewer of the CIA here to pule. This kupuna would hold the mana for all the other who had been disturbed from their resting place to mine sand. In honor of those iwi kupuna, forgotten for years by those who should be, caring for them, we chanted. I wept and held onto the interviewer as we walked back to the car. I kept repeating these words "We can do better than this, we can do better than this, we can do better than this..."

What will you do immediately to take care of all of the disturbed iwi? The preserve areas must be given a real plan before you the developer has the gall to ask for any kind of land use change. Did you get what you needed from SHPD and MLIBC to proceed with your project?"

Response: Section 4.1 of the Final EIS has been revised to read as follows:

Full-time archaeological monitoring shall occur during future ground altering disturbance at ~~precinctary archaeological monitoring is recommended for portions of~~ the property which contain natural, sandy matrices that are relatively undisturbed. In addition, two recommendations were proposed for State Site No. 50-50-04-5504¹: 1) a predetermined area of the sand berm should be closely monitored for the recovery of any other displaced human remains; and 2) a Burial Treatment Plan will be prepared and submitted to the State Department of Land and Natural Resources Historic Preservation Division (SHPD) and Maui/Lāna'i Islands Burial Council (MLIBC) for review.

To address the burial treatment plan for State Site No. 50-50-04-5504 as well as State Site No. 50-50-04-6679 comprising the former Hawaiian Cement sand mining area, a Final Burial Site Component of a Data Recovery Plan and Preservation Plan for State Sites Nos. 50-50-04-5504 and -6679 ("preservation plan") was prepared by Archaeological Services Hawaii, LCC (ASH) (See Appendix G). The preservation plan proposes the preservation in place of inadvertent burial features of State Site Nos. 50-50-04-5504 and -6679 consisting of 33 partially intact primary burial features, 13 burial pits which are highly probable to contain human skeletal remains, 6 disturbed, possible primary burials, and secondarily deposited/scatters of human skeletal remains with no primary/in situ component representing 36 individuals. The preservation plan includes the relocation of two partially intact primary burial features and five secondary scatters. These burial features will be preserved within five established preservation areas totaling in excess of 30 acres. Additionally, State Sites Nos. 50-50-04-4200, -4201 and -4202, comprising five burial features and a multi-stepped terrace are also preserved in

¹ The above mentioned burials were inadvertently identified by ASH archaeologists.

place within Preservation Area 1 (largest preserve) pursuant to a previously accepted burial treatment and preservation plan (Kennedy and Moore 1998).

The preservation plan was reviewed by the Maui/Lāna'i Islands Burial Council in July 2010 and the SHPD subsequently accepted the preservation plan by letter dated September 13, 2010 (See Appendix H).

State Site No. 50-50-04-1508 is the currently utilized, small section of Spreckels Ditch, located in the eastern portion of the property, has been documented and no further work recommended. State Site No. 50-50-04-6578 has also been documented and sampled with no further worked recommended.

Short-Term Preservation Measures – *The identification and implementation of appropriate short-term or interim site protection measures, including an archaeological monitoring plan. These include:*

- *Prior to construction commencement a meeting shall be held to inform all pertinent parties regarding the locations and buffer zones for all sites slated for preservation in or near areas of potential effect;*
- *The erection of temporary construction fencing (orange plastic) or other visible markings defining no-encroachment buffer zones around the perimeter of sensitive areas;*
- *Full-time ~~regular~~ monitoring of preservation sites during ~~and~~ construction activities; and*
- *Ensuring transition to permanent preservation measures following completion of construction.*

Long-Term Preservation Measures – *The identification and implementation of long-term or permanent site protection measures provide for the continued protection of archaeological and cultural resources. The two typical categories of long-term preservation are passive and active preservation, as described below:*

- **Passive Preservation** – *Sites in this category do not undergo any interpretive development, occur in areas that can be avoided by development, and are left as is. This category is sometimes referred to as "data banking." Most sites in this category are not intended to be permanently preserved, but are anticipated to undergo data recovery procedures in the future, presumably when improved data gathering techniques and refined analysis technologies are available or on large tracts of land where development is intended to take place in incremental phases; and*
- **Active Preservation** – *Sites in this category are chosen for their interpretive potential. Their selection may be based on aesthetic, academic, or cultural representation values. Different levels of interpretive development may be undertaken, including: stabilization, partial or complete restoration, and/or reconstruction. Signs may be involved, and details regarding access and protocols need to be worked out.*

- **Cultural Preserves** - Approximately 33 acres are proposed to be set aside as cultural preserves where the greatest concentrations of burials occur. These areas are planned to be permanently preserved, and none of the burials within these cultural preserves are anticipated to undergo data recovery procedures in the future. These areas are intended to be kapu and only accessed by lineal and/or cultural descendants, recognized and/or acknowledged cultural practitioners and for periodic maintenance and/or fire protection. The plan for preservation, any landscaping and reinterment is provided in the Preservation Plan (See Appendix C) and includes the following:

PRESERVATION PLAN

Short-Term Measures

Short term protective measures are implemented at preservation areas during the interim period before and during construction. The burial features of Site 5504 and 6679 are currently protected by erecting orange caution fencing around the burial site. Additionally, each burial feature is covered with a layer of sand, tarp and plywood or wooden gate. To ensure the protection of the remnant sand dune feature containing the burials, a 2:1 slope must be maintained if grading occurs outside the temporary buffer zone. Periodic field inspections are performed to ensure that burial features are protected from the elements. All collected, displaced human skeletal remains are curated at the offices of ASH.

Any burials to be disinterred will be performed utilizing all accepted methods and procedures. As human skeletal remains are removed, they will be documented on Burial Inventory forms and placed into cardboard boxes lined with kapa and ti leaves. The disinterred burials will be curated at the ASH offices, where they will be prepared for reinterment by appropriate personnel.

Long-Term Preservation Measures

Long-term measures are a mitigation strategy to protect the site in perpetuity. These measures may not be adjusted and or changed without prior consultation and acceptance by the SHPD in consultation with the appropriate MLIBC members.

The proposed reinterment location for the burial features is within the preservation areas established around existing intact primary burials. Preservation Area 1 is the largest and comprised of 28.4 acres. It is situated within the northwestern quadrant of the project area. Preservation Area 1 contains the majority of the burial features and secondary deposited human remains. Feature 46 shall be reinterred into the Preservation Area 1. Preservation Area 2 consists of .2 acres and is situated within Phase B surrounding Feature 61. Feature 60 will be reinterred within Preservation Area 2. Preservation Area 3 measuring 1.7 acres is located south east of

Preservation Area 1 and has been erected around Features 55-58. Preservation Area 4 comprised of 1.2 acres contains Features 50 and 54 and lies just south of Preservation Area 1. Secondary scatters, Features 48, 49b/c and 51, as well as a partial intact primary burial Feature 49a will be relocated and interred within Preservation Area 4. Preservation Area 5 contains Site 5504, a primary burial feature, and is comprised of .115 acres situated along Kuihelani Highway. All preservation areas will be protected in perpetuity by a combination of landscaping, signage, recordation buffer zones and surface demarcation. These measures are discussed in detail below.

Surface Demarcation – All primary, in situ burial sites and reinterred human skeletal remains shall be marked on the surface by cobbles and or small boulders. For reinterred burials, a reinterment pit measuring approximately 4.0 ft. by 4.0 ft. by 3.0 ft. deep will be excavated adjacent to the in situ burial features. The bundles of human skeletal remains will be placed in the bottom of the pit and the remainder of the pit will be filled with clean sand. A concrete cap measuring approximately 4 inches thick or some other acceptable form of cover shall be placed over all burial features and inscribed with the SH-HP number and KAPU. Soil and or sand will cover the concrete so that vegetation can be established. A large boulder or and or several cobbles will be placed on the surface over the burial to demarcate its location.

Preservation Area/Buffer Zone – The preservation area includes the burial site, the surface demarcation and the buffer zone which surrounds the burials. The buffer zone is a protective area for the buried human remains in which temporary or permanent structures shall not be placed or built. Subsurface utilities and other uses shall be routed outside of the buffer zone. The buffer zone will be delineated by a combination of aligned boulders, fencing and vegetated berms as applicable and appropriate to each preservation area. Along the outside perimeter of these preservation areas will be clearly marked walking trails. The trails will encircle each preservation area and are envisioned to be utilized by the general public and those wishing to visit the preservation areas.

Only traditional and customary activities associated with Native Hawaiian burial sites shall be allowed within the preservation area. At this time, no access is afforded inside the preservation area except for maintenance purposes. For continued protection of the burials, Preservation Areas 1-5 will be clearly identified on all construction plans, as built plans etc.

Landscaping – The interior of all preservation areas will be maintained with existing vegetation or landscaped with appropriate dry land Native plants to stabilize the sand dune formation. The Native plantings will be a combination of ground cover and shrubs that are not deeply rooted.

Appropriate trees for ceremonial and religious areas such as Milo may be planted but must be placed far away from any known burials. If existing non-native trees are removed or new trees planted, all excavations for proposed trees must be monitored by the archaeologist. Generally, trees that require removal are clear cut and the base is poisoned in place. Native plantings may consist of drought-tolerant native plantings such as nāio papa, ilima papa or other appropriate native plants found in the central Maui area. The landscaping shall be maintained so that the burial markers and signage are visible. Several openings not more than 3.0 ft. wide will be provided for maintenance purposes. To establish the native plantings, temporary irrigation may be installed on the surface. Within the preservation area, no trenching for subsurface irrigation will be permitted.

Signage – Bronze plaques measuring 18 inches by 10 inches shall be permanently affixed at two locations along the exterior of the preservation area. Signage would consist of the following:

- Native Hawaiian Burial Sites
- KAPU
- State Site Number 50-50-04-6679
- Please respect This Area

Maintenance – The plaques, burial markers, landscaping and buffer zone delineation (aligned boulders, vegetated berms, fencing, landscaping) shall be maintained by the landowner, homeowners association or other applicable entity with such responsibilities. If any of these protective measures should deteriorate or be damaged over time, the landowner, homeowners association or applicable entity shall be responsible for the repair or replacement of these measures; however no changes may be made without written authorization by SHPD.

To ensure perpetual protection of this burial site, periodic site inspections by the SHPD may be conducted to verify that the signage, platform and all long-term measures are in place and the site is adequately protected. Site inspections will be performed at mutually agreed upon times between the landowner, homeowners association or applicable entity and the SHPD staff.

Recordation – The preservation area shall be surveyed by a licensed surveyor and a metes and bounds description of the preservation area shall be recorded by the landowner, along with the Burial Treatment and Preservation Plan at the State of Hawaii Bureau of Conveyances within 90 days of written acceptance of the Burial Treatment and Preservation Plan by the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD). The DLNR-SHPD and the Maui/Lana'i Islands Burial

Council (MLIBC) shall be provided with copies of the recorded Burial Treatment and Preservation Plan.

Access – Burial sites may be viewed from walking trails at the preservation area. Access within the preservation areas for lineal and or cultural descendants is not afforded at this time, as no lineal and or cultural descendant claims have been received by the SHPD for these burial features. In the event that a future lineal or cultural descendant claim is recognized by the MLIBC, access to the burial site within the preservation area shall be permitted at reasonable dates and times mutually agreed upon by the landowner and lineal and cultural descendants.

A&B Properties, Inc. and its archaeological contractors will comply with all State and County laws and rules regarding the preservation of archaeological and historic sites. Should historic remains such as artifacts, burials, concentrations of shell or charcoal be inadvertently encountered during the construction activities, work will cease immediately in the immediate vicinity of the find and the find will be protected. The archaeological contractor shall immediately contact SHPD, which will assess the significance of the find and recommend appropriate mitigation measures, if necessary.

Comment: "Inconsistencies with the Burial Treatment Plan warrant readdressing the legality by which your archaeologist presented this plan to the MLIBC."

- Burial Treatment Plan accepted by SHPD before MLIBC could study it?
- MLIBC to this day has not seen the real BTP with the additional (approximate) 120 pages in a document that was produced months after the acceptance of the BTP."

Response: Appendix G of the Draft EIS included the Final Burial Site Component of a Data Recovery Plan and Preservation Plan. This plan was prepared in June 2010 and presented to the Maui and Lana'i Island Burial Council (MLIBC) at its meeting of July 28, 2010. At that time the MLIBC provided comments to the plan. Subsequently, on September 13, 2010, the SHPD accepted the plan. Further, the Preservation Plan has been available since May 2011 (when published with the Draft EIS) for the MLIBC, as well as the general public, to review.

Comment:

- The archaeologist has not produced burial goods.
- Pertinent information about preservation areas 3 and 4 with juxtaposition to remaining dunes was not given to them.
- Area ali'i funerary goods were found is not defined
- NO plan for planting, preserving, paying for preserve areas
- No plan for reinterment of iwi kupuna

Are you leaving the iwi kupuna lying exposed and forgotten like garbage in the sand? You do have a preservation plan finally after years of discussion with the MLIBC. Can you properly reinter them? When? Who and how will you do this? "

Response: We believe the Preservation Plan addresses many of your concerns, including, landscaping, signage, maintenance and access. As previously noted, the plan was presented to the MLIBC at its meeting of July 28, 2010, at which time the MLIBC had opportunity to review and provide comments to the plan. Photos of the artifacts recovered from sites were included in Appendix G of the Draft EIS. According to page 138 of Appendix G:

“Three primary burials were interred with grave goods consisting of basalt flakes...and perforated conus shells. Unfortunately, the majority of artifacts were recovered in a secondary context at Phase D and consisted of basalt adzes, perforated cowrie shells, a bone fishhook, a bone Lei Niho and Lei Niho Palaoa (whale tooth)...Besides intentionally placed artifacts, several contained manuports of waterworn cobbles and boulders and a few had lithified slabs placed over the burial feature. Lastly, and most notably, two areas appeared to contain high status individuals based on the mode of interment (Features 18c and 18d) and artifacts documented at the area (Features 56-58).”

In response to your question about paying for the preserve areas, that will be the responsibility of the applicant and any future landowners. The plan for preservation, any landscaping and reinterment is provided in the Preservation Plan (See Appendix G of the Draft EIS):

PRESERVATION PLAN

Short-Term Measures

Short term protective measures are implemented at preservation areas during the interim period before and during construction. The burial features of Site 5504 and 6679 are currently protected by erecting orange caution fencing around the burial site. Additionally, each burial feature is covered with a layer of sand, tarp and plywood or wooden gate. To ensure the protection of the remnant sand dune feature containing the burials, a 2:1 slope must be maintained if grading occurs outside the temporary buffer zone. Periodic field inspections are performed to ensure that burial features are protected from the elements. All collected, displaced human skeletal remains are curated at the offices of ASH.

Any burials to be disinterred will be performed utilizing all accepted methods and procedures. As human skeletal remains are removed, they will be documented on Burial Inventory forms and placed into cardboard boxes lined with kapa and ti leaves. The disinterred burials will be curated at the ASH offices, where they will be prepared for reinterment by appropriate personnel.

Long-Term Preservation Measures

Long-term measures are a mitigation strategy to protect the site in perpetuity. These measures may not be adjusted and or changed without prior consultation and acceptance by the SHPD in consultation with the appropriate MLIBC members.

The proposed reinterment location for the burial features is within the preservation areas established around existing intact primary burials. Preservation Area 1 is the largest and comprised of 28.4 acres. It is situated within the northwestern quadrant of the project area. Preservation Area 1 contains the majority of the burial features and secondary deposited human remains, Feature 46 shall be reinterred into the Preservation Area 1. Preservation Area 2 consists of .2 acres and is situated within Phase B surrounding Feature 61. Feature 60 will be reinterred within Preservation Area 2. Preservation Area 3 measuring 1.7 acres is located south east of Preservation Area 1 and has been erected around Features 55-58. Preservation Area 4 comprised of 1.2 acres contains Features 50 and 54 and lies just south of Preservation Area 1. Secondary scatters, Features 48, 49b/c and 51, as well as a partial intact primary burial Feature 49a will be relocated and interred within Preservation Area 4. Preservation Area 5 contains Site 5504, a primary burial feature, and is comprised of .115 acres situated along Kuhelani Highway. All preservation areas will be protected in perpetuity by a combination of landscaping, signage, recordation buffer zones and surface demarcation. These measures are discussed in detail below.

Surface Demarcation—All primary, in situ burial sites and reinterred human skeletal remains shall be marked on the surface by cobbles and or small boulders. For reinterred burials, a reinterment pit measuring approximately 4.0 ft. by 4.0 ft. by 3.0 ft. deep will be excavated adjacent to the in situ burial features. The bundles of human skeletal remains will be placed in the bottom of the pit and the remainder of the pit will be filled with clean sand. A concrete cap measuring approximately 4 inches thick or some other acceptable form of cover shall be placed over all burial features and inscribed with the SH-HP number and KAPU. Soil and or sand will cover the concrete so that vegetation can be established. A large boulder or and or several cobbles will be placed on the surface over the burial to demarcate its location.

Preservation Area/Buffer Zone—The preservation area includes the burial site, the surface demarcation and the buffer zone which surrounds the burials. The buffer zone is a protective area for the buried human remains in which temporary or permanent structures shall not be placed or built. Subsurface utilities and other uses shall be routed outside of the buffer zone. The buffer zone will be delineated by a combination of aligned boulders, fencing and vegetated berms as applicable and appropriate to each preservation area. Along the outside perimeter of these preservation areas will be clearly marked walking trails. The trails will encircle each preservation area and are envisioned to be utilized by the general public and those wishing to visit the preservation areas.

Only traditional and customary activities associated with Native Hawaiian burial sites shall be allowed within the preservation area. At this time, no access is afforded inside the preservation area except for maintenance purposes. For continued protection of the burials, Preservation Areas 1-5 will be clearly identified on all construction plans, as built plans etc.

Landscaping- The interior of all preservation areas will be maintained with existing vegetation or landscaped with appropriate dry land Native plants to stabilize the sand dune formation. The Native plantings will be a combination of ground cover and shrubs that are not deeply rooted. Appropriate trees for ceremonial and religious areas such as Milo may be planted but must be placed far away from any known burials. If existing non-native trees are removed or new trees planted, all excavations for proposed trees must be monitored by the archaeologist. Generally, trees that require removal are clear cut and the base is poisoned in place. Native plantings may consist of drought tolerant native plantings such as naito papa, ilima papa or other appropriate native plants found in the central Maui area. The landscaping shall be maintained so that the burial markers and signage are visible. Several openings not more than 3.0 ft. wide will be provided for maintenance purposes. To establish the native plantings, temporary irrigation will be permitted.

Signage-Bronze plaques measuring 18 inches by 10 inches shall be permanently affixed at two locations along the exterior of the preservation area. Signage would consist of the following:

Native Hawaiian Burial Sites

KAPU

State Site Number 50-50-04-6679

Please respect This Area

Maintenance-The plaques, burial markers, landscaping and buffer zone declination (aligned boulders, vegetated berms, fencing, landscaping) shall be maintained by the landowner, homeowners association or other applicable entity with such responsibilities. If any of these protective measures should deteriorate or are damaged over time, the landowner, homeowners association or applicable entity shall be responsible for the repair or replacement of these measures; however no changes may be made without written authorization by SHPD

To ensure perpetual protection of this burial site, periodic site inspections by the SHPD may be conducted to verify that the signage, platform and all long-term measures are in place and the site is adequately protected. Site inspections will be performed at mutually agreed upon times between the landowner, homeowners association or applicable entity and the SHPD staff.

Recordation-The preservation area shall be surveyed by a licensed surveyor and a metes and bounds description of the preservation area shall be recorded by the landowner, along with the Burial Treatment and Preservation Plan at the State of Hawaii Bureau of Conveyances within 90 days of written acceptance of the Burial Treatment and Preservation Plan by the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD). The DLNR-SHPD and the Maui/Lanai Islands Burial Council (MLIBC) shall be provided with copies of the recorded Burial Treatment and Preservation Plan.

Access-Burial sites may be viewed from walking trails at the preservation area. Access within the preservation areas for lineal and or cultural descendants is not affected at this time, as no lineal and or cultural descendant claims have been received by the SHPD for these burial features. In the event that a future lineal or cultural descendant claim is recognized by the MLIBC, access to the burial site within the preservation area shall be permitted at reasonable dates and times mutually agreed upon by the landowner and lineal and cultural descendants.

Comment: "Some Cultural Impacts and effects perpetuated by development of project"

It seems A&B is attempting to build a large project in a place that now does not have water, on land that is not clearly belonging to them, disturbing the ancient palina (burial grounds) and degrading the natural sand dunes while making a preservation area and plan that does not even allow for proper burial and immediate reinterment of iwi, the true owners of this land, to remain in pitiful deteriorated conditions.

The cultural impacts upon this land started long ago. From Kamakau is this passage explaining this aspect.

...In the old days the inheritance of the family burial place, the caves and secret burial places of our ancestors was handed down from these to their descendants without the intrusion of a single stranger unless by consent of the descendant, so that wherever a death occurred the body was conveyed to its inheritance. These immovable barriers belonged to burial rights for all time. The rule of kings and chiefs and their land agents might change, but the burial rights of families survived on their lands. Here is one proof of the people's right to the land.

With this right of the common people to the land is connected an inherent love of the land of one's birth inherited from one's ancestors, so that men do not wander from place to place but remain on the land of their ancestors. The Kona man does not wander to 'Ewa or Ko'olau, nor does the 'Ewa man change to Waialua. Whether rich or impoverished and barren, his love is unchanged; he cannot treat the land with contempt. However good the land on which he later lives he will wish to return to the land of his birth. The land so worthless in the eyes of a stranger is good to him. But today the habit of going away for an education or sailing abroad has undermined this old feeling for the land... (Kamakau 1961:376)

There is evidence of habitation in this area and of water (ie water worn stones in sediment and native testimony). What happened to the Olohe tribe who lived in the sand? What happened to the people of these lands? Your CIA says there are few Royal patents or LCA's. The AIS by Dega shows only one Royal Patent belonging originally to Cornwall. In the ruling of the case Boundaries of Pulehunui, many families are mentioned in connection to this area. Interestingly 10 families seemed to have lost their Royal Patents in this area for lack of identification of boundaries, yet just after this pulling of RPs, Cornwall is given a RP without a survey(Dega[sic], AIS)? Have the boundaries been established to execute a true Royal Patent. Who is JD Marsh and why would he be able to give Cornwall a RP for the ahupa'a[sic] of Waikapu? Did Claus Spreckles buy the end of a government lease to Cornwall? Do you have an official copy of the Royal patent to Cornwall[sic]?"

Response: As mentioned previously, Appendix G of the Draft EIS included the Final Burial

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 20 of 25

Site Component of a Data Recovery Plan and Preservation Plan that was presented to the MLIBC and subsequently accepted by the SHPD. With regard to your other specific questions we offer the following.

While there may be mo'olelo (legend) that refer to the "Olohe tribe who lived in the sand," we are assuming the mo'olelo does not specifically identify where this "tribe" lived on Maui. Hana Pono provided the following information concerning the Olohe tribe:

"The "Olohe" tribe, mentioned in one historical source, is a misnomer, it is thought they were Lua practitioners, called "olohe" defined as hairless, who shaved or plucked their hair in order to be more difficult to pin down by an enemy in hand-to-hand combat. They did not live in the sand dunes, but instead there are stories of these warriors laying in wait in areas such as this on all the islands, where they would capture and kill thieves, vagrants, or those opposed to the all'i."

The archaeological inventory survey prepared by SCSJ notes that: "The dearth of Land Commission Award's within the current project area and the area immediately surrounding the project area may be attributed to an absence of pre-1848 Hawaiian population, a result of settlement conditions within these particular ahupua'a favoring upland lo'i (see Creed 1993) where more precipitous conditions are present and ideal for agricultural pursuits." As previously noted, while there may have been habitation, it was more likely transient in nature because:

"...No evidence of permanent occupation was found; this not surprising considering the land type and surface. Permanent settlement is typically associated with stable land surfaces, not potentially shifting dune surfaces. In all, this isthmus area is somewhat a "barren zone", but differs from the "barren zone" of southeastern Maui in that the current parcel has deep, sandy stratigraphy while the latter consists of shallow soils overlying bedrock. Both these zones, however, were transitional environmental areas between coastal and upland resources. As such, they would have supported transient occupation more so than permanent settlement, with subsistence regimes being minimal. These zones compose an outer periphery to settlement core areas such as Wailuku."

Two Royal Patent Grant Numbers are associated with the property, Number 3152 to Henry Cornwall and Number 3343 to Claus Spreckels. While the AIS includes some additional information referencing these lands, we are unable to answer your specific questions regarding circumstances relating to the issuance of the Royal Patent and survey or boundaries relating thereto. Per references in the AIS, it appears one J. W. Marsh, deceased, had been a clerk in the Department of Education. We are not aware of the governmental lease to Cornwall nor do we have an official copy of the Royal Patent to Cornwall.

Comment: *"A mitigation for disturbed Iwi Kupuna resting places and bones."*

Can you locate families mentioned in this case and in the native testimony of this area? How do you show that you have made the effort to find the family of these iwi kupuna? Family names

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 21 of 25

connected to RPs, like Keaweemahi, Kapehana, Kamakai, Pipinui, Kuolaia, Keakua, Mahoe, Kapehana, Kaaka, Koa, Mahoe, Naanaa, Poepoe, Namehana, Kuiheloa, Makuakane... Are the Royal Patents in Waikapu to these families voided?

Response: We are not aware of Royal Patents affecting the property and issued in the names listed. Two Royal Patent Grant Numbers are associated with the property, Number 3152 to Henry Cornwall and Number 3343 to Claus Spreckels. As noted in the cultural impact assessment, interviewees were contacted and selected based on a sliding scale of legitimate authority based on the following characteristics: lineal descendants, cultural descendants, traditional practitioners, cultural practitioners, knowledgeable area residents of Hawaiian ancestry and knowledgeable concerned citizens. As noted in the CIA, every effort is made to obtain the highest quality interviewees and determination of appropriate individuals follows this criteria.

Comment: *"All of the sand dunes area can be changed to CONSERVATION not Urban."*

This would afford this historical, culturally rich area and the burials greatest protection. Or leave this area in AG. URBAN = sand mining, uncontrolled grading = Increased building density = Iwi kupuna are in danger = I am not able to practice my culture or traditional values.

Response: Based on the SHPD-approved archaeological inventory survey and the burial treatment plan, we would contend that there is no basis to a request a State Land Use District Boundary Amendment of 100 acres in the Agricultural District to the Conservation District. The proposed cultural preserves will protect the iwi kupuna and facilitate cultural and traditional practices.

Comment: *"I asked for these mitigations in addition to answers to any questions asked in the body of these comments. There is great[sic] chance to make the preserves and the remaining dunes a really fantastic cultural center. Please don't put a bike path in or around the preserve. Let's discuss is mana'o and kulema first. I have been compiling names of interested community members and kupuna for the preservation areas."*

Response: As part of the Wai'ale master plan, over 30 acres are proposed for cultural preserves. This is in addition to other open space areas planned within the project. We believe that this is a substantial commitment to preservation that is not replicated within other developments in the Pu'u One sand dune formation. We appreciate your concerns and will not include a bike path through the preserve. As noted in the last two paragraphs of Section 4.2 of the Draft EIS, the applicant will continue to consult with knowledgeable cultural practitioners, concerning cultural-related activities:

Cultural Advice

In order to assure the cultural integrity of the project, a qualified cultural specialist should participate in various cultural-related activities. Activities would include the development and implementation of a cultural orientation program for construction personnel, advice concerning inadvertent finds and related protocol, advice and assistance relating to planned burial preserves within the project (e.g. signage, access, landscaping, etc.), advice and assistance concerning potential educational "touchpoints" to enhance the

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 22 of 25

project's unique sense of place, and advice and assistance with project names.

The applicant will continue to consult with knowledgeable cultural practitioners, concerning cultural-related activities identified above by Hana Pono.

Your compilation of names of interested community members and kupuna for the preservation areas will be a good start for continued consultations with knowledgeable cultural practitioners.

Comment: " _____ PRESERVE ALL REMAINING SAND DUNES-NO CONSTRUCTION, NO GRADING, NO SANDMINING"

Response: As mentioned previously, sand mining has ceased on the property. Since the site was not environmentally suited for permanent settlement, SCS1 concludes that this may be the reason for why no burials were found after excavating 287 trenches throughout the site. Further, Section 3.2 of the Draft EIS discusses the on-ground field reconnaissance survey and geological mapping of in-situ dune features at the property undertaken by Geolabs, Inc. (See Appendix B of the Draft EIS). As noted therein, Geolabs, Inc. did not find natural sand dunes that could be considered to be pristine geological features, as the majority of the dunes within the project have been obliterated by human activities. These include dunes that were flattened, tilled and utilized for sugar cultivation, ranching and other uses. The applicant has however, sought to preserve a large portion of the site wherein there are relatively intact lithified sand dunes.

Comment: " _____ KEEP AGRICULTURE ZONING IN ALL SAND DUNE AND PRESERVATION AREAS OR AMEND TO CONSERVATION"

Response: Per your comment, Section 6.1 of the Draft EIS described an alternative to the proposed project of "No Action." We believe this addressed your above comment.

Comment: " _____ SHOW CHAIN OF TITLE FROM 1846 OR BEFORE FOR THIS PROJECT AREA"

Response: Title reports prepared for the property reference two deeds documenting ownership: a deed of Hawaiian Commercial and Sugar Company, a California corporation, dated December 31, 1926, recorded in Liber 865 page 8 and a deed of Alexander & Baldwin, Inc. a Hawaii corporation, dated March 30, 1989, recorded in Liber 23006 at page 583.

Comment: " _____ IDENTIFY ALL ORIGINAL[sic] KULEANA OWNERS, ROYAL PATENTS, LAND COMMISSION AWARDS IN THIS PROJECT AREA to link families to ancestral lands. Start with all found in the case *The boundaries of Pulehunui.*"

Response: Two Royal Patent Grant Numbers are associated with the property, Number 3152 to Henry Cornwell and Number 3343 to Claus Spreckels.

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 23 of 25

Comment: " _____ SHOW WHERE THE WATER FOR THIS PROJECT WILL BE OBTAINED"

Response: Section 4.8.1 of the Draft EIS identifies and discusses potential water sources for the project. As noted therein, the applicant is exploring several potential drinking water source opportunities to serve the project. These include surface water treatment and new well sources in the Central Maui region.

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent, or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector, which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, needs to be developed. The need for these improvements is discussed in the County's Water Use and Development Plan and also the *Maui Island Plan*.

The *Maui Island Plan* is the guiding document for future growth on the island of Maui to the year 2030. Resident population estimates in the *Draft Maui Island Plan* reflect 135,838 residents in year 2010, 157,390 residents in year 2020 and 176,687 residents in year 2030. The plan has designated the Wai'ale area for future residential growth, and is the largest component of future growth in the Central Maui region. The *Draft Maui Island Plan* notes that the development of additional water sources is crucial for the Central Maui water system. The plan includes a long range implementation plan to address capital improvements, including water source development and related infrastructure.

Comment: " _____ DISCUSS ANY IMPACTS TO MAUKA TO MAKAI FLOW OF WATER AND OCEAN RESOURCES"

Response: With regard to potential drainage impacts from the project we offer the following. As noted in the second paragraph of page 85 of the Draft EIS, "The property slopes generally in an east or northeasterly direction." Starting from the last paragraph on page 85 in Section 4.8.3 of the Draft EIS, it states the following:

Prior to retention, the southern portion of the property will produce a 100-year runoff of 459 cfs and the northern portion of the property will produce a 100-year runoff of 1,526 cfs. With the installation of the proposed detention basins, the southern portion of the property runoff will be limited to 45 cfs [emphasis added] and the northern portion runoff will be limited to 72 cfs. This represents a significant decrease in runoff from existing conditions.[emphasis added] The 208.5 acre-foot (ac-ft) of detention storage capacity more than offsets the runoff volume increase. The Waikapū Stream and Kealia Pond drainage systems will be protected from any peak flow increases.[emphasis added]

In addition to reducing peak flow rates, the proposed stormwater management system will provide water quality treatment to reduce the discharge of pollutants to

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 24 of 25

the maximum extent practicable. Instead of just managing the infrequent peak storm events, the more common smaller storms will be targeted for treatment. The goal will be to provide water quality treatment for 90 percent of the average annual rainfall.

Wai'ale will incorporate stormwater BMPs to control water quality. Examples of stormwater BMPs that will be employed include:

Grass Swales

Surface stormwater runoff from developed areas will be directed to grass swales and landscaped areas where practical. The grasses and other vegetation provide natural filtration while allowing percolation into the underlying soil.

Open Space/ Reduced Impervious Coverage

*Approximately 25 percent of Wai'ale will be reserved as park areas, cultural preserves, or other open spaces. **Important natural and cultural features will remain undisturbed. A buffer strip will be maintained along Waikapū Stream.*** (emphasis added) *Open space and park areas will be maintained with grass or other native vegetative cover. Reducing impervious coverage where possible promotes infiltration and maintains the natural hydrologic cycle.*

Stormwater Retention/ Infiltration

*The bottom 1 to 2 feet of the stormwater basins will be reserved for retention of the water quality volume. **The water quality runoff and potential pollutants will be mitigated from flowing to downstream areas such as Waikapū Stream.*** (emphasis added) *Stormwater will be held for an extended period allowing suspended solids to settle out. Water will infiltrate into the soils gradually over 24 to 48 hours and recharge groundwater. Since the project will not contain stormwater "hotspot" uses such as heavy industrial, car salvage, or fueling sites, stormwater infiltration is considered acceptable.*

The proposed Waiale WTF would not involve a change to the status quo relative to the diversion of water from the Na Wai 'Eha streams. There will be no additional diversion. Since there will be no additional diversion of water, there would be no additional adverse impacts over the status quo, including that relating to traditional and customary Native Hawaiian rights.

Comment: " _____ MAKE AVAILABLE AMERON SUP ARCHAEOLOGICAL MONITORING RESULTS DUE 1994. AMERON SAND PIT IS IN PROJECT"

Response: We understand that an archaeological monitoring report is being prepared by Archaeological Services Hawaii, LLC under contract to Hawaiian Cement, the former sand mining operator. As the former sand mining operator, Hawaiian Cement is responsible for preparing the monitoring report. Also please note that per the SHPD, a final monitoring report is not required in the burial treatment plan process.

Ms. Clare Apana
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 25 of 25

Comment: " _____ PUT IN PLACE A PLAN FOR TREATMENT OF IWI FOUND OR DISTURBED TO BE APPROVED BY THE MLIBC[isic] and WAILUKU, WAIKAPU AHA MOKU COUNCILS."

Response: Inadvertent burial finds are governed under HAR section 13-300-40. This section includes procedures and protocols to be followed by the SHPD.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

Encl: Letter from Hana Pono LLC dated August 31, 2011

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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August 31, 2011

Ms. Clare Apana
260 Halaenai Dr.
Waihuku, Hawaii 96793

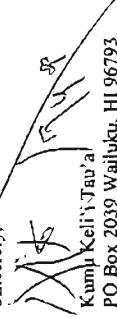
Aloha e Ms. Apana:

This is in reply to your letters of July 22, 2011 and August 1, 2011, concerning the Waiale Draft EIS and specifically the inclusion of your interview in the cultural impact assessment (CIA). As you are aware, Hana Pono LLC prepared the CIA for the Waiale project which was included in the Draft EIS. Your comment letter has been forwarded to us for response.

We apologize for any misunderstanding concerning the inclusion of your interview in the CIA. As we noted in the CIA, Hana Pono, LLC met with you on two separate occasions (January 18, 2011 and January 28, 2011). The meeting on January 28, 2011 was an on-site tour with a representative from A&B and was not recorded. Inasmuch as we sought but did not receive your confirmation of the transcript of your interview of January 18, we were unable to include them in the CIA. However, we have enclosed a copy of the transcript for your review and confirmation.

We request your written confirmation of your interview transcript by September 14, 2011. Should you have any questions please call me at 573-1643.

Sincerely,


Kumu Keli'i Tau'a
PO Box 2039 Waihuku, HI 96793

Enclosure

cc: Grant Chun, A&B Properties
Mike Shibata, PBR Hawaii

INTERVIEW – Clare Apana (Waiale)

1/18/11 1 PM

Interview by Keli'i Tau'a

Transcription by: Chelsea Tau'a

KT: Keli'i Tau'a

CA: Clare Apana

KT – I am sitting here with Clare Apana, off Waiko Road at Waikapu close to the cow-pens or the old dump road across the HC & S Sandpile. We are talking story about A & B's Proposal to build a large housing project in the area called Waiale. The following interview takes place at a significant part of the building project where Clare has had some personal experiences. So Clare, can you go on the right-hand side, start with what this meant to the people that you brought here.

CA: We're looking at the area where they are sand-mining. This is probably in the former locale for possibly one and we're looking at a preserve dune. And the reason it is preserved, I believe, is because there are so many burials that were found. That would have been impossible to find an area. I have come through this area many times. By myself and I've also brought other people with me. I particular, I would count one person that I've brought with me... on this particular day, I invited two friends. Two kanaka maoli, friends, who, one of which is having... close to having a nervous breakdown, and she really wanted to come into the sand dunes with me. We hiked through here and I did my work and she went and did her walking. And when she came out, at about this spot where we're sitting, she said, "the kupuna talked to me." And she started to cry. And she said, "And they told me this..." I will not recount what she said. And she said, "I feel so much better now, I understand now."

KT: Is she still living?

CA: Yes, she is still living. And she did greatly improve. But this area, in this area, is slated to be a road to be built for a sub-division. One of the burials will be moved and the features that are associated and found with this area. The scatter of bones went over, I believe, 30 feet... just scattered. It would be hard to find another intact burial. But I'm sure they are there. When, if they move this burial, the area will change, the energy will change. They will probably find more burials as they go through with this road. And

course we're in the sand dunes, so no more black rock. Here is sandstone. So these pohaku are in the affordable housing.

KT: Are we going to it?

CA: We can, if you want to, it's just right off the road. I strongly know that this is a cultural site and have asked that they look at it and study it and they should really GPS it and get people who actually know. I would hesitate to trust an archeologist, I would trust who is a traditional builder of stone walls. Because they can see from the scars on the pohaku what kind of place it is and perhaps how it was put together.

KT: I was at a convention and there's a presentation, Hawaiian rock building. But, who are the pohaku builders on Maui? I don't know.

CA: Francis Sinenci who did the Hana... the large restoration in Hana...

KT: The fishpond?

CA: The Pihani Hale?

KT: The Heiau?

CA: He did that one, he did the one on the Big Island. He's actually one of the more famous Hawaiian rock builders, you know. Frances Sinenci. And he has gone through the Pacific to restore traditional walls and structures.

KT: Outside of my classroom there is a hale that was built for me. From the University that requested it. They don't take care of the lawn, so we can't have classes out there, got kuku grass.

CA: Go right up to the next gravel part, where they sand-mined. You'll be able to go right along side the large preservation, you'll be between Preservation Area 1 and Preservation Area 2 and 3. And then 4 is this way. Going this way. My common sense and my na'au tells me that if you have preservation areas all the way around, in between, even if you sand-mined it... what do you think was there? If you had a dune system? You know? It will be again, like Māui Lani. They sand-mined the heck out of that place and when they went to build, and they dug down deeper, still some more 'iwi. It's actually right next door. So, I think we could avoid all of this.

Interview with Clare Apana 1/18/2011 for Wai'ale

4

You know, Kumu? What is the impact to someone like me? I've spent years regularly coming here to learn from the kupuna, to honor the kupuna, to love this land here. In my spiritual practice, I've been working with moving from this plane to the next and the balance between for over 20 years. And this is a phenomenal place, our people have so much we can learn from these bare dunes. What they call "junk agricultural land". You know, without water, you know the rain came, there is so much growing there. There is so much growing there and all they have is sand. But you know, the silica is one of the most valuable, precious resources in the whole world. But we never look at it that way. We don't see that. We never cherish these beautiful sand dunes that were all formed here on Maui—formed by the wind and the sea. That is a cultural... I think our ancestors would have thought that it was a precious resource, that the sand dunes were precious. You know? Everything is different. Gathering in a dry-land forest is different than being in a rain forest. But they are all necessary to life.

KT: I'm excited to see the pohaku.

CA: Okay!

CA: Right here, to me, is one of the most incredible places. The way that the joining of the different elements of the pohaku of the 'iwi kupuna, the land, the land forms. In the Wai'ale application for land use change it says, "Not much for view, not going to change the view plane." But, if you stand here, you can look out and see the tops of the surrounding area, and it will certainly be different than seeing a beautiful sand dune like this and you're going to see houses. That will change what you're looking at already, no more sand dunes. It's high here, it's about 300 or 400 feet. We're probably at about 200 feet right there. Yeah. On this flat part, is probably about 200 feet. I believe this is what is supposed to be the ball park out here. But right below this, it looks just like this... but here is preservation area, preservation area, preservation area. Even though it's flat, the area is a burial area. I like to be sure that it will impact me, it will impact the community, if we start building our parks, our regional sports parks on top of burials. We should stay clear of this area we know already and we should check it closer. But, you know, classically, through these dunes, the archeologist digs a pit and doesn't find anything and then when they go to do the grading... right next to it, there is a concentration of burials. So, there's something we're not doing enough of to protect these burials. Their formula for doing how they

Interview with Clare Apana 1/18/2011 for Wai'ale

5

July 20th, 2011

do things is not enough for this sand area. So, this will probably be close to the edge of Preservation Area I, which is some 32 or 33 acres. That would be this edge here (pointing to a map). Where I saw the owl is inside here.

KT: Okay.

CA: And the nene goose fly over head. 3:30 in the summer. In the summer it is 3:30 in the afternoon. I don't believe an ethnographic study of the flora has extended into this area after the rains like we just had. Because I see different things coming up that I don't usually see. But I'm not ma'a enough to know what it might be. If you were a plant person, I would say this is a good time to go in and look and see what seeds are still alive here in this dry-land place.

KT: Yup. Okay, we're good.

CA: I hope you get to drive inside so you can get the feel. I'm sure you've been on the sand dunes before, though.

KT: Mahalo, Clare!

From: Hōkūālo Pellegriño
P.O. Box 967
Waialuku, Hawai'i 96793

To: A&B Properties, Inc.,
P.O. Box 156
Kahului, Hawai'i 96732.
Attention: Grant Chun (Vice President)

State of Hawai'i
Land Use Commission
P.O. Box 2359
Honolulu, Hawai'i 96804
Attention: Dan Davidson

PBR Hawai'i & Associates, Inc.
ASB Tower, Suite 650
1001 Bishop St.
Honolulu, Hawai'i 96813
Attention: Michael Shibata

Re: Waiale Development (DEIS) Comments
TMK: (2) 3-8-05:23 (por.) and 37, and (2) 3-8-07:71, 101 (por.), and 104

Aloha e Mr. Chun,

Mahalo for providing a preliminary response to my comments during the investigative phase of the EIS. I will now take this opportunity to provide comments on the Draft Environmental Impact Statement regarding the proposed Wai'ale Development.

I would first like to state that the impacts that this project could potentially have on the island of Maui and the Waikapū and Waialuku ahupua'a are great. Although a project such as this, may have a beneficial impact to those in need of housing, I believe the adverse impacts to cultural and natural resources out way the benefits. A project of this magnitude can take away the historical character of the Waikapū ahupua'a and community, which is one of the last remaining intact historical communities on Maui. The Waikapū ahupua'a still retains that "country feel" yet is in close proximity to towns and schools. I believe it is for this reason many seek to develop in this area. However, there doesn't seem to be any recognition and or protection for the Waikapū community by those that seek to expand the Waialuku/Kahului urban sprawl. As a resident and lineal and cultural descendant of kūpuna who have lived and continues to live in the Waikapū ahupua'a, I am appalled that I have to express these comments in a time where we are looking at preserving the rural, cultural, and historical character of each ahupua'a/communities and the integration of smart and sustainable growth that benefit the impacted community and community at large.

In the current CIA provided by Hanna Pono LLC, I was also perplexed as to why an interview that I provided on January 11th (4:00 – 5:30 pm) was not included in the CIA. I had declined to be digitally recorded for this interview, however I made it very clear that the information which I provided would expand upon my comments in the letter (dated November 6th, 2010) and should be included in CIA. I am unclear as to why the detailed notes taken during our interview was not interpreted and documented in

the CIA. These comments provided more detailed accounts that aligned with the aforementioned letter provided two months prior.

My current comments and recommendations can be found below in accordance with the Draft Environmental Impact Statement.

Surface Water Resources:

Although Interim Instream Flow Standards (IIFS) were set in 2010 for the Nā Wai 'Ehā hydrologic unit, it seems that the Wai'ale project is continuing to look at the potential use of this water and to develop a water treatment facility. Please provide a more clear and concise plan as to how surface water will be utilized and what impacts this would have on any or all streams of Waikapū, Waialuku, Waiehu, Waie'e. How would using surface water address the cultural impacts (i.e. traditional lo'i kalo cultivation, gathering of native aquatic and marine life in and around streams, estuaries, and fisheries)? How will this impact recreational use by the greater Maui community? What types of impacts would using surface water have upon the life cycle and viability of native stream life (i.e. 'o'opu, 'opae, hihūwai)? Finally, how does the use of surface water for this development work in compliance with the Water Code and the States of Hawaii's understanding of water being a public trust? Although the Wai'ale project is looking at alternatives rather than using surface water while the pending legal challenges of the Nā Wai 'Ehā hydrologic unit continue, there still should be a detailed study and information provided in the EIS, whether or not the use of surface water will be utilized for this project.

Drainage:

There is very little mention as to where drainage would occur exactly within the Wai'ale project confines. This is of great concern due to the close proximity of the Waikapū Stream. Any drainage that may occur inadvertently or inadvertently into the Waikapū Stream, would impact the neighboring Kealia Wetland Refuge and Sanctuary which hosts and manages a number of critically endangered species of plants and birds. Although this project does not include wetlands, the risks of disturbing neighboring wetlands could occur. Please expand on the potential impacts of the Kealia Wetlands Sanctuary and Refuge. Other impacts that could also occur, are in and around sensitive cultural preserves which feature numerous iwi kūpuna (burials). The drainage section specifies that "storm water will percolate directly into the ground through natural and landscaped areas, evaporate, or will be collected and managed through a drainage system... runoff will be stored in detention basins located throughout the property". How will storm water percolate into the ground if majority of this development will be covered with houses, concrete walkways, and roads? Where will these retention basins be in conjunction to the Waikapū Stream as well as the designated cultural preserves? How will the drainage system at the "park" work as it is directly next to the Waikapū Stream? Parks usually have a large amount of human traffic which leads to potential dumping of garbage and litter that eventually finds their way into the streams. How will this be mitigated?

Biological Survey:

The fauna survey has documented that three native species of insects whose natural habitat is found within a portion of the proposed development. These include the federally endangered Blackburn's sphinx moth (*Manduca blackburni*), and two indigenous dragonflies (*Pantala flavescens*, *Anax junius*). My concern lies with all three species however the need for protecting the endangered Blackburn's sphinx moth is of utmost importance. I have personally seen this moth in this area and other areas where they utilize the introduced tobacco plant species for part of its life cycle. The Wai'ale project will completely destroy its habitat and there are no identifiable mitigation measures on how to preserve this federally endangered species. Please expand upon how this project would ensure the livelihood of the Blackburn's sphinx moth and preservation methods beyond the scope of this project?

There is also no mention of pueo (owl) and federally endangered nēnē (goose) that do fly in, around, and through this project area. The absence of these observations can result in a failure to take

appropriate action and mitigation measures for these two critically important native species. How will the Wai'ale project impact these native bird species?

Cultural Impact Assessment:

The cultural impact assessment provided by Hana Pono LLC fails to recognize the importance of the area being proposed for the Wai'ale project in conjunction with the Waikapū and neighboring ahupua'a. The research conducted and assessment lacked extensive detail of how this project would greatly impact the cultural landscape of Waikapū. Although a brief description of "cultural recommendations" was made, Hana Pono fails to expand upon how iwi kūpuna should be protected and preserved in a culturally appropriate manner. They mention that there should be mapping and protection of pu'uhone (sand dunes). A good recommendation, however they make no notation as to who and how this will be done. They would like to see inclusion of Waikapū Stream in significant landmarks, however they fail to recognize that the company that is seeking to build Wai'ale development has been greatly impacting the stream for the last 125 years. The Waikapū Stream in and around the Wai'ale project area is "dead"; meaning there is no mauka to makai flow. The cultural impact assessment makes no note of that whatsoever and fails to recognize the importance of the Waikapū Watershed of Mauna Hana'ula & Hale Pōhaku to Keālia.

As a firm which seeks to assess the real cultural impacts of any cultural landscape, it seems that the only understanding of this project area and immediate surroundings that were documented came from a few historical book accounts and less than 5 personal interviews. With the magnitude of such impacts this project would incur, I am dumbfounded as to why no greater detail was made to really give the Maui community a sense of place for Waikapū and its cultural features. There were no maps that were utilized in this study which would give a firm and clearer understanding as to the relationship of the area of interest, Waikapū ahupua'a, neighboring ahupua'a and moku. I would like to see a section on historic trails and how expansive they were in this potential project site. I have spent ten plus years researching the ahupua'a of Waikapū and I have concluded that the current East Waikō Road was part of an extensive system of trails and roadways, allowing Hawaiians during and prior to the 1800s to traverse Ke Kula o Kama'ōma'o (central Maui plains). These well documented accounts describe the exact location and destination of where the kama'āina (residents) of Waikapū were going and why they were traveling back and forth.

Hana Pono also recommends that there be educational opportunities describing the historical relevance of this place in conjunction to the development. I completely agree, but the recommendation is all to commonly proposed throughout development projects and very little follow occurs. How will the developers of this project make an effort to reach out to the community and fund such a project? What community benefits will this have if many of the historical sites and storied places are impeded and/or erased from site?

I don't feel that the current Cultural Impact Assessment is adequate and there should be a more concerted effort by Hana Pono LLC to reach out to the Waikapū Community and other communities that historically and/or currently have knowledge of this area. Wherever there is impact on the 'āina, there is going to be a need to conduct an extensive cultural impact assessment to ensure clear and concise mitigation measures are in place rather than a few recommendations. If we are going to respect the integrity of a cultural landscape and its relevance in the 21st century, than hana pono (proper/excellent work) is to be expected.

Archaeological Inventory:

The proposed Wai'ale project will greatly impact iwi kūpuna (native Hawaiian remains). Although an inventory of archaeological sites was completed and proper burial treatment plans have been laid out, how will the protection of inadvertent burials be treated by means of preservation or removal? A large cultural preserve in the mauka area of the project seems to exist besides remaining sand dunes but I would like to recommend that all other burials be respected and kept in place. The



October 7, 2011

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proposed development should work with these important cultural features rather than move them for the purpose of their planned project. By that I mean establishing cultural preserves wherever these burial sites may be found. A&B and their Maui Lani project have been and continue to be notorious for disturbing and removing burials and placing them in areas that are convenient for their development. This is a complete lack of respect to the native Hawaiian community and to the known or unknown descendants of these iwi kūpuna. Can this project establish a plan which respects the iwi kūpuna rather than extracting them from their earthen graves and piling them with other burials whose sites have no impact on the project? According to the archaeological findings, there are numerous burials scattered throughout the project area and I would like to see how pono mitigation measures can be put into place by the developers to ensure no impact upon iwi kūpuna (native Hawaiian burials). I am also recommending that the archaeological monitoring plan be implemented and strictly followed, due to errors by the consulting firm in surrounding projects.

Native Hawaiian Community:

This project and its scope have the potential to directly impact Maui, the Waikapū Community, and the cultural landscape. There is no mention as to how the Wai'ale project will impact the Native Hawaiian community due to alterations of cultural and environmental resources. The disturbance and desecration of iwi kūpuna greatly impact the emotional and spiritual wellbeing of native Hawaiians. The loss of cultural sites, geologic features, and storied places greatly impacts the cultural learning practices of native Hawaiians and their future generation. The lack of mauka to makai stream flow due to diversions, decimation of the Keālia wetlands and Mā'ālelea reef and fisheries which allowed Waikapū ahupua'a to be self-sufficient greatly impacts native Hawaiians. How will these impacts be mitigated and what kind of benefits to the native Hawaiian community will this proposed project have in place because of altered and or removal of these resources. I believe this is a valid concern amongst many Hawaiians within the ahupua'a of Waikapū and neighboring communities. Please assess these impacts, devise a plan on how they will be mitigated, and what type of benefits will be proposed to the Hawaiian community.

Mahalo for this opportunity to provide comments to the Draft EIS for the proposed Wai'ale Project. As a kama'āina of Waikapū, I look forward to seeing these concerns addressed. If you have any questions, please feel free to contact me at (808) 430-4534 or Hokuao44@msn.com

Me ka ha'aha'a,

Hokuao Pellegriano

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Pellegriano,

Thank you for your letter dated July 20, 2011 addressed to Mr. Grant Chun of A&B Properties, Inc., regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

Comment: "I would first like to state that the impacts that this project could potentially have on the island of Maui and the Waikapū and Waikapū ahupua'a are great. Although a project such as this may have a beneficial impact to those in need of housing, I believe the adverse impacts to cultural and natural resources outweigh the benefits. A project of this magnitude can take away the historical character of the Waikapū ahupua'a and community, which is one of the last remaining intact historical communities on Maui. The Waikapū ahupua'a still retains that "country feel" yet is in close proximity to towns and schools. I believe it is for this reason many seek to develop in this area. However, there doesn't seem to be any recognition and or protection for the Waikapū community by those that seek to expand the Waikapū/Kahului urban sprawl. As a resident and lineal and cultural descendant of kupuna who have lived and continues to live in the Waikapū ahupua'a, I am appalled that I have to express these comments in a time where we are looking at preserving the rural, cultural, and historical character of each ahupua'a communities and the integration of smart and sustainable growth that benefit the impacted community and community at large."

Response: We acknowledge that Waikapū is "one of the last remaining intact historical communities on Maui". However, due to the horizontal distance (approximately 2,000 feet), the difference in elevation, existing development (Waikapū Gardens Subdivision), and the proposed Waikapū County Town, the Wai'ale project will likely not be visible from either Waikapū or Honoapi'iani Highway. We believe that other more proximate projects would likely have a greater potential of affecting Waikapū's identity than Wai'ale.

Mr. Hōkūao Pellegrino
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 13

Comment: "In the current CIA provided by Hana Pono LLC, I was also perplexed as to why an interview that I provided on January 11th (4:00-5:30 pm) was not included in the CIA. I had declined to be digitally recorded for this interview, however I made it very clear that the information which I provided would expand upon my comments in the letter (dated November 6th, 2010) and should be included in CIA. I am unclear as to why the detailed notes taken during our interview was not interpreted and documented in the CIA. These comments provided more detailed accounts that aligned with the aforementioned letter provided two months prior."

Response: We apologize for any misunderstanding concerning the inclusion of your interview in the CIA prepared by Hana Pono. We understand that Hana Pono has communicated with you regarding this matter (via enclosed letter dated August 31, 2011), requesting your confirmation to include your interview in the CIA. Since Hana Pono did not receive a response back from you, the interview transcripts were not included in the CIA.

Comment: "Surface Water Resources: Although Interim Instream Flow Standards (IIFS) were set in 2010 for the Na Wai 'Eha hydrologic unit, it seems that the Wai'ale project is continuing to look at the potential use of this water and develop a water treatment facility. Please provide a more clear and concise plan as to how surface water would be utilized and what impacts this would have on any or all streams of Waikapu, Wailuku, Waiehu, Waie'e."

Response: Section 4.8.1 of the Draft EIS identifies and discusses potential water sources for the project. With specific regard to the planned Wai'ale WTF, the Draft EIS clearly acknowledges that further discussion, review and approvals by various governmental agencies would be required in order to proceed. Included among these is the resolution of the interim instream flow standards for the Na Wai 'Eha. As you are aware, the State Commission on Water Resource Management (CWRM) issued a decision in June 2010 on the petition to amend the interim instream flow standards for the Na Wai 'Eha streams. The CWRM's decision was appealed and this matter is currently before the court. The outcome is unknown at this time. As noted in the Draft EIS, the results of these decisions could result in a smaller treatment facility with lower capacity than planned.

Comment: "How would using surface water address the cultural impacts (i.e. traditional lo'i Kalo cultivation, gathering of native aquatic and marine life in and around streams, estuaries, and fisheries)? How will this impact recreational use by the greater Maui community? What types of impacts would using surface water have upon the life cycle and viability of native stream life (i.e. 'o'opu, 'opae, hihiwai)?"

Response: The proposed Wai'ale WTF would not involve a change to the status quo relative to the diversion of water from the Na Wai 'Eha streams. There will be no additional diversion. Since there will be no additional diversion of water, there would be no additional adverse impacts over the status quo, including that relating to traditional and customary Native Hawaiian rights.

Mr. Hōkūao Pellegrino
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 3 of 13

Comment: "Finally, how does the use of surface water for this development work in compliance with the Water Code and the States of Hawai'i's understanding of water being public trust? Although the Wai'ale project is looking at alternatives rather than using surface water while the pending legal challenges of the Na Wai 'Eha hydrologic unit continue, there still should be a detailed study and information provided in the EIS, whether or not the use of surface water will be utilized for this project."

Response: The State Water Code was addressed in the first four paragraphs of Section 3.6 of the Draft EIS. The first three paragraphs of Section 3.6 of the Final EIS have been revised to read as follows:

As previously mentioned in Section 3.5, the applicant is exploring several potential drinking water source opportunities to serve Wai'ale ~~the project~~. These include surface water treatment and new well sources in the Central Maui region. ~~The primary focus has been the development of a surface water treatment facility utilizing water from the West Maui ditch system. The following discusses the alternative of developing a new surface water treatment facility.~~

The Maui County General Plan 2030, Maui Island Plan - Infrastructure and Public Facilities Technical Issue Paper (September 2007), outlined preliminary estimates for major County system upgrades for Central Maui including the Wai'ale Water Treatment Facility (WTF) which was envisioned as having an installed capacity of nine MGD with an average capacity of six MGD.

The State Water Code (Chapter 174C, Hawaii Revised Statutes) and Maui County Code Chapter 14.02 require the preparation of a Water Use and Development Plan (WUDP). The WUDP is the primary long range plan of the County Department of Water Supply (DWS). The WUDP directs the management of water resources in a manner that is ~~a plan for the management of water resources that is consistent with~~ the County's land use plans and policies. The WUDP serves as a guideline for the use and commitment of water resources and funds. The DWS is in the process of updating the WUDP.

Comment: "Drainage: There is very little to mention where drainage would occur exactly within the Wai'ale project confines. This is of great concern due to the close proximity of the Waikapu Stream. Any drainage that may occur inadvertently or inadvertently into the Waikapu Stream, would impact the neighboring Kealia Wetland Refuge and Sanctuary which hosts and manages a number of critically endangered species of plants and birds. Although this project does not include wetlands, the risks of disturbing neighboring wetlands could occur. Please expand on the potential impacts of the Kealia Wetlands Sanctuary and Refuge. Other impacts that could also occur are in and around sensitive cultural preserves which feature numerous iwi kupuna (burials). The drainage section specifies that "storm water will percolate directly into the ground through natural and landscaped areas, evaporate, or will be collected and managed through a drainage system...runoff will be stored in detention basins located throughout the property". How will storm water percolate into the ground if majority of this development will be covered with houses, concrete walkways, and roads? Where will these retention basins be in conjunction to the Waikapu Stream as well as the designated cultural preserves? How will the

Mr. Hōkūao Pellegrino
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 4 of 13

drainage system at the "park," work as it is directly next to the Waikapu Stream? Parks usually have a large amount of human traffic which leads to potential dumping of garbage and litter that eventually find their way back into the streams. How will this be mitigated?"

Response: Your comments express concern about drainage towards Waikapū Stream. As noted in the second paragraph of page 85 in Section 4.8.3 of the Draft EIS, "The property slopes generally in an east or northeasterly direction." As discussed in the Proposed Drainage Plan of Appendix N of the Draft EIS, the runoff from the south Wai'ale project area will be captured and conveyed to either Detention Basin 1A or 1B. Much of the stormwater will be retained in the basins and only during the largest storms will there be discharge of stormwater. The water quality storm runoff (which represents 90 percent of all runoff) will be completely captured in the basins and will infiltrate over time. The basins will be fenced to prevent dumping of garbage and will be regularly mowed and managed. A park buffer will also be provided along Waikapū Stream. Overall, the project stormwater management plan strives to prevent any adverse impacts to Waikapū Stream and the sensitive downstream areas.

No disturbance is proposed in the Cultural Preserve areas. Cultural Preserves will not be used for stormwater receiving areas or retention areas.

Approximately 25 percent of the development project area will be reserved as park areas, cultural preserves, or other open spaces. The remaining developed area will only be partially developed with impervious surfaces. Therefore, there are expected to still be significant opportunities for direct percolation of stormwater runoff.

Comment: "Biological Survey:

The fauna survey had documented that three native species of insects whose natural habitat is found within a portion of the proposed development. These include the federally endangered Blackburn's sphinx moth (Manduca blackburni), and two indigenous dragonflies (Pantala flavescens, Anax junius). My concern lies with all three species however the need for protecting the endangered Blackburn's sphinx moth is of almost importance. I have personally seen this moth in this area and other areas where they utilize the introduced tobacco plant species for part of its life cycle. The Wai'ale project will completely destroy its habitat and there are no identifiable mitigation measures on how to preserve this federally endangered species. Please expand upon how this project would ensure the livelihood of the Blackburn's sphinx moth and preservation methods beyond the scope of this project?"

Response: As noted in Section 3.8 of the Draft EIS, the applicant, in cooperation with the U.S. Fish and Wildlife Service (USFWS) will develop an appropriate mitigation plan for the Blackburn's sphinx moth (Manduca blackburni) at the property. The USFWS has been consulted and has provided comments to the Draft EIS regarding the Blackburn's sphinx moth.

The following text has been added to Section 3.8 of the Final EIS:

The applicant, in cooperation with the U.S. Fish and Wildlife Service (USFWS), will develop an appropriate mitigation plan for the Blackburn's sphinx moth at the

Mr. Hōkūao Pellegrino
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 5 of 13

property with the aim of preventing any "take" of the Blackburn's sphinx moth. The USFWS has been consulted and has offered assistance in the development of a mitigation plan.

Comment: *"There is also no mention of pueo (owl) and federally endangered nene (goose) that do fly in, around, and through this project area. The absence of these observations can result in a failure to take appropriate action and migration measures for these two critically important native species. How will the Wai'ale project impact these native bird species?"*

Response: As noted in the Flora and Fauna Study, included as Appendix D of the Draft EIS, no nene (Hawaiian geese) or pueo were observed in the kiawe forest habitat found at the property. However, based on yours and other public review comments, the following paragraphs will be added to Section 3.8 of the Final EIS:

Although none of the endangered nene goose (Branta Sandwicensis) were sighted in this kiawe forest habitat, during the Draft EIS public review period, the USFWS commented that the "Proposed green space in the proposed parks and school grounds in the Community Master Plan will likely attract this species into the project area." Should the planned parks and open spaces at the project attract the Hawaiian geese, appropriate mitigation measures will be undertaken.

During the Draft EIS public review period, the Sierra Club Maui Group wrote: "The interviewees in the Cultural Impact Assessment all mention the Pueo frequenting the project area. Whether or not these native birds were noted in the flora and fauna survey, the DEIS should acknowledge the cultural impact if their habitat is disturbed, to be in compliance with Article XII section 7 of the State Constitution which protects traditional cultural practices. If the Pueo loses its habitat, families will have difficulty being connected to their "aumakua." As noted above, per biological consultant Robert Hobdy, he has not seen a pueo in some 40 years in Maui's central valley. The introduced barn owl (Tyto alba) is widespread in lower elevations, closer to human activities and structures. It is occasionally seen in the project area. It roosts in the forest corridor along Waikapū Stream during the day and does not fly unless disturbed. It becomes active during the evening when it is sighted the pueo, so it is possible that those that claim to have seen pueo in the area may have actually sighted the more common larger barn owl, which actually out-competes the pueo for food and is a predator on its young where their habitats overlap. Barn owls have no federal endangered species protections and no native Hawaiian cultural connections.

Comment: "Cultural Impact Assessment:

The cultural impact assessment provided by Hana Pono LLC fails to recognize the importance of the area being proposed for the Wai'ale project in conjunction with the Waikapu and neighboring ahupua'a. The research conducted and assessment lacked extensive detail of how this project would greatly impact the cultural landscape of Waikapu. Although a brief description of "cultural recommendations" was made, Hana Pono fails to expand upon how iwi kupuna should be protected and preserved in a culturally appropriate manner. They mention

that there should be mapping and protection of pu'uone (sand dunes). A good recommendation, however they make no notation as to who and how this will be done. They would like to see inclusion of Waikapu Stream in significant landmarks, however they fail to recognize that the company that is seeking to build Wai'ale development has been greatly impacting the stream for nearly 125 years. The Waikapu Stream in and around the Wai'ale project area is "dead"; meaning there is no mauka to makai flow. The cultural impact assessment makes no note of that whatsoever and fails to recognize the importance of the Waikapu Watershed of Mauna Hana'ula & Hale Pohaku to Kealia.

As a firm which seeks to assess the real cultural impacts of any cultural landscape, it seems that the only understanding of this project area and immediate surroundings that were documented came from a few historical book accounts and less than 5 personal interviews. With the magnitude of such impacts this project would incur, I am dumbfounded as to why no greater detail was made to really give the Maui community a sense of place for Waikapu and its cultural features. There were no maps that were utilized in this study which would give a firm and clearer understanding as to the relationship of the area of interest, Waikapu ahupua'a, neighboring ahupua'a and moku. I would like to see a section on historical trails and how expansive they were in this potential project site. I have spent ten plus years researching the ahupua'a of Waikapu and I have concluded that the current East Waiko Road was part of an extensive system of trails and roadways, allowing Hawaiians during and prior to the 1800s to traverse Ke Kula o Kama'oma'o (central Maui plains). These well documented accounts describe the exact location and destination of where the kama'aina (residents) of Waikapu were going and why they were traveling back and forth."

Response: Much of the research on Waikapū you are requesting was conducted by the Scientific Consultant Services, Inc. (SCSI) in its archaeological inventory survey (AIS) report for the property (Appendix E of the Draft EIS). While we tried to summarize the AIS in Section 2.1.3 of the Draft EIS, you may want to refer to pages 11, 22, 31 and 33 of the AIS. We do not dispute the importance of Waikapū, it just does not appear that the portion of the property in the ahupua'a was as heavily settled as the more mauka reaches. Per your comments, the following paragraph will be inserted into Section 4.2 of the Final EIS:

During the Draft EIS public review period, Mr. Hōkūao Pellegrino wrote: "I have spent ten plus years researching the ahupua'a of Waikapu and I have concluded that the current East Waiko Road was part of an extensive system of trails and roadways, allowing Hawaiians during and prior to the 1800s to traverse Ke Kula o Kama'oma'o (central Maui plains). These well documented accounts describe the exact location and destination of where the kama'aina (residents) of Waikapu were going and why they were traveling back and forth."

Comment: "Hana Pono also recommends that there be educational opportunities describing the historical relevance of this place in conjunction to the development. I completely agree, but the recommendation is all to [sic] commonly proposed throughout development projects and very little follow [sic] occurs. How will the developers of this project make an effort to reach out to the community and fund such a project? What community benefits will this have if many of the historical sites and storied places are impacted and or erased from site?"

Response: A&B recognizes the cultural and historic significance of the project area. As recommended by Hana Pono in its cultural impact assessment, educational opportunities describing the relevance of the region will be incorporated into the project.

As noted in Sections 4.1 and 4.2 of the Draft EIS, various short-term and long-term preservation measures would be taken to protect historic sites and burials discovered on the property. In particular, the Burial Site Component of a Data Recovery Plan and Preservation Plan was reviewed by the State Historic Preservation Division and found in compliance with HAR 13-300(i)(j).

The following text has been added to Section 4.1 of the Final EIS:

Short-Term Preservation Measures – The identification and implementation of appropriate short-term or interim site protection measures, including an archaeological monitoring plan. These include:

- Prior to construction commencement a meeting shall be held to inform all pertinent parties regarding the locations and buffer zones for all sites slated for preservation in or near areas of potential effect;
- The erection of temporary construction fencing (orange plastic) or other visible markings defining no-encroachment buffer zones around the perimeter of sensitive areas;
- Full-time ~~regular~~ monitoring of preservation sites ~~during~~ construction activities; and
- Ensuring transition to permanent preservation measures following completion of construction.

Long-Term Preservation Measures – The identification and implementation of long-term or permanent site protection measures provide for the continued protection of archaeological and cultural resources. The two typical categories of long-term preservation are passive and active preservation, as described below:

- **Passive Preservation** – Sites in this category do not undergo any interpretive development, occur in areas that can be avoided by development, and are left as is. This category is sometimes referred to as "data banking." Most sites in this category are not intended to be permanently preserved, but are anticipated to undergo data recovery procedures in the future, presumably when improved data gathering techniques and refined analysis technologies are available or on large tracts of land where development is intended to take place in incremental phases; and
- **Active Preservation** – Sites in this category are chosen for their interpretive potential. Their selection may be based on aesthetic, academic, or cultural representation values. Different levels of interpretive development may be undertaken, including: stabilization, partial or complete restoration, and/or reconstruction. Signs may be

involved, and details regarding access and protocols need to be worked out.

- **Cultural Preserves** - Approximately 33 acres are proposed to be set aside as cultural preserves where the greatest concentrations of burials occur. These areas are planned to be permanently preserved, and none of the burials within these cultural preserves are anticipated to undergo data recovery procedures in the future. These areas are intended to be kapu and only accessed by lineal and/or cultural descendants, recognized and/or acknowledged cultural practitioners and for periodic maintenance and/or fire protection. The plan for preservation, any landscaping and reinterment is provided in the Preservation Plan (See Appendix G) and includes the following:

PRESERVATION PLAN

Short-Term Measures

Short term protective measures are implemented at preservation areas during the interim period before and during construction. The burial features of Site 5504 and 6679 are currently protected by erecting orange caution fencing around the burial site. Additionally, each burial feature is covered with a layer of sand, tarp and plywood or wooden gate. To ensure the protection of the remnant sand dune feature containing the burials, a 2:1 slope must be maintained if grading occurs outside the temporary buffer zone. Periodic field inspections are performed to ensure that burial features are protected from the elements. All collected, displaced human skeletal remains are curated at the offices of ASH.

Any burials to be disinterred will be performed utilizing all accepted methods and procedures. As human skeletal remains are removed, they will be documented on Burial Inventory forms and placed into cardboard boxes lined with kapa and ti leaves. The disinterred burials will be curated at the ASH offices, where they will be prepared for reinterment by appropriate personnel.

Long-Term Preservation Measures

Long-term measures are a mitigation strategy to protect the site in perpetuity. These measures may not be adjusted and or changed without prior consultation and acceptance by the SHPD in consultation with the appropriate MLIBC members.

The proposed reinterment location for the burial features is within the preservation areas established around existing intact primary burials. Preservation Area 1 is the largest and comprised of 28.4 acres. It is situated within the northwestern quadrant of the project area. Preservation Area 1 contains the majority of the burial features and secondary deposited human remains. Feature 46 shall be reinterred into

the Preservation Area 1. Preservation Area 2 consists of .2 acres and is situated within Phase B surrounding Feature 61. Feature 60 will be reinterred within Preservation Area 2. Preservation Area 3 measuring 1.7 acres is located south east of Preservation Area 1 and has been erected around Features 55-58. Preservation Area 4 comprised of 1.2 acres contains Features 50 and 54 and lies just south of Preservation Area 1. Secondary scatters, Features 48, 49b/c and 51, as well as a partial intact primary burial Feature 49a will be relocated and interred within Preservation Area 4. Preservation Area 5 contains Site 5504, a primary burial feature, and is comprised of .115 acres situated along Kūihelani Highway. All preservation areas will be protected in perpetuity by a combination of landscaping, signage, recordation buffer zones and surface demarcation. These measures are discussed in detail below.

Surface Demarcation – All primary, in situ burial sites and reinterred human skeletal remains shall be marked on the surface by cobbles and or small boulders. For reinterred burials, a reinterment pit measuring approximately 4.0 ft. by 4.0 ft. by 3.0 ft. deep will be excavated adjacent to the in situ burial features. The bundles of human skeletal remains will be placed in the bottom of the pit and the remainder of the pit will be filled with clean sand. A concrete cap measuring approximately 4 inches thick or some other acceptable form of cover shall be placed over all burial features and inscribed with the SHP number and KAPU. Soil and or sand will cover the concrete so that vegetation can be established. A large boulder or and or several cobbles will be placed on the surface over the burial to demarcate its location.

Preservation Area/Buffer Zone – The preservation area includes the burial site, the surface demarcation and the buffer zone which surrounds the burials. The buffer zone is a protective area for the buried human remains in which temporary or permanent structures shall not be placed or built. Subsurface utilities and other uses shall be routed outside of the buffer zone. The buffer zone will be delineated by a combination of aligned boulders, fencing and vegetated berms as applicable and appropriate to each preservation area. Along the outside perimeter of these preservation areas will be clearly marked walking trails. The trails will encircle each preservation area and are envisioned to be utilized by the general public and those wishing to visit the preservation areas.

Only traditional and customary activities associated with Native Hawaiian burial sites shall be allowed within the preservation area. At this time, no access is afforded inside the preservation area except for maintenance purposes. For continued protection of the burials, Preservation Areas 1-5 will be clearly identified on all construction plans, as built plans etc.

Landscaping – The interior of all preservation areas will be maintained with existing vegetation or landscaped with appropriate dry land Native plants to stabilize the sand dune formation. The Native plantings will be a combination of ground cover and shrubs that are not deeply rooted. Appropriate trees for ceremonial and religious areas such as Milo may be planted but must be placed far away from any known burials. If existing non-native trees are removed or new trees planted, all excavations for proposed trees must be monitored by the archaeologist. Generally, trees that require removal are clear cut and the base is poisoned in place. Native plantings may consist of drought tolerant native plantings such as natio papa, ililma papa or other appropriate native plants found in the central Maui area. The landscaping shall be maintained so that the burial markers and signage are visible. Several openings not more than 3.0 ft. wide will be provided for maintenance purposes. To establish the native plantings, temporary irrigation may be installed on the surface. Within the preservation area, no trenching for subsurface irrigation will be permitted.

Signage – Bronze plaques measuring 18 inches by 10 inches shall be permanently affixed at two locations along the exterior of the preservation area. Signage would consist of the following:

- Native Hawaiian Burial Sites
- KAPU
- State Site Number 50-50-04-6679
- Please respect This Area

Maintenance – The plaques, burial markers, landscaping and buffer zone delineation (aligned boulders, vegetated berms, fencing, landscaping) shall be maintained by the landowner, homeowners association or other applicable entity with such responsibilities. If any of these protective measures should deteriorate or are damaged over time, the landowner, homeowners association or applicable entity shall be responsible for the repair or replacement of these measures; however no changes may be made without written authorization by SHPD.

To ensure perpetual protection of this burial site, periodic site inspections by the SHPD may be conducted to verify that the signage, platform and all long-term measures are in place and the site is adequately protected. Site inspections will be performed at mutually agreed upon times between the landowner, homeowners association or applicable entity and the SHPD staff.

Recordation – The preservation area shall be surveyed by a licensed surveyor and a metes and bounds description of the preservation area shall be recorded by the landowner, along with the Burial Treatment and

Preservation Plan at the State of Hawaii Bureau of Conveances within 90 days of written acceptance of the Burial Treatment and Preservation Plan by the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD). The DLNR-SHPD and the Maui/Lanai Islands Burial Council (MLIBC) shall be provided with copies of the recorded Burial Treatment and Preservation Plan.

Access – Burial sites may be viewed from walking trails at the preservation area. Access within the preservation areas for lineal and or cultural descendants is not afforded at this time, as no lineal and or cultural descendant claims have been received by the SHPD for these burial features. In the event that a future lineal or cultural descendant claim is recognized by the MLIBC, access to the burial site within the preservation area shall be permitted at reasonable dates and times mutually agreed upon by the landowner and lineal and cultural descendants.

Comment: "I don't feel that the current Cultural Impact Assessment is adequate and there should be a more concerted effort by Hana Pono LLC to reach out to the Waikapu Community and other communities that historically and/or currently have knowledge of this area. Whenever there is impact on the 'aina, there is going to be a need to conduct an extensive cultural impact assessment to ensure clear and concise mitigation measures are in place rather than a few recommendations. If we are going to respect the integrity of a cultural landscape and its relevance in the 21st century, than hana pono (proper/excellent work) is to be expected."

Response: We acknowledge your opinion, but would note that all those interviewed as part of the CIA appear to have been familiar with Waikapū and provided information about the area.

Comment: "Archaeological Inventory:

The proposed Wai'ale project will greatly impact iwi kupuna (native Hawaiian remains). Although an inventory of archaeological sites was completed and proper burial treatment plans have been laid out, how will the protection of inadequate burials be treated by means of preservation or removal? A large cultural preserve in the mauka area of the project seems to exist besides remaining sand dunes but I would like to recommend that all other burials be respected and kept in place. The proposed development should work with these important cultural features rather than move them for the purpose of their planned project. By that I mean establishing cultural preserves wherever these burial sites may be found. A&B and their Maui Lani project have been and continue to be notorious for disturbing and removing burials and placing them in areas that are convenient for their development. This is a complete lack of respect to the native Hawaiian community and to the known or unknown descendants of these iwi kupuna. Can this project establish a plan which respects the iwi kupuna rather than extracting them from their earthen graves and piling them with other burials whose sites have no impact on the project? According to the archaeological findings, there are numerous burials scattered throughout the project area and I would like to see how pono mitigation measures can be put into place by the developers to ensure no impact upon iwi kupuna (native Hawaiian burials). I am also recommending that the archaeological monitoring plan be implemented and strictly followed, due to errors by the consulting firm in surrounding projects."

Mr. Hōkūao Pellegrino
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 12 of 13

Response: As noted in the last sentence of the second paragraph on page 56 in Section 4.2 of the Draft EIS, "The applicant acknowledges that burial preservation in place is preferable over relocation." Of the burials found to date, the second and third paragraphs on page 51 in Section 4.1 of the Draft EIS noted the establishment four other cultural preserves, in addition to the large one you refer to:

To address the burial treatment plan for State Site No. 50-50-04-5504 as well as State Site No. 50-50-04-6679 comprising the former Hawaiian Cement sand mining area, a Final Burial Site Component of a Data Recovery Plan and Preservation Plan for State Sites Nos. 50-50-04-5504 and -6679 ("preservation plan") was prepared by Archaeological Services Hawaii, LLC (ASH) (See Appendix G). The preservation plan proposes the preservation in place of inadvertent burial features of State Site Nos. 50-50-04-5504 and -6679 consisting of 33 partially intact primary burial features, 13 burial pits which are highly probable to contain human skeletal remains, 6 disturbed, possible primary burials, and secondarily deposited/scatters of human skeletal remains with no primary/in situ component representing 36 individuals. The preservation plan includes the relocation of two partially intact primary burial features and five secondary scatters. **These burial features will be preserved within five established preservation areas totaling in excess of 30 acres.** [emphasis added] Additionally, State Sites Nos. 50-50-04-4200, -4201 and -4202, comprising five burial features and a multi-stepped terrace are also preserved in place within Preservation Area 1 (largest preserve) pursuant to a previously accepted burial treatment and preservation plan (Kennedy and Moore 1998).

The preservation plan was reviewed by the Maui/Lanai Islands Burial Council in July 2010 and the SHPD subsequently accepted the preservation plan by letter dated September 13, 2010 (See Appendix H).

Also, please be advised that A&B Properties, Inc. is not the developer of the Maui Lanai project, nor involved in burial matters relating thereto.

Comment: "Native Hawaiian Community:

This project and its scope have the potential to directly impact Maui, the Waikapu Community, and the cultural landscape. There is no mention as to how the Wai'ale project will impact the Native Hawaiian community due to alterations of cultural and environmental resources. The disturbance and desecration of iwi kupuna greatly impacts the emotional and spiritual wellbeing of native Hawaiians. The loss of culture sites, geologic features, and storied places greatly impacts the cultural learning practices of native Hawaiians and their future generation. The lack of mauka to makai stream flow due to diversions, decimation of the Kealia wetlands and Ma'aloa reef and fisheries which allowed Waikapu ahupua'a to be self-sufficient greatly impacts native Hawaiians. How will these impacts be mitigated and what kind of benefits to the native Hawaiian community will this proposed project have in place because of altered and or removal of these resources. I believe this is a valid concern amongst many Hawaiians within the ahupua'a of Waikapu and neighboring communities. Please assess these impacts, devise a plan on how they will be mitigated, and what type of benefits will be proposed to the Hawaiian

Mr. Hōkūao Pellegrino
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 13 of 13

community."

Response: Besides the archaeological inventory surveys, data recovery plan and preservation plan, and cultural impact assessment conducted to date, the master plan for the Wai'ale project includes:

- an open space buffer along Waikapū Stream and measures to minimize pollution of the stream from stormwater runoff;
- establishing five cultural preserves totaling in excess of 30 acres to preserve the concentrations of burials discovered during subsurface archaeological inventory surveys for the entire property;
- the preservation of the largest remaining semi-intact sand dune; and
- the applicant's desire to work with kupuna, cultural specialists and CIA interviewees in crafting educational and interpretive programs about the site's cultural resources.

Additionally, we believe that native Hawaiians have similar needs to non-Hawaiians for new housing opportunities near:

- the employment and commerce centers of Maui (Wailuku and Kahului),
- modern schools (Pōmaika'i Elementary School, the proposed middle school in Wai'ale, University of Hawai'i Maui Campus),
- new parks (Maui Lanai and Wai'ale regional parks),
- the government center of Maui (Wailuku), and
- shopping (Kahului).

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

Encl: Letter from Hana Pono LLC dated August 31, 2011

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.



August 31, 2011

Mr. Hokuno Pellegrino
P. O. Box 967
Wailuku, Hawaii 96793

Aloha e Mr. Pellegrino:

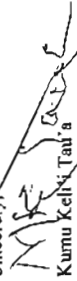
This is in reply to your letter of July 20, 2011, concerning the Wai'ale Draft EIS and specifically the inclusion of your interview in the cultural impact assessment (CIA). As you are aware, Hana Pono LLC prepared the CIA for the Wai'ale project which was included in the Draft EIS. Your comment letter has been forwarded to us for response.

We apologize for any misunderstanding concerning the inclusion of your interview in the CIA. As we noted in the CIA, at your request, your interview was not digitally recorded, precluding any verbatim transcript. However, attached please find our notes of your interview. We would appreciate your review and confirmation of these notes of your interview.

We also note in your letter, reference to historic trails within the region and your years of research concerning this matter. We would appreciate any information you would like to share with us concerning such historic trails.

We request your written confirmation of the notes of your interview September 14, 2011. Should you have any questions please call me at 573-1643.

Sincerely,


Mike
Kumu Keleka Tai'a
PO Box 2039 Wailuku, HI 96793

Enclosure
cc: Grant Chun, A&B Properties
Mike Shibata, PBR Hawaii

Meeting with Hokuau Pellegrino January 11, 2011 4:00pm

Hoku'au Pellegrino and Hana Pono partner Kalnoa Horcajo met in Waikapu at the Maui Tropical Plantation to discuss the Wai'ale development. We jumped in Hokuau's utility vehicle and proceeded to the upper reservoir to get a better view of the Wai'ale project area and Waikapu ahupua'a. Hoku'au declined to be digitally recorded for the interview so handwritten notes were taken during the dialogue.

Hoku'au started by mentioning his comment letter with his major concerns and that he would expound upon those today. The concerns voiced in his EISP comment letter included concerns on: public consultation, history of the property including historical name of the region, sand dunes and burials, traditional agriculture, historical summaries, Archaeological and Historic Resources, and Water resources.

Hoku'au began by reiterating his concerns about water use, 'iwi kupuna, and an accurate historical summary of the area. He also mentioned concerns of the placement of the county affordable housing. His concern here was that the placement of the affordable housing is in an area most likely to discover additional burials, thereby making it nearly impossible for these affordable units to actually be built and putting the county at risk.

He then jumped to discussing culturally important place names in relation to the project. The Pu'u One sand dunes that traverse the project from North to South start in Kapoho village. As he stated, the sand dunes and potential impacts to them are his main concern as they have already been severely impacted by the Sand Hills development and development near Wai'ale reservoir. He does not want to see any more detrimental impacts to the Pu'u One sand dunes.

He then went on to describe the streams that fed into Kealia wetlands, naming 2 of them as perennial (Waikapu and Pihakea) and 3 of them as intermittent streams that come down from Haleakala (Kaonohua, Kaialalehu), and another unnamed). The Waikapu stream is the only one that touches the project area, bordering the south side of the project.

The widest part of the dunes started at Wai'ale, according to Hoku'au and his concern for the iwi kupuna rest in some part on his observations that he has seen iwi kupuna sticking out of the ground in plain sight, and there will be more under the surface.

He mentioned research he had done in the past that discussed the Waikapu stream flowing in a northerly direction, flowing into Kahului harbor, in prehistoric times and that the building of the sand dunes over millennia forced the stream to flow south into Kealia.

Again discussing the 'iwi kupuna, Hokuau commented that it was highly unlikely that any part of the Alapa battle happened in the project area, but that a lot of the iwi could have been Kalaniopuu's Hawaii island warriors left to die, their bones bleaching in the sun. His observation was that Maui's people could have left them there as a reminder of what happens to those who invade another's land. He also mentioned that the Waikapu cemetery housed his ancestors.

Meeting with Hoku'au Pellegrino for Wai'ale

He then switched to discussing the Waikapu stream and related concerns. He wanted to see a concerted effort by the developer to restore water to the streams and noted, "what's a park along the river without water in the stream". He also is concerned with drainage issues from the hardening of the landscape and the potential for swales to push all the storm runoff into the stream. His comment was that, what happens here in Waialeale will affect Keala.

He also had concerns over the lack of information in the ESPN on the historical name for the area, Ke Kūla o Kāma'ōmā'o. He said that should the project go through he would like to see some innovation in terms of educating the people. He emphasized the opportunity to educate area residents and community members on the history of the area by incorporating place-names and events surrounding the area into an educational campaign. He wanted to make sure that the developers honored the 'iwi kupuna more than what had been done at Maui Lani, that they provided more signage in the cultural preserves, that there was more community involvement, and that it was necessary to have cultural monitors as well as archaeological monitors on duty. He also would like to have a say as to who is on the list of cultural monitors.

He also mentioned an 'olelo no'ea he read at some point that discussed Pu'u Hele and the historical significance of that place in regards to travelling around the island

Mark G. Hyde
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RECEIVED

June 8, 2011

JUN 14 2011

A&B Properties, Inc.
Attn: Grant Chun
P.O. Box 156
Kahului, Hawaii 96732

A&B PROPERTIES-MAUI

State Land Use Commission
Attn: Dan Davidson
P.O. Box 2359
Honolulu, Hawaii 96804

PBR Hawaii & Associates, Inc.
Attn: Michael Shilbala
ABS Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

Re: Waialeale Project Draft EIS

Dear Gentlemen,

I submit the following comments to the draft EIS for the above project:

Climate

The discussion of climate is inadequate in light of documented changing weather patterns coupled with the expected lifespan of the project

Here is a sampling of credible weather data that should be addressed in the EIS:

1. "Climate Change and Hawaii" published by the U.S. Environmental Protection Agency in September 1998 (EPA bulletin 256-F-98-007e): "In Honolulu, Hawaii, the average temperature has increased 4.4 degrees F over the last century, and precipitation has decreased approximately 20% over the last 90 years." Increased temperatures produce accelerated evaporation resulting in less water retention. "Hawaii's water resources are very susceptible to prolonged droughts. During these periods, low rainfall and streamflow often lead to increased usage of groundwater, which causes groundwater levels to decline and increases the likelihood of salt water intrusion."

Given long term weather trends toward a hotter, dryer climate in Hawaii and given the expected lifespan of this project, what effect will projected climatic change have on the sustainability of the project and its water source in light of expected population growth, particularly when coupled with documented degradation of the primary source of potable water for Maui, the Iao/Waihee aquifer complex?

2. Maui News, December 13, 2004: "A new federal report shows that base stream flows in Maui County and the rest of the state have been declining over the past 90 years." The underlying report was published by the U.S.G.S., authored by Dalwyn Oki. Base stream flow decline should be acknowledged in the EIS and assessed for impact on the project's expected water supply, particularly in the context of increasing competition, now and in the future, for water on Maui

3. "Ground-Water Data Management, Iao and Waihee Aquifers, Maui, Hawaii" authored by the U.S.G.S. for the project period March 2002 through September 2007: "Data has shown that water levels in the Iao aquifer have declined to nearly one-half of the predevelopment water levels, chloride concentrations for the pumped water from at least two of the wells in the area has risen to levels above the U. S. Environmental Protection Agency secondary drinking water guideline of 250 milligrams per liter, and the transition zone of the freshwater lens has risen from about 823 feet in 1985 to 667 feet in 2007."

Since 75% of Maui's groundwater relies on the Iao/Waihee aquifer complex for its water and since the aquifer has been in steady decline since the start of measurement by the U.S.G.S. in the mid 1980s, what impact will further decline have on the water source for the subject project? ("The Iao and Waihee aquifers, in the vicinity of Waituku, Maui, are the source of over 75 percent of the ground water that is pumped for municipal purposes on Maui." Ibid.)

4. "It's getting hotter here [in Hawaii] faster than anywhere else in the world up in the upper elevations." "Our freshwater resources are shrinking." (Maui Weekly, July 15 - 21, 2010, at page 8, quoting Deanna Spooner, coordinator of the Pacific Islands Climate Change Cooperative)

What impact will hotter weather and shrinking freshwater resources have on Maui? How will these climatic changes affect the water source for this proposed development? Will existing and future water users be in competition for freshwater in the future? Are they in competition now? How will this be resolved? What is Maui's population growth expected to be? Where will new residents obtain water on an island with less freshwater in the future?

5. Declining rainfall on Maui is both a long term trend as well as a short term trend: "Maui, below average rainfall total over the previous three months and below average 10 of the last 12 months at Puu Kukui." U.S.G.S. Hawaii Recent Hydrologic Conditions, summary of conditions as of June 1, 2011.

No matter how you slice it, short term or long term, rainfall is decreasing in Hawaii and on Maui. Scientifically documented trends can and should be used in planning and, in this case, to assess the viability of the subject development. After all, the U.S.G.S. and other scientific bodies carefully collect weather data for a reason:

"An important part of the USGS mission is to provide scientific information to manage the water resources of the Nation and to enhance and protect our quality of life. The future health and welfare of the Nation's population is dependent upon a continuing supply of uncontaminated fresh water. To help assess Maui's groundwater resources in the Iao aquifer area, the USGS will monitor rainfall, pumpage and groundwater levels and chloride concentration in wells. These data will be used to determine long-term trends in water levels, rainfall, and effects of pumping on water levels and chloride concentrations. *The study results will provide some of the information needed by the cooperators and other state and county agencies to implement effective water-resource management decisions.*" (Emphasis added.)

The above is just a sampling of data readily available to a casual reader and should be addressed in the climate section of the draft EIS in order for the assessment to have any probative value. Snapshot data contained in the draft EIS is of little utility given demonstrated negative rainfall, temperature, chloride and population growth trends.

All Sections on Water and Sustainability

Because the source of water for the project is unknown and because water is key to the sustainability of the project, the draft is not ripe for review.

Likewise, because the source of water for the project is unstated, bald statements peppered throughout the EIS claiming that the project is sustainable are without foundation.

Cumulative and Secondary Impacts

The draft makes no mention of cumulative and secondary impacts consequent in the dedication of water resources to this particular project. Waiala will not be a one time event; once built, it will last generations, at a time when the Iao/Waihee aquifer system is in documented decline due to overuse. "... the transition zone of the freshwater lens (of the Iao/Waihee aquifer complex) has risen from about 823 feet in 1985 to 667 feet in 2007." quoting the U.S.G.S. in the above-cited ground-water report.)

Furthermore, the draft is devoid of discussion of the impact of diversion of water to this project in the face of increasing demand for water arising from other parts of the island, changing demographics, documented population growth and expected/projected significant development expected in other parts of south and central Maui.



October 7, 2011

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All parts of Maui are experiencing significant growth, a fact established in recently published census data but given no heed or analysis in the draft EIS. How will water for this growth be provided? If water on Maui were inexhaustible and readily available to all, now and in the future, perhaps this issue could be easily brushed aside. The fact is just the opposite. Case in point: two large developments in South Maui, Wailea 670 and Makana Resort, have recently been denied access to Central Maui water resources due to unavailability, not to mention hundreds of other already approved central and south Maui projects not yet built that, once constructed, will tie into an already ailing and failing Iao/Waihee aquifer complex.

None of this is addressed in the draft and is a fatal flaw.

Sincerely,

Mark G. Hyde

SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Hyde,

Thank you for your letter dated June 8, 2011 regarding the Wai'ale Draft Environmental Impact Statement (EIS). As the planning consultant for the applicant, A&B Properties, Inc., we are responding to your comments.

Climate

Comment: "Given long term weather trends toward a hotter, dryer[sic] climate in Hawaii and given the expected lifespan of this project, what effect will projected climatic change have on the sustainability of the project and its water source in light of expected population growth particularly when coupled with documented degradation of the primary source of potable water for Maui, the Iao/Waihee aquifer complex?"

Response: We acknowledge your references to the U.S. Environmental Protection Agency's publication "Climate Change and Hawaii" (September 1998, EPA 236-F-98-007e). This publication also notes that: "Calculation of regional climate change are much less reliable than global ones, and it is unclear whether regional climate will become more variable." Also, in describing climate changes in Hawaii it further states that: "These past trends may or may not continue into the future." While it appears there may be agreement as to long term global trends in climate change, there is uncertainty concerning future projections at the regional/local level. Per your comments, the following paragraph will be added to the end Section 3.1 of the Final EIS:

Review of various sources including the Western Regional Climate Center (WRRCC) and the University of Hawai'i School of Ocean and Earth Science and Technology (SOEST) indicates that while there are drier periods associated with the El Nino effect, there are also periods where the climate is wetter (called La Nina). In general, though, we believe it is safe to state that it is difficult to predict climate over the long term.

Mr. Mark G Hyde
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 2 of 7

Per your comments concerning the 'Iao Aquifer system, the following paragraph will be added after the first paragraph in Section 3.5 of the Final EIS:

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Wailuku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, need to be developed. The need for these improvements is discussed in the WUDP and also the Maui Island Plan.

As discussed on pages 81 and 82 in Section 4.8.1 of the Draft EIS, water conservation measures including use of water efficient fixtures, water efficient practices, and xeriscaping would seek to reduce the use of potable water. Further, under the alternative of an on-site wastewater treatment plant, treated effluent would be used for landscape irrigation, reducing the project's potable water demand.

Comment: *"Base stream flow decline should be acknowledged in the EIS and assessed for impact on the project's expected water supply, particularly in the context of increasing competition, now and in the future, for water on Maui."*

Response: Regarding the source water for the planned Wai'ale water treatment facility (WTF), we offer the following background (that was provided in Section 3.6 of the Draft EIS). The proposed Wai'ale WTF is a collaborative effort of the applicant and the County Department of Water Supply (DWS). The concept of utilizing surface water from West Maui evolved and was advanced from the DWS's pursuit of the East Maui Water Development Plan (EMWDP). The EMWDP proposed developing new water wells in East Maui to meet future water demands on the Central Maui water system. However, opposition to the EMWDP ultimately resulted in a lawsuit, the settlement of which directed the County to pursue surface water treatment utilizing West Maui ditch water before resuming its exploration of East Maui well water. Surface water treatment technology is familiar to the County who has experience operating such facilities. The DWS operates treatment plants at Kama'ole Weir using water from East Maui Irrigation Company's (EMI) Wailoa Ditch, Pi'i'holo on the Lower Kula System, Olimda on the Upper Kula system, the 'Iao Plant using 'Iao Stream water, and at Māhinahina above Lāhainā using water from the Honokōhau Ditch. DWS has qualified personnel to operate these treatment plants to produce drinking quality water.

Per your comments, the following paragraph will be added to Section 3.6 of the Final EIS:

Per Mark G. Hyde's and Hōkūāoa Pellegrino's comments during the Draft EIS public review period, the following information is provided: The source water for the Wai'ale WTF is the Waihe'e Ditch, via the Hoppoi Chute. The majority of water from the Waihe'e Ditch is diverted from the Waihe'e Stream. The U.S. Geological

Mr. Mark G Hyde
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 3 of 7

Service has a gauge installed at Waihe'e Stream near the existing dam structure and has recorded flows on a daily, monthly and annual basis. Over the 22 year period between 1983 and 2005, the lowest minimum daily flow recorded ranged from 31.0 MGD to 41.8 MGD. The average daily flow through the Hoppoi Chute was 22.0 MGD between 1994 and 2003. This flow volume would account for and include potential reductions due to climate change.

Comment: *"Since 75% of Maui's groundwater relies on the Iao/Waihe'e aquifer complex for its water and since the aquifer has been in steady decline since the start of measurement by the U.S.G.S in mid 1980's, what impact will further decline have on the water source for the subject project?"*

Response: As previously noted, the development of new groundwater sources from the 'Iao Aquifer system is not planned for the Wai'ale project. The 'Iao Aquifer system has been designated a State groundwater management area and as such is under the management of the State Commission on Water Resource Management (CWRM). The CWRM regulates water withdrawals through a water use permit process. The sustainable yield of the aquifer is monitored and withdrawals are managed by the CWRM. This system of monitoring and management also examines potential impacts to the aquifer, including groundwater levels, the chloride content of pumped water, as well as potential effects due to impacts from climate change (lower rainfall/drought conditions) which you mention in your letter. The CWRM has not modified the sustainable yield for the 'Iao Aquifer system since its designation as a State groundwater management area in 2003. Similarly, the development of new groundwater resources from the Waihe'e aquifer system is not planned for the Wai'ale project

Comment: *"What impact will hotter weather and shrinking freshwater resources have on Maui? How will these climate changes affect the water source for this proposed development? Will existing and future water users be in competition for freshwater in the future? Are they in competition now? How will this be resolved? What is Maui's population expected to be? Where will new residents obtain water on an island with less freshwater in the future?"*

Response: In response to your questions concerning future water resources for the project and the island of Maui, we offer the following:

The State Water Code (Chapter 174C, Hawaii Revised Statutes) and Maui County Code Chapter 14.02 require the preparation of a Water Use and Development Plan (WUDP). The WUDP is the primary long range plan of the DWS. The WUDP directs the management of water resources in a manner that is consistent with the County's land use plans and policies and serves as a guideline for the use and commitment of water resources and funds. This information is included in Section 3.6 of the Final EIS:

Mr. Mark. G Hyde
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 4 of 7

The State Water Code (Chapter 174C, Hawaii Revised Statutes) and Maui County Code Chapter 14-02 require the preparation of a Water Use and Development Plan (WUDP). The WUDP is the primary long range plan of the County Department of Water Supply (DWS). The WUDP directs the management of water resources in a manner that is ~~a plan for the management of water resources~~ that is consistent with the County's land use plans and policies. The WUDP serves as a guideline for the use and commitment of water resources and funds. The DWS is in the process of updating the WUDP.

Per your comments, the following text will be added to Section 3.6 of the Final EIS:

Per Mark G. Hyde's comments during the Draft EIS public review period, the following information is provided: The WUDP accounts for the effects of climate change, particularly drought conditions in areas where surface water is the primary water source, such as the Upcountry region. In these areas, restrictions on water use have been implemented as a demand-side management measure. Other demand-side management measures include incentives for low-flow water fixtures, efficient landscape irrigation methods, and use of drought tolerant plants and recycled water. The WUDP promotes extensive conservation measures and the increased use of recycled water as a means of maximizing the use of water resources.

As part of a recent update process for the WUDP, a Central District: Final Candidate Strategies Report was prepared by Haiku Design & Analysis in June 2009. The report notes that water consumption for the Central District system is expected to grow from about 22 MGD in 2005 to about 34 MGD in 2030, an increase of about 12 MGD. To meet this increased demand, the report recommends proceeding with the Wai'ale water treatment facility (WTF) negotiations and approvals to the extent possible pending determination of assurance of long term water availability and price. The report further notes that the Wai'ale WTF is considered to be potentially the most cost effective solution to providing needed future water. This information is from the second paragraph on page 41 in Section 3.6 of the Draft EIS.

The WUDP also considered other potential strategies, including new basal groundwater wells to the north of the existing Central District system (into the north half of the Waihe'e Aquifer and the Kahakuloa Aquifer). However, the anticipated costs of developing these wells and the related transmission system are high and the anticipated yields are uncertain. Other resource strategies examined included developing transmission lines eastward to the Haikū Aquifer and the desalination of brackish water, however, both of these strategies entail substantial development and operational costs. This information is from the second paragraph on page 41 in Section 3.6 of the Draft EIS.

Per your comments, the following paragraphs will be added to Section 3.5 of the Final EIS:

Mr. Mark. G Hyde
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 5 of 7

The island of Maui possesses vast underground reservoirs of potable water. Maui has multiple groundwater aquifers which collectively have a sustainable yield of about 427 MGD. Of that amount, less than 10 percent or about 34 MGD is currently used. Specifically, there is unused sustainable yield in the Waituku and Central Aquifer sectors, as well as in the Ko'olau Aquifer sector which could also source the County of Maui's Central Maui water system. Thus, there are sufficient amounts of groundwater resources to serve current and projected needs, however, the infrastructure to make this water available, need to be developed. The need for these improvements is discussed in the WUDP and also the Maui Island Plan.

The Maui Island Plan (MIP) is the guiding document for future growth on the island of Maui to the year 2030. Resident population estimates in the Draft MIP reflect 135,838 residents in year 2010, 157,390 residents in year 2020 and 176,687 residents in year 2030. The plan has designated the Wai'ale area for future residential growth, and is the largest component of future growth in the Central Maui region. The Draft MIP notes that the development of additional water sources is crucial for the Central Maui water system. The plan includes a long range implementation plan to address capital improvements, including water source development and related infrastructure.

Comment: "The above is just a sampling of data readily available to the casual reader and should be addressed in the climate section of the draft EIS in order for the assessment to have any probative value. Snapshot data contained in the draft EIS is of little utility given demonstrated negative rainfall, temperature, chloride and population growth trends."

Response: As previously noted, per your comments, Section 3.1 of the Final EIS will be revised:

During the Draft EIS public review period, Mark G. Hyde wrote: "Given long term weather trends toward a hotter, drier/climate in Hawaii and given the expected lifespan of this project, what effect will projected climatic change have on the sustainability of the project and its water source in light of expected population growth particularly when coupled with documented degradation of the primary source of potable water for Maui, the Iao/Maihe'e aquifer complex?"

Review of various sources including the Western Regional Climate Center (WRRCC) and the University of Hawai'i School of Ocean and Earth Science and Technology (SOEST) indicates that while there are drier periods associated with the El Nino effect, there are also periods where the climate is wetter (called La Nina). In general, though, we believe it is safe to state that it is difficult to predict climate over the long term.

All Sections on Water and Sustainability

Comment: "Because the source of water for the project is unknown and because water is key to the sustainability of the project, the draft is not ripe for review."

Mr. Mark. G Hyde
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 6 of 7

"Likewise, because the source of water for the project is unsustainable are without foundation."

Response: Section 4.8.1 of the Draft EIS discusses potential water sources for the project. With specific regard to the planned Wai'ale WTF, it is acknowledged in the third paragraph on page 42 in Section 3.6 of the Draft EIS, that it will require further discussion, review and approvals by various governmental agencies to proceed. The State of Hawai'i environmental law requires preparation of an environmental impact statement at the earliest practical time. As a result, it is understood that aspects of a proposed project are subject to modification through the subsequent governmental permitting and public review processes. The environmental review process acknowledges this circumstance and includes a section within the EIS to discuss such unresolved issues. For this reason, water supply has been listed and discussed as an unresolved issue in the Draft EIS.

Cumulative and Secondary Impacts

Comment: *"The draft makes no mention of cumulative and secondary impacts consequent in the dedication of water resources to this particular project. Waiale will not be a one time event; once built, it will last generations, at a time when the Iao/Waihee aquifer system is in documented decline due to overuse. (...the transition zone of the freshwater lens (of Iao/Waihee aquifer complex) has risen from about 823 feet in 1985 to 667 feet in 2007." quoting the U.S.G.S. in the above-cited ground-water report.)"*

Response: As previously noted, the development of new groundwater sources from the Iao Aquifer system is not planned for the Wai'ale project.

Comment: *"Furthermore, the draft is devoid of discussion of the impact of diversion of water to this project in the face of increasing demand for water arising from other parts of the island, changing demographics, documented population growth and expected/projected significant development expected in other parts of south and central Maui."*

"All part of Maui are experiencing significant growth, a fact established in recently published census data but given no heed or analysis in the draft EIS. How will water for this growth be provided? If water on Maui were inexhaustible and readily available to all, now and in the future, perhaps this issue could be easily brushed aside. The fact is just the opposite. Case in point: two large developments in South Maui, Wailea 670 and Makena Resort, have recently been denied access to Central Maui water resources due to unavailability, not to mention hundreds of other already approved central and south Maui projects not yet built that, once constructed, will tie into an already ailing and failing Iao/Waihee aquifer complex."

"None of this is addressed in the draft and is a fatal flaw."

Response: As previously noted, the WUDP is the primary long range plan of the DWS. The WUDP directs the management of water resources in a manner that is consistent with the County's land use plans and policies and serves as a guideline for the use and commitment of water resources and funds. In turn, the Maui Island Plan (MIP) is the guiding document for future growth on the island of Maui to the year 2030. The Draft MIP notes that the development of additional water sources is crucial for the Central Maui

Mr. Mark. G Hyde
SUBJECT: WAI'ALE DRAFT ENVIRONMENTAL IMPACT STATEMENT
October 7, 2011
Page 7 of 7

water system. The plan includes a long range implementation plan to address capital improvements, including water source development and related infrastructure. While there are sufficient amounts of groundwater resources to serve current and projected needs, the infrastructure to make this water available needs to be developed.

Thank you for reviewing the Draft EIS. Your letter will be included in the Final EIS.

Sincerely,

PBR HAWAII



Vincent Shigekuni
Vice President

cc: Mr. Dan Davidson, Land Use Commission
Mr. Grant Chun, A&B Properties, Inc.

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