

# DRAFT ENVIRONMENTAL IMPACT STATEMENT

## Sea Mountain at Punalu'u

Ka'u District, Punalu'u, Hawai'i

Tax Map Key: (3) 9-5-19:11, 15, 24, 26, 30, 31, 33, 35; (3) 9-5-27:20;  
(3) 9-6-01:01, 02, 03, 06, 11, 12, 13; (3) 9-6-02:08, 37, 38, 41, 53



Applicant:

Sea Mountain Five, LLC (by its managing partner Cabear Corporation)

Accepting Authority: County of Hawai'i, Planning Department

Approving Agency: County of Hawai'i, Planning Commission

October 2006



Group 70 International, Inc.

Architecture • Planning • Interior Design • Environmental Services  
Honolulu, Hawai'i

# DRAFT ENVIRONMENTAL IMPACT STATEMENT

## Sea Mountain at Punalu'u

Tax Map Key: (3) 9-5-19:11, 15, 24, 26, 30, 31, 33, 35; (3) 9-5-27:20;  
(3) 9-6-01:01, 02, 03, 06, 11, 12, 13; (3) 9-6-02:08, 37, 38, 41, 53

Applicant:  
Sea Mountain Five, LLC  
(by its managing partner Cabear Corporation)  
6 Marin Lane  
Honolulu, Hawai'i 96817

This Document is prepared pursuant to Chapter 343, Hawai'i Revised Statutes, as amended, and Chapter 200 of Title 11, State of Hawai'i Department of Health Administrative Rules, Environmental Impact Statement

This document and all other ancillary documents were prepared under my direction.



Responsible Official: \_\_\_\_\_ Date: September 27, 2006  
George Atta, Owners Representative

Prepared By:



Group 70 International, Inc.  
Architecture ■ Planning ■ Interior Design ■ Environmental Services  
925 Bethel Street, Fifth Floor, Honolulu, HI 96813

**October 2006**

# DRAFT ENVIRONMENTAL IMPACT STATEMENT

## Sea Mountain at Punalu'u

Ka'u District, Punalu'u, Hawai'i

Tax Map Key: (3) 9-5-19:11, 15, 24, 26, 30, 31, 33, 35; (3) 9-5-27:20;  
(3) 9-6-01:01, 02, 03, 06, 11, 12, 13; (3) 9-6-02:08, 37, 38, 41, 53

Applicant:

Sea Mountain Five, LLC (by its managing partner Cabear Corporation)

Accepting Authority: County of Hawai'i, Planning Department

Approving Agency: County of Hawai'i, Planning Commission

October 2006



Group 70 International, Inc.

Architecture • Planning • Interior Design • Environmental Services  
Honolulu, Hawai'i

**TABLE OF CONTENTS**

<b>Section</b>	<b>Page</b>
Cover Page	
Table of Contents.....	i
List of Figures .....	vi
List of Tables .....	vii
Technical Appendices.....	vii
Glossary of Hawaiian Words .....	ix
<b>1.0 SUMMARY.....</b>	<b>1-1</b>
1.1 Project Information Summary .....	1-1
1.2 Project Site .....	1-2
1.3 Proposed Actions.....	1-9
1.4 Reasons for Preparing this Environmental Impact Statement.....	1-9
1.5 Significant Beneficial and Adverse Impacts .....	1-10
1.5.1 Beneficial Impacts.....	1-10
1.5.2 Potential Adverse Impacts .....	1-11
1.6 Proposed Mitigative Measures .....	1-17
1.7 Alternatives .....	1-22
1.7.1 No-Action Alternative .....	1-22
1.7.2 Other Alternatives .....	1-22
1.8 Unresolved Issues.....	1-22
1.9 Compatibility with Land Use Policies and Plans.....	1-23
1.10 Required Approvals and Permits.....	1-23
<b>2.0 PROJECT DESCRIPTION.....</b>	<b>2-1</b>
2.1 Historical Perspective .....	2-1
2.1.1 Early History .....	2-1
2.1.2 Land Use History .....	2-4
2.2 Sea Mountain Master Plan .....	2-5
2.2.1 Resort Component.....	2-7
2.2.2 Residential Component .....	2-8
2.2.3 Retail-Commercial Component.....	2-8
2.2.4 Recreational Amenities.....	2-8
2.2.5 Resource Management.....	2-9
2.2.6 Infrastructure .....	2-10
2.3 Development Schedule and Process.....	2-14
<b>3.0 PURPOSE AND NEED FOR THE PROPOSED ACTION .....</b>	<b>3-1</b>
3.1 Site and Project Attributes.....	3-1
3.2 Purpose and Need for Mixed Residential Development .....	3-1
3.2.1 Economic Projections .....	3-1
3.2.2 Infrastructure .....	3-2
3.2.3 County Park .....	3-2
3.2.4 Jobs and Employment.....	3-2
3.2.5 Diversified Facilities.....	3-2
3.2.6 Recreational Resources .....	3-3

SEA MOUNTAIN AT PUNALU’U

Draft Environmental Impact Statement

3.2.7 Abandoned and Unmanaged Facilities .....3-3

**4.0 ENVIRONMENTAL SETTING.....4-1**

4.1 Regional and Site Overview..... 4-1

4.1.1 Adjacent and Nearby Land Uses.....4-1

4.2 Cultural Resources .....4-2

4.2.1 Summary of Land Resources and Use.....4-2

4.2.2 Ancient Land Resources and Use.....4-3

4.2.3 Historic Land Resources and Use (Post 1801) .....4-3

4.2.4 Summary of Water Resources and Use .....4-3

4.2.5 Summary of Marine Resources and Use .....4-3

4.3 Archaeological Resources.....4-4

4.4 Climate .....4-10

4.5 Air Quality .....4-10

4.6 Topography and Geology .....4-13

4.7 Visual Resources.....4-14

4.8 Volcanic and Seismic Activity .....4-14

4.8.1 Earthquakes.....4-14

4.8.2 Lava Flows.....4-15

4.9 Soils.....4-17

4.10 Surface and Ground Water Resources.....4-17

4.10.1 Surface Water Features (Onsite).....4-19

4.10.2 Surface Water Features (Offsite).....4-20

4.10.3 Ground Water Features .....4-23

4.11 Water Quality.....4-23

4.11.1 Surface Waters .....4-23

4.11.2 Groundwater.....4-24

4.12 Flood, Hurricane, Tsunami, Earthquake and Wildfire Hazards.....4-24

4.12.1 Flood.....4-24

4.12.2 Hurricane.....4-24

4.12.3 Tsunamis.....4-25

4.12.4 Lava Flows.....4-25

4.12.5 Earthquakes.....4-27

4.12.6 Wildfires .....4-27

4.13 Flora.....4-27

4.13.1 Current Vegetation and Flora of the Area .....4-27

4.13.2 Coastal Strand .....4-31

4.13.3 Coastal Dry Shrubland .....4-31

4.13.4 Coastal Dry Forest .....4-34

4.14 Fauna.....4-34

4.14.1 Birds.....4-34

4.14.2 Bats .....4-36

4.14.3 Insects.....4-40

4.15 Existing Uses and Activities.....4-43

4.16 Roadways and Traffic .....4-45

4.16.1 Existing Conditions .....4-45

4.17 Infrastructure .....4-49

4.17.1 Drainage Facilities .....4-49

4.17.2 Water Supply .....4-49

SEA MOUNTAIN AT PUNALU’U

Draft Environmental Impact Statement

4.17.3 Wastewater Collection, Treatment and Disposal..... 4-50

4.17.4 Solid Waste ..... 4-50

4.17.5 Power and Communications ..... 4-51

4.18 Socio-economic Conditions ..... 4-51

4.19 Public and Social Service Facilities..... 4-53

4.19.1 Schools ..... 4-53

4.19.2 Libraries ..... 4-53

4.19.3 Police ..... 4-53

4.19.4 Fire ..... 4-54

4.19.5 Health Care Services ..... 4-54

4.19.6 Postal Services..... 4-54

4.19.7 Recreational Resources ..... 4-54

4.20 Noise..... 4-56

**5.0 PROBABLE IMPACTS AND MITIGATIVE MEASURES ..... 5-1**

5.1 Potential Short-Term Impacts..... 5-1

5.1.1 Cultural Resources ..... 5-1

5.1.2 Archeological Resources..... 5-2

5.1.3 Air Quality..... 5-3

5.1.4 Topography ..... 5-4

5.1.5 Visual Resources ..... 5-5

5.1.6 Soils..... 5-5

5.1.7 Water Quality..... 5-7

5.1.7.1 Surface Water Quality ..... 5-7

5.1.7.2 Ground Water Quality..... 5-8

5.1.8 Flood, Hurricane, Tsunami, Lava Flow Earthquake and Wildfire Hazards .. 5-9

5.1.9 Flora..... 5-11

5.1.10 Fauna ..... 5-12

5.1.11 Roadways and Traffic ..... 5-14

5.1.12 Infrastructure ..... 5-14

5.1.12.1 Drainage ..... 5-14

5.1.12.2 Water Supply ..... 5-15

5.1.12.3 Wastewater Disposal ..... 5-16

5.1.12.4 Solid Waste..... 5-16

5.1.12.5 Power and Communications ..... 5-17

5.1.12.6 Housing ..... 5-18

5.1.13 Socio-economic Conditions ..... 5-18

5.1.13.1 Population and Employment ..... 5-18

5.1.13.2 Economic and Fiscal Impact to County and State of Hawai’i..... 5-18

5.1.13.3 Community Perceptions on Tourism ..... 5-19

5.1.14 Public and Social Service Facilities..... 5-19

5.1.14.1 Education..... 5-19

5.1.14.2 Police and Fire ..... 5-19

5.1.14.3 Medical and Emergency Services ..... 5-20

5.1.14.4 Recreational Resources ..... 5-20

5.1.15 Coastal Waters ..... 5-21

5.1.16 Hazardous Materials..... 5-21

5.1.17 Noise..... 5-22

5.1.18 Agriculture ..... 5-22

SEA MOUNTAIN AT PUNALU’U

Draft Environmental Impact Statement

5.1.19 Conservation Lands ..... 5-23

5.2 Potential Long-Term Impacts ..... 5-23

5.2.1 Cultural Resources ..... 5-23

5.2.2 Archeological Resources ..... 5-24

5.2.3 Air Quality ..... 5-26

5.2.4 Topography ..... 5-26

5.2.5 Visual Resources ..... 5-26

5.2.6 Soils ..... 5-32

5.2.7 Water Quality ..... 5-32

5.2.7.1 Surface Water Quality ..... 5-32

5.2.7.2 Ground Water Quality ..... 5-38

5.2.8 Flood, Hurricane, Tsunami, Lava Flow, Earthquake and Wildfire Hazards 5-39

5.2.9 Flora ..... 5-40

5.2.10 Fauna ..... 5-41

5.2.11 Roadways and Traffic ..... 5-43

5.2.12 Infrastructure ..... 5-52

5.2.12.1 Drainage ..... 5-52

5.2.12.2 Water Supply ..... 5-52

5.2.12.3 Wastewater Disposal ..... 5-58

5.2.12.4 Solid Waste ..... 5-62

5.2.12.5 Power and Communications ..... 5-63

5.2.12.6 Housing ..... 5-64

5.2.13 Socio-economic Conditions ..... 5-65

5.2.13.1 Population and Employment ..... 5-65

5.2.13.2 Economic and Fiscal Impact to County and State of Hawai’i ..... 5-66

5.2.14 Public and Social Service Facilities ..... 5-67

5.2.14.1 Education ..... 5-67

5.2.14.2 Police and Fire ..... 5-68

5.2.14.3 Medical and Emergency Services ..... 5-69

5.2.14.4 Recreational Resources ..... 5-69

5.2.15 Coastal Waters ..... 5-71

5.2.16 Hazardous Materials ..... 5-73

5.2.17 Noise ..... 5-73

5.2.18 Agriculture ..... 5-76

5.2.19 Conservation Lands ..... 5-76

5.3 Summary of Probable Impacts ..... 5-77

5.3.1 Interrelationships and Cumulative Environmental Impacts ..... 5-77

5.3.2 Potential Secondary Effects ..... 5-78

5.3.3 Relationship between Local Short-Term Uses of the Environment  
and the Maintenance and Enhancement of Long-Term Productivity ..... 5-78

5.3.4 Irreversible and Irretrievable Commitments of Resources ..... 5-81

5.3.5 Adverse Environmental Effects that cannot be Avoided ..... 5-81

5.3.6 Significance Criteria ..... 5-82

**6.0 RELATIONSHIPS OF THE PROPOSED PROJECT TO EXISTING  
PLANS AND POLICIES ..... 6-1**

6.1 Overview ..... 6-1

6.2 U.S. Government Plans and Controls ..... 6-1

SEA MOUNTAIN AT PUNALU’U

Draft Environmental Impact Statement

6.2.1 Endangered Species Act .....6-1

6.2.2 American with Disabilities Act of 1991 .....6-2

6.3 State of Hawai’i Plans and Controls .....6-3

6.3.1 State Land Use Law, Chapter 205, Hawaii Revised Statutes.....6-3

6.3.2 Hawai’i State Plan .....6-3

6.3.3 State of Hawai’i Functional Plans .....6-29

6.3.4 Hawai’i Coastal Zone Management, Chapter 205A, HRS .....6-30

6.3.5 Chapter 343, Hawaii Revised Statutes.....6-34

6.4 County of Hawai’i Plans and Controls.....6-34

6.4.1 General Plan .....6-34

6.4.2 Zoning Districts .....6-38

6.4.3 Special Management Area Guidelines .....6-39

**7.0 ALTERNATIVES CONSIDERED.....7-1**

7.1 Alternative: No-Action .....7-1

7.2 Alternative: Makai Resort with Revised Site Layout .....7-4

7.3 Alternative: Mauka Hotel / Makai Private Residential .....7-5

7.4 Alternative: Private Estates .....7-7

7.5 Alternative: Resort with Current Zoning.....7-8

7.6 Alternative: Zoning Location Adjustment.....7-9

7.7 Alternative: Setbacks.....7-10

**8.0 SUMMARY OF UNRESOLVED ISSUES.....8-1**

8.1 Affordable, Construction, and Workforce Housing .....8-1

8.2 Schools .....8-1

8.3 Police and Fire.....8-1

8.4 Medical Services .....8-1

8.5 Electrical Services .....8-2

8.6 Beach Crowding .....8-2

**9.0 REQUIRED APPROVALS AND PERMITS.....9-1**

**10.0 REFERENCES .....10-1**

**11.0 AGENCIES AND PARTIES CONSULTED .....11-1**  
EIS Preparation Notice Comments and Responses

**12.0 PREPARERS OF THE REPORT .....12-1**

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

LIST OF FIGURES

<b>Figure</b>	<b>Title</b>	<b>Page</b>
1-1	Location Map .....	1-3
1-2	Tax Map Key .....	1-4
1-3	State Land Use Boundaries .....	1-5
1-4	Land Use Pattern Allocation Guide.....	1-6
1-5	Zoning Map.....	1-7
1-6	Special Management Area Map .....	1-8
2-1	Ahupua'a in the Ka'u Region .....	2-3
2-2	Sea Mountain Master Plan .....	2-6
2-3	Proposed Water System .....	2-12
4-1	Locations of Historic Properties in the Mauka Survey Area.....	4-5
4-2	Locations of Historic Properties in the Makai Survey Area.....	4-6
4-3	Hawai'i Island Average Rainfall .....	4-12
4-4	Lava Flow Hazard Zones .....	4-16
4-5	Soils Survey Map.....	4-18
4-6	Hydrology Map Offsite Areas .....	4-21
4-7	Hydrology Proposed Conditions Map.....	4-22
4-8	Flood Hazard and Tsunami Evacuation Zones .....	4-26
4-9	Approximate Boundaries (outlined in green) of Vegetation Zones.....	4-32
4-10	Coastal Zone "A" of the Sea Mountain at Punalu'u Project Site .....	4-33
4-11	Hawaiian Hoary Bat Survey Sites.....	4-39
4-12	Aerial Photo of the Project Area.....	4-44
4-13	Roadway Locations.....	4-47
4-14	2005 Existing Traffic Volumes .....	4-48
4-15	Regional Public Utilities – Wells, Landfill/Transfer Stations and Electricity Generating Station.....	4-52
4-16	Regional Public Facilities – Schools, Police, Fire and Medical.....	4-55
5-1	View Frames Locations for Existing and Built Conditions .....	5-29
5-2	Existing/Proposed View Conditions from Colony I Condos to Ninole Cove .....	5-30
5-3	Existing/Proposed View Conditions from Punalu'u to Bluff .....	5-31
5-4	2015 Ambient Traffic Forecast .....	5-44
5-5	Project Generated Traffic Assignment .....	5-46
5-6	2015 Total with Project Traffic Forecast .....	5-47
5-7	Proposed Wastewater System .....	5-61
5-8	Locations of Existing and Future Residences Fronting Māmalahoa Highway .....	5-75
5-9	Proposed Projects in the Area.....	5-79

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

LIST OF TABLES

<b>Table</b>	<b>Title</b>	<b>Page</b>
2-1	Sea Mountain Program Summary .....	2-7
4-1	Marine Resources in Punalu'u, Wailau and Ninole .....	4-4
4-2	Historic Properties Documented within the Current Project Area .....	4-7
4-3	Inventoried Plant Species in Lands of Ka'u.....	4-28
4-4	List of Bird Species Found within Sea Mountain Property .....	4-35
4-5	Detections of Hawaiian hoary bat search and commuting flight calls .....	4-37
4-6	Detections of Hawaiian hoary bat target-approach calls.....	4-38
4-7	Summary of Endangered, Threatened, and Proposed and Candidate species found on the Big Island .....	4-42
4-8	Summary of Socio-economic Conditions for the County of Hawai'i and Ka'u ....	4-53
5-1	Level of Service Criteria .....	5-48
5-2	Two-Way Two-Lane Highway Level of Service Analysis.....	5-49
5-3	Relationship between Level of Service and Delay.....	5-49
5-4	Unsignalized Intersection Level of Service Analysis .....	5-50
5-5	Estimated Water Demands County of Hawaii, Department of Water Supply Duty Factors - Potable Water .....	5-53
5-6	Estimated Water Demands, Modified DWS Method.....	5-54
5-7	Summary of Estimated Water Demands, - Potable .....	5-54
5-8	Phasing/Occupancy .....	5-55
5-9	Estimated Water Demands, Modified DWS Method - 25% New Occupancy .....	5-55
5-10	Summary of Estimated Water Demands, 25% Occupied .....	5-56
5-11	Summary of Estimated Water Demands and Corresponding Sources .....	5-57
5-12	Potable Water Demands Only (Golf Course Excluded) .....	5-58
5-13	Estimated Wastewater Flows, @ 100% Occupancy .....	5-59
5-14	Estimated Wastewater Flows, @ 25% Occupancy .....	5-60
5-15	Household Size Distribution for Sea Mountain.....	5-65
5-16	Sea Mountain Student Generation.....	5-67
6-1	Hawai'i Revised Statues – Hawai'i State Planning Act – Chapter 226, Part I .....	6-9
6-2	Hawai'i Revised Statues – Hawai'i State Planning Act – Chapter 226, Part III.....	6-23

# SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

### TECHNICAL APPENDICES

#### Appendix Title

- A Archaeological Inventory Survey of the Approximately 430-Acre Sea Mountain at Punalu'u Resort (Cultural Surveys Hawai'i, Inc., February 2006)
- B Air Quality Study for the Proposed Sea Mountain at Punalu'u Project (B.D. Neal and Associates, January 2006)
- C Biological Assessment, Sea Mountain at Punalu'u (Patrick Hart, Ph.D., June 2006)
- D Potable Water, Recycled Water and Wastewater Systems, Sea Mountain at Punalu'u (Hunsaker and Associates, June 2006)
- E Preliminary Surface Water Quality Assessment, Sea Mountain at Punalu'u (Hunsaker and Associates, May 2006)
- F Cultural Impact Study/Assessment Punalu'u Development Project (Maria E. Ka'imipono Orr, February 2006)
- G Economic and Fiscal Impacts of the Redevelopment of the Sea Mountain at Punalu'u Project (Knowledge Based Consulting Group, April 2006)
- H Integrated Golf Course Management Plan (IGCMP), Sea Mountain Golf Course (Blankinship & Associates, Inc., April 2006)
- I Acoustic Study for Sea Mountain at Punalu'u (Y. Ebisu and Associates, Dec. 2005)
- J Assessment of the Marine and Pond Environments in the Vicinity of the Sea Mountain Village at Punalu'u Project (Marine Research Consultants, Inc., April 2006)
- K Traffic Impact Analysis Report Sea Mountain at Punalu'u (M&E Pacific, Inc. Feb. 2006)
- L Analysis of Punalu'u Beach Carrying Capacity (Group 70 International, Inc. Feb. 2006)
- M Sea Mountain at Punalu'u Solid Waste Plan (Group 70 International, Inc., June 2006)
- N Socio-economic Tables (compiled by Group 70 International, Inc., April 2006)
- O Survey of Insects, Sea Mountain at Punalu'u (Robert Peck, July 2006)

**GLOSSARY OF HAWAIIAN TERMS**

Ahu	Mound, mass, altar, shrine
Ahupua'a	Land division usually extending from the uplands to the sea, so called because the boundary was marked by a heap of stones surmounted by an image of a pig
Ali'i	Chief, cheifess, officer, ruler, monarch, peer, headman, noble, aristocrat, king, queen, commander
Heiau	Pre-Christian place of worship, shrine
Hilea	Village, gulch, and land division, Honu'apo qd., Ka'u, Hawai'i
Iwi	The bones of the dead, considered the most cherished possession, were hidden
Kahuna	Priest, minister, expert in any profession
Kōloa	Beach at Punalu'u, Ka'u, Hawai'i, where birthstones ( <i>'ili'ili hānau</i> ) were sad to reproduce
Kuleana	Right, privilege, concern, responsibility
Kūpuna	Elders, Ancestors, those we come from
Makai	Towards the ocean
Mauka	Towards the mountain
Moa'ula	Land sections and gulches, Honu'apo, Mauna Loa, and Pāhala qds., Hawai'i
Mokupuni	Island
Mo'o	Lizard, reptile of any kind, dragon, serpent
Nīnole	Land section, homesteads, village, cove and gulch, Honu'apo qd., Hawai'i
'Ohana	Family, relative, kin group, related
Punalu'u	Land section and gulches, Honu'apo and Pāhala qds.,; harbor, landing, black sand beach and beach park, and ancient surfing area, Honu'apo qd.; village and heiau, Puna qd., south Hawai'i
Pu'u	Hill, peak, portion
Wailau	Land section, Honu'apo and Pāhala qds., Hawai'i

**Section 1.0**  
Summary

## 1.0 SUMMARY

### 1.1 PROJECT INFORMATION SUMMARY

<b>Project Name:</b>	Sea Mountain at Punalu'u
<b>Applicant:</b>	Sea Mountain Five, LLC 6 Marin Lane, Honolulu, Hawai'i 96817 Contact: Pat Blew Telephone: (410) 991-6326
<b>EIS Accepting Authority:</b>	Hawai'i County Planning Department
<b>EIS Approving Agency:</b>	Hawai'i County Planning Commission
<b>Planning/Environmental Consultant:</b>	Group 70 International, Inc. 925 Bethel Street, 5th Floor Honolulu, Hawai'i 96813 Contact: George Atta, AICP Phone: (808) 523-5866
<b>Area:</b>	434 acres (approximate)
<b>Location:</b>	Punalu'u, Ka'u District, Island of Hawai'i ( <i>Figure 1-1</i> )
<b>Tax Map Key:</b>	(3) 9-5-19:11, 15, 24, 26, 30, 31, 33, 35; (3) 9-5-27:20; (3) 9-6-01:01, 02, 03, 06, 11, 12, 13; (3) 9-6-02:08, 37, 38, 41, 53 ( <i>Figure 1-2</i> )
<b>Landowner:</b>	SM Investment Partners 680 Iwilei Road, Suite 700, Honolulu, Hawai'i 96817 Contact: Roy Pfund Phone: 808-539-9493
<b>Existing Uses:</b>	Golf course, County park and public beach, condominium, single-family residential
<b>Proposed Uses:</b>	Urban residential, resort, and commercial development
<b>State Land Use District:</b>	Urban ( <i>Figure 1-3</i> )
<b>Hawai'i County General Plan Land Use Pattern Allocation Guide (LUPAG):</b>	Medium Density Urban, Low Density Urban Low Density Urban, Open Area, Resort ( <i>Figure 1-4</i> )
<b>Zoning:</b> ( <i>Figure 1-5</i> )	Agricultural 20-acre (A-20a) -109 acres Village Commercial (CV-10) – 29 acres Open Area (OPEN) -159 acres Multi Family Residential (RM-2) – 16 acres Multi Family Residential (RM-2.5) – 48 acres

# SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

---

Multi Family Residential (RM-3) – 25 acres  
Single Family Residential (RS-20) – 0 acres  
Resort-Hotel District (V-1.5) – 40 acres

- Special Management Area:** The project is located within a SMA, and a separate SMA application will be filed. (*Figure 1-6*)
- Permits Required:** SMA, SSV, Rezoning (mauka of highway only), Subdivision, Plan Approval, DOH Wastewater and Irrigation, Grading and Building Permits, Irrigation Well Permits, Section 404, NPDES, UIC, Construction related permits.
- EIS Triggers:** Proposed Sea Mountain project elements that trigger EIS review, include the following: 1) a proposed upgrade or replacement of the existing wastewater treatment facility that would increase its capacity to serve over fifty additional residential units, 2) proposed project utilities and easements across and within State and/or County roadways and real property interests, and 3) potential use of land in the Conservation District and Shoreline Setback Area around Ninole Cove.
- Proposed Project:** Sea Mountain Five, LLC proposes to develop Sea Mountain, a 434-acre partially developed project area in Punalu'u with up to 1,523 residential units, mixed uses, up to 300 hotel units on one or two hotel sites, a championship 18-hole golf course, cultural/marine center, upgraded wastewater treatment facility, water reservoir and other supporting infrastructure.

## 1.2 PROJECT SITE

The Sea Mountain project site consists of 434 acres of partially developed land on the Island of Hawai'i. The site is located approximately five miles east of Na'alehu and seven miles west of Pāhala along the Hawai'i Belt Highway. The property is privately owned by SM Investment Partners and site development is proposed by Sea Mountain Five, LLC.

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement

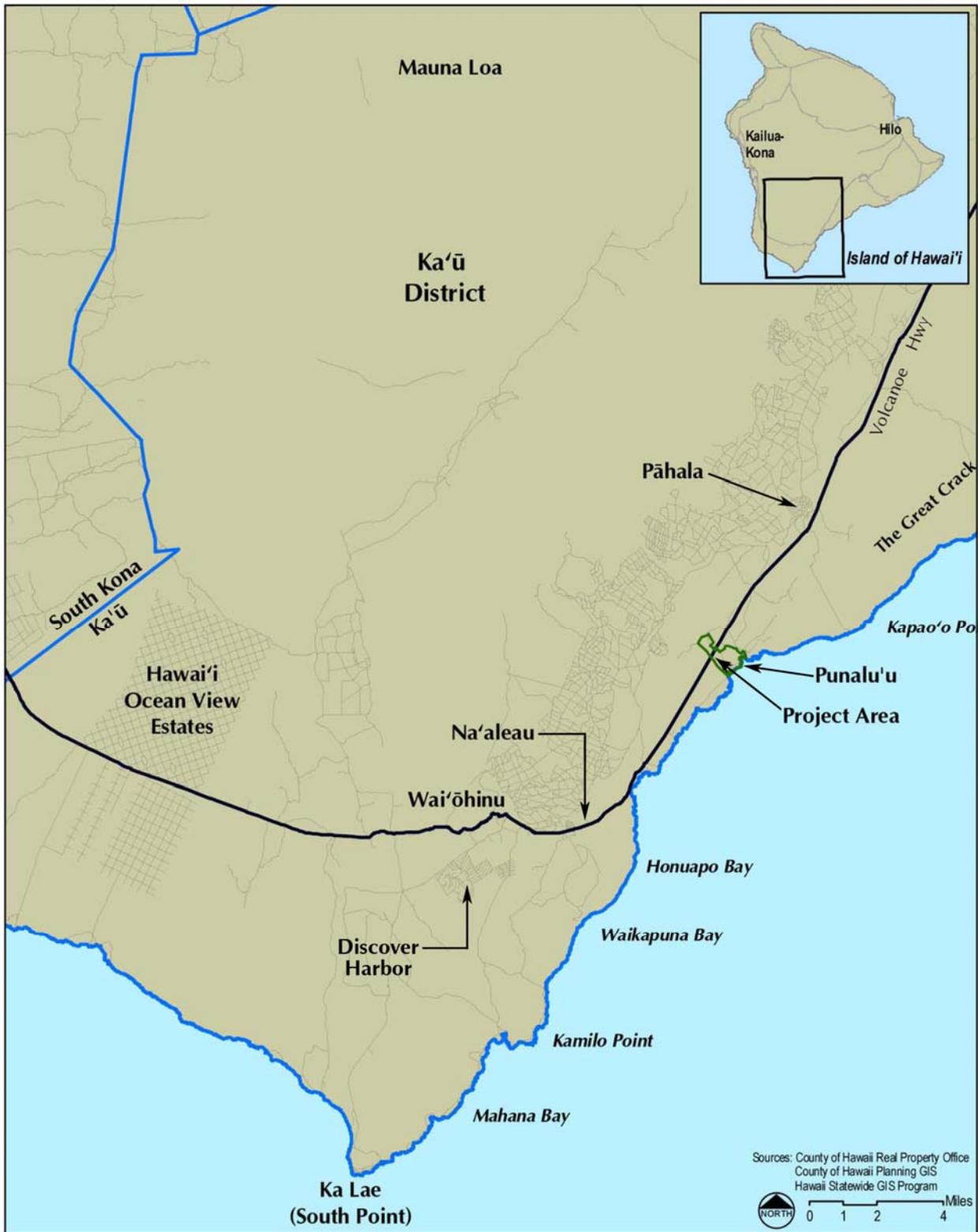


Figure 1-1. Project Location Map

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement



Figure 1-2. Tax Map Key

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement

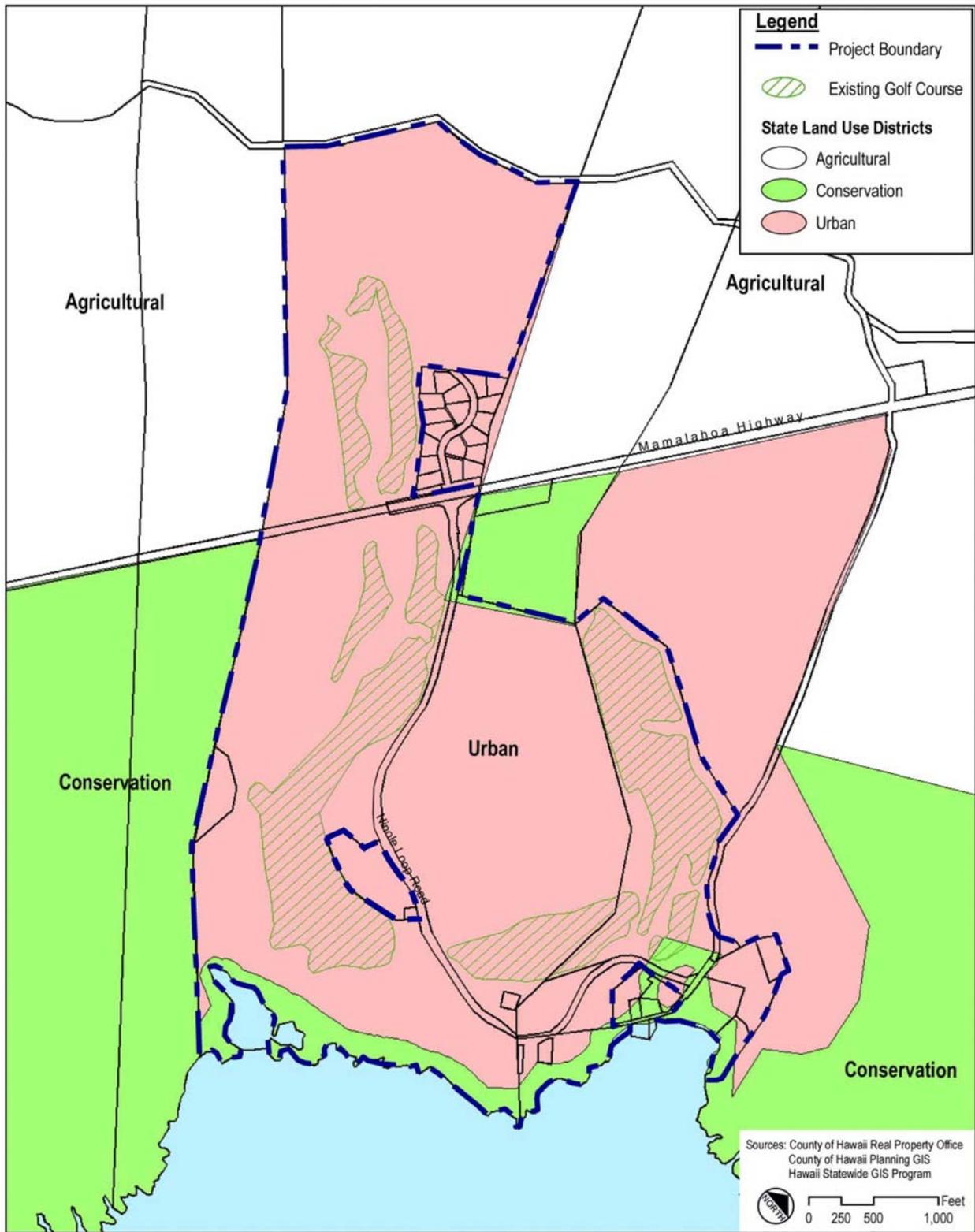


Figure 1-3. State Land Use Designations

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement

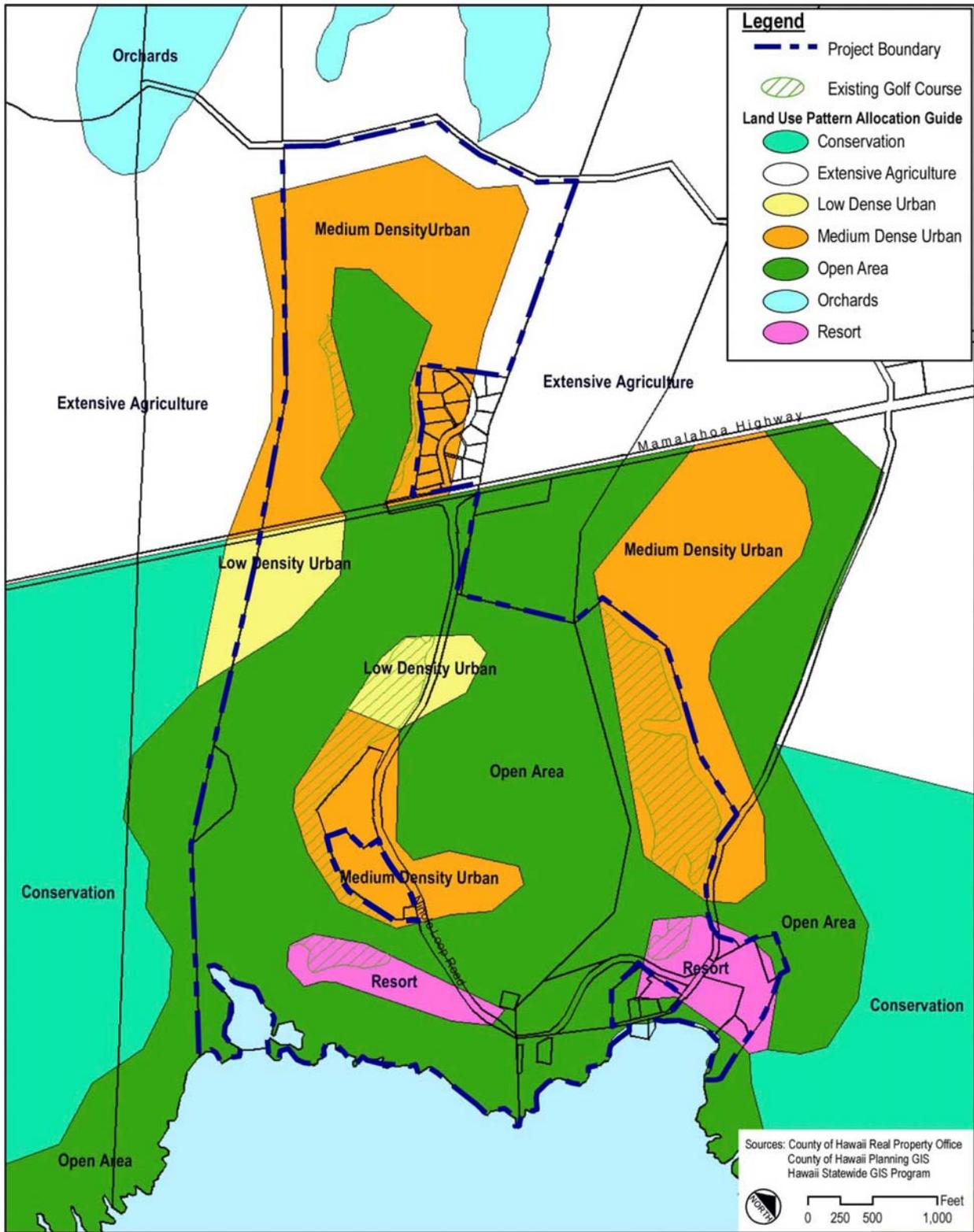


Figure 1-4. Land Use Pattern Allocation Guide (LUPAG) Map

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement

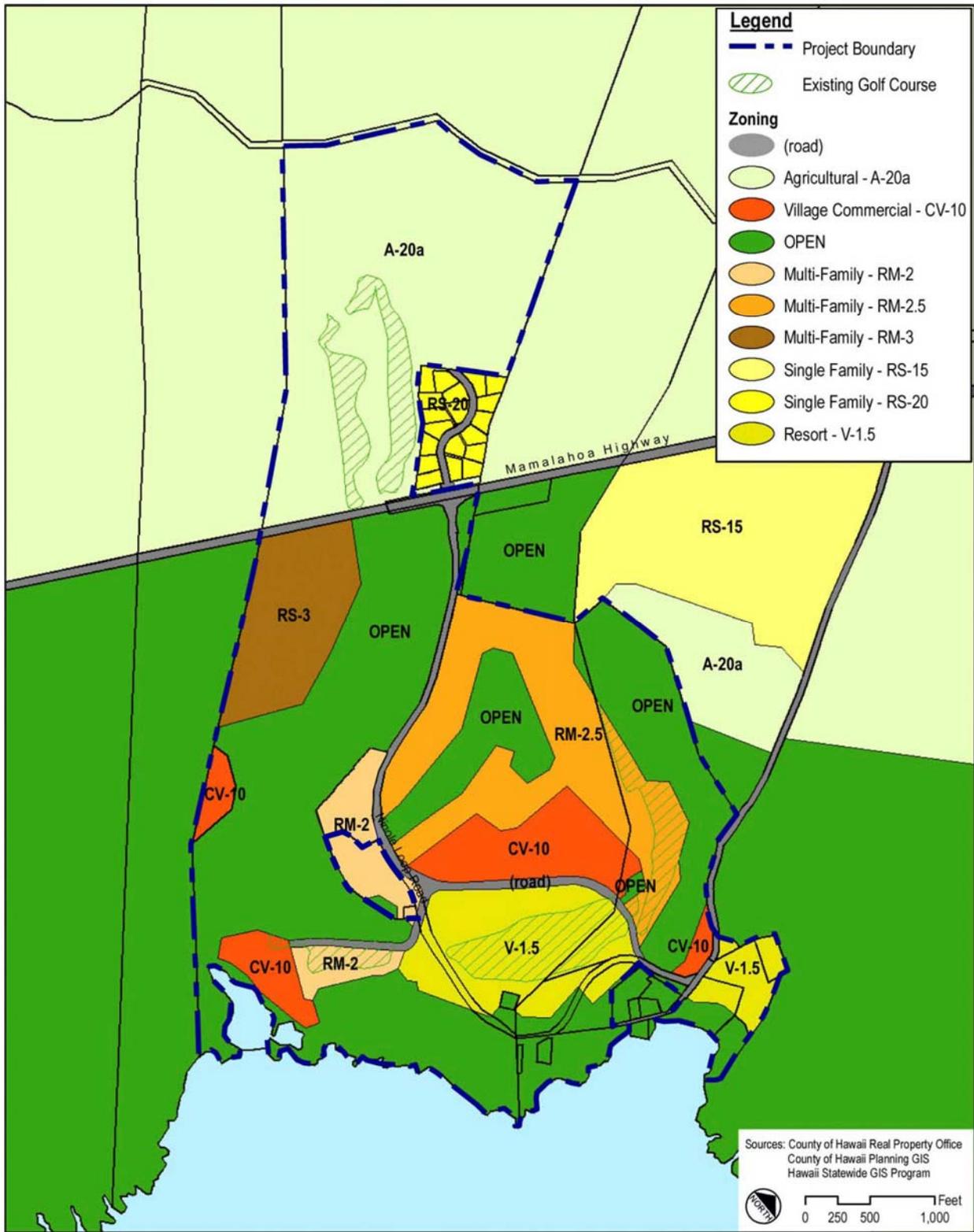


Figure 1-5. Zoning Map

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement

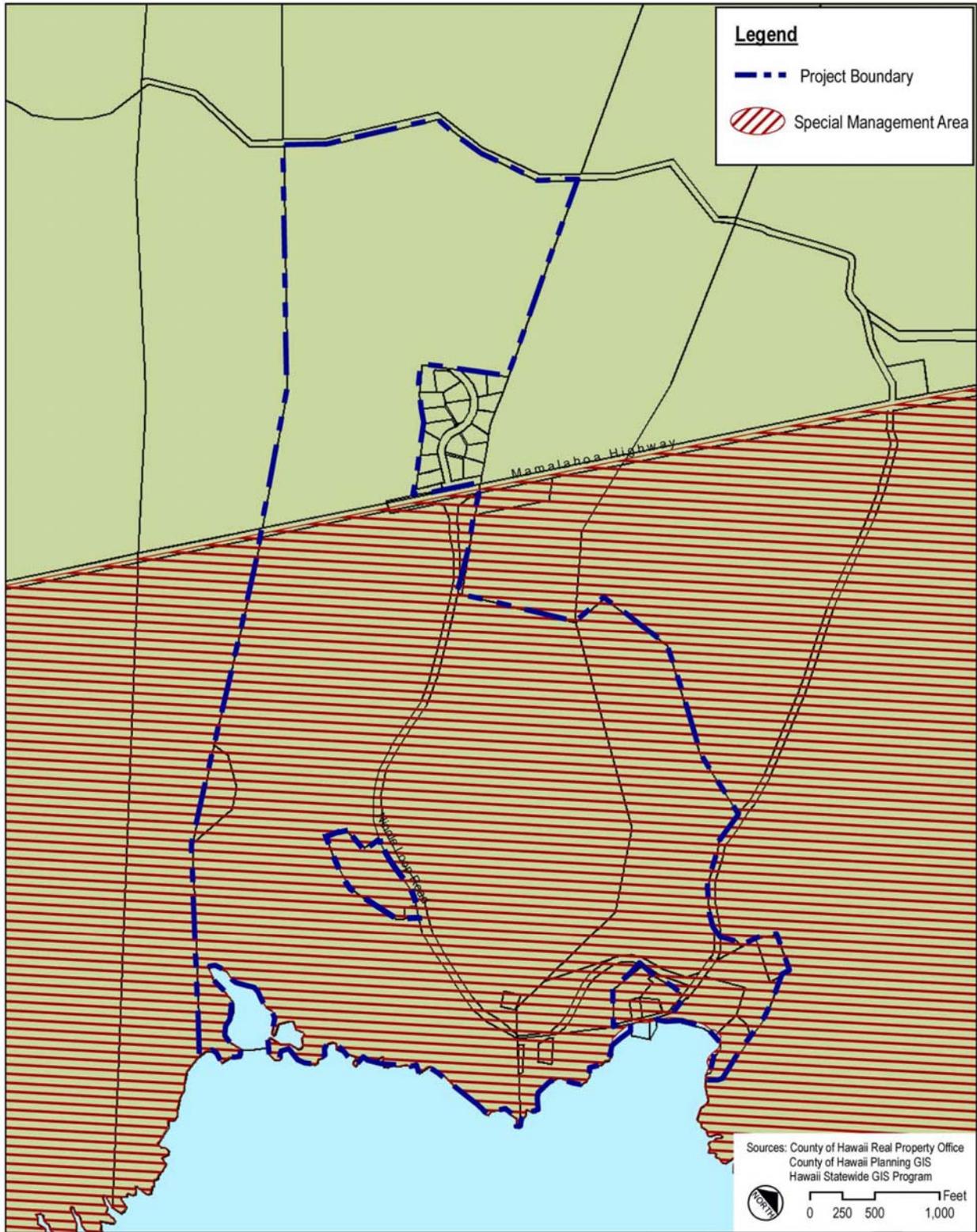


Figure 1-6. Special Management Area

### **1.3 PROPOSED ACTIONS**

Sea Mountain Five, LLC proposes to develop the Sea Mountain project on a 434-acre partially developed project area in Punalu'u with residential units, mixed uses, world-class destination resort/hotel facilities, a championship 18-hole golf course, upgraded wastewater treatment facility, water reservoir and other supporting infrastructure.

The Sea Mountain conceptual land plan seeks to provide a mix of up to residential unit types which will include single-family residential lots and multi-family units for sale or lease. The development concept for the hotel/resort facilities includes up to 300 hotel units on one or two sites, a village center which would serve as a community gathering place for the resort, and shopping and services for guests and local residents. Detailed project descriptions are provided in *Section 2.0*.

Sea Mountain Five, LLC will construct major roadways servicing the site, major on-site electrical improvements (including transmission lines and necessary switching and transformer substations), sewage treatment plant renovation and golf course improvements (including irrigation wells). Sea Mountain Five, LLC will also provide connector roads and other infrastructure to service the residential, retail and commercial lots that it will create.

### **1.4 REASONS FOR PREPARING THIS ENVIRONMENTAL IMPACT STATEMENT**

The proposed Sea Mountain project will have a significant impact in the area, and development of the project will include elements that trigger EIS review, including, without limitation, the following: a proposed upgrade or replacement of the existing wastewater treatment facility that would increase its capacity to serve over fifty additional residential units, proposed project utilities and easements across and within State and/or County roadways and real property interests, and potential use of land in the Conservation District and Shoreline Setback Area around Ninole Cove. For these reasons, an Environmental Impact Statement is being prepared pursuant to Chapter 343, Hawai'i Revised Statutes (HRS), and the Environmental Impact Statement Rules, Title 11, Chapter 200 of the Hawai'i Administrative Rules (HAR).

This EIS has been filed with the State of Hawai'i's Office of Environmental Quality Control (OEQC) for publication in the Environmental Notice, and copies have been distributed to concerned and interested parties, as required under the EIS Rules. The Draft EIS presents an evaluation of the potential impacts of the proposed Sea Mountain project on the natural and human environment. This document is presented in twelve sections.

*Section 1* contains a summary.

*Section 2* describes the site attributes and market demand for the proposed project.

*Section 3* describes the proposed project.

*Section 4* describes existing environmental conditions at the project site.

*Section 5* identifies the relationship to land use plans, policies, and controls.

*Section 6* analyzes the probable impacts and mitigative measures.

*Section 7* identifies alternatives to the proposed actions.

# SEA MOUNTAIN AT PUNALU‘U

## Draft Environmental Impact Statement

---

*Section 8* is a summary of unresolved issues.

*Section 9* identifies required approvals and permits.

*Section 10* identifies references.

*Section 11* identifies agencies and community members consulted.

*Section 12* identifies preparers of this report.

The following technical appendices are provided to support this Draft EIS.

Appendix A	Archaeological Inventory Survey
Appendix B	Air Quality Study
Appendix C	Biological Assessment
Appendix D	Civil Infrastructure: Potable Water, Recycled Water and Wastewater Systems
Appendix E	Civil Infrastructure: Preliminary Surface Water Quality Assessment
Appendix F	Cultural Impact Study / Assessment
Appendix G	Economic and Fiscal Impacts
Appendix H	Integrated Golf Course Management Plan (IGCMP)
Appendix I	Acoustic Study
Appendix J	Marine and Pond Environments
Appendix K	Traffic Impact Analysis Report
Appendix L	Analysis of Punalu‘u Beach Carrying Capacity
Appendix M	Sea Mountain at Punalu‘u Solid Waste Plan
Appendix N	Socio-economic Tables
Appendix O	Insect Survey

The public review and consultation for this Environmental Impact Statement is being processed pursuant to Hawai‘i Revised Statutes, Chapter 343 and Chapter 200 of Title 11 Administrative Rules, Department of Health, “Environmental Impact Statement Rules.”

## **1.5 SIGNIFICANT BENEFICIAL AND ADVERSE IMPACTS**

Anticipated beneficial and adverse impacts of the proposed project are listed below.

### **1.5.1 Beneficial Impacts**

Project actions would result in several benefits attributed to specific topics.

**Cultural Resources:** Pre-historic sites in the project area have been identified in several archaeological studies. An Integrated Natural and Cultural Resource Management Plan will be prepared by the project archaeologist in consultation with a community advisory group to protect and preserve the known cultural resources in the area. The plan will include recommendations for the use of some of the resources as interpretive venues for educating residents and visitors about Hawaiian history and culture. Without the project, many of these cultural resources could remain unknown and inaccessible. Instead, the resources may become a source of pride and may contribute to the furtherance of education pertaining to Hawaiian culture.

**Social Factors:** The project would provide a mix of housing in a part of the island in which there is a strong demand for a range of housing types and prices.

**Economic Factors:** In the short-term, the new project would boost the regional economy by providing added employment for construction workers, fees for design and engineering professionals, and profits for construction companies and building suppliers. In the long-term, the project would provide a mix of housing for residents and visitors, a base for supporting commercial uses within the project, including increased employment related to those uses, and employment related to the proposed golf course and resort facilities. Including indirect impacts, the project is anticipated to provide over 7,232 person years of employment, \$735 million in economic output, and \$342 million in household income over the life of the project.

**Recreation:** A renovated 18-hole golf course will provide a recreational amenity for residents, and the general public in this area. The existing beach park would be maintained and possibly expanded. Walking paths will be built within the development. The restoration of Nīnole Cove is also being pursued as an option for increasing recreational opportunities.

**Land Use:** Completion of the project would fulfill the goals, objectives, and policies stated in State and County planning documents. The plans are supportive of urban growth in this area.

**Population and Employment:** The project will generate approximately 517 total on-going jobs after buildout.

**Environmental Factors:** Protection and preservation of natural, archaeological, cultural and historical features and elements are an integral part of the design of this project. Detailed measures are discussed in Chapter 6. In addition, selected archaeological, cultural and natural elements will be preserved under an Integrated Natural and Cultural Resources Management Plan.

### 1.5.2 Potential Adverse Impacts

Potential adverse impacts from the project that may require mitigation measures are summarized below:

**Cultural Resources:** According to the OEQC guidelines, the types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, religious and spiritual customs. The project site has been used for several of these purposes including fishing and recreation. Access to the site is very important for locals.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

The project area contains native plants and a range of traditional sites that were used in antiquity and in some cases until historic times. Consultants (kūpuna from this region) expressed concern that certain sites be protected and preserved. Given the resources and the traditional sites, a plan to protect, manage and continue the study of valuable cultural resources and places on this land is necessary. The kūpuna should be involved in this planning process along with other interested persons and the project's expert consultant team.

Construction activities undertaken within an area known to have numerous archaeological sites and cultural resources may inadvertently cause damage to some resources.

**Archaeological Resources:** The archaeological study identified 32 archaeological sites that are still extant on the project site. Of the 32 sites, 17 sites (53.1%) were determined to be exclusively or primarily historic sites, and 14 sites (43.8%) were determined to be exclusively or primarily pre-contact site, and one site (3.1%), a wall, was indeterminate. The 17 historic sites included seven sites associated with ranching or livestock, five sites associated with transportation, a historic habitation, a site associated with the location of Nīnole School, the wharf infrastructure, the Hokuloa church site and historic cemetery, and the outlying historic burial crypt area. The 14 pre-contact sites include five burial sites, three habitation sites, two rock art sites, one heiau site, one agricultural site, and two sites of indeterminate function.

The Sea Mountain Master Plan has been designed to preserve significant archaeological features throughout the project area. Roadways, residential units, resort and golf amenities have been sited to avoid disturbance of archaeological assets. It is possible, however, that during construction of Sea Mountain, that archaeological sites may inadvertently be disturbed.

**Air Quality:** Short-term direct and indirect impacts on air quality could potentially occur due to project construction. For a project of this nature, there are two potential types of air pollution emissions that could directly result in short-term air quality impacts during project construction: (1) fugitive dust from vehicle movement and soil excavation; and (2) exhaust emissions from on-site construction equipment. Indirectly, there also could be short-term impacts from slow-moving construction equipment traveling to and from the project sites, from a temporary increase in local traffic caused by commuting construction workers, and from the disruption of normal traffic flow caused by lane closures of adjacent roadways (see *Appendix K*).

Uncontrolled fugitive dust emissions from construction activities are estimated to amount to about 1.2 tons per acre per month, depending on rainfall. The impact of construction activities on air quality will be mitigated by conforming to strict dust control measures, particularly those specified in the State Department of Health's (DOH) Water Quality Standards, Chapter 37-A, Public Health Regulations, 1968; and the U.S. Soil Conservation Service's Erosion and Sediment Control Guide for Hawai'i, 1968.

Use of the proposed facilities will result in increased motor vehicle traffic in the project area, potentially causing long-term impacts on ambient air quality.

**Topography:** It is anticipated that grading will occur on a localized scale and that cut and fill quantities will generally balance as construction progresses. Drainage patterns will be altered in minor ways.

The short-term impact of the proposed action on soils is limited to the small potential for erosion during construction. All grading operations will be conducted in compliance with dust and erosion control requirements of the County of Hawai'i. Grading permits must be obtained from the County of Hawai'i in order to begin construction. During Grading Permit review and

approval, the grading plans for the site will be reviewed by the Department of Public Works and specific conditions may be attached.

The project does not propose major re-grading of the site. The existing topography will be altered only to the extent necessary for construction of the proposed improvements. It is anticipated that grading will occur on a localized scale and that cut and fill quantities will generally balance as construction progresses.

**Visual Resources:** Increased urbanization reduces open spaces and views of the natural landscape.

In planning the residential areas of the project and the golf course, consideration of the natural slopes and features in the topography have been respected. The development of a golf course will add standard and native landscaping to the area, enhancing the visual impacts of the area, increasing the desirability and adding value to the residential component. The addition of structures to the landscape will impact some existing viewsheds.

**Surface Water Quality:** The project site has a series of brackish ponds along the coastline and Ninole Stream, an ephemeral stream, leading into Ninole Cove. Storm water runoff from the proposed project would have the potential to add pollutants to these surface water features. Implementation of mitigation measures specified in the engineering reports, golf course plan, and marine biology report should prevent significant impacts to surface water quality.

**Groundwater Quality:** Development will result in increased use of ground water for drinking water, irrigation of landscaping and golf course. There has been concern expressed about impacts of golf course operations on groundwater quality.

Construction activities on the project site present a risk of contamination from accidental spills of hazardous materials or from non-point source pollution. The Sea Mountain project will include a golf course, a resort, and a wastewater treatment plant. All of these have some potential to introduce contaminants to ground water.

There are no indications, according to data produced in the engineering reports, golf course management plan and marine biology report, that the project has significant potential to negatively influence groundwater. The above mentioned reports have identified mitigation measures to mitigate potential impacts.

**Flood, Hurricane, Tsunami Inundation, Lava Flow, Earthquake and Wildfire Hazards:**

*Flood:* The property includes coastal areas in Zones AE and VE which represent areas with potential for coastal flooding. Mauka areas designated in Zone X were determined to be outside the 500-year floodplain.

*Hurricane:* The Punalu'u coast is potentially susceptible to hazards from Pacific hurricanes generated off the Coast of Mexico. Hurricane hazards include damage from high winds in excess of 74 mph and flooding due to heavy rainfall and storm surge.

*Tsunami:* The Federal Emergency Management Agency Flood Insurance Rate Map indicates areas of potential tsunami inundation on the coastal areas of the property. Due to its historic exposure to tsunami hazards, risk of future tsunami inundation is significant in the coastal zone.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

*Lava Flows:* The project area is within Zone 3, indicating a moderate to severe hazard. The project site is located in lava flow hazard zone "3" with "1" posing the greatest hazard and "9" posing the least.

*Earthquakes:* The entire island of Hawai'i is susceptible to earthquakes originating in fault zones under and adjacent to the island. Under the uniform building code seismic provisions, the Zone 4 area could experience severe seismic activity between .30 and .40 of the earth's gravitational acceleration (g-forces) causing major damage to poorly designed or built structures.

*Wildfires:* The project area is located in an area susceptible to brush fires. Brush fires could easily spread onto the project site without adequate fire buffers on the project perimeter.

**Flora and Fauna:** Development in close proximity to the coastal area may have adverse impacts to the area. The coastal zone contains more native species than all other areas of the site. Mitigative measures will be taken to ensure the proper preservation of the coastal area. Small clusters of trees throughout the project area will be preserved when possible as they provide habitat for the endangered Hawaiian hoary bat. Night-lights and human-made structures may cause injury to sea birds such as the endemic Dark-rumped Petrel and federally-listed Newell's Shearwater. Downward casting lighting will be implemented to reduce these potential impacts.

Short-term effects to vegetation and wildlife can be anticipated wherever site clearing and grading or excavation is necessary. Of particular concern is the potential for disturbance that may affect habitats for endangered species of vegetation or wildlife. The unrestricted movement and growth of rodents and ungulates on project lands can disturb vegetation and wildlife in need of protection.

*Flora:* Human impact has substantially altered the vegetation on much of the property, either directly (e.g. clearing for existing development and golf course) or indirectly (e.g. introduction of alien plants, and fire). A concentration of native plants is located within the coastal zone. Two endangered Loulu palms were found in this zone. The coastal zone will be preserved and restored.

*Fauna:* The endangered Hawaiian hoary bat was observed on the project site. The bats may roost and breed in the area throughout the course of the year. They could be disturbed or directly harmed by grubbing and tree felling. Sizable tree stands will be preserved whenever possible. The federally endangered Hawaiian hawk ('Io) and the Hawaiian short-eared owl (Pueo), a federally listed species of concern, were not seen on the project site, however they could occasionally visit the site. Native waterbirds such as the Black-necked stilt (Ae'o), Hawaiian coot ('Alae Ke'oke'o), the Nene goose, and the indigenous Black crowned night-heron ('Auku'u) could make use of the site as well. Construction activities could disturb nesting of bird species during the breeding season. Preconstruction surveys will be performed to determine whether any active nests are present. If active nests are present, these areas will be avoided until the chicks have fledged.

The project site is often home to nesting Hawksbill and Green Sea Turtles. Additional visitors in the area may cause damage to their habitat or interfere with their nesting patterns.

**Roadways and Traffic:** The project will have long-term impacts on surrounding areas including new traffic circulation patterns, and increased traffic at intersections with Hawaii Belt Highway, Alahaki Road and at Ninole Loop Road.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

A Traffic Impact Analysis report was prepared for the proposed project. See *Appendix K*. The report includes an analysis and discussion of the proposed access routes and intersections. Plans for access to the highway will be coordinated with the State Department of Transportation (DOT).

Construction activities will create some short-term effects primarily from trucks, heavy equipment and other vehicles that will use existing roads - primarily Hawaii Belt Highway - to access construction areas, for the purpose of delivering construction materials and hauling away demolition debris. While construction vehicles are relatively slow and difficult to maneuver, it is anticipated that they will only marginally affect overall traffic flow. Commuting construction workers will slightly increase traffic levels, although their effect is anticipated to be negligible.

**Utilities/Power/Infrastructure:** There will be an increased use of electrical energy and utility services.

HELCO may be able to serve the initial phases of the development from the Punalu'u substation just east of the project site, provided that the substation has capacity. The developer's electrical consultant is required to submit a load schedule to HELCO before the final electrical requirements may be determined. Facility upgrades will be determined at a future stage in the planning process.

The development of Sea Mountain will require expansion and upgrade of the existing potable water system, including drilling new potable water wells and construction of a new water storage reservoir.

A new wastewater treatment facility will be constructed to serve the proposed project. The on-site wastewater treatment plant is deteriorated and does not have sufficient capacity to serve the new load. Collection, treatment, and disposal of wastewater will occur on-site, and the project will not tie into any County infrastructure.

**Solid Waste:** Solid waste will increase during construction and occupation phases. Increased volume of solid waste will be related to new residential, retail and commercial land uses. Green building, recycling and re-use will be built into project practices and management.

No significant short-term impacts on the existing solid waste collection and disposal system or the environment are anticipated as a result of the proposed development. Solid waste typically generated by construction activities includes wood, drywall, cardboard, metals and other materials. After build out, solid waste generated during the operational life of the residential and commercial activities will include paper, plastic, yard waste, glass, metals, other organics and other solid wastes. Specific solid waste calculations are provided in *Appendix L*.

**Population and Employment:** Trends in population and household growth are principal indicators of the potential demand for real estate development. Population growth in the market area has been moderate to high since 1990; recent data shows this trend continuing. Between 1990 and 2000, Ka'u had a 31.3 percent increase in population. This trend of population growth in the Ka'u region indicates a demand for more residential development in the area which this project will provide.

The proposed action will place residents on land that is currently partially developed and will also result in a need for suitable retail and commercial facilities to support the residents and

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

visitors. Requiring such persons to go outside the project area will increase traffic on the Hawaii Belt Highway.

**Education:** The residents of Sea Mountain will include families with school-aged children which will generate a need for school facilities. According to the Hawai'i Department of Education, the project is estimated to generate a total of 37 students by the buildout year of 2015.

Although the project does not trigger statutory requirements for fair share contributions, Sea Mountain Five, LLC will fulfill educational contribution requirements, if imposed by the DOE or the County.

Significant impacts to the existing school system are not anticipated. Nevertheless the project will cause additional strain on a school system already nearing capacity.

**Police and Fire:** Additional population in the project area will create additional demand on existing police and fire services. The developer will assist in provision of additional fire and police services through the provision of substation site(s) and/or through fair-share contributions for additional services as required by the County, if any.

**Medical and Emergency Services:** Additional population in the project area will create additional demand on existing medical and emergency services. Although no mitigation is required, Sea Mountain Five, LLC is currently developing a benefits package that includes the hospital as a potential beneficiary.

**Recreational Resources:** Establishing a resident population will create a need for recreational opportunities. Many recreational opportunities will be provided on-site such as an 18-hole golf course, a beach park, black sand beach, resort pools, walking trails, and potentially a Nīnole recreational area. The potential exists for on-site resource degradation due to overuse and improper conduct. Education and site management plans will emphasize care of resources and sustainability.

**Coastal Water:** There is concern that golf course fertilization if unmanaged, could contaminate the subsurface water flow into the nearby ocean, potentially degrading coastal water quality. Fertilizer and pesticide application rates will be carefully monitored so as not to leach into the groundwater. Most surface water would reach the coast indirectly through percolation, thus filtering constituents prior to mingling with ocean waters.

**Hazardous Materials:** Hazardous materials are generally not associated with residential activities. With the development of light commercial facilities and resort operations there is a slight chance that hazardous materials would be generated and disposed of, however, all hazardous materials would be disposed of in compliance with County regulations and would likely pose no threat to the environment. If abandoned buildings contain asbestos materials, demolition activities have the potential to release these potentially harmful materials into the air. Proper asbestos abatement procedures will be followed if asbestos is identified.

**Noise:** Construction activities at the project site would generate noise impacts that are temporary in nature. The impacts of construction activities would be experienced by area residents to a degree consistent with each individual's reaction or tolerance to noisy stimuli. Anticipated construction noise would be at 80 to 90+ dBA at 50 feet. This would be most uncomfortable for Colony I residents and residents on the north and west ends of Alahaki Road.

Noise reduction will be practiced whenever possible through equipment mufflers, however, mitigation of construction noise to inaudible levels will not be practicable in all cases.

**Agriculture:** Lands potentially available for ranching or farming will no longer be available for such agricultural use.

If rezoning of the mauka portion is pursued, the project could result in the immediate loss of approximately 120 acres of County designated agricultural land. The State designates the same land for urban uses.

**Adjacent and Nearby Lands:** Lands adjacent to and nearby the site are primarily vacant. This project will add to the urbanization of Ka'ū. Project infrastructure could be extended to adjacent parcels, attracting more development to this area.

There will also be long-term negative impacts on the project site if the project is *not* implemented. Some of these potential risks are listed below:

- The lease for the park could be terminated and there would be no park.
- The roads to the park are not public roads and could be closed or gated. This would cut off shoreline access, access to the beach, the boat ramp etc.
- The combination of condo owners and single family home owners, the park and the landowners, is not a viable group to maintain the roads, golf course, water facilities, sewage treatment, etc. By not allowing the property to gain enough critical mass, the property and the current residents are headed for a financial disaster.
- The golf course is not financially viable and would be closed.
- The sewer plant is outdated and needs repair. Continued lack of maintenance may lead to contamination.
- The water system already leaks. The wells aren't adequate to support the drinking water needs of the existing community and the golf course if both are at maximum demand at the same time.
- The roads and the landscaping are not properly maintained and will continue to deteriorate unless the property becomes financially viable.
- The cultural and historical sites will have no protection if the project goes into disrepair. The destruction of the Herb Kane painting in the old cultural center is an example of what has already happened.
- Further decay may cause the County to perform emergency maintenance to protect the residents and pay the costs of repair and proper maintenance so basic services are restored.

If the project attains a certain density, it will be able to support upgrades to facilities, provide ongoing facility maintenance, keep the golf course in operation, showcase local culture, and revive economic viability in the area.

## 1.6 PROPOSED MITIGATION MEASURES

Mitigation measures will be implemented to minimize impacts, as well as to address and eliminate other potential adverse impacts. Mitigation measures that address potential adverse impacts are summarized below:

**Topography, Soils and Drainage:** No significant long-term impacts to the topography are expected. Storm water runoff from impervious areas will be collected through a system of

swales, catch basins, and pipes and transported to drywells or infiltration areas for disposal within the Sea Mountain site. Infiltration areas will be located on the golf course and other open spaces, where practical. Buffers and small siltation basins will help to filter and trap potential pollutants onsite through physical and biological means. Soil that is imported for golf course and landscaping will be covered or planted promptly after installation of the soil to minimize erosion. The dry wells and retention basins will be designed to filter pollutants and silt through sand and gravel layers. Vegetated retention basins will also provide some biological uptake of nutrients in stormwater. In addition, stormwater entering the groundwater from the project site will be filtered through soil and lava. Percolation through such thick soil and lava layers will effectively remove most pollutants from the storm water before it reaches groundwater.

**Hazards from Flood, Hurricane, Tsunami Inundation, Lava Flow, Earthquakes and Wildfires:**

The project area will be served by access roads connecting to the Hawai'i Belt Highway. The makai portion of the site will have two access points to the highway via the eastern and western legs of Ninole Loop road. The mauka portion will access the highway via Alahaki Road. Feasibility of a second highway access point is being investigated. The proposed roads can serve as emergency egress from the project. There is sufficient space above the project site for the placement of lava diversion barriers if the technology for such devices improves and their effectiveness is proven. With respect to the earthquake hazard, the project includes the construction of one to two-story buildings built in accordance with Uniform Building Code requirements for Seismic Zone 4, which contain structural design standards for earthquake resistance. A Wildfire Protection Plan will be developed to ensure appropriate protection measures.

**Surface Water:** The project site has a series of brackish ponds along the coastline and Ninole Stream, an ephemeral stream, leading into Ninole Cove. Storm water runoff from the proposed project would have the potential to add pollutants to these surface water features. Implementation of mitigation measures specified in the engineering reports, golf course plan, and marine biology report should prevent significant impacts to surface water quality.

**Ground Water:** Surface runoff generated by the development will be channeled through swales, detention or infiltration areas. This will allow percolation of the water into the groundwater system. The drainage system will be designed using best management practices to filter out surface pollutants to the extent practicable.

**Coastal Water:** The golf course will be properly designed and managed as to minimize impact on the coastal waters. Along with the turf, additional nutrients will be filtered through percolation. Additionally, golf course maintenance will follow best management practices so that the golf course will receive only the necessary amount of fertilizer which will ensure that little or no fertilizer will leach into the ground.

Punalu'u Bay contains a large population of federally protected turtles. There is little potential for impact to these populations from changes in water chemistry. Long-term studies of turtle populations indicate that the numbers of turtles have increased, while the growth rate has slowed. If the slowed growth rate is a result of decreased food sources (marine algae), the only effect of the project may be a benefit to turtle populations owing to an increase in algal growth through slight increases in nutrient fluxes.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

**Hazardous Materials:** Residential and commercial operations have minimal potential for hazardous material impacts. Demolition activities may release friable asbestos into the air or uncover contaminated soil. Asbestos testing should be performed on all structures to be demolished that were constructed prior to 1980. If asbestos is positively identified, demolition should be conducted per DOH requirements for containment of friable asbestos materials. Notify the nearest DOH permitted landfill (Pu'u Anahulu, Kona) of the presence of an incoming asbestos containing waste material and follow any specific guidelines that the landfill operator provides. In the event that potentially contaminated soil is encountered during demolition or grading activities, activities should cease until suspect soil is tested in accordance with DOH regulations. Soil remediation should then occur in accordance with DOH recommendations.

**Flora and Fauna:** The coastal area containing the greatest concentration of native plants and habitat identified as Zone A in Patrick Hart's study will be preserved and restored. Tree stands provided Hawaiian hoary bat habitat identified in the Hart study will be preserved as much as possible. Protection measures will be followed to keep turtles and their habitat safe. Landscaping within Sea Mountain will use native species to the extent practicable. An Integrated Natural Cultural Resource Management Plan (INCRMP) will be developed to address preservation, mitigation, management and stewardship measures relating to the flora and fauna on the Sea Mountain site. Land clearing will be avoided during breeding and nesting season to minimize disturbance to nesting native waterbirds. Night lighting will be properly shielded to minimize potential injury to Dark-rumped Petrels and Newell's Shearwaters.

**Cultural Resources:** The project's archaeologist will submit to the State Historic Preservation Division for its review and approval a conceptual historic preservation plan to protect important archeological sites and historic and cultural resources. Incorporation of the plan would also result in the previously mentioned benefits from the use of resources via interpretive venues. An Integrated Natural Cultural Resource Management Plan (INCRMP) will be developed to address preservation, mitigation, management and stewardship issues. Inadvertent burial discoveries made during the various preparation and construction phases of the proposed project, will follow proper protocols as required by the Hawai'i State Historic Preservation Division (SHPD) Burial Sites Program. Implementation of the INCRMP will involve an ongoing process of communication with community representatives on use of and access to resources of significance in traditional Hawaiian practices.

**Archaeological Resources:** The Sea Mountain master plan is designed to preserve significant archaeological sites throughout the project site. Sites recommended for possible preservation will be surveyed, and the site plan modified as necessary to ensure proper treatment of significant archaeological features. In cooperation with the State Historic Preservation Office, a treatment and mitigation plan will be developed for any features determined to be archaeologically or historically significant. An Integrated Natural Cultural Resource Management Plan will be designed to identify specific preservation and mitigation measures regarding the archaeological resources.

**Air Quality:** Short-term impacts from fugitive dust will likely occur during the project construction phase. To a lesser extent, exhaust emissions from stationary and mobile construction equipment, from the disruption of traffic, and from workers' vehicles may also affect air quality during the period of construction. State air pollution control regulations require that there be no visible fugitive dust emissions at the property line. Hence, an effective dust control plan must be implemented to ensure compliance with State regulations. Fugitive

dust emissions can be controlled to a large extent by watering active work areas, using wind screens, keeping adjacent paved roads clean, and by covering of open-bodied trucks. Other dust control measures could include limiting the area that can be disturbed at any given time and/or mulching or mechanically stabilizing inactive areas that have been worked. Paving and landscaping of project areas early in the construction schedule will also reduce dust emissions. Monitoring dust at the project boundary during the period of construction could be considered as a means to evaluate the effectiveness of the project dust control program. Exhaust emissions can be mitigated by moving construction equipment and workers to and from the project site during off-peak traffic hours. After construction, motor vehicles coming to and from the proposed development will result in a long-term increase in air pollution emissions in the project area, but concentrations would still likely remain equal to or lower than the existing levels due to dispersal and low levels of existing conditions.

**Noise:** Unavoidable but temporary noise impacts may occur during the construction of the proposed project. Because construction activities are predicted to be audible at adjoining properties, the quality of the acoustic environment may be degraded to unacceptable levels during periods of construction. Mitigation measures to reduce construction noise to inaudible levels will not be practical in all cases. For this reason, the use of equipment mufflers and construction curfew periods as required under the State Department of Health noise regulations will be implemented to minimize construction noise impacts.

**Visual Resources:** The introduction of structures in the landscape will impact existing viewsheds. Clustering of dwelling units in sections of the project will preserve the open space character. The philosophy of the development is to “build to the land,” avoiding major cuts and fills, designed to facilitate pedestrian access and provide a better quality of life for residents over the long-term. Buildings will be one to three stories to create a low profile that is compatible with the expansive setting of the site. Buildings will be designed with sensitivity to the surroundings of the project site. The character and color of the surrounding lava would be used as a design element that contributes to a Hawaiian sense of place.

**Recreational Resources:** The planned improvements at Sea Mountain will expand access to recreational resources by providing an 18-hole golf course for private and public use. The existing County beach park will be upgraded and possibly expanded. The park will remain accessible for public use and can be dedicated to the County of Hawai'i if the County is agreeable to accepting dedication. The project will include walking trails and possibly a new recreational area at Nīnole Cove. All of these recreation opportunities would offset the increased need generated by the project. Protection of the Punalu'u black sand beach from excess impacts will be carried out through educational programs, erosion-slowing measures, raised walkways, signage, and other appropriate measures.

**Population and Employment:** No mitigation is prescribed as the project would bring additional employment to the area and proposed retail and commercial facilities will support additional residents and visitors in the community.

**Roadways and Traffic:** The proposed project will add to traffic on Māmalahoa Highway in the vicinity of the project site. However, the proposed project is not expected to have an adverse traffic impact due to the current low volume of traffic in the study area. Both study intersections could operate under stop sign control although the east intersection should be improved to provide a fully channelized design like the west intersection. Additional

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

mitigating measures such as the installation of traffic signals at the west intersection may be required if the proportion of primary buyers exceeds the 30% estimate assumed in the study.

Improvements on Māmalahoa Highway include a separate left turn lane on the westbound approach and a right turn deceleration lane on the eastbound approach. Improvements on the south leg of Ninole Road include a channelized right turn lane controlled by a yield sign and a left turn lane controlled by a stop sign.

**Solid Waste:** A solid waste management plan will be developed which will identify efforts to minimize waste generated at Sea Mountain during construction and operation. The plan would include a recycling program to reduce potential impacts on the County landfill. Sea Mountain will encourage recycling amongst commercial tenants and residents, work to educate tenants and residents on the benefit of recycling, and will provide separate waste receptacles for recyclable products. Grounds maintenance crew will separate out green waste for appropriate disposal to one of the composting companies on Hawai'i. Chipping and composting will be utilized to the extent practicable; especially during the operational phase. Yard and landscaping maintenance may use compost and chipped material for mulching and soil conditioning. These activities will reduce the amount of green waste that needs to be transported off-site.

**Power:** The project will require electrical energy from Hawaii Electric Light Company (HELCO). Additional substation capacity will be added if required by HELCO. The design of improvements in Sea Mountain will include sustainable design principles to reduce use of electrical energy.

**Housing:** The developer will provide workforce housing in accordance with existing zoning conditions. If the developer pursues rezoning of the mauka portion of the project site, approximately 55 affordable housing units would be provided in planning areas 1 and/or 2, or at an off-site location, per the County's 20 percent affordable housing policy.

**Education:** If rezoning of the mauka portion is pursued, the Department of Education (DOE) fair share contribution policy would be activated. Sea Mountain Five, LLC will contribute to the development, funding and/or construction of school facilities on a fair share basis on terms agreed upon with the State DOE.

**Public Services:** The developer will assist in provision of additional police and fire services through provision of substation sites and / or through fair share contributions for additional services. The exact details of this mitigation are unknown and this remains an unresolved issue. Existing medical and emergency services will also be impacted by the project. Exact mitigation has not been determined and this remains unresolved. Tax revenues generated by the project will also assist in paying for increased services.

**Agriculture:** If the mauka portion of the project is rezoned for residential development, the project will result in the loss of 109 acres of County designated agricultural land. Conversion of these lands, which are severely limited in their agricultural usefulness, would not result in a significant impact, and no specific mitigation is required.

**Adjacent and Nearby Lands:** In the long-term, this project will add to the urbanization of Ka'ū. No mitigation is proposed.

**Conservation Classification:** No construction will occur within the conservation district portion of the project site. The master plan will be designed around the conservation zone to

protect this area. The Integrated Natural Resources Cultural Resource Management Plan will address the mitigation, management and stewardship of botanical resources within the project site, especially the conservation zone.

Details of mitigation measures for adverse impacts are discussed in detail in *Section 5*.

## **1.7 ALTERNATIVES**

The potential benefits and impacts of several alternative development schemes were evaluated along with a no-action alternative. These analyses and summaries are provided in *Chapter 7* of this document. They include:

- a) No action
- b) Private Estates
- c) Resort with Current Zoning
- d) Moderate Density
- e) Low Density
- f) Alternate Locations
- g) Setback alternatives

### **1.7.1 No-Action Alternative**

The no-action alternative would involve no changes to the existing site. The site would remain partially developed and the benefits of development would not be realized and the abandoned structures and infrastructure would be left to further deterioration.

### **1.7.2 Other Alternatives**

In addition to the alternative listed above, several different concept plans were developed for the project site which proposed various project densities, elimination of rezoning and SMA permits, and various options for coastal setbacks.

## **1.8 UNRESOLVED ISSUES**

Several unresolved issues remain at this time. Details are provided in *Section 8*.

- a) Affordable, and Workforce Housing
- b) Schools
- c) Police and fire
- d) Medical services
- e) Electrical services
- f) Beach crowding

## **1.9 COMPATIBILITY WITH LAND USE POLICIES AND PLANS**

The proposed action is compatible with existing State policy documents (i.e. Hawai'i State Plan and Functional Plans). The proposed action would also be compatible with State and County policy documents such as the Hawai'i County General Plan and Hawai'i County Code.

## **1.10 REQUIRED APPROVALS AND PERMITS**

Several approvals and permits may be required in order for this project to proceed.

- Acceptance of the Draft and Final Environmental Impact Statement by the Hawai'i County Planning Department and Planning Commission
- Rezoning approval by the Hawai'i County Council and Mayor (required only if rezoning is pursued)
- Special Management Area Use Permit approval by the Hawai'i County Planning Commission
- Plan Approval by the Hawai'i County Planning Department
- Subdivision, grading and building permits approved by the Hawai'i County Planning Department and Department of Public Works
- Wastewater treatment facility and irrigation with treated effluent, approved by State of Hawai'i Department of Health
- Highway entrance from Māmalahoa Highway by State Department of Transportation
- Brackish and potable well permits by the State Commission on Water Resource Management
- Water source and distribution system approved by the Hawai'i County Department of Water Supply
- National Pollutant Discharge Elimination System (NPDES) permit approved by the State Department of Health
- Underground Injection and Control Permit (UIC) approved by the State Department of Health
- ADA Title II HRS 103-50 Review by Disability and Communication Access Board
- Section 404 permit approval from U.S. Army Corps of Engineers
- Stream Channel Alteration Permit (SCAP), State Commission on Water Resource Management

**Section 2.0**  
Project Description

## 2.0 PROJECT DESCRIPTION

Sea Mountain Five, LLC, proposes to develop the Sea Mountain project on a 434-acre partially developed site in Punalu'u. Additional site improvements would involve construction of residential units, destination resort/hotel facilities on one or two sites, a championship 18-hole golf course, cultural/marine center, light commercial, upgraded wastewater treatment facility, water reservoir and other supporting infrastructure.

The Sea Mountain conceptual land use plan seeks to provide a mix of residential unit types which will include single-family residential lots and multi-family units for sale or lease. The development concept for a hotel/resort complex includes a village center which would serve as a gathering place for the resort with shopping and services for guests and local residents. Affordable housing options will be provided in accordance with County standards. *A project description is provided in Section 2.2.*

Sea Mountain Five, LLC would construct roadway improvements servicing the site, major electrical improvements (including transmission lines and necessary switching and transformer substations), sewage treatment plant renovation and golf course improvements (including irrigation wells). Sea Mountain Five, LLC would also provide internal connector roads and other infrastructure to service the residential, retail and commercial lots that it will create.

### 2.1 HISTORICAL PERSPECTIVE

#### 2.1.1 Early History

##### 2.1.1.1 *Summary of Significant People and Events*

The following summaries are based on traditional and historical literature review and the ethnographic data and analyses from the Cultural Assessment (Kaimipono, 2006) (*Appendix F*). These summaries serve to focus on a few significant individuals and events in the history of the project area and vicinity in relation to Ka'u and the *ahupua'a* of Punalu'u, Wailau and Ninole (*Figure 2-1*). The cultural impact study is based on two guiding documents, Act 50 and OEQC Guidelines, as well as the *Criteria for Historic Preservation* cited below

According to traditional and historical material, the project lands of Punalu'u, Wailau and Ninole has gone through a number of significant changes, and witnessed the comings and goings of many significant people over time. Some of these people contributed substantially not only to the history of this area, and the district of Ka'u, but of Hawai'i Island and the rest of the Hawaiian Islands. There were several people and events noted in the oral histories and later recorded by explorers, missionaries, native Hawaiian scholars and ethno-historians, from the time of the gods and goddesses to Kamehameha I who caused the various island kingdoms to come under one realm. Some of these significant people lived in area and were responsible for land modifications, shifts in polity and commerce, and the gene pool of Hawai'i's *ali'i* and monarchs. A few of these people and events are noted below.

2.1.1.2 *Mythical Entities*

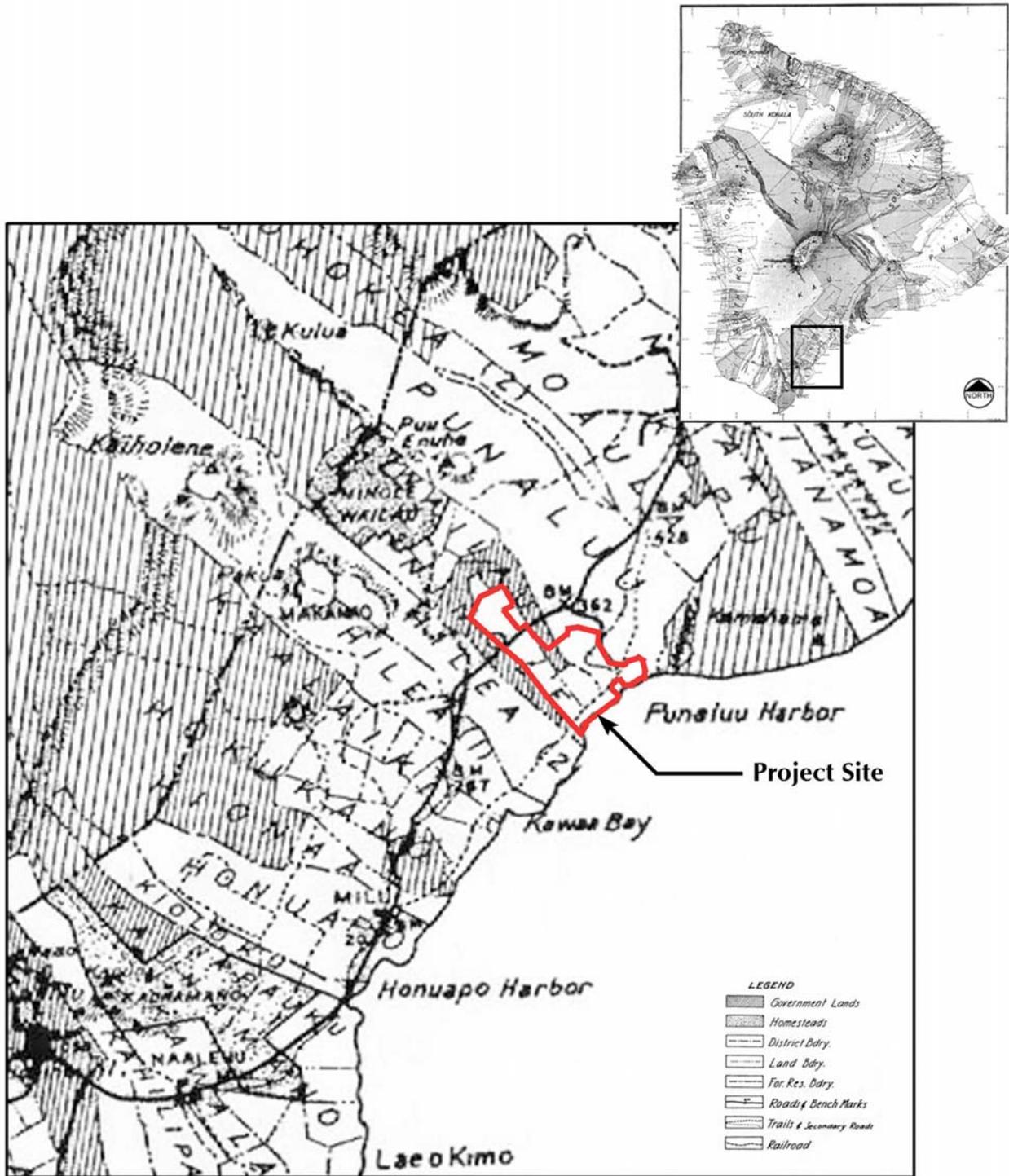
The most significant mythical entity to impact the district of Ka'ū, the lands of Punalu'u, Wailau and Nīnole, as well as greater Hawai'i Island, was the volcano or fire goddess Pele, who left evidence of her visits in the form of *pu'u* which dot the landscape, but especially the residuals of her monumental lava flows. In her wake she annihilated villages, shelters, trails, temples, shrines, water sources, fishponds, pools, holua slides, countless other structures and features, and people, forever changing those lives affected by the destruction. Even those outside of the direct flows of lava were affected as resources on the land, in the fishponds and pools, and in the marine environment were forever extirpated. Through time the people have had to alter their lifestyle, look for other resources and start all over again. Often, though time has passed, archaeologists with the help of oral histories are able to reconstruct the life of the ancient Hawaiians through the clues left by their abandoned shelters, house sites, sacred places and remains of the food they ate. This cannot be done in the places visited by Pele; the few stories left will have to suffice. However, the flows of Pele created more land mass, more possible lava tube shelters should they be needed someday, a kind of contrasting beauty unique to the islands, and always a sense of awe.

Other legendary entities of this area are the rain god Kūmauna; the mo'o creatures (Kawale and Pūhau) who inhabited the ponds and caves of Nīnole; Kaikapu, the female cannibal guardian of the bones of Wahieloa, whom she killed and who lived in Kaualehu Cave in Kōloa, Nīnole; Nīnole, the beautiful granddaughter of Kaikapu who enticed people to the cave; Wahieloa, who was born in Wailau-Nīnole and became father of Laka; Laka who came to Punalu'u in search of his father's bones and who purportedly built *Lanipao Heiau*; and Kauila, the legendary *kupua* turtle-woman who is said to guard and play with the children at the shore of Punalu'u Bay.

2.1.1.3 *Ali'i nui and Kahuna.*

The lands of Punalu'u, Wailau and Nīnole attest to the many *ali'i nui* and *kahuna* who lived and worked in the area by the *heiau* (Punalu'u Nui, Lanipao, Ka'ie'ie, Mokini and nearby Kohaikalani and Imakakoloa), and the vast number of shrines, complex habitation sites and petroglyphs. A few infamous *ali'i nui* of the area included Koihala, Kohaikalani and Halaea. Other *ali'i nui* from the area included Kalani-nui-i-a-mamao, father of Kalani'opu'u; and Kiwala'o and Keoua Kuahuula, sons of Kalani'opu'u who were affiliated with the project lands; and other Hawai'i ruling chiefs, Liloa, Umi-a-Liloa, Keawe, Lonoikamakahiki, Alapa'i nui and Kamehameha I. A *kahuna* known to be from the project area and said to be a relative of Keoua, was Kahoapuahi. Unfortunately, the names of many other *kahuna* who must have officiated at the various *heiau* in the project area have been lost through time.

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement



Source: Hawai'i Territory Survey, Wall, 1928

Figure 2-1. Ahupua'a in the Ka'u Region

2.1.1.4 *Historic People*

Significant people of the project lands in historic times would have been the konohiki Komaia (Ninole), Nakahuna (Punalu'u) and Mahoe (Punalu'u); and Henry Opukaha'ia who was born in Ninole.

2.1.1.5 *Significant Events*

Most of the significant traditional events would have been associated with the legendary entities and chiefs and *kahuna* of the project lands; such as the construction of the *heiau* and their high ceremonies, the birth and deaths of the *ali'i nui*, the construction of the fishponds and the *konohiki* entertaining visiting chiefs. Significant modern events would include the construction of the Punalu'u Landing and Wharf and perhaps in some circles, the construction of the Sea Mountain Resort and its facilities. However, there are some who would say the significant events for them would be the births of their children, grandchildren and great-grandchildren and their victories in court to save their lands and resources.

**2.1.2 Land Use History**

The following information is a brief recent chronological land use history of this property from 1968 to present:

**1969-1972:** C. Brewer Properties, Ltd. developed the Sea Mountain 18-hole golf course community, which included the Colony I condominium project, Kalana I single-family residential subdivision, the Aspen Institute Center for Humanistic Studies, the Black Sands Restaurant and the Ka'u Center for History and Culture.

**1975:** Punalu'u was hit by a tsunami, causing C. Brewer to initiate a new master planning effort.

**1984:** By this time, C. Brewer had purchased additional adjacent parcels from Bishop Estate to expand the property.

**1988:** Entitlements were achieved for the revised master plan, including a Final EIS (PBR, April 1988), a rezoning of 65 acres of the mauka portion of the property, and a General Plan Amendment to adopt the Resort Master Plan and support the Rezoning.

**1989:** The Sazale Group (formerly Sekitei Kaihatsu Company, Ltd.) acquired the properties from C. Brewer. Sazale established the Punalu'u Development, Inc. (PDI) to carry out resort improvements.

**1990:** A Special Management Area Use Application (Group 70, October 1990) was approved by a unanimous vote of the Planning Commission to permit development for the PDI Master Plan within the SMA. This document SMA Permit No. 329 was approved by the Planning Commission on February 26, 1992.

An appeal was filed in the Third Circuit Court by the Punalu'u Preservation Inc., a Hawaii non-profit corporation; Maragaret McGuire; and Palikapu Dedman against Phillip Michael Luce, in his capacity as the chairman of the Planning Commission of the County of Hawaii; and Punalu'u's Development Inc.

While the case was being processed through the courts the collapse of the bubble economy of Japan began. As a result of the collapsing economy in its home base and the resulting financial difficulties in its core business the Sazale Group needed to divest itself of some of its overseas assets and placed the property on the market for sale. They took a large financial loss in the subsequent sale of the property.

SM Investments (an investment partnership associated with Roberts Hawaii) purchased the property for nearly 1/10 the value paid by the Sazale Group. After purchasing the property SM Investments did not proceed with the development envisioned in the SMA approval. In the meantime it did not actively seek to resolve the contested case that was before the Third Circuit. In 1998 the Court vacated the previous SMA approval and sent the case back to the Planning Commission for resolution of the contested case before re-hearing the SMA application. This was the state of affairs till 2005 when the current applicant and SM Investments agreed to drop the contested case and start the process over again.

## 2.2 SEA MOUNTAIN MASTER PLAN

The proposed development is envisioned as a high quality destination resort/residential community with recreational amenities of a championship golf course, cultural/marine center, and a village center. (*Figure 2-2*)

The Sea Mountain master plan may include areas designated for resort, residential, mixed use, golf, and infrastructure.

The development concept is for a resort/residential complex at Sea Mountain with opportunity and entitlement for for-sale units in architecture that is configured to work like a full service hotel. The complex would have lobby, restaurant, grill, accessory shopping, and recreational facilities.

Within the project boundaries, a series of low-rise residential enclaves will be created, each with its own character. Each enclave will be surrounded by golf course fairways or other open space areas. The enclaves will provide a mixture of single-family and multi-family units. All enclaves will be oriented to maximize golf course frontage, views of fairways and the ocean beyond. All units will have easy access to open spaces and natural areas. All the amenities are within easy walking distance.

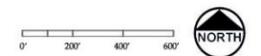
A Village Center will serve as a community gathering place with shopping and services for local residents and guests. The architecture will be low rise and accessible.

Residential units in the mauka areas north of the Hawai'i Belt Highway will predominantly be single- and multi-family homes located on estate lots with the houses sited to maximize views.

The existing 18-hole golf course and driving range would be expanded and refurbished to become a championship course. Total golf course envelope would be approximately 175 acres. A Golf Club Center would be located adjacent to the course and would provide food and beverage services, concierge, and other club amenities. Besides the Golf Club Center, the course will have an open space buffer and ample parking areas. Development of the course would primarily be within areas currently zoned for Open Area and Agricultural District, and partially occur within areas zoned for residential and commercial uses.



Figure 2-2. Sea Mountain Master Plan



# SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

Infrastructure facilities to support the development include access and internal circulation roadway networks, linkage to the Hawai'i Belt Highway, an upgraded wastewater treatment and disposal system, improvements to the potable water supply and fire protection systems, a non-potable water irrigation system and other utility systems. *Details of the development program for Sea Mountain at Punalu'u will be provided below.*

SM Investment Partners currently leases the Punalu'u Beach Park land on a month-to-month basis to the County of Hawai'i. Public beach access to Punalu'u Beach Park will be maintained. Public parking spaces will be reserved to provide support for public beach access.

The Sea Mountain land will be subject to various covenants and restrictions, which will require all owners within Sea Mountain to comply with design standards and uses as defined in those covenants.

The preliminary program is based on an early assessment of the economic feasibility of the project (Table 2-1).

**Table 2-1. Sea Mountain Program Summary**

Area	Type	Average Bedrooms	DU Count	Square Feet
1	SFC	3	142	
2	Duplex	3	185	
3	Triplex	3	248	
4	Cluster Townhouse	3	180	
5	Cluster Townhouse	3	282	
6	Cluster Townhouse	3	220	
7	Lanai stacked flat	3	114	
	Clubhouse retail**	—		8,000
8	Stacked flat *	2	332	
	Retail services **	—		50,000
9	Stacked flat *	2	120	
	Retail services **	—		15,000
		Project Total	1,823	73,000

\* Potential hotel operation

\*\* Restaurants, spa, galleries, sundries, salons, etc.

### 2.2.1 Resort Component

Within the project site there are two makai areas zoned for resort development. The project proposes a maximum of 300 hotel units to be provided on one or both hotel sites. It is possible one site may be designated for an eco-hotel. The 18-hole golf course would be an amenity to hotel operations (see Recreation Amenities, below).

### **2.2.2 Residential Component**

The residential component may include a mixture of housing types including single family, townhouse, condominium and apartment units. Unit totals could range up to 1823 residential and hotel units. The housing market targets residents, second home purchasers and renters.

Affordable and workforce housing requirements will be met with agreements established with the County housing agency consistent with the policies of the County of Hawai'i. Sea Mountain Five, LLC has made initial contact with the Department of Hawaiian Homelands (DHHL) to discuss partnership options concerning shared infrastructure and affordable housing. There is potential that infrastructure services will be extended to the DHHL site and/or project construction, workforce, or affordable housing could be built on their lands adjacent to the project site. Initial reaction has been positive. These possibilities are still in the planning stages and will be contingent on approval by DHHL.

### **2.2.3 Retail-Commercial Component**

The commercial components of Sea Mountain at Punalu'u will consist of retail uses, which will provide support for the residential component of Sea Mountain at Punalu'u. Currently, a location adjacent to the resort is being considered for the core of the commercial activities.

The Sea Mountain at Punalu'u development design will encourage residents to reduce the amount of vehicular traffic impacting the regional highways by providing supporting retail, commercial, and recreational uses within Sea Mountain at Punalu'u project site. It will be designed to reduce internal vehicular traffic within Sea Mountain at Punalu'u by providing convenient pedestrian access to all amenities for residents and visitors. As the project builds out it is hoped that the commercial uses will create a critical mass of jobs and services that create a semi-sustainable community within the Punalu'u area that does not compete with similar uses in Pāhala and Na'alehu. Instead, it is hoped that the development will serve as a stimulus for new jobs and services in the region.

In addition to the residential support, commercial uses to support the hotel(s) and visitors are part of the commercial mix. Retail and other support services will help to stimulate the local economy as it will provide opportunities for local residents to teach cultural classes or sell crafts and provide recreational opportunities for the visitors. Eco-tours and activities related to the Volcanoes National Park are also envisioned.

### **2.2.4 Recreational Amenities**

Recreational amenities include an 18-hole golf course, driving range, tennis complex, passive and active park spaces, bike paths, and walking paths.

A portion of the property will be devoted to the re-development of the existing 18-hole golf course and club house. The golf course is intended to be of championship quality. Best management practices will be used in the maintenance of the course as to minimize impacts upon the natural environment.

The golf course will be re-built in initial phases of development. The golf course is a major open space and recreational amenity of the project. The driving range could be located either mauka of the highway or just makai of the highway. These locations are still tentative.

Bike paths, jogging and walking paths will be created throughout the community to encourage a healthy lifestyle taking advantage of the wonderful Ka'ū climate. Bike paths will be designed throughout the development.

The residential enclaves will have smaller private parks and recreational amenities designed into the neighborhood. These may include passive and active recreational facilities such as picnic areas, swimming pools, tot lots and dog runs. The specific amenities will be developed at a later date and will be partly market driven.

The existing Punalu'u Beach Park, which is in a month to month lease to the County is planned for transfer to the County in fee upon project approval. Expansion of the park is being considered. Additionally, Sea Mountain Five, LLC proposes to improve the existing park facilities and assist with long-term maintenance of the Park. The park will continue to be accessible for public use. While the size of the official park is being reviewed, the entire coastal area will be improved as open space and will be open to the public.

The remainder of the coastal area toward Ninole Cove would be managed as a passive open area with enhanced landscaping, a conservation area and pedestrian pathways for passive recreational uses and coastal activities such as fishing and traditional gathering.

If State and Federal approval is obtained, Ninole Cove will be restored and the area around it improved for additional park-like activities.

### **2.2.5 Resource Management**

The project will incorporate resource management for preservation, mitigation, management and stewardship of on-site resources.

The coastal zone will also be managed to protect and enhance endemic coastal strand vegetation and a special conservation area will be designated for this purpose. Restoration of ponds will be pursued to restore them to their natural condition. Additionally, landscape plans for the golf course and the project as a whole will incorporate endemic and indigenous species in greater numbers to assist in resource enhancement and support of local culture. Large mature trees within the resort will be preserved to the maximum extent practicable to retain much of the atmosphere and habitat that currently exists.

Programs to protect the honu (turtles) will be in place with increased signage, education of staff and visitors and the use of resort personnel to assist in the management of the resource areas within the control of the resort. Sea Mountain Five LLC will work with the County of Hawaii, the National Park Service, DLNR and the National Wildlife Service in supporting joint efforts to protect honu and other endangered species within the project area.

Specific preservation and stewardship measures include the following:

- An Integrated Natural and Cultural Resource Management Plan (INCRMP) will be developed to guide all aspects of the preservation and management efforts. This will include turtle and endangered species protection, conservation zone management, educational programs, signage discussing culturally significant areas, etc.

- A cultural advisory committee will provide input regarding the proper management of cultural assets on the property as the project develops.
- A cultural center is proposed to provide a place where regional history can be shared with visitors and local kupuna can share stories and crafts. It is envisioned as a place where local customs are cherished and taught, where hula can be practiced and performed, where a farmers market can take place for local farmers to sell their goods, and overall as a place where visitors converge with the local community in an interactive learning process.

## 2.2.6 Infrastructure

Infrastructure facilities to support the development include access and internal circulation roadway networks, a wastewater treatment and disposal system, a potable water supply and water protection system, a non-potable water irrigation system and other utility systems. Infrastructure systems will be planned with potential for connecting development of homes on property owned by DHHL mauka of the Highway.

### 2.2.6.1 Roadway System

The Developer proposes to provide a network of roadways to, from and through the project site. The road network will serve the Sea Mountain development and support state and county roadway plans.

The developer will construct required intersection and roadway improvements for the Sea Mountain at Punalu'u access road at no cost to the State of Hawai'i or the County.

The primary vehicular access to the project site will continue to be provided off the Mamalahoa Highway at its intersection with the existing Nīnole Loop Road. Nīnole Loop Road will remain as a collector street within the project. Additional neighborhood streets off of Ninole Loop Road will be added to serve planned residential areas.

### 2.2.6.2 Storm Drainage

Drainage from the project area is not expected to be significantly different from the existing conditions, nor is it expected to significantly alter stream flow. Current project plans propose to retain the existing drainage patterns. Runoff from the developed portions of the site will be directed to the golf course area, which will also serve as infiltration basins. Various landscape areas within the golf course, such as the "rough" and "fairway" areas, will serve as vegetative swales and/or buffer strips, to decrease flow velocity and manage stormwater runoff. These and other Best Management Practices will appropriately address potential runoff concerns. (Figure 2-3)

### 2.2.6.3 Potable Water System

The existing Sea Mountain potable water system is supplied from two wells situated makai of the State Highway. These wells together with a booster pump station deliver water to an

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

existing concrete reservoir (water tank) located at an elevation that provides a High Water Level of 305 feet. All existing development is served from the existing reservoir.

Upon full development of the Sea Mountain Village, a water supply equal to the maximum day demand of 1.72 mgd will be required. There will be two sources of water supply available to the project; water wells for potable and irrigation use, and R-1 quality recycled water from the wastewater reclamation plant for irrigation use once enough wastewater is being generated.

The existing wells will be used to meet irrigation water demands due to the lower quality of water available from these wells. Three or four new wells will be constructed at or above the 305-foot level, all of which will be designed to meet the project's potable water requirements. At least one of these new wells will not be required for service at any given time, but will be dedicated as "standby duty" for any well that is out of service for any reason.

Additionally, the development is planning a new offsite 500,000 gallon reservoir be built at the 500-foot elevation to serve the highest developed lot with at least 40 psi of water pressure.

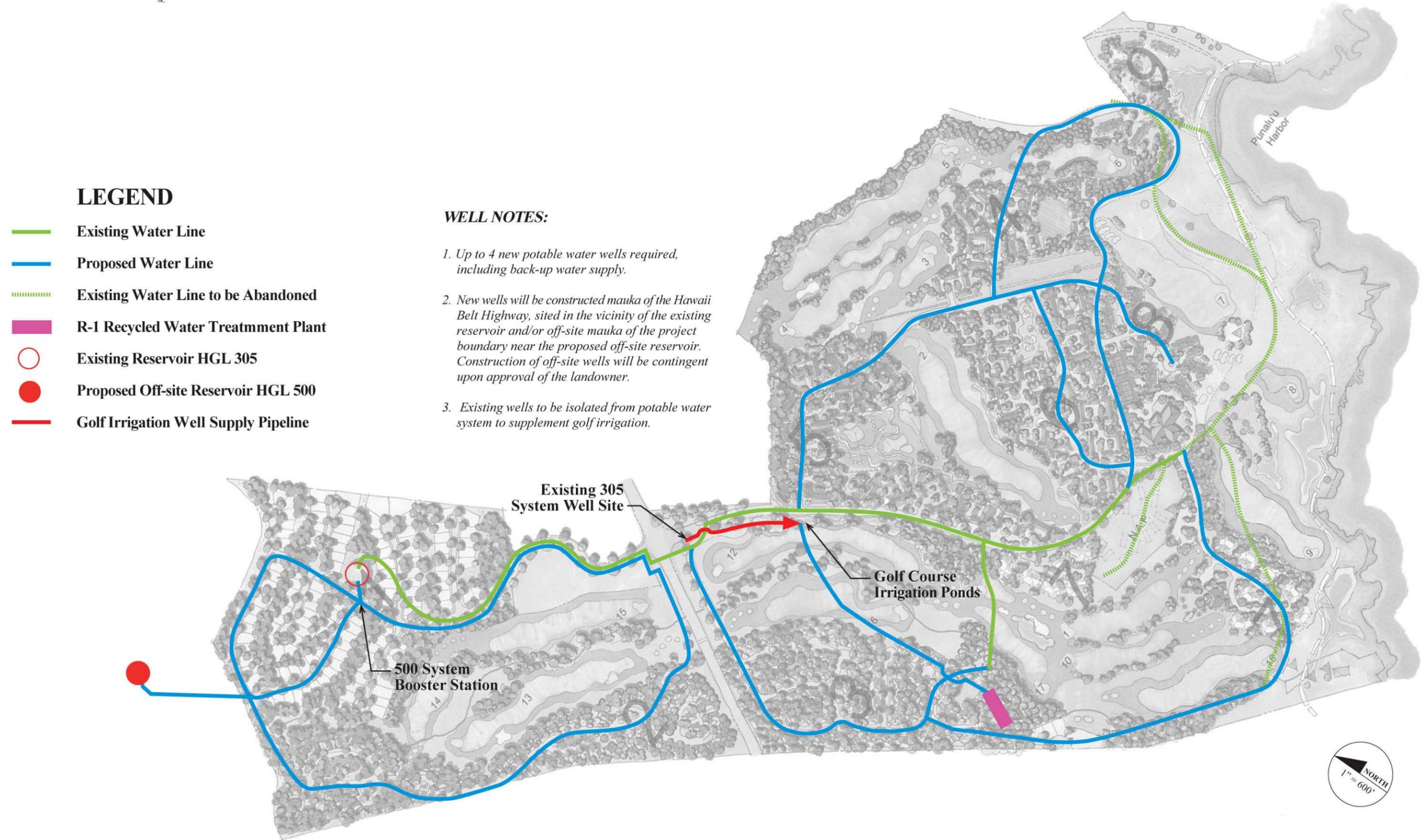


Figure 2-3. Proposed Water System

The project's reconfigured water distribution system will be divided into two pressure systems: 1) the existing pressure system will serve only the development located makai of the State Highway, including Development Area Nos. 3 through 9 and the Colony I condominiums. A new pressure system will be created at the 500-foot elevation that will serve the development mauka of the State Highway (Planning Areas Nos. 1 and 2). (Figure 2-3)

#### 2.2.6.4 Wastewater

The existing wastewater treatment plant (WWTP) does not have sufficient capacity to support the proposed project. Part of the Sea Mountain project includes renovation and expansion of the existing WWTP to improve performance of the facility and increase capacity. The existing facility has a treatment capacity of approximately 50,000 gpd. Estimated wastewater flows for the proposed project at 100% occupancy would necessitate a future wastewater treatment capacity of 621,700 gpd. The primary disposal method for R-1 treated wastewater will be irrigation of the proposed golf course. A secondary system of disposal of the treated effluent below the Underground Injection Control line will be required for operation of the wastewater treatment and reuse system. Biological nutrient removal will be included with the treatment process to mitigate down gradient impacts. (Figure 2-3) Additional filtration would occur via the irrigation process. No impacts to coastal waters are anticipated from use of recycled water for golf course irrigation.

#### 2.2.6.5 Solid Waste

The project site will include a centralized location for waste disposal and recycling. Solid wastes generated on site will be collected and disposed at approved County solid waste disposal facilities. A solid waste management plan will be developed to reduce the volume generated during construction. A recycling program will be encouraged throughout the project. Composting of green waste will be encouraged and landscape maintenance will recycle as much as is practicable. Facilities to accommodate this will be included in future detailed plans for the development.

Sea Mountain Five, LLC intends to make every effort practicable to minimize waste generated by both the commercial and residential development during construction and operation.

- They will prevent waste before it occurs, also called source reduction. During construction they will plan efficiently for material use. During operation they will implement procedures that minimize waste generation, such as limiting the number of non-reusable products.
- Practicable efforts to re-use materials will be a component of the solid waste program. In the construction phase efforts will be taken to reuse materials as much as possible, such as scrap generated on the site or used materials/scrap from other jobs. The primary re-use taking place in the operational phase will be composting/ re-use of green waste.
- Recycling will be an important part of both the construction and operational phase of the development. Recyclable materials will be separated out from non-recyclable materials, hauled from the site to the appropriate company, and eventually processed to make new products.

2.2.6.6 *Schools and Other Public Services*

Sea Mountain will meet its fair share in costs of additional public services and recreational areas. The need for schools, police, fire and other public facilities is a subject of ongoing discussions with relevant State and County agencies. Land for churches and other community and private religious and service organizations may be included in the overall planning.

2.2.6.7 *Sustainable Development*

The Sea Mountain at Punalu'u project will consider sustainable design principles to maximize the efficient use of energy and resources throughout the project. The overall project is conceived with the intention and concept of creating a largely self sufficient village clustering development in a relatively contained manner instead of large lot subdivision spreading over thousands of acres. Additionally, infrastructure developed in this manner is more compact, efficient, generally less expensive to construct and clearly less expensive to operate and maintain in the future.

We hope to create a diverse community with jobs, a range of housing choices and transportation options that minimize the use of vehicles within and outside the project areas. Green building concepts will be considered in the design and construction of the facilities. Site planning and landscaping will also consider sustainability with xeriscape principles included in places where it is appropriate. The use of endemic and indigenous plants which have already adapted to the climate and region will also enhance sustainability.

## **2.3 DEVELOPMENT SCHEDULE AND PROCESS**

Project development and implementation is scheduled to begin immediately following approvals of necessary land use amendments, zoning, permits, and available funding.

The Sea Mountain at Punalu'u project will be developed in three phases over a 10 year period.

**Section 3.0**  
Purpose and Need for the Proposed Action

## 3.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

### 3.1 SITE AND PROJECT ATTRIBUTES

The Sea Mountain at Punalu'u project site consists of 434 acres of zoned, partially developed land in Ka'u between Na'alehu and Pāhala along the Hawai'i Belt Highway on the Island of Hawai'i (*Figure 1-1*). The site is approximately 60 miles southwest of Hilo and 70 miles southeast of Kailua-Kona. Existing development at Sea Mountain consists of an 18-hole golf course, pro-shop, WWTF, County beach park, Kalana I single-family subdivision mauka of the highway, and Colony I condominium complex. Other facilities include a restaurant, gift shop, cultural center, Aspen Institute conference facility, and golf club house. However, these facilities have been abandoned due to a lack of economic viability and increasing costs of maintenance. Besides the golf course much of the site is currently vacant, undisturbed land covered in scrub grass, trees and shrubs. The property is privately owned by SM Investment Partners, and site development is proposed by Sea Mountain Five, LLC.

### 3.2 PURPOSE AND NEED FOR DEVELOPMENT

Sea Mountain at Punalu'u fills a need for expanded job opportunities and residential housing in the District of Ka'u. It also expands the tax base for this rural county. The project diversifies the economic base of the region by providing new resort related amenities and the myriad of ancillary businesses that would support it. Markets need a certain critical mass for success and the Sea Mountain project helps to provide some of this critical mass. The Project will also bring new and larger dining and meeting facilities with a finer quality of service for weddings, graduations, dances, birthday/family parties, business meetings and other gatherings. The project would create a ready market for many local farmers and fisherman for fresh catch and produce generated within the district. It will foster new markets in culture, arts and crafts, and eco-tour activities. The project also proposes to support an environmental and cultural center that will highlight the rich multi-cultural heritage of Ka'u and provide another venue for education on these topics. The project will also upgrade the existing water and wastewater system infrastructure which is old and deteriorated. Without this upgrade the burden to maintain the current facilities will fall on the existing owners of the Colony I condominiums, the Kalana 1 Subdivision mauka of the Belt Highway, the County Beach Park and the current owner.

#### 3.2.1 Economic Projections

Knowledge Based Consulting Group (KBCG) has come up with the following analysis of economic impacts. Based on a 10 year build out projection for 1823 units (including 300 hotel units) are projected. Based on sales starting from \$264,000 for condo/townhome lots to \$770,000 for single family lots, the market value of the project will start at almost \$50 million for the first year of occupancy to a total real estate value of over \$850 million before inflation adjustment, at build out in 2017.

Based on tax rates of \$5.55 per \$1000 for permanent residents, \$9.10 for seasonal residents and \$9.85 for commercial properties KBCG estimates the annual real estate tax revenue to be \$6.7 million for residential properties. After build out of commercial uses the total is expected to be \$10.3 million.

### **3.2.2 Infrastructure**

The existing infrastructure at Sea Mountain is over 30 years old and in need of serious repair.

The potable water system has been deteriorating for many years and there are leaks in many places. The 1.0 million gallon reservoir also leaks and cannot be filled to its full potential and when all current users are engaged the golf course irrigation is limited due to insufficient storage capacity and pumpage. Tree roots have created many breaks in the system resulting in wastage and rising ongoing maintenance costs. The original two wells were drilled too close together and are not pumped simultaneously. The project will upgrade the entire system and install two-three new wells.

The Wastewater system is also old and obsolete. The technology is outdated. While still minimally meeting Department of Health (DOH) Standards, costs and maintenance requirements are increasing. There have been many unsubstantiated charges that the old system is leaking and discharging pollutants into the groundwater system. Water quality traits of the coastal ponds have not validated these fears. Any such problems, if they exist, will be corrected by the new system. New development will require a significant upgrade or a replacement of the entire system and a requirement to meet newer, more stringent wastewater standards.

### **3.2.3 County Park**

The facilities at the County Park on land leased to the County by SM Investment are adequate but could use more maintenance. The Park is a popular place and used heavily by visitors and residents alike. The project proposes to upgrade park facilities and assist with ongoing maintenance.

### **3.2.4 Jobs and Employment**

The Ka'ū district has a high unemployment rate. Job choices are limited within the district. This creates stress on families and unhealthy situations at many levels. Many of the youth in the district must leave the district after graduation to find employment in either skilled or unskilled labor categories. Many must depend on welfare or extended families for basic necessities. Additionally, many residents work outside the district and commute long distances to Kona and Hilo. This creates hazardous conditions for accidents on the roadways.

The Sea Mountain at Punalu'u project will generate over 3,800 person years of construction related work over its buildout (KBCG). The DBEDT model for construction impacts also projects an additional 7,200 person years of jobs will be created by the multiplier effects. Additionally, long term, 517 jobs are projected to be generated by the development after buildout. This total does not include secondary jobs created to service the resort town and its population. Additional jobs in areas such as eco-cultural tourism and arts and crafts programs and education are expected. Retail sales of arts and craft items are also expected to expand.

### **3.2.5 Diversified Facilities**

The Ka'ū region is limited in meeting and dining facilities. There are no large, high quality venues for dining, special occasions like weddings and dances or large group meetings and conferences. The resort facilities will provide these additional facilities which will improve options available to Ka'ū residents along with resort guests and visitors.

There is a strong desire to have a quality cultural center in Ka'ū that celebrates its long and unique history and culture. In the past, there was a cultural center on the Sea Mountain site but with previous economic declines and a lack of a critical mass of visitors to sustain it, the center was closed and the facilities were allowed to deteriorate. Still, conversations with residents show a strong regional pride and a great desire to establish a cultural center. In the intervening years many other ideas for a cultural center emerged but none reached fruition. The project plans call for the development of an environmental and cultural center with strong involvement by the local community in its implementation and operation. This facility will fulfill a community desire. It will be supported by the resort and organized toward long term sustainability.

The coastline is precious in Ka'ū. Accessible shorelines are limited and the public prizes places like the current Beach Park and the unique black sand beach. The resort will improve facilities along the coastal areas, possibly increase the size of the County Beach Park and expand the accessible network of pathways along the coastal area. New, additional, designated parking areas will be developed to provide increased formal accessibility to the coastal areas.

### **3.2.6 Recreational Resources**

The current golf course is in poor condition. Fertilizer and pesticide application has been deficient. Irrigation has been minimal; less than desired. As a result the turf has suffered. Over the years, the old golf clubhouse has deteriorated and was recently closed due to needed repairs and the lack of adequate toilet facilities. It is waiting for the needed repair work before it is re-opened. New equipment has not been provided in sufficient quantities and the course continues to decline in quality. The proposed project will redo the entire course and develop a new golf clubhouse.

The old tennis courts have not been maintained. The former shop has been converted temporarily to a golf course office. Improvements to the courts and other such facilities will probably not occur until the new development begins.

### **3.2.7 Abandoned and Unmanaged Facilities**

The old restaurant area, pier/boat launch area and the coastal ponds are deteriorating. Nīnole Cove was filled in during storms many ears ago and remains filled with boulders. Archaeological sites slowly deteriorate without stewardship or maintenance. *Salvinia molesta* covers some of the coastal ponds like a weed and other alien species impact native ecosystems.

The proposed project will demolish and clear the old and abandoned buildings which are both eyesores and potentially hazardous. Coastal ponds will be cleaned and maintained and there will be partial restoration of native plant communities. An archaeological mitigation plan to be approved by the State Historic Preservation Office help set up a monitoring and preservation plan for all significant sites. The archaeology of the site and the region will be highlighted in the cultural center.

**Section 4.0**  
Environmental Setting

## 4.0 ENVIRONMENTAL SETTING

This section presents background information on the existing natural and man-made environment. Utilizing this background, the proposed project is evaluated for its potential to generate significant environmental impacts, which are reviewed in *Section 5.0*. Technical studies have been prepared to analyze the existing environmental conditions and the potential impacts on the environment that could be generated by the proposed project. Findings of these reports are summarized in this section with the full consultant studies presented in the Appendices.

### 4.1 REGIONAL AND SITE OVERVIEW

The moku-puni, or Island of Hawai'i, is the largest island in the Hawaiian chain comprised of a land area of 4,028 square miles. According to U.S. Census 2000 data, the population of 148,677 people on the island of Hawai'i represents approximately 12% of the entire state population of 1.2 million people.

The project is located in South Hawai'i in the Ka'u District, 18 miles northeast of South Point and between the towns of Na'alehu and Pāhala along the Māmalahoa Highway (Hawai'i Belt Highway).

Lands surrounding the project site are largely undeveloped, although most show evidence of disturbance due to past sugar cane and ranching operations. To the north of the project site are lands owned by EWM Investments. To the west, lands are owned by the State of Hawai'i, and parcels to the east are owned by Department of Hawaiian Home Lands, the State of Hawai'i, and Kamehameha Schools (Bishop Estate).

Between 1969-1972, C. Brewer Properties, Ltd. developed the 434-acre project site with an 18-hole golf course, a 76-unit condominium project and a 19-lot single-family residential subdivision. The site is privately owned by SM Investment Partners. See *Figure 1-1* for location map.

#### 4.1.1 Adjacent and Nearby Land Uses

Sea Mountain is situated in the ahupua'as of Nīnole, Wailau, and Punalu'u. Currently most of these lands have been developed with an 18-hole golf course, the Colony I condominiums, Punalu'u Beach Park, and other resort facilities that have been abandoned. See *Figure 1-1* for location map and *Figure 2-1* for ahupua'a boundaries.

Land uses of adjacent and nearby areas consist of mostly vacant lands.

Specifically, properties surrounding the Sea Mountain project parcel include the following:

- Just mauka of the freeway on the eastern side of the site is a 19-lot agricultural subdivision called Kalana I. Kalana I lots are nearly built out with single family residences. To the east beyond Kalana I, mauka of the highway, is a parcel owned by the State of Hawai'i, Department of Hawaiian Homelands. These lands are currently undeveloped. On the southeastern corner of the intersection of the highway and Nīnole Loop Road is a parcel owned by the State of Hawai'i. The rest of the project site's eastern boundary, makai of the State of Hawai'i parcel and mauka of the shoreline, is bordered by two parcels owned by Kamehameha Schools. The Punalu'u Nui heiau is located on the Kamehameha Schools property.

- The southern boundary of the project site is primarily the shoreline of the Pacific Ocean. There are also six privately owned parcels located between the black sand beach and the beach park area that are not included in the project area. On the western side of the southern project boundary, the Nīnole Cove parcel is also owned by the State of Hawai'i.
- Undeveloped lands owned by the State of Hawai'i are located along the entire western boundary of the project site. Mauka of the highway this land is zoned for Open space.
- To the north of the Sea Mountain parcel is undeveloped state land owned by EWM Investments, LLC. This land is also zoned A-20a Agricultural District.

## 4.2 CULTURAL RESOURCES

A Cultural Assessment was completed for this project by Maria Orr (2006) to comply with Act 50 SLH 2000 and the State of Hawai'i Office of Environmental Quality Control (OEQC) Guidelines for Environmental Impact Statement law (Chapter 343, HRS) which includes an ethnographic survey. *Appendix F* includes the complete report.

The important cultural places and practices present at Sea Mountain include:

1. Stone cultural remains (i.e., heiau, burials, ahu, caves, platforms, mounds, walls, and enclosures)
2. Petroglyphs and trail segments
3. Fish pond
4. Marine resources important to Hawaiian practitioners (fishing and gathering)
5. Black sand beach

Fortunately some of the heiau, shrines, house sites, caves, lava tubes and burials survived the battles of opposing chiefs, the destruction of the temples by the Liholiho-Ka'ahumanu regime, the missionaries, the sandalwood industry, free-roaming cattle and horses, and the sugar industry. Urban development has been slow in coming to the district of Ka'ū; however the lands of Punalu'u, Wailau and Nīnole have been modified by activity associated with past developments. There has been some loss of traditional lands and resources and destruction of archaeological and historical sites and features. Past developments in the area have also disturbed some burials.

### 4.2.1 Summary of Land Resources and Use

Various historical land use patterns are physically evident in Punalu'u, Wailua and Nīnole as well as recounted in the literature. The physical evidence is in the form of stone ruins that are fortunate to have been preserved relatively intact. Clues regarding function and use can sometimes be extrapolated from the stories, songs, chants and ethno-historical observations that were also fortunately recorded, as well as from the cultural remains identified during surface and sub-surface studies (artifacts, midden, and charcoal for dating). Several of these stone cultural remains were recorded during various studies of Punalu'u, Wailau and Nīnole lands and also mentioned by the cultural consultants (i.e., heiau, burials, ahu, caves, platforms, mounds, walls, and enclosures). These are evidence of both permanent and temporary use of the land, and its diverse natural resources.

#### 4.2.2 Ancient Land Resources and Use

While the traditional literature is relatively sparse on the subject of Punalu'u, Wailau and Nīnole lands, the cultural resources found on the landscape are abundant. The permanent and temporary shelters, the midden clues at those sites, and in the caves, the extended use of the lava tube systems, the habitation and agricultural complexes, and especially the burials and the heiau tell stories of ancient uses of the land. People lived and died here for generations. People worked and worshipped here. People cultivated the diverse natural resources (endemic/indigenous plants; bountiful marine resources; bountiful aquaculture resources), as well as cultivated their own cultigens, staples, medicines and ritual plants. The lands of Punalu'u, Wailau and Nīnole were not barren, as presented in the native testimonies to the Land Commission regarding the Mahele Awards. It is very conceivable that these people of the mid-1800s were following in the practices of predecessors of the land.

#### 4.2.3 Historic Land Resources and Use (Post 1801)

During the 1700s there were many battles across the landscape of Hawai'i Island. Many fishing villages and farmlands were ravaged by warriors passing through or exacting harsh revenge on opposing chiefs and their families. This was the case for the lands of Punalu'u, Wailau and Nīnole, even up to the late 1700s. However, the native testimonies mentioned above indicate that they must have made a great comeback during the mid-1800s. At least 20 people were awarded *kuleana* lands in Nīnole; twelve in Wailau; and at least sixteen in Punalu'u; several people did not get awarded their lands even though they testified that they were living and farming on it. There was a wide range of what was being cultivated and/or gathered on these lands: crops or patches of taro, wauke, sweet potato, banana, sugar cane, pumpkin, olonā, mamake, bamboo, hala, coconut, hau and 'ōhi'a. Several individuals recalled the resources of the area (e.g., coconut), and one spoke of going to their taro patch in Wailau when they were young.

#### 4.2.4 Summary of Water Resources and Use

In modern times, the streams of Punalu'u, Wailau and Nīnole are not running, however, several LCA claimants mentioned streams on or bordering their lands: Punalu'u, Nīnole, Moa'ula and Mohokea. Many also mentioned ponds and/or springs on their lands; several noted lo'i, which by definition, needed running or some other fresh supply of water. Wauke and olona also need to grow in moist areas. Several cultural consultants mentioned the ponds and springs and their domestic use such as drinking water, water to wash clothes, raising fish, and swimming.

#### 4.2.5 Summary of Marine Resources and Use

This category seems to have the most resources and use. Many of the people interviewed shared the types of fish they caught, their methods, and the types of limu or sea weed, opihi, and wana they gathered (*Table 4-1*). There would most likely be more fish listed if other fishermen shared the types of fish they caught diving, pole fishing or net fishing. The interviewees also noted the endangered turtles (green sea turtle and hawksbill turtle) and the migratory and native sea birds and ducks of the area. There is grave concern by many for the turtles that nest in the area and their young, who have been known to get crushed by vehicular activities in the beach area. The beach road is currently closed to public vehicular access.

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

**Table 4-1. Marine Resources in Punalu'u, Wailau and Nīnole**

FISH	OTHER	LIMU	SHELL	ACTIVITY
<i>ahi-aku</i>	<i>honu</i>	<i>akeaki</i>	<i>a'ama</i>	<i>auau</i>
<i>āholehole</i>	<i>honu'ea</i>	<i>'ele'ele</i>	crab-white	<i>hukilau</i>
<i>akule</i>	<i>he'e-squid</i>	<i>huluhuluwaina</i>	<i>ha'uke'uke</i>	<i>imu-umu</i>
<i>ehu</i>		<i>koku</i>	dark <i>opihī</i>	<i>kakele</i>
<i>kumu</i>		<i>lipalu</i>	yellow <i>opihī</i>	<i>ko'a</i>
<i>manini</i>		<i>lipepe'e</i>	<i>pipipi</i>	<i>lamalama</i>
<i>mullet</i>		<i>lipoa</i>	<i>wana</i>	line-hooks
<i>ono</i>		<i>wawaiole</i>		<i>na'una'u</i>
<i>opelu</i>				<i>pa'ipa'i</i>
<i>papio</i>				<i>palu</i>
<i>ulua</i>				pole
				<i>po'opa'a</i>
				spearing
				throw net

Source: Orr, 2006.

### 4.3 ARCHAEOLOGICAL RESOURCES

A new archaeological inventory study was completed to identify the locations of the archaeological sites throughout the project site. Cultural Surveys Hawaii, Inc. (CSH) conducted archaeological inventory fieldwork from September 19 through December 2, 2005. The study area (434-acre) has been subject to previous archaeological inventory surveys. CSH conducted a full archaeological inventory survey in consultation with the State Historic Preservation Division (SHPD) to fulfill current State requirements for an archaeological inventory survey per HAR Chapter 13-13-276 and Chapter 13-13-284 (*Appendix A*). Additional background information can be found in the previous studies (i.e. Rosendahl), and in a recent Cultural Assessment (Orr, 2006) prepared for the current project (*Appendix F*).

A total of 34 historic properties, comprised of over 125 archaeological features were identified within the project area. Of these, 23 were previously identified, and 11 were newly recorded as part of the current inventory survey investigation. Four major site complexes are designated: the Burial Bluff Complex (site 50-10-68-4309), the Wailau Complex (site 50-10-68-4310), the Koloa/Nīnole Complex (site 50-10-68-4369) and the Punalu'u Harbor Complex (site 50-10-68-7361). *Table 4-2* presents a comprehensive listing of the sites. Mauka sites are listed first, then makai sites. Site locations are shown on *Figures 4-1 and 4-2*.

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement

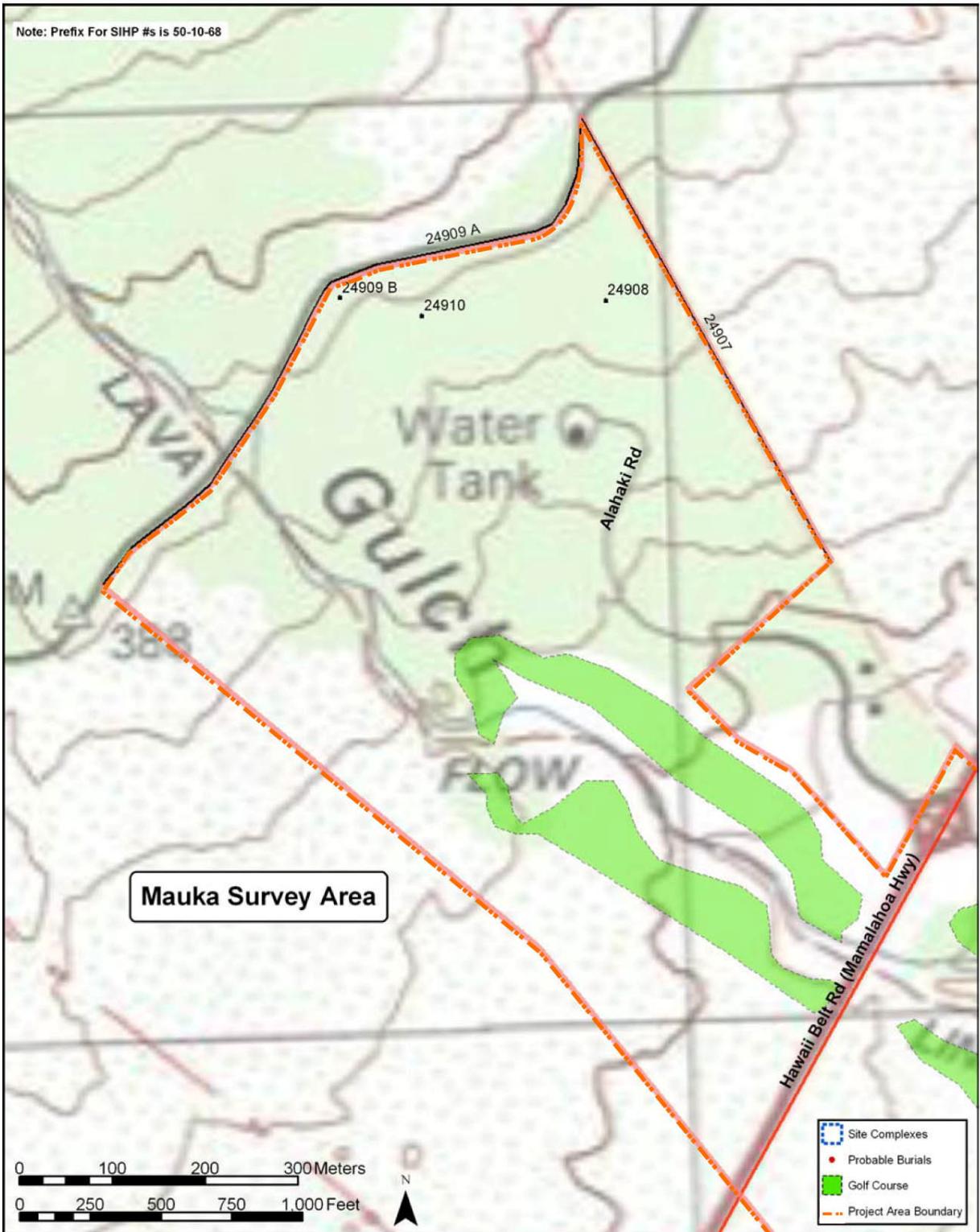


Figure 4-1. Archaeological Survey Area (mauka of Hawai'i Belt Highway)



SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

Table 4-2. Historic Properties Documented within the Current Project Area

SIHP #	Temp. Site #	Features	Form	Age	Function	Complex	Significance	Recommendation
3512	B8-02	6	Lanipao Heiau	pre-contact	ceremonial		A, C, D, E	Preserve
3513	B8-03	4	petroglyphs	pre-contact	rock art		D, E	Preserve
3515	B8-05 & B8-37	5	platforms & terraces	pre-contact	habitation complex		D	Preserve
3519	B9-04	3	enclosures	historic	agricultural (animal husbandry)	Kōloa - Nīnole Complex (4368)	D	Preserve
3520	B9-05	3	enclosures	historic	habitation	Kōloa - Nīnole Complex (4368)	D	Preserve
3521	B9-06	1	trail	historic	transportation	Kōloa - Nīnole Complex (4368)	D	Preserve
3522	B9-07	2	"Nīnole School" (platform, enclosure)	historic	School	Kōloa - Nīnole Complex (4368)	C, D	Preserve
3524	B9-09	1	govt. road (Alanui Aupuni)	historic	transportation	Kōloa - Nīnole Complex (4368)	A, D	Preserve
4309 Feats A-J +	B9-31	25+	terraces, WWII gun emplacements	pre-contact w/ historic re-use	possible burials, military	Burial Bluff Complex (4309)	D, E	Preserve
4310 Feat. A	B9-32	1	wall	historic	cattle barrier	Wailau Complex (4310)	D	Preserve **
4310 Feats. B-D	B9-33	3	terraces, overhang shelter	historic	habitation	Wailau Complex (4310)	D	Preserve

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

Table 4-2. Historic Properties Documented within the Current Project Area (continued)

SIHP #	Temp. Site #	Features	Form	Age	Function	Complex	Significance	Mitigation Recommendation
4310 Feats. E-H	B9-34	4	overhang shelters, walls	historic	habitation	Wailau Complex (4310)	D	Preserve
4330	B9-43	1	enclosure	historic	agricultural (animal husbandry)		D	Preserve
4360	B9-62 & B9- 119	2	walls	historic	property boundary, cattle barrier		D	Preserve **
7361 Feat. A	Wharf	5+	Punalu'u Harbor Wharf	historic	Harbor Infrastructure	Punalu'u Harbor Complex (7361)	A, D	Preserve
7361 Feats. B-E	B8-14	5	terraces, well, walls	historic	Harbor Infrastructure	Punalu'u Harbor Complex (7361)	A, D	Preserve
7361 Feat. F	B8-15	1	terrace	historic	Harbor Infrastructure	Punalu'u Harbor Complex (7361)	A, D	Preserve
7361 Feat G	B8-16	1	enclosure	historic	Harbor Infrastructure	Punalu'u Harbor Complex (7361)	A, D	Preserve
7361 Feat. H	B8-33	6	platforms	historic	Harbor Infrastructure	Punalu'u Harbor Complex (7361)	A, D	Preserve
(7370)*	Church*	3+	historic church and cemetery	historic	ceremonial, burial	Burial Bluff Complex (4309)	D, E	Preserve
24897	T-108	3	enclosures, trail	historic	habitation	Kōloa - Nīnole Complex (4368)	D	Preserve
24898	T-111 & CSH 8	9	platforms & terraces	pre- contact	burial complex	Kōloa - Nīnole Complex (4368)	D, E	Preserve

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

Table 4-2. Historic Properties Documented within the Current Project Area (continued)

SIHP #	Temp. Site #	Features	Form	Age	Function	Complex	Significance	Mitigation Recommendation
24899	B9-17	3	crypt, enclosures	historic	burial complex	Burial Bluff Complex (4309)	D, E	Preserve
24900	T-110	4	fishing shrine, platforms	pre-contact	ceremonial, burial	Burial Bluff Complex (4309)	D, E	Preserve
24901	B8-07	4	platforms & enclosures	pre-contact	habitation complex		D	Preserve
24902	B9-109	1	wall	pre-contact	indeterminate		D	No Further Work
24903	B9-121	1	enclosure	pre-contact	habitation, poss. burial		D, E	Preserve
24905	T-104	1	wall	historic	cattle barrier		D	Preserve **
24906	T-109	1	wall	historic	cattle barrier		D	Preserve *
24907	CSH 1	1	wall	historic	property boundary, cattle barrier		D	Preserve
24908	CSH 2	1	enclosure	pre-contact	indeterminate		D	No Further Work
24909	CSH 3	2	govt. road	historic	transportation		A, D	Preserve
24910	CSH 4	1	mound	pre-contact	agricultural		D	No Further Work
24911	CSH 5	1	wall	indeterminate	indeterminate		D	No Further Work
24912	CSH 6	1	terrace	pre-contact	probable burial		D, E	Preserve
24913	CSH 10	1	well	historic	well		D	No Further Work
24914	CSH 12	1	cave	pre-contact	possible burial		D, E	Preserve
24915	T-107, B8-31, & B8-32	5	railroad berms	historic	transportation		A, C, D	Preserve
24916	T-101	1	petroglyph	pre-contact	rock art		D, E	Preserve

\* = The Church site 7370 is an exclusion to the present project area

\*\* = Preservation allowing breaches of wall recommended

Given the extensive history of prior study on the project site, the vast majority of the sites had been previously identified, however, given the long history of site occupation, usage and exposure to flooding, earthquakes and tsunamis, many previously identified sites have been obliterated.

The report identified 32 sites that are still extant on the project site. Of the 32 sites, 17 sites (53.1%) were determined to be exclusively or primarily historic sites, and 14 sites (43.8%) were determined to be exclusively or primarily pre-contact sites, and one site (3.1%), a wall, was indeterminate. The 17 historic sites included seven sites associated with ranching or livestock, five sites associated with transportation, a historic habitation, a site associated with the location of Nīnole School, the wharf infrastructure, the Hoku Loa church site and historic cemetery, and the outlying historic burial crypt area. The 14 pre-contact sites include five burial sites, three habitation sites, two rock art sites, one heiau site, one agricultural site, and two sites of indeterminate function.

#### 4.4 CLIMATE

The project area is fairly typical of Hawai'i's climate with little seasonal or diurnal temperature variation. Monthly average temperature, based on temperatures taken at the project, vary only about five degrees from the warmest months (August and September to the coolest months (December and January). Average daily maximum and minimum temperatures range from the low 70's (degrees Fahrenheit) to the mid 80's, depending on the time of day and season.

The Ka'ū District has a mean annual temperature of 72.6 degrees (F) and a mean annual rainfall of approximately 46 inches. Both temperature and rainfall vary with elevation, with inland areas levels tending to have lower temperatures and higher rainfall than the coastal areas.

The regional and site specific climatic and meteorological conditions are representative of coastal portions of the southwestern part of the Island of Hawai'i. Northeast trade winds predominate with southerly or calm conditions occurring during the winter months. Average temperatures vary with elevation and, on the coastline typically around 75 degrees (F).

Rainfall also varies with elevation, averaging about 25 inches per year at Punalu'u (*Figure 4-3*).

#### 4.5 AIR QUALITY

Except for periodic impacts from volcanic emission-created fog (vog), the present air quality of the project area is believed to be relatively good. The limited air quality data that are available for the area from the Department of Health indicate that (despite the vog) concentrations are well within state and national air quality standards. *Appendix B* includes the Air Quality Study (Neal, 2006).

The climate of the project area is very much affected by its near coastal situation and by nearby mountains. Winds are predominantly trade winds from the northeast, although Kona storms generate occasional strong winds from the south or southwest during winter. Temperatures in the project area are generally very consistent and moderate with average daily temperatures ranging from about 62°F to 81°F. The extreme minimum temperature recorded at nearby Pahala is 48°F, while the extreme maximum temperature is 91°F.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

The project site is located along the southeastern coast of the Island of Hawai'i. Hawai'i lies well within the belt of northeasterly trade winds generated by the semi-permanent Pacific high-pressure cell to the north and east. Areas along the eastern coasts of the island are particularly affected by the trade winds and are usually well-ventilated nearly year round. Although the project site is situated along the southeastern coast of Hawai'i Island, the nearby high mountains of Mauna Loa and to a lesser extent Kilauea modify the trade wind influence. The nearest long-term wind data available for the project area are collected at the Hilo Airport located about 50 miles to the northeast. These data are probably only semi-representative of the project area. Mean annual wind speed at the Hilo Airport is about 8 mph, which is lower than many windward locations in the state, and wind directions are bimodal showing either a northeast or southwest preference. Northeast trade winds typically occur during the daytime, while winds from the southwest typically occur during the nighttime due to cold air drainage from the mountains. Winds from the south or southwest also occur occasionally in association with winter storms. Winds at the project site can be expected to be mostly northeast trade winds during the day. During the night, mountain drainage winds from the northwest probably often occur.

Air pollution emissions from motor vehicles, the formation of photochemical smog and smoke plume rise all depend in part on air temperature. Colder temperatures tend to result in higher emissions of contaminants from automobiles but lower concentrations of photochemical smog and ground-level concentration of air pollution from elevated plumes. In Hawai'i, the annual and daily variation of temperature depends to a large degree on elevation above sea level, distance inland and exposure to the trade winds. Average temperatures at locations near sea level generally are warmer than those at higher elevations. Areas exposed to the trade winds tend to have the least temperature variation, while inland and leeward areas have the most.

Rainfall can have a beneficial affect on the air quality of an area in that it helps to suppress fugitive dust emissions, and it also may "washout" gaseous contaminants that are water soluble. Rainfall in Hawai'i is highly variable depending on elevation and on location with respect to the trade wind. Annual rainfall in the project area is usually moderate. At nearby Pahala, normal annual rainfall is about 48 inches (Dept. of Commerce, Weather Bureau, 1965). Winter months generally are the wettest.

Present air quality in the project area is mostly affected by air pollutants from vehicular, industrial, natural and/or agricultural sources. Table 2 of the air quality study (*Appendix B*) presents an air pollutant emission summary for the island of Hawai'i for calendar year 1993. While these emission estimates have become somewhat dated and current emission levels are probably somewhat higher, the proportional relationships are likely still about the same. The emissions rates shown in the table pertain to manmade emissions only, i.e., emissions from natural sources are not included. As suggested in the table, much of the manmade particulate emissions on Hawai'i originate from area sources, such as the mineral products industry and agriculture. Man-made sulfur oxides are emitted almost exclusively by point sources, such as power plants and other fuel-burning industries. Nitrogen oxides emissions emanate predominantly from area sources (mostly motor vehicle traffic), although industrial point sources contribute a significant share. The majority of carbon monoxide emissions occur from area sources (motor vehicle traffic), while hydrocarbons are emitted mainly from point sources.

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement

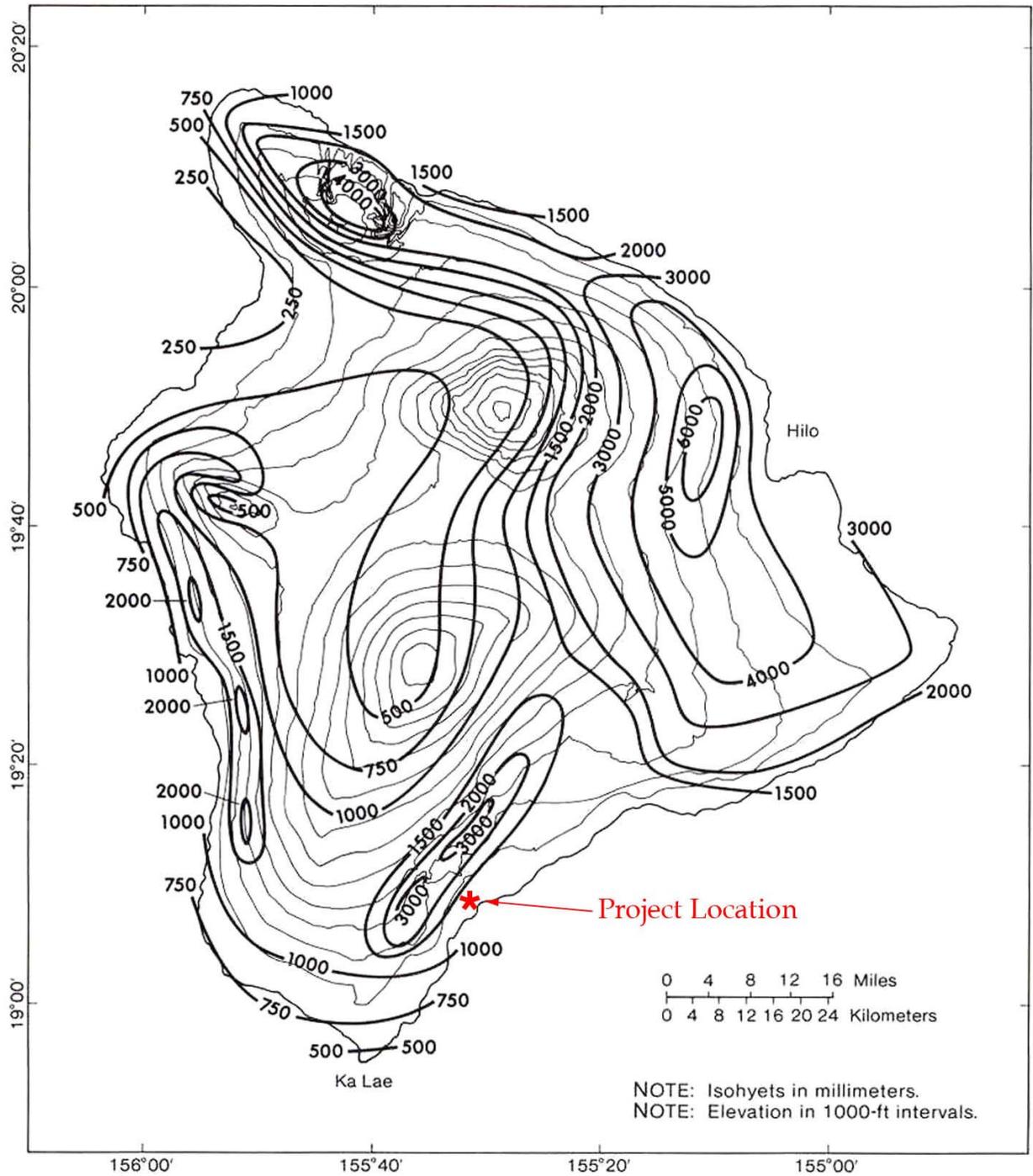


Figure 4-3. Hawai'i Island Average Rainfall

It should be noted that Hawai'i Island is unique from the other islands in the state in terms of the natural volcanic air pollution emissions that occur. Volcanic emissions periodically plague the project area. This is especially so since the latest eruption phase of the Kilauea Volcano began in 1983. Air pollution emissions from the Hawaiian volcanoes consist primarily of sulfur dioxide. After entering the atmosphere, these sulfur dioxide emissions are carried away by the wind and either washed out as acid rain or gradually transformed into particulate sulfates or acid aerosols. Emissions from Kilauea are vented to the atmosphere relatively close by (about 25 miles east of the project site), and the prevailing wind patterns tend to carry the emissions toward the project area much of the time. Because of this, relatively high concentrations of sulfur dioxide may occur at the project site and volcanic haze (vog) can impact the area.

Since the closure of the sugar mill at nearby Pahala, the nearest major industrial sources of air pollution in the project vicinity are Hawai'i Electric Light Company power plants located in Keaau and Hilo, but these sources are very distant. Air pollution emissions from these sources consist mostly of sulfur dioxide and oxides of nitrogen. Hydrogen sulfide emissions are also emitted from Puna Geothermal Venture's geothermal power plant located about 50 miles to the northeast.

At this time, there are no reported measurements of lead, ozone, nitrogen dioxide or carbon monoxide in the project vicinity. These are primarily motor vehicle related air pollutants. Lead, ozone and nitrogen dioxide typically are regional scale problems. Concentrations of lead and nitrogen dioxide generally have not been found to exceed AAQS elsewhere in the state.

#### **4.6 TOPOGRAPHY AND GEOLOGY**

The Ka'ū District is a unique landscape containing ancient eroded valleys and highlands that are the remnants of a volcanic structure which apparently had evolved Mauna Loa and Kilauea. The old valleys were flooded with lavas that effused from the Mauna Loa rift zone after the earlier volcanic activity had ended. The combination of an old volcano, subsequent erosion, creation of a soil saprophyte mantle, and covering of that surface with new lavas and pyroclastic deposits has created the geological environment in which a complex set of ground water resources occur.

The region is underlain by four distinct rock formations and a blanket of ash separating two older basalts from younger ones. The Nīnole formation, the oldest, is the remnant of the initial volcanic period. It consists principally of basalt but contains at least one wide spread tuff bed up to 15 feet thick. Following deposition it was profoundly eroded and weathered.

The Kahuku formation followed the period of erosion. Lava flooded the landscape, filled valleys and created new surfaces. Numerous ash strata, and perched groundwater, are found within this formation. Many of the high level water tunnels exploit this relationship. At the end of the Kahuku period a thick blanket of ash covered the land scape. The ash is called the Pāhala ash because of its thick (up to 55 feet) exposures in the Pāhala region.

The main period of Pahala ash deposition was quickly followed by the extrusion of lavas from the southwest rift of Mauna Loa. These lavas called the Kau volcanic series, cover areas between outcrops of the Nīnole and Kahuku formations above the Hawai'i Belt Highway, and are the coastal rocks south of the Great Crack.

The principal basal aquifer along the coast consists of Kau series basalt, but some distance inland the Nīnole and the Kahuku formations could occur at and below sea level. Because of the Pāhala Ash blanket on the ash beds within it, the Kahuku formation serves both as an aquiclude (perching formation) and an aquifer. Inland it is responsible for most shallow high level water and may be the source of intermediate high level water.

The project site is situated within three ahupua'a on the southern slope of Mauna Loa from sea level to approximately 361 feet above sea level. The terrain at the project site slopes generally from north to south. Slopes vary from very gentle (0.5%) to steep (15-20%) in gulches.

## **4.7 VISUAL RESOURCES**

Existing views of the project site from the highway and from the shoreline have been inventoried and are presented here both descriptively and through photographs. The visual character of the site is marked by contrasting features and qualities. The coastal area is wild and dramatic with waves crashing on black lava cliffs and black sand beaches. Mauka views provide impressive vistas of ancient cinder cones on the broadly sloping flanks of Mauna Loa. The Hawai'i Belt Highway is located approximately 1600 to 2000 feet from the coastline.

For the most part, due to vegetation along the Highway, little of the project site is visible while passing by in a vehicle. When makai glimpses are available, the views are of the golf course and low-level multi-family residential development with landscaping, the ocean, and the coastline trending off into the distance. Mauka portions of the site are barely visible from the Highway, with the Highway/Alahaki Road intersection affording a brief glance of the single family residences along the road. This intersection, which is also the primary entrance to the existing resort on the makai portion of the site, is landscaped and signed to indicate the Resort entrance and provides the most open view onto the development.

At present, character of the views of the resort from the shoreline area is similar to those from the highway, i.e., low-rise buildings and golf course. The most prominent features are the golf course, Colony I condominiums, Punalu'u Beach park structures, golf clubhouse and the cemetery chapel. Heiau located on both sides of the resort and the inland views of the vegetation, Pu'u Makaanau Kaiholena, and Pu'u Enuhe, and Mauna Loa are the most prominent features outside the Resort. According to local informants and residents of the area, these pu'u assist boaters in locating offshore fishing spots and in navigating the narrow channel into the boat ramp area.

## **4.8 VOLCANIC AND SEISMIC ACTIVITY**

### **4.8.1 Earthquakes**

The entire Island of Hawai'i is susceptible to earthquakes originating in fault zones under and adjacent to the island. The land on which the project site is located was formed by prehistoric lava flows from Mauna Loa Volcano (MacDonald and Abbott, 1970), whose summit rises 13,677 feet above sea level and is north and northwest of the project area. Mauna Loa is believed to have been formed around three successive centers and the present active cone has covered the earlier ones, thus forming one enormous shield volcano. On the Island of Hawai'i, seismic activity is fairly common but few earthquakes are strong enough to cause major damage.

Seismic hazards are commonly classified according to the seismic provisions of the Uniform Building Code (UBC) which includes six seismic zones ranging from 0 (no ground shaking) to 4 (10% chance of shaking in a 50-year time period). Formerly, the project site was located in an area classified by the U.S. Geological Survey as Seismic Zone 3. The USGS has since reevaluated the seismic hazards in Hawai'i County, and in 1997, created a new Zone 4 status.

#### **4.8.2 Lava Flows**

Volcanic hazard zones on the Island of Hawai'i were originally documented and mapped by the U.S. Geological Survey (Mullineaux and Peterson, 1974). These maps, revised in 1987, divide the island into zones that are ranked from one (1) to nine (9). Zone 1 indicates the highest severity of lava hazard, and zone nine indicates the lowest risk of lava inundation. Other hazards associated with eruptions such as tephra fallout and ground cracking are not considered on this map, however, their risk increases proportionally with lava risk.

Because of frequent eruptions on Mauna Loa, most recently in 1984, and the vulnerability of its slopes to lava flows, the project area has been designated in a risk Zone 3 (*Figure 4-4*). Areas in Zone 3 are gradationally less hazardous than areas adjacent to the summits, active rift zones, and downslope areas of Kilauea and Mauna Loa. Hazard zones are also determined based on the location and frequency of historic and prehistoric eruptions. In historic times since 1800, only 1 to 5 percent of areas in Zone 3 have been covered in lava, but during the last 750 years, 15 to 75 percent of the areas in Zone 3 were covered in lava. The degree of risk within this Zone 3 varies, but generally risk decreases with increasing distance from the summits and rift zones, thus placing Punalu'u at the lower end of the risk spectrum for Zone 3.

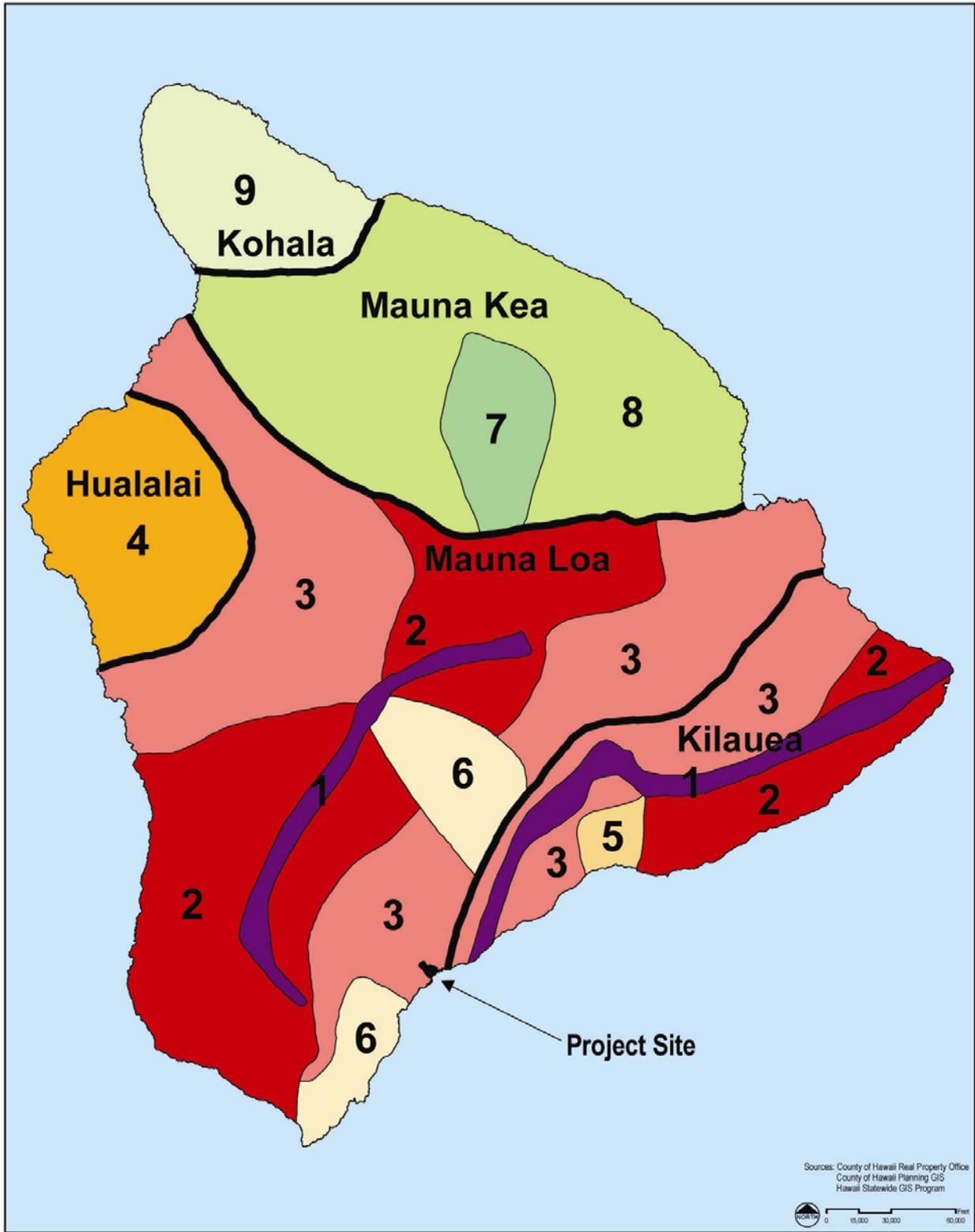


Figure 4-4. Lava Flow Hazard Zones

## 4.9 SOILS

Developed portions of the project site have modified existing soil conditions. Undeveloped portions of the site conform to the USDA Soil Conservation Service classifications listed below. According to the USDA Soil Conservation Service, there are four general soil types within the project site (*Figure 4-5*):

(1) *Lava Flows, 'A'ā*: 'A'ā lava flows (rLV) have very little soil covering and no vegetation except mosses, lichens, ferns and a few small ohia trees. 'A'ā lava flows are found from near sea level to 13,000 feet and can receive from 10 to 250 inches of rainfall annually. 'A'ā lava consists of rough and broken masses of hard, glassy, sharp pieces piled in jumbled heaps. 'A'ā contributes substantially to the underground water supply and is used for watershed.

(2) *Lava Flows, Pāhoehoe*: Pāhoehoe lava flows (rLW), unlike the sharp, jagged appearance of 'A'ā lava, is characterized by relatively smooth billowy and glassy surface. Some areas may have rough broken surfaces, hummocks and pressure domes. Pāhoehoe lavas typically have no vegetation, aside from lichens and mosses, and a few trees such as ohia, the 'ōhelo berry and 'a'ali'i in areas of higher rainfall. This lava type is found from sea level to 13,000 feet and receives anywhere from 10-140 inches of rainfall per year. Pāhoehoe lava is slowly permeable

(3) *Punalu'u Extremely Rocky Peat, 6-20 percent slopes*: Punalu'u extremely rocky peat (rPYD) soil occurs on the lower leeward side of Mauna Loa. A four-inch thick layer of black peat covers the surface of this soil, but it is underlain by pāhoehoe lava bedrock. The soils are on upland elevations ranging from near sea level to 1,000 feet and receive approximately 60-90 inches of rainfall annually. Vegetation consists of koa haole, Christmas berry, guinea grass, natal redtop and sand bur. Punalu'u peat soil is rapidly permeable, however the pāhoehoe lava beneath permeates slowly. Erosion hazard is slight.

(4) *Very Stony Land*: Very Stony Land (rVS) consists of very shallow soil material mixed with 'A'ā lava outcroppings. Slope is typically between 10 and 15 percent. Between the lava outcrops, the soil can reach as deep as 20 inches. This soil type is found from near sea level to 13,000 feet and receives from 10 to 150 inches of rainfall per year. Vegetation on this land can be sparse in dry areas and thick with 'ōhi'a stands and tree fern in moist locations.

The mauka portion of the project site above the highway is covered primarily by Punalu'u extremely rocky peat (rPYD), with a section of 'a'ā lava (rLV) on the eastern boundary. Makai of the highway, the large central portion of the site is comprised of very stony land (rVS). A band of pāhoehoe lava (rLW) runs along the coastal area, and a patch of 'a'ā lava (rLV) is located on the eastern site boundary just makai of the highway.

## 4.10 SURFACE AND GROUNDWATER RESOURCES

There are no perennial streams that flow to the ocean in the Ka'u District due to the highly permeable nature of the underlying lava. Rarely does runoff reach the sea coast, and infrequently do stream channels even in the wet mountain area carry a substantial flow for more than a few days. Rain quickly infiltrates into highly permeable soil and rock formations, and ultimately percolates to deep aquifers even though often temporarily arrested by perched ash beds. However during periods of intense rainfall over extended periods of time, these conditions can change as evidenced during the 1978 and 1982 storms that affected the Ka'u district.

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement

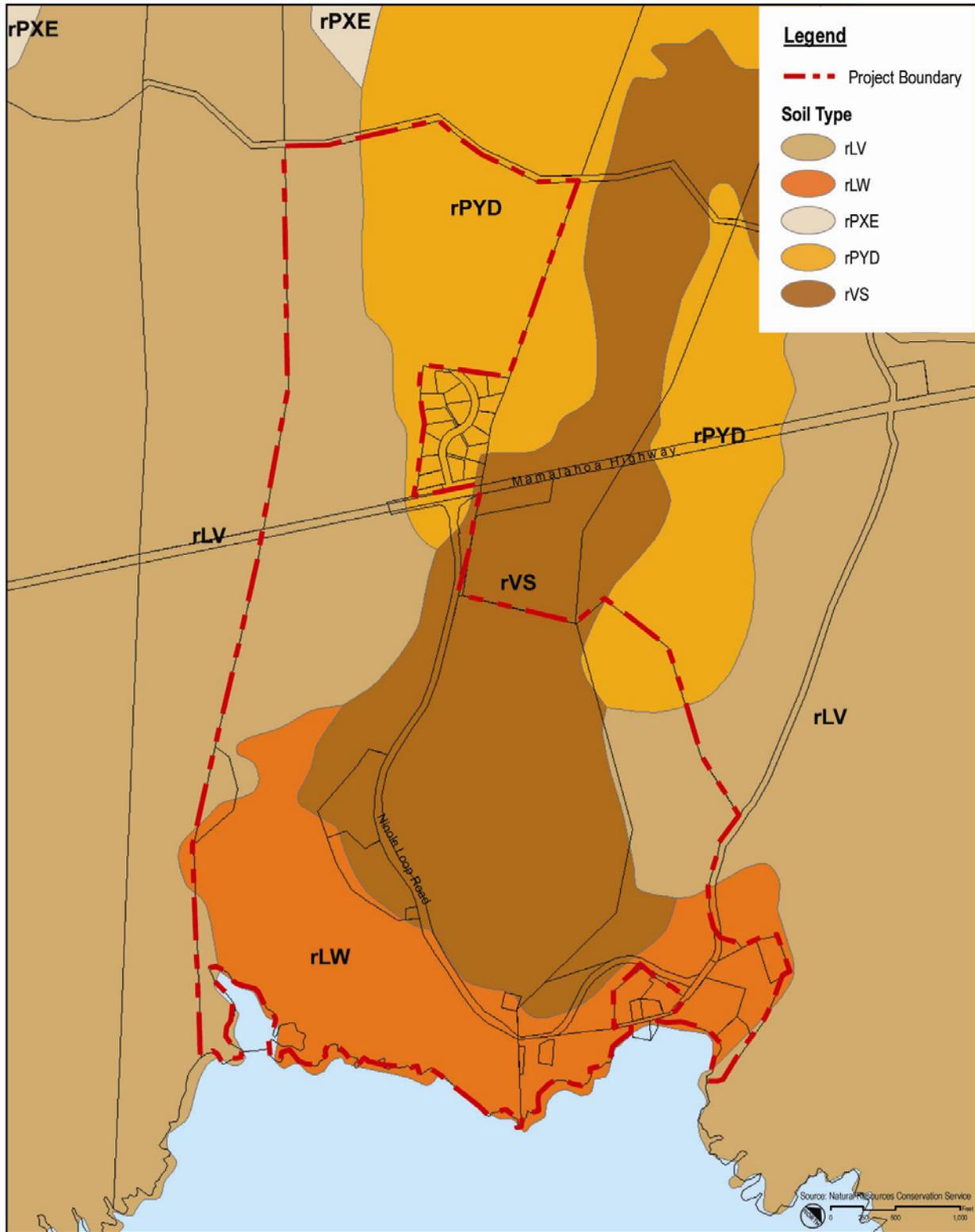


Figure 4-5. Soils Survey Map

The project area is predominantly characterized by large open spaces and minimal paved areas. Nīnole Stream, an ephemeral stream, flows along the western boundary. (Ephemeral streams flow only during and immediately after periods of heavy rainfall). Storm runoff from the area mauka of the State Highway and west of Punalu'u Road is diverted into catch basins and into a concrete drain line which runs under the road and presently discharges to the ocean by a natural drainage between Nīnole Cove and Punalu'u Beach Park. Two other drainage culverts, located within Punalu'u Beach County Park and near the former Punalu'u Black Sand Restaurant area, discharge runoff from the nearby golf course areas to the ocean.

Portions of Nīnole Stream experienced flooding in late 1981 and early 1982, as a result of unusually high and intense rainfall in the upper forest reserve areas. Subsequently runoff from cultivated (sugar) lands resulted in volumes that exceeded the drainage capacities of existing gulches. As a result of these storms, and those preceding 1980, Nīnole Cove has been filled with rocks and sediment. Two of the storms between 1978 and 1982 were classified as 100-year storms. The Hawai'i County Floodway Boundary and Floodway Maps designate a floodway through a portion of the resort. The Flood Insurance Rate Map (FIRM) further designates the floodway with zones AE, VE, and X. Zone AE is a flood hazard area inundated by 100-year floods and for which base flood elevations are determined. Zone VE is also a flood area inundated by 100-year flood and for which velocity hazard (wave action) and base floor elevations have generally been calculated.

As a result of the late 1981 and early 1982 Nīnole Stream flooding, the stream channel has been modified through widening and deepening of the stream bed; constructing retaining walls along a portion of the channel and placing earthen berms, composed of large boulders, along other portions; lining the stream in other places with boulders; and constructing a debris basin. Periodic remedial and maintenance work is performed as required to prevent future flooding.

#### **4.10.1 Surface Water Features (Onsite)**

Runoff from the proposed site generally drains towards the southeast via Nīnole Gulch, which resides at the western portion of the site. Surface runoff from this area is eventually discharged to the Nīnole Cove and the Pacific Ocean. Flows from the eastern portion of the site drain southeasterly via two unnamed intermittent streams. The confluence of these two streams is located near the northern portion of the eastern project limits, with the final discharge point located at Punalu'u Harbor. Total drainage for the site consists of three sub-areas (totaling 463.8 acres) and produces a 10-year 1-hour flow rate of 205.2 cfs.

Storm runoff from the area northwest of the State Highway and west of Punalu'u Road is directed to catch basins and conveyed under the Highway via a reinforced concrete storm drain line to a natural drainage between Nīnole Cove and Punalu'u Beach Park prior to discharging to the Pacific Ocean. Runoff from the existing golf course area is conveyed to two drainage culverts, located within Punalu'u Beach County Park and near the former Punalu'u Black Sand Restaurant, prior to discharging to the Pacific Ocean.

Due to the highly permeable characteristic of the underlying project soils, which consists predominantly of lava, it is uncommon for runoff to reach the sea coast. Runoff is usually infiltrated into the highly permeable soil and rock formations beneath to the underlying aquifers. However, flows do reach the ocean during periods of extensive rainfall, as was experienced in 1978, 1982 and 2006.

#### 4.10.2 Surface Water Features (Offsite)

##### 4.10.2.1 *Nīnole Stream*

The project receives the majority of offsite flows from Nīnole Stream (HI-8-2-21\_00; HUC: 20010000<sup>1</sup>), which originates in the Ka'ū Forest Reserve, flowing approximately 5.6 miles in a southeasterly direction to the Pacific Ocean. Nīnole Stream is ephemeral, and flows only during and immediately after periods of heavy rainfall.

The stream receives the majority of its flow from the mountainous areas to the north and northeast of the Ka'ū Forest Reserve. Heaviest flows for the stream usually occur during the winter season from winter storms. However, similar to the vast majority of Hawai'i's rivers and streams, the majority of the Nīnole Stream's water supply stems from orographic rainfall.

The drainage area for Nīnole Stream is shown in *Figure 4-6* as Drainage A1. The amount of run-off to the proposed property from Nīnole Stream in a 100-year storm event is approximately 10,452 cubic feet per second (cfs).

##### 4.10.2.2 *Unnamed Tributary Drainages*

The project also receives offsite run-off from four other tributary drainage areas, shown as A2, A3, A4 and A5 in *Figure 4-7*. Respectively, these areas contribute 634.9 cfs, 764.8 cfs, 390.6 cfs and 532.4 cfs of flow to the site in a 100-year storm event.

These streams are intermittent and flow only during periods of intense rain, with the majority of its flows stemming from orographic<sup>2</sup> rainfall and heavy winter storms.

##### 4.10.2.3 *Punalu'u Shoreline*

The southeastern portion of the project site includes approximately one mile of the Punalu'u shoreline, which extends south from the northern edge of Punalu'u Bay. The adjacent shoreline includes a black sand beach, basaltic-cliff shorelines and basaltic shoreline platforms. Flows from the site only reach the shoreline during intense rain events.

---

<sup>1</sup> Assessment Unit ID; Location ID

<sup>2</sup> Depth of existing groundwater has not been determined. Soil borings will be required to provide accurate estimates of groundwater depth.

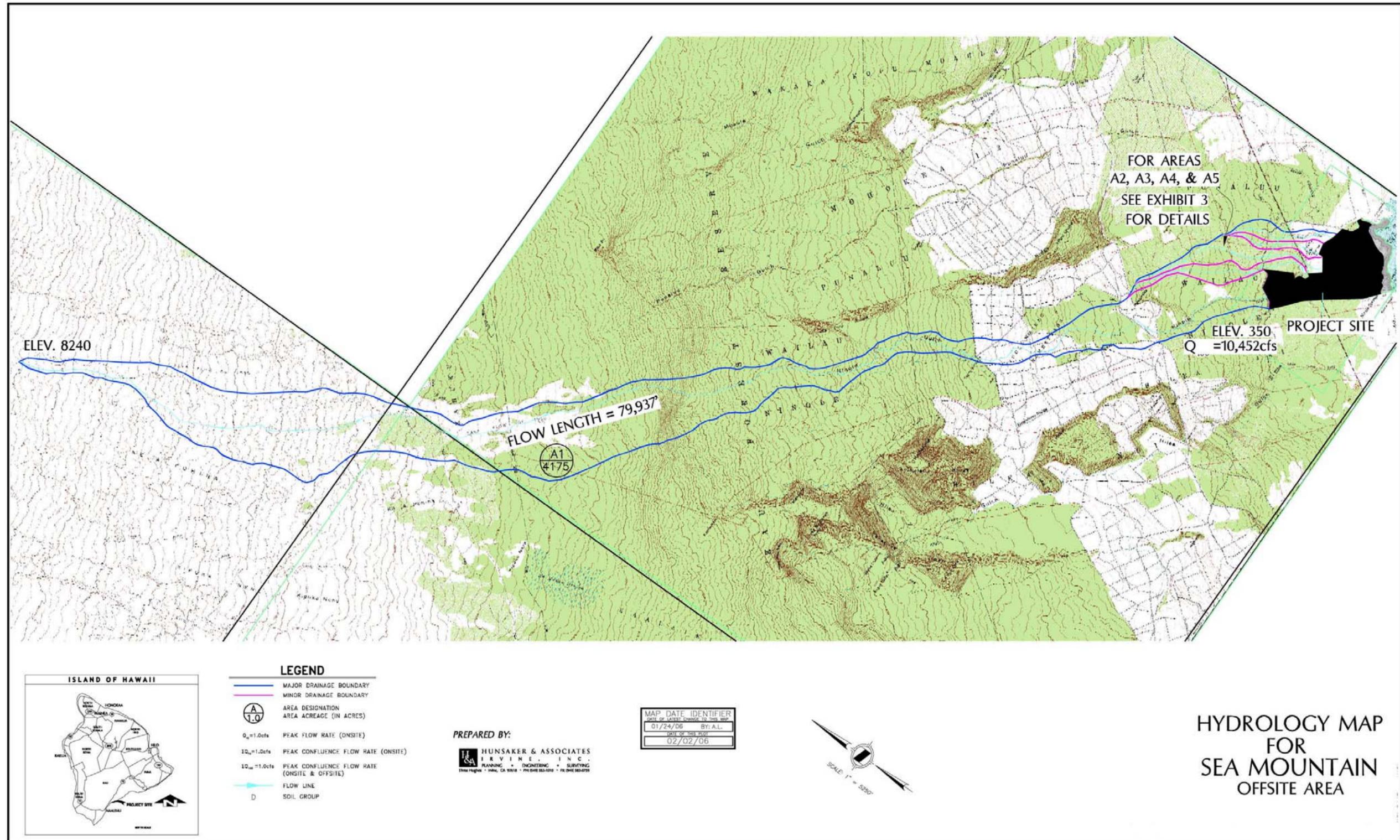


Figure 4-6. Hydrology Map Offsite Areas

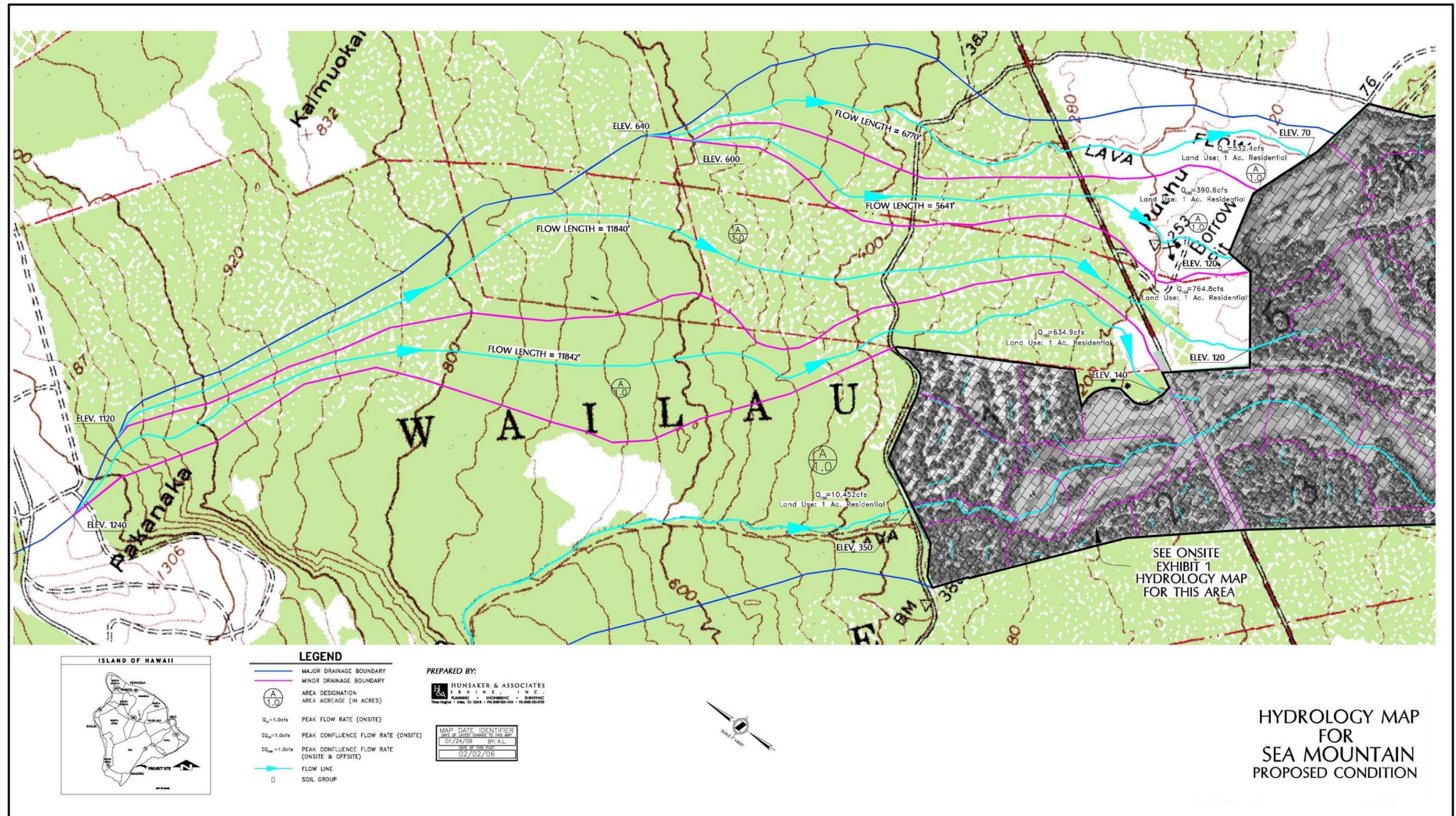


Figure 4-7. Hydrology Proposed Conditions Map

#### 4.10.2.4 Coastal Ponds

The southeastern portion of the site currently contains four coastal ponds. Based on the marine study prepared by Marine Research Consultants, Inc.<sup>3</sup>, all of the existing ponds are brackish, with salinity ranging from one to six parts per thousand (ppt). The ponds are not considered anchialine and are supported by basal groundwater.

Note: Parts per thousand is not the same as percent, which is parts per hundred.

#### 4.10.3 Ground Water Features

In general, groundwater level within the site is expected to fluctuate seasonally and annually due to changes in rainfall. The depth of groundwater is expected to be relatively shallow and decrease with proximity to the shoreline. Current estimates of groundwater flux to the ocean range from a minimum of 5 to 6 million gallons per day (MGD) per mile of shoreline<sup>4</sup> up to 10 MGD per mile of shoreline.<sup>5</sup>

### 4.11 WATER QUALITY

#### 4.11.1 Surface Waters

Existing beneficial uses of Nīnole Stream, as designated by the State of Hawai'i, include Overall Use Support, Aquatic Life Support, Fish Consumption, Shellfishing, Primary and Secondary Contact for Recreational Use, Drinking Water Supply, Aesthetics, Agriculture, Cultural/Ceremonial and Non-degradation.

Nīnole Stream is currently not listed on the State's 303(d) list of impaired waters<sup>6</sup>. The stream fully supports nine of the eleven State designated uses, with Overall Use Support partially supported and Non-degradation not supported.<sup>7</sup> The source of the partial and non-attainment status of the uses include nutrients from agriculture and livestock. Based on a field survey of the project site, the portion of the stream within the proposed project site is intermittent, with impacted vegetation and minimal aquatic species and habitat.<sup>8</sup>

A discussion of shoreline water quality as well as the existing pond water quality is provided in *Assessment of the Marine and Pond Environments in the Vicinity of the Sea Mountain Village at Punalu'u Project*.<sup>3</sup>

---

<sup>3</sup> Marine Research Consultants, Inc. April 2006. *Assessment of the Marine and Pond Environments in the Vicinity of the Sea Mountain Village at Punalu'u Project*. Draft.

<sup>4</sup> As estimated for West Hawai'i.

<sup>5</sup> Depth of existing groundwater has not been determined. Soil borings will be required to provide accurate estimates of groundwater depth.

<sup>6</sup> Koch, Linda; Harrigan-Lum, June; and Henderson, Katina. June 16, 2004. *Final 2004 List of Impaired Waters in Hawaii, Prepared Under Clean Water Act §303(d)*. Hawai'i State Department of Health (DOH), Environmental Planning Office.

<sup>7</sup> Based on information obtained from the Environmental Protection Agency (EPA).

<sup>8</sup> The beneficial uses for the stream likely refer to the off-site mauka reaches of the stream.

#### 4.11.2 Ground Water

Existing groundwater quality within the project site is assumed to be consistent with groundwater located in the vicinity of the project site. Based on samples collected and tested from Nīnole Spring, Nīnole Well #2, Pāhala DWS Well and Palima Well (all located in the vicinity of Sea Mountain Village) by Dr. Steve Dollar on December 16, 2005, existing groundwater within the project site is assumed to be of good quality.

### 4.12 FLOOD, HURRICANE, TSUNAMI, EARTHQUAKE AND WILDFIRE HAZARDS

#### 4.12.1 Flood

Rainfall also varies with elevation and annually averages about 46 inches in the Ka'ū District and about 25 inches at Punalu'u.

According to the County of Hawai'i Planning and GIS Program, Flood Insurance Rate Map (FIRM) Flood Hazard Zones A, X, and X500 are located on the property. Information from this map is shown in *Figure 4-8*. Each zone is described below:

Zone A – An area inundated by 1% flooding for which no flood elevation have been determined.

Zone X – An area that is determined to be outside the 1% and 0.2% annual chance floodplains.

Zone X500 – An area inundated by 0.2% annual chance flooding; an area inundated by 1% annual chance flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile or an area protected by levees from 1% annual chance flooding.

Historic FIRM maps show further detail regarding the flood zones. According to the September 16, 1988 Federal Emergency Management Agency's FIRM map, Community Panel Number 155166 1850 C. The map indicates that the following flood sub-zones are located on the property:

Zone AE – Base flood elevations determined.

Zone VE – Coastal flood with velocity hazard (wave action): base flood elevation determined.

Zone X - represents areas determined to be outside the 500-year floodplain.

The historic FIRM map (September, 1988) shows Nīnole Gulch located in Zone AE up to the 69-foot elevation, while the floodway limit for Nīnole Cove is at the 18-foot elevation. Portions of the coastal area are located in Zone VE, a coastal hazard zone due to wave action, up to the 20-foot elevation. Other coastal areas are located in Zone AE, up to the 20-foot elevation. The risks with respect to the flood hazard are categorized as moderate to severe in portions of the coastal area.

#### 4.12.2 Hurricane

The Punalu'u coast is potentially susceptible to hazards from Pacific hurricanes generated off the Coast of Mexico. O'ahu Civil Defense data shows hurricanes approaching within 75 nautical miles of Hawai'i on an average of once every 10 years. Based on historical tracks and

computer simulations Hawai'i County is at the greatest risk of impact from hurricanes despite the common perception that Kaua'i is the most vulnerable (Hwang, page 43). Hurricane hazards include damage from high winds in excess of 74 mph and flooding due to heavy rainfall and storm surge. Storm surge is the rise in sea level due to low barometric pressure and the pile up of water due to persistent wind in the forward motion of the storm. These conditions can be exacerbated by high tide and mesoscale eddies in the Central Pacific. The coastal bathymetry off Punalu'u shows no fringing reefs that could mitigate some of the impacts of powerful hurricanes.

#### 4.12.3 Tsunamis

Tsunamis occur as a series of waves that strike a coastline. Tsunamis can cause serious damage to coastal areas. The degree of tsunami damage is dependent upon several factors including the topography of the affected area, wave height, and wave intensity.

Locally generated tsunamis, such as those of 1868 and 1975, are potentially the most hazardous type, because the time between their origin and the arrival of the wave at the shoreline may be too brief to warn and evacuate people. In 1975, the first wave reached Punalu'u immediately after the earthquake; it arrived at Hilo in 20 minutes. Any earthquake strong enough to cause difficulty in standing or walking should be regarded as a tsunami warning by people in coastal areas, who should immediately head for higher ground.

The 1975 tsunami resulted in two fatalities at Halapē in the National Park and caused considerable damage to the project site. A 1984 zoning map from PBR Hawaii shows the 1975 tsunami inundation limit. The inundation line from this map is shown on *Figure 4-8*.

#### 4.12.4 Lava Flows

Hazard zones from lava flows are based chiefly on the location and frequency of both historic and prehistoric eruptions. "Historic eruptions" include those for which there are written records, beginning in the early 1800's, and those that are known from the oral traditions of the Hawaiian people. Our knowledge of prehistoric eruptions is based on geologic mapping and dating of the old flows of each volcano. The island of Hawai'i is divided into nine hazard zones according to the level and degree of potential hazards related to lava flows. An area designated as Zone 1 is considered to be an area of greatest potential hazard. These designated zones are determined primarily from the location and frequency of past eruptions.

The project area is within Zone 3, indicating a moderate hazard. Zone 3 is characterized as less hazardous than Zone 2 due to greater distance from recently active vents and/or because the topography makes it less likely that flows will cover these areas. Zone 3 areas have not been subjected to repeated vent activity, as only one to five percent of the Zone 3 areas have been covered by lava since 1800, and 15-75 percent has been covered in the last 750 years. A portion of the USGS Lava Flow Hazard Zone Map is shown in *Figure 4-4*.

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement

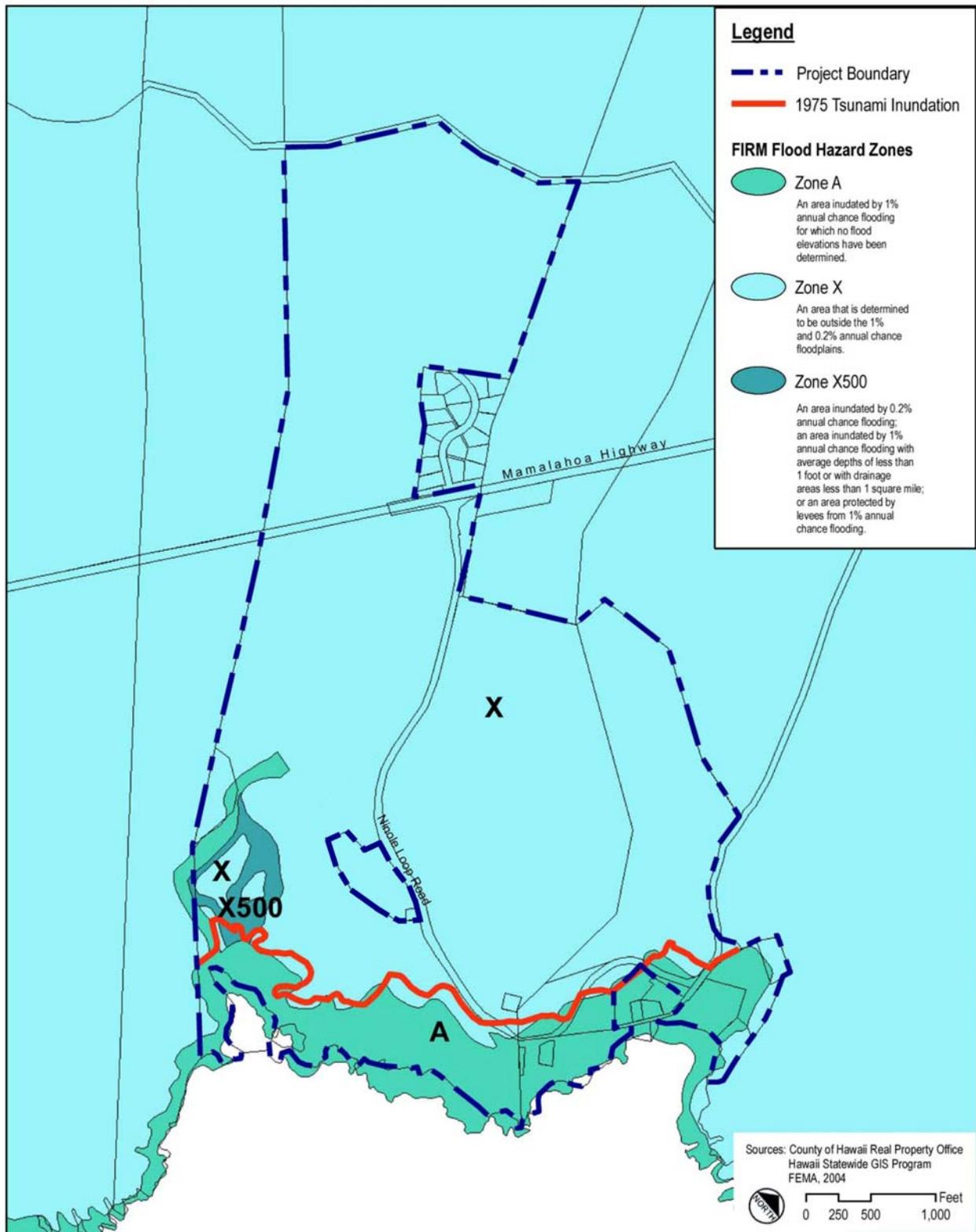


Figure 4-8. Flood Hazard and Tsunami Evacuation Zones

#### 4.12.5 Earthquakes

The entire island of Hawai'i is susceptible to earthquakes originating in fault zones under and adjacent to the island. The Ka'u area is susceptible to seismic activity generated by the south flanks of both Kilauea and Mauna Loa. According to previously established procedures, the USGS (1997) conducted a probabilistic seismic-hazards assessment. From this assessment, seismic zones were re-assigned for each county. Due to the island's active volcanic activity, the entire County of Hawai'i lies in a seismic zone designated as Zone 4, the highest risk designation. The classification system is based on a scale of 0 to 4, increasing in level of risk due to seismic occurrence and danger.

Under the Uniform Building Code Seismic Provisions, a Zone 4 area could experience severe seismic activity between .30 and .40 of the earth's gravitational acceleration (g-forces), causing major damage to poorly designed or built structures. The potential of damage incurred by strong earthquakes is a prevalent concern for the entire County of Hawai'i. As such, the proposed projects will be in compliance with the Uniform Building Code and County of Hawai'i structural design standards, including earthquake design provisions.

#### 4.12.6 Wildfires

The project site and vicinity are subject to wildfire hazards. The fire department responds to approximately six brush fires per year in Ka'u (Randal Okutsu, personal communication).

### 4.13 FLORA

The overall objectives of the survey were to 1) identify all threatened and endangered plant and bird species found on the project site; 2) provide a comprehensive list of all plant and bird species; 3) describe the different plant communities and general vegetation patterns; and 4) provide estimates of the relative abundance of endangered Hawaiian Hoary bats throughout the project site. The survey paid special attention to identifying and assessing the value of any relict native forest or shrub lands. The survey did not attempt to locate the numerous species of introduced mammals that are highly likely to be present on the project site. These mammals include feral dogs (*Canis familiaris*) and cats (*Felis sylvestris catus*), pigs (*Sus scrofa*), goats (*Capra aegagrus hircus*), rats (*Rattus rattus*), mice (*Mus musculus*), and mongooses (*Herpestes auropunctatus*), all of which are detrimental to the native Hawaiian biota. The survey also did not include field sampling for candidate, threatened, or endangered invertebrate species. The degraded habitat and lack of native plants on the project site makes it extremely unlikely that any federally listed invertebrates, including *Megalagrion* damselflies, *Manduca* moths, or *Drosophila* Pomace flies inhabit the area.

#### 4.13.1 Current Vegetation and Flora of the Area

With the exception of a narrow strip of predominantly native vegetation along the coast, the natural vegetation of the entire project site has been severely degraded and modified by centuries of human use. One federally listed endangered plant species was detected (*Loulu*; *Pritchardia affinis*) in patches along the coast. Otherwise, no other threatened or endangered plant species were found, nor are any likely to be present outside of the coastal zone due to the long history of human disturbance in the area. The project site does not comprise Critical Habitat for any federally listed threatened or endangered plant species (US Federal Register, July 2003). A total of 28 native (including three endemic and 25 indigenous) and 112 introduced plant taxa were detected. Aside from the residential area, abandoned commercial area, and golf course, three general plant communities exist on the project site and are discussed below.

## SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

**Table 4-3. Inventoried Plant Species in Lands of Ka'ū**

List of Alien (A), Indigenous (I), and Endemic (E) plant species found during the course of the study. Bold lettering indicates a federally listed endangered species.

Scientific Name	Family	Common Name	Life Form	Status*
<i>Abutilon grandifolium</i>	Malvaceae	Hairy abutilon	Shrub	A
<i>Acacia confusa</i>	Fabaceae	Formosan koa	Tree	A
<i>Adiantum hispidulum</i>	Pteridaceae	Rough Maidenhair	Herb	A
<i>Agave sisalana</i>	Agavaceae	Sisal	Shrub	A
<i>Albizzia lebbek</i>	Fabaceae	Siris tree	Tree	A
<i>Aleurites moluccana</i>	Euphorbiaceae	Kukui	Tree	A
<i>Amaranthus spinosus</i>	Amaranthaceae	Spiny Amaranth	Shrub	A
<i>Antigonon leptopus</i>	Polygonaceae	Mexican creeper	Vine	A
<i>Argemone glauca</i>	Papaveraceae	Pua kala	Herb	E
<i>Bacopa monnieri</i>	Scrophulariaceae	Bacopa	Herb	I
<i>Barleria cristata</i>	Acanthaceae	Philippine violet	Shrub	A
<i>Bidens pilosa</i>	Asteraceae	Beggar's tick	Herb	A
<i>Boerhavia coccinea</i>	Nyctaginaceae	Boerhavia	Herb	A
<i>Bougainvillea sp.</i>	Nyctaginaceae	Bougainvillea	Shrub	A
<i>Brachiaria mutica</i>	Poaceae	California grass	Grass	A
<i>Bryophyllum pinnata</i>	Crassulaceae	Air plant	Shrub	A
<i>Bryophyllum tubiflorum</i>	Crassulaceae	Chandelier plant	Shrub	A
<i>Caesalpinia pulcherrima</i>	Fabaceae	Poinciana	Tree	A
<i>Calophyllum inophyllum</i>	Clusiaceae	Kamani	Tree	A
<i>Canavalia cathartica</i>	Fabaceae	Mauna Loa	Vine	A
<i>Carica papaya</i>	Caricaceae	Papaya	Tree	A
<i>Carissa macrocarpa</i>	Apocynaceae	Natal plum	Shrub	A
<i>Cassia fistula</i>	Fabaceae	Golden Shower Tree	Tree	A
<i>Casuarina equisetifolia</i>	Casuarinaceae	Ironwood	Tree	A
<i>Catharanthus roseus</i>	Apocynaceae	Madagascar periwinkle	Shrub	A
<i>Chamaecrista nictitans</i>	Fabaceae	Partridge Pea	Herb	A
<i>Chamaesyce hirta</i>	Euphorbiaceae	Garden Spruge	Herb	A
<i>Chloris barbata</i>	Poaceae	Swollen finger grass	Grass	A
<i>Cenchrus echinatus</i>	Poaceae	Common sandbur	Grass	A
<i>Clusia rosea</i>	Clusiaceae	Autograph tree	Tree	A
<i>Coccoloba uvifera</i>	Polygonaceae	Sea grape	Tree	A
<i>Cocculus trilobus</i>	Menispermaceae	Huehue	Vine	I
<i>Cocos nucifera</i>	Areaceae	Niu	Tree	A
<i>Cordia subcordata</i>	Boraginaceae	Kou	Tree	A
<i>Cordyline fruticosa</i>	Agavaceae	Ki	Shrub	A
<i>Crassocephalum crepidiodes</i>	Asteraceae	Crassocephalum	Herb	A
<i>Crotalaria sp.</i>	Fabaceae	Rattlepod	Herb	A
<i>Cynodon dactylon</i>	Poaceae	Bermuda grass	Grass	A
<i>Cyperus laevigatus</i>	Cyperaceae	Makaloa	Sedge	I
<i>Cyperus polystachyos</i>	Cyperaceae	Cyperus	Sedge	I
<i>Dactyloctenium aegyptium</i>	Poaceae	Beach wiregrass	Grass	A
<i>Delonix regia</i>	Fabaceae	Royal poinciana	Tree	A
<i>Desmodium incanum</i>	Fabaceae	Desmodium	Herb	A
<i>Desmodium intortum</i>	Fabaceae	Desmodium	Vine	A

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

Scientific Name	Family	Common Name	Life Form	Status*
<i>Digitaria insularis</i>	Poaceae	Sourgrass	Grass	A
<i>Dioscorea pentaphylla</i>	Dioscoreaceae	Dioscoreae	Vine	A
<i>Dodonea viscosa</i>	Sapindaceae	'A'ali'i	Shrub	I
<i>Doryopteris decora</i>	Pteridaceae	Doryopteris	Fern	E
<i>Dracaena marginata</i>	Agavaceae	Money tree	Tree	A
<i>Eichhornia crassipes</i>	Pontederiaceae	Water hyacinth	Herb	A
<i>Eragrostis pectinata</i>	Poaceae	Carolina lovegrass	Grass	A
<i>Eleusine indica</i>	Poaceae	Wire grass	Grass	A
<i>Emilia fosbergii</i>	Astraceae	Pualele	Herb	A
<i>Erythrina variegata</i>	Fabaceae	Wiliwili	Tree	A
<i>Euphorbia heterophylla</i>	Euphorbiaceae	Kaliko	Shrub	A
<i>Ficus benghalensis</i>	Moraceae	Indian banyan	Tree	A
<i>Ficus elastica</i>	Moraceae	Rubber tree	Tree	A
<i>Ficus microcarpa</i>	Moraceae	Banyan	Tree	A
<i>Fimbristylis cymosa</i>	Cyperaceae	Mau'u `aki`aki	Sedge	I
<i>Grevillea robusta</i>	Proteaceae	Silk oak	Tree	A
<i>Heliotropium curassavicum</i>	Boraginaceae	Seaside Heliotrope	Vine	I
<i>Hibiscus sp.</i>	Malvaceae	Hibiscus	Shrub	A
<i>Hylocereus undatus</i>	Cactaceae	Night blooming cereus	Shrub	A
<i>Hyptis pectinata</i>	Lamiaceae	Comb hyptis	Shrub	A
<i>Indigofera suffruticosa</i>	Fabaceae	Indigo	Shrub	A
<i>Ipomoea indica</i>	Convolvulaceae	Koali 'awa	Vine	I
<i>Ipomoea pes-caprae</i>	Convolvulaceae	Pohuehue	Vine	I
<i>Ipomoea triloba</i>	Convolvulaceae	Little bell	Vine	A
<i>Jacquemontia ovalifolia</i>	Convolvulaceae	Pa'u o Hi'iaka	Vine	I
<i>Justicia betonica</i>	Acanthaceae	White shrimp plant	Shrub	A
<i>Kalanchoe pinnata</i>	Crassulaceae	Air plant	Shrub	A
<i>Lantana camara</i>	Verbenaceae	Lantana	Shrub	A
<i>Leucaena leucocephala</i>	Fabaceae	Haole koa	Tree	A
<i>Livistona chinensis</i>	Arecaceae	Chinese fan palm	Tree	A
<i>Lycium sandwicense</i>	Solanaceae	'Ohelo kai	Herb	I
<i>Macroptilium lathyroides</i>	Fabaceae	Cow pea	Vine	A
<i>Malvastrum coromandelianum</i>	Malvaceae	Malvastrum	Herb	A
<i>Mangifera indica</i>	Anacardiaceae	Mango	Tree	A
<i>Melaleuca quinquenervia</i>	Myrtaceae	Paperbark	Tree	A
<i>Melia azedarach</i>	Meliaceae	Chinaberry	Tree	A
<i>Melinis minutiflora</i>	Poaceae	Molasses grass	Grass	A
<i>Mimosa pudica</i>	Fabaceae	Sensitive plant	Herb	A
<i>Momordica charantia</i>	Cucurbitaceae	Balsam Pear	Vine	A
<i>Monstera deliciosa</i>	Araceae	Splitleaf philodendron	Vine	A
<i>Morinda citrifolia</i>	Rubiaceae	Noni	Shrub	A
<i>Nephrolepis multiflora</i>	Nephrolepidaceae	Sword Fern	Herb	A
<i>Nerium oleander</i>	Apocynaceae	Oleander	Shrub	A
<i>Ochna thomasi</i>	Ochnaceae	Mickey Mouse plant	Shrub	A
<i>Oxalis corniculata</i>	Oxalidaceae	Wood Sorrel	Herb	I
<i>Pandanus tectorius</i>	Pandanaceae	Hala	Tree	I
<i>Panicum maximum</i>	Poaceae	Panicum	Herb	A
<i>Paspalum vaginatum</i>	Poaceae	Seashore paspalum	Grass	A

## SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

Scientific Name	Family	Common Name	Life Form	Status*
<i>Passiflora edulis</i>	Passifloraceae	Lilikoi	Vine	A
<i>Passiflora suberosa</i>	Passifloraceae	Huehue haole	Vine	A
<i>Peperomia leptostachya</i>	Peperomiaceae	Ala ala wai nui	Herb	I
<i>Phlebodium aureum</i>	Polypodiaceae	Phlebodium	Herb	A
<i>Phymatosorus grossus</i>	Polypodiaceae	Maile-scented Fern	Herb	A
<i>Pithecellobium dulce</i>	Fabaceae	Opiuma	Tree	A
<i>Pityrogramma calomelanos</i>	Pteridaceae	Silver fern	Fern	A
<i>Plantago major</i>	Plantaginaceae	Broad-leaved plantain	Herb	A
<i>Pluchea symphytifolia</i>	Asteraceae	Sourbush	Shrub	A
<i>Plumeria sp.</i>	Apocynaceae	Plumeria	Tree	A
<i>Portulaca lutea</i>	Portulacaceae	'Thi	Herb	I
<i>Portulaca oleracea</i>	Portulacaceae	Pig weed	Herb	A
<i>Portulaca pilosa</i>	Portulacaceae	Portulaca	Herb	A
<i>Pritchardia affinis</i>	Arecaceae	Loulu	Tree	E
<i>Pritchardia pacifica</i>	Arecaceae	Fiji Fan Palm	Tree	A
<i>Pritchardia thurstonii</i>	Arecaceae	Long inflorescence Fiji Fan Palm	Tree	A
<i>Prosopis pallida</i>	Fabaceae	Kiawe	Tree	A
<i>Psidium guajava</i>	Myrtaceae	Guava	Tree	A
<i>Psilotum nudum</i>	Psilotaceae	Moa	Herb	I
<i>Psyrax odoratum</i>	Rubiaceae	Alahe'e	Tree	I
<i>Rhynchelytrum repens</i>	Poaceae	Natal red-top	Grass	A
<i>Ricinus communis</i>	Euphorbiaceae	Castor Bean	Shrub	A
<i>Rivina humilis</i>	Phytolaccaceae	Coral Berry	Shrub	A
<i>Samanea saman</i>	Fabaceae	Monkeypod	Tree	A
<i>Scaevola taccada</i>	Goodeniaceae	Naupaka	Shrub	I
<i>Schinus terebinthifolius</i>	Anacardiaceae	Christmas Berry	Shrub	A
<i>Senna occidentalis</i>	Fabaceae	Coffee Senna	Shrub	A
<i>Sesuvium portulacastrum</i>	Aizoaceae	'Akulikuli	Herb	I
<i>Schoenoplectus lacustris validus</i>	Cyperaceae	'Aka 'akai	Sedge	I
<i>Sida fallax</i>	Malvaceae	'Ilima	Shrub	I
<i>Sida rhombifolia</i>	Malvaceae	Cuba Jute	Herb	A
<i>Solanum linnaeanum</i>	Solanaceae	Sodom's apple	Herb	A
<i>Spathodea campanulata</i>	Bignoniaceae	African Tulip tree	Tree	A
<i>Spermacoce assurgens</i>	Rubiaceae	Buttonweed	Herb	A
<i>Stachytarpheta jamaicensis</i>	Verbenaceae	Jamaica vervain	Shrub	A
<i>Syzygium cumini</i>	Myrtaceae	Java plum	Tree	A
<i>Syzygium jambos</i>	Myrtaceae	Rose-apple	Tree	A
<i>Terminalia catappa</i>	Combretaceae	False kamani	Tree	A
<i>Thespesia populnea</i>	Malvaceae	Milo	Tree	I
<i>Thevetia peruviana</i>	Apocynaceae	Tree poppy	Tree	A
<i>Tournefortia argentea</i>	Boraginaceae	Tree heliotrope	Tree	A
<i>Tridax procumbens</i>	Asteraceae	Coat buttons	Herb	A
<i>Triumfetta rhomboidea</i>	Tiliaceae	Bur bush	Shrub	A
<i>Vigna marina</i>	Fabaceae	Nanea	Vine	I
<i>Waltheria indica</i>	Sterculiaceae	'Uhaloa	Herb	I
<i>Wedelia trilobata</i>	Asteraceae	Wedelia	Herb	A

#### 4.13.2 Coastal Strand

The coastal strand zone consists of plant species that are primarily dispersed by ocean currents and waves, and are tolerant of salt in the soil or atmosphere (Wagner et al. 1990). This zone Zone A, (Figure 4-9) comprises a very small proportion of the total project acreage but had more native species than all other areas combined. The endangered Loulu palm (*Pritchardia affinis*) was found in a few small patches in this zone (Figure 4-9). These trees do not appear to be regenerating in the area, and most, if not all of them were likely planted by humans. Naupaka (*Scaevola taccada*), an indigenous shrub, was the dominant plant in this zone. Other common natives included 'Ilima (*Sida fallax*), herbs such as 'Akulikuli (*Sesuvium portulacastrum*), 'Ohelo kai (*Lycium sandwicense*), and *Bacopa monnieri*, and vines including Nanea (*Vigna marina*), Pa'u o Hi'iaaka (*Jacquemontia ovalifolia*), and Pohuehue (*Ipomoea pes-caprae*). The indigenous *Fimbristylis* sedge was also abundant. The Coastal strand zone contained numerous fresh water and/or anchialine pools. Two indigenous sedges, Makaloa (*Cyperus laevigatus*) and *Schoenoplectus lacustris validus*, were common along the margins of these pools. Much of the coastal strand community in the area lies outside the apparent boundaries of the developed areas of the project site and is not expected to be affected by development.

#### 4.12.3 Coastal Dry Shrubland

Directly mauka of the coastal strand zone and extending up to at least the highway at an elevation of approximately 60m lies the highly modified coastal dry shrubland community (Zones B and D, Figure 4-10). Prior to human disturbance, this community was likely dominated by shrubs such as *Wikstroemia sp.*, *Chamaesyce sp.*, and a low lying variety of *Myoporum sandwicense*. 'Alahee trees (*Psydrax odoratum*) were also found in this area, with Pili grass (*Heteropogon contortus*) dominating much of the understory, along with various herbs such as *Peperomia leptostachya* and *Plectranthus parviflorus*. Centuries of human disturbance, primarily ranching and fire, has resulted in a community that is almost completely devoid of native species and that can best be described as a Haole koa (*Leucaena leucocephala*) dry shrubland. Guinea grass (*Panicum maximum*) dominates the understory, with introduced vines such as *Passiflora suberosa* often forming dense mats in the *Leucaena* canopy. The few native species that were found in this area included scattered individuals of 'Alahee trees, two shrubs: 'A'alii (*Dodonea viscosa*), and 'Ilima (*Sida fallax*), and the herb *Peperomia leptostachya*. The most abundant native plant was the ubiquitous herb 'Uhaloa (*Waltheria indica*). All native trees and shrubs encountered in this zone appeared to be newly re-colonizing the area, as opposed to remnant individuals that had survived past human disturbance. Zone B had a much denser growth of Haole koa than Zone D, and was the only area below the highway that contained regenerating 'Alahee trees. Zone D appeared to have undergone more recent disturbance (probably fire and some cattle grazing) and had far greater coverage of Guinea grass than Zone B.

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement



Figure 4-9. Approximate Boundaries (outlined in green) of Vegetation Zones in the Sea Mountain at Punalu'u Project Site

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement



Figure 4-10. Coastal Zone "A" of the Sea Mountain at Punalu'u Project Site

#### 4.13.4 Coastal Dry Forest

Above the highway, at an elevation of approximately 185 feet, the Coastal Dry Scrub community likely began to intergrade with the Coastal Dry Forest community. This community was probably dominated by Wiliwili (*Erythrina sandwicensis*), 'Iliahi (Sandalwood: *Santalum ellipticum*), 'Alahee, and Naio trees (*Myoporum sandwicense*), along with many others. However, the native Coastal Dry Forest community has almost completely disappeared from the project area. Other than a few 'Alahee individuals, this botanical survey failed to locate any remnant dry forest trees. The area (Zone C, Figure 1) is now primarily a continuation of the Haole koa/Guinea grass shrubland, with both species attaining much larger size than at the lower elevations, probably as a result of higher rainfall. Other common introduced plants in this area include Monkeypod (*Samanea saman*), Java Plum (*Syzygium cumini*), and African Tulip (*Spathodea campanulata*). Cattle ranching still occurs in the southern portion of Zone C above the highway (Figure 4-9). The native *Pua kala* is common in this otherwise highly disturbed area. The mauka portion of the Sea Mountain Golf Course also comprises a large portion of the land above the highway, and is dominated exclusively by non-native, primarily ornamental trees, grasses, and shrubs.

The entire length of the dry gulch that bisects the property from the mauka to makai boundary and extends from the former Dry Forest through the Dry Shrubland to the coast was walked to detect any remnant native trees or shrubs. There were no native plants found in the gulch that did not occur elsewhere on the property, with the exception of *Doryopteris decora*, a relatively common species of dryland fern.

#### 4.14 FAUNA

The biological survey did not attempt to locate the numerous species of introduced mammals that are highly likely to be present on the project site. These mammals include feral dogs (*Canis familiaris*) and cats (*Felis sylvestris catus*), pigs (*Sus scrofa*), goats (*Capra aegagrus hircus*), rats (*Rattus rattus*), mice (*Mus musculus*), and mongooses (*Herpestes auropunctatus*), all of which are detrimental to the native Hawaiian biota. The study focused on the presence of birds and bats on the project site.

##### 4.14.1 Birds

Fourteen species of birds were detected during the surveys, all alien introductions except one indigenous heron species and one indigenous shorebird species (Table 4-4). No rare, threatened or endangered species were encountered during the surveys.

**Table 4-4. List of Bird Species Found within Sea Mountain Property**

Scientific Name	Common Name	Status
<i>Nycticorax nycticorax hoactli</i>	Black-Crowned Night-Heron	Indigenous Resident
<i>Tyto alba</i>	Common Barn Owl	Alien Resident
<i>Pluvialis fulva</i>	Pacific Golden-Plover	Indigenous Visitor
<i>Cardinalis cardinalis</i>	Northern Cardinal	Alien Resident
<i>Paroaria capitata</i>	Yellow-Billed Cardinal	Alien Resident
<i>Streptopelia chinensis</i>	Spotted Dove	Alien Resident
<i>Geopelia striata</i>	Zebra Dove	Alien Resident
<i>Acridotheres tristis</i>	Common Myna	Alien Resident
<i>Carpodacus mexicanus</i>	House Finch	Alien Resident
<i>Passer domesticus</i>	House Sparrow	Alien Resident
<i>Serinus mozambicus</i>	Yellow-Fronted Canary	Alien Resident
<i>Zosterops japonicus</i>	Japanese White-Eye	Alien Resident
<i>Sicalis flaveola</i>	Saffron Finch	Alien Resident
<i>Lonchura punctulata</i>	Nutmeg Mannikin	Alien Resident

\* indicates native endemic species or sub-species. Bold lettering indicates Threatened or Endangered status.

#### 4.14.1.1 Land Birds

The most common bird found on the site is the Japanese white eye (*Zosterops japonicus*). These birds were found in all areas of the project site, and were by far the most abundant in the Haole koa shrubland. Other birds in this shrubland include the Nutmeg mannikin (*Lonchura punctulata*) and Northern cardinal (*Cardinalis cardinalis*). On the golf course and in the residential areas, the most common birds are the Saffron finch (*Sicalis flaveola*), the Zebra dove (*Geopelia striata*), and the Yellow-fronted canary (*Serinus mozambicus*).

Barn owls (*Tyto alba*) were observed in the evening on four occasions over two weeks of observation in the upper portion of the property. These introduced owls were the only birds of prey detected during the survey. Although the federally-endangered Hawaiian Hawk ('Io) and federally-threatened Hawaiian short-eared owl (Pueo) were not detected during the surveys, both are likely to be found on the project site. However, because the area represents poor habitat for both species, it is unlikely that either species nests in the area.

#### 4.14.1.2 Shorebirds and Waterbirds

Flocks of indigenous Pacific golden-plovers (Kolea; *Pluvialis fulva*) were found foraging in the grass on both the upper and lower golf courses. This common migratory shorebird is usually present in Hawai'i from August through April, and spends its summers foraging and breeding in Alaska. Other shorebirds that likely make use of the project site but were not seen during the surveys include the Wandering Tattler (*Heteroscelus incanum*), Ruddy Turnstone (*Arenaria interpres*), Sanderling (*Calidris alba*), and various other Sandpipers.

The Black-crowned night-heron ('Auku'u; *Nycticorax nycticorax hoactli*), an indigenous wetland bird, was found foraging near the pond adjacent to Punalu'u beach, as were several domesticated, introduced geese. Other native water birds that make use of the various ponds along the shoreline include the federally-endangered Black-necked stilt (Ae'o; *Himantopus mexicanus knudseni*) and the federally-endangered Hawaiian coot ('Alae ke'oke'o; *Fulica alae*). The federally-endangered Nene (*Branta sandvicensis*) may also be an occasional visitor to the site.

#### 4.14.1.3 Seabirds

No seabirds were detected through the two months of sporadic surveying. Seabirds such as Black noddies (Noio; *Anous minutus melanogenys*), White-tailed tropic birds (Koa'e kea; *Phaethon lepturus dorotheae*), Frigate birds ('Iwa; *Fregata minor palmerstoni*), Shearwaters (*Puffinus sp.*), Bulwer's Petrels ('Ou; *Bulweria bulwerii*), and Boobies (*Sula sp.*) are all likely to make use of the airspace over the makai portion of the project site. In addition, three species of rare seabirds have the potential to use the property: the federally-endangered Dark-rumped petrel ('Ua'u; *Pterodroma phaeopygia sandwichensis*), the federally-threatened Newell's shearwater ('A'o; *Puffinus auricularis newelli*), and the Band-rumped storm-petrel (*Oceanodroma castro*). The Petrels and Shearwater hunt over the ocean during the day and fly to higher elevations at night to roost and nest. Dark-rumped petrels presently nest on the southwest rift zone of Mauna Loa (Banko 1991, Hu 2001), which is mauka of Punalu'u. However, because the project site is highly disturbed and likely contains a high density of mammalian predators such as cats, rats, and mongooses, it represents very poor nesting habitat for any seabird.

#### 4.14.2 Bats

The Hawaiian Hoary Bat (*Lasiurus cinereus semotus*) is a state and federally-listed endangered species. It is the only land mammal that is native to Hawai'i.

The objectives of the Hawaiian hoary bat survey were to 1) record all detections in the study area; 2) estimate bat detectability; 3) adjust measures of occurrence by detectability; 4) identify areas with active feeding activity; and 5) map and record coordinates at all locations at which the species was detected.

##### 4.14.2.1 General Bat Movements

The Hawaiian hoary bat was detected commuting through or searching for prey at seven of eight sites in the study area (Figure 4-12). Naïve estimates of occurrence based on the results of a single night of survey (Table 4-5).

Given the moderate occurrence of bat detection during the study, and after factoring in survey detection probability, true on-site bat occurrence is expected to be higher. In general, the results indicate that the Hawaiian hoary bat occurs throughout most, if not all, of the study area.

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

**Table 4-5. Detections of Hawaiian hoary bat search and commuting flight calls by site and date (1 = detected; 0 = not detected).**

date	survey site							
	1	2	3	4	5	6	7	8
9/4/2005	0	1	1	0	0	0	0	0
9/28/2005	0	0	1	1	1	1	1	1
10/6/2005	0	1	1	0	0	1	1	0
10/14/2005	0	0	1	1	0	1	1	1
10/15/2005	0	1	1	1	1	1	0	1
10/21/2005	0	1	1	0	1	0	1	1
total visits with detections by survey site								
	0	4	6	3	3	4	4	4

Survey site 1 is notable for the consistent absence of bats. Conversely, survey site 3 is notable for the regular presence of bats. As with many aerial insectivores, the hoary bat forages preferentially in openings and over forest and riparian habitats because these areas support higher densities of flying insects (Menzel et al. 2005, Wunder and Carey 1996). Although the two sites are within 800 meters of each other, the site with no detections is located within an extensive and homogenous stand of 3-4 meter tall haole koa shrubs. The absence of bats in the area may indicate that the vegetation does not support much bat prey. The site with a consistent bat presence lies along a drainage with large *Ficus* trees and openings (golf lawns). The heterogeneous structure of the vegetation appears to provide high quality foraging habitat.

4.14.2.2 *Bat Feeding Activity*

Areas at which bats were recorded actively approaching target prey (and presumably feeding) ranged from 1 to 2 sites per survey night, and were limited to a total of 4 sites for all survey nights combined (Table 4-6). Naïve estimates of the occurrence of feeding activity based on the results of a single night of survey would have ranged from 0.13 (i.e., 1 of 8 sites with bat detections) to 0.25 (i.e., 2 of 8 sites with bat detections). However, given the low probability of detecting feeding bats (mean = 0.35; 95% confidence interval = 0.15 – 0.56), the actual occurrence of feeding activity is expected to be higher. Adjusting for detection probability yielded an estimate of mean occurrence equal to 0.56 and a 95% confidence interval between 0.16 and 0.94. That is, feeding activity appears to concentrate in specific areas comprising about one-half of the property.

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

**Table 4-6. Detections of Hawaiian hoary bat target-approach calls (“feeding buzzes”) by site and date (1 = detected; 0 = not detected).**

date	survey site							
	1	2	3	4	5	6	7	8
9/4/2005	0	0	1	0	0	0	0	0
9/28/2005	0	0	1	0	0	0	0	0
10/6/2005	0	0	1	0	0	1	0	0
10/14/2005	0	0	0	0	0	0	1	1
10/15/2005	0	0	1	0	0	0	0	1
10/21/2005	0	0	0	0	0	0	0	1
total visits with detections by survey site								
	0	0	4	0	0	1	1	3

Two sites (3 and 8) are notable for the high incidence of feeding activity by bats. Both sites are adjacent to stands of tall trees next to open areas (golf lawns at site 3 and beach strand and open water at site 8). The physical structure of the vegetation at these sites may promote relatively high prey densities and bat feeding activity. Although bats were detected feeding only once at two additional sites (6 and 7), the sites are also located in proximity to tall tree stands and open areas (*Figure 4-11*).

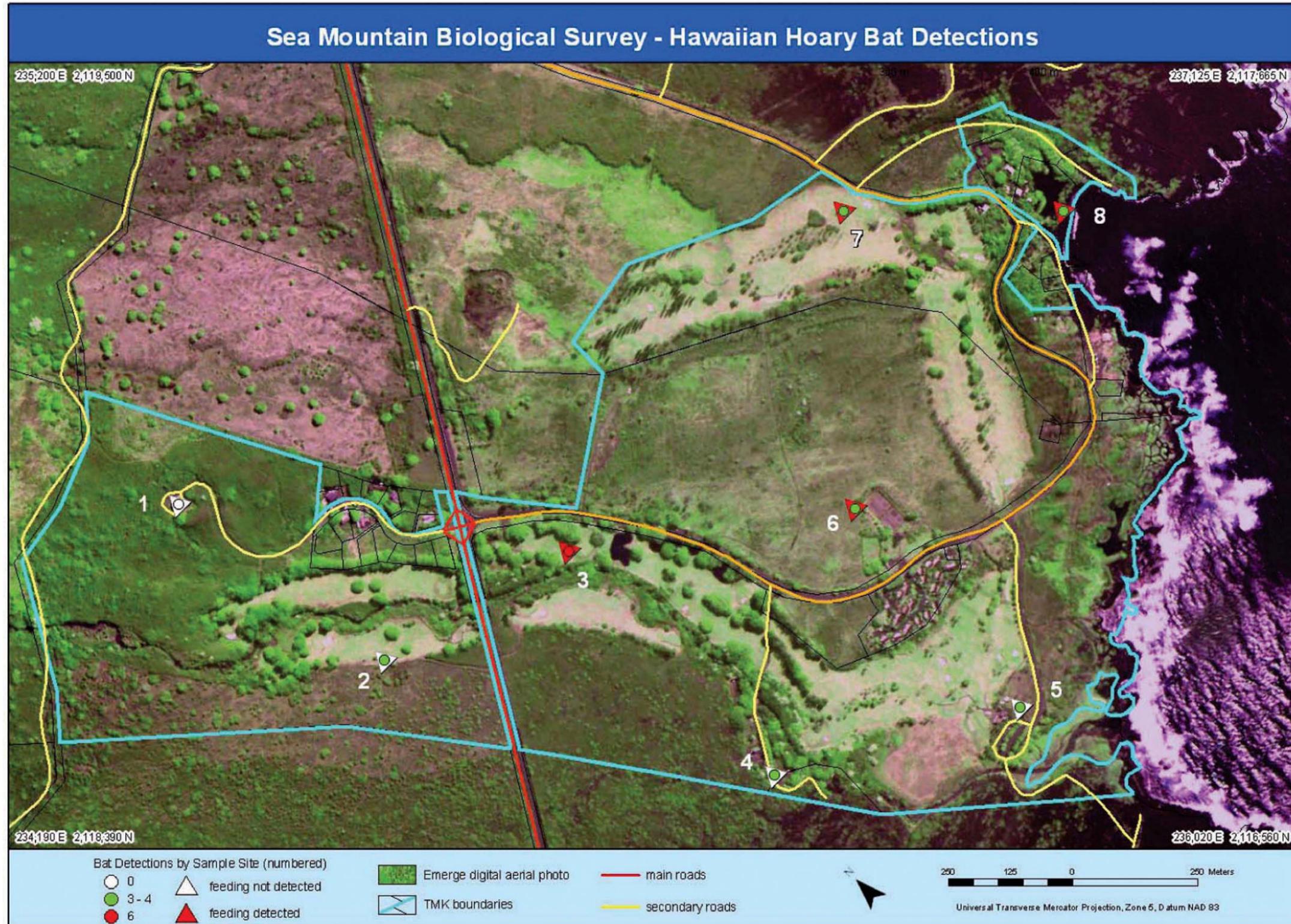


Figure 4-11. Hawaiian Hoary Bat Survey Sites (numbered) and Number of Visits with Detections (circles), including Feeding Activity (triangles)

#### 4.14.3 Insects

The project site was surveyed for rare insects in June and July of 2006 by Robert Peck (See Survey of Insects *Appendix O*). The objective of the survey was to identify insects that have been listed as “Endangered”, “Threatened”, “Candidate”, and “Species of Concern”.

A literature review was conducted to identify rare species present on the Island of Hawai'i. The literature review revealed that three insect species are listed as endangered, one species is listed as threatened, nine species are listed as candidate, and 78 species have been listed as species of concern. Table 4-7 (below) shows the status and general habitat for those listed as endangered, threatened or candidate.

A field survey was also conducted to identify a sample range of insects at Sea Mountain. Results of the field survey determined that diversity was low, with alien species far exceeding native species. Many plants, including those that dominated the dry shrub and dry woodlands, supported very few insects. Insects on those plants tended to be able to live on a wide range of plants such as the planthopper *Melormenis basalis* (Homoptera: Flatidae), the ladybeetles *Curinus coeruleus* and *Olla v-nigrum* (Coleoptera: Coccinellidae), the ant *Cardiocondyla wroughtoni* (Hymenoptera: Formicidae) and the domestic honeybee *Apis mellifera* (Hymenoptera: Apidae).

No endangered or threatened species were found at Sea Mountain, but one species, *Megalagrion xanthomelas*, listed as candidate, was found to inhabit the site (discussed below). For the vast majority of the other 90 species targeted in this study, their likely distribution, habitat type, or in the case of herbivorous species, their host plant, were not found at Sea Mountain. For all but a few species, the likelihood of finding them, even with additional survey efforts, is extremely low.

Hawaii has a rich damselfly fauna with 29 described species or subspecies. Of these, 14 have been found on the Big Island. Habitat availability generally limits their distribution as the immature stages (naiads) are primarily restricted to aquatic, semi-aquatic or very damp environments. Unfortunately, their aquatic requirements have made them highly vulnerable to predation by alien fish; today, the highest diversity, and greatest abundances, are found in high mountain streams that are isolated from lower reaches by waterfalls that act as barriers to migration of fish. Four Big Island species have received candidate listings. *Megalagrion nigrohamatum nigrolineatum* is found in pools and seepages in upland streams. *Megalagrion nesiotis* naiads have been found in steep, moist, fern-covered banks. For this species, only historic records exist for the Big Island; none have been collected in recent times. Naiads of *M. pacificum* are usually found in pools along channels supporting thick vegetation bordering perennial streams. *Megalagrion xanthomelas* is found at low elevations, particularly in pools and small ponds, and on the Big Island, along the Puna, Kau and North Kona coasts.

*Megalagrion xanthomelas* was the only rare species collected during our survey of Sea Mountain. In Kau, it has previously been recorded at Punalu'u, as well as Ninole Springs, the mouth of Hilea stream at Kawa Bay, Kawa Springs, and Whittington Beach Park (Polhemus 1995). The survey found the *M. xanthomelas* damselfly at several locations, both along the margins of pools and perching on high vegetation (shrubs) approximately 30-100m from water. This species requires the coastal ponds and small pools for development of its juvenile stages. Eggs are laid just below the surface on aquatic vegetation. The nymphs primarily feed on small aquatic invertebrates. The primary threats to this species include predation by alien fish and degradation of habitat due to direct disturbance, but may also include chemical runoff from

## SEA MOUNTAIN AT PUNALU'U

---

### Draft Environmental Impact Statement

upslope development. *M. xanthomelas* does seem to be able to tolerate the presence of carp, but suffers in habitats containing guppies or top minnows (Polhemus 1996)

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

Table 4-7. Summary of Endangered, Threatened, and Proposed and Candidate species found on the Big Island. Status is as defined as follows: E = Endangered; T = Threatened, and; C = Proposed and Candidate.

Order	Family	Name	Common name	Status	Habitat
Lepidoptera	Sphingidae	Manduca blackburni	Blackburn's sphinx moth	E	Dry forest
Odonata	Coenagrionidae	Megalagrion nesiotes	Nesiotes megalagrion	C	Possibly in moist leaf litter
Odonata	Coenagrionidae	Megalagrion nigrohamatus nigrolineatum	Blackline megalagrion	C	Pools along streams
Odonata	Coenagrionidae	Megalagrion pacificum	Pacific megalagrion	C	Pools along streams
Odonata	Coenagrionidae	Megalagrion xanthomelas	Orangeblack megalagrion	C	Coastal wetlands
Diptera	Drosophilidae	Drosophila heteroneura	Pomace fly (no common name)	E	Mesic to wet forest
Diptera	Drosophilidae	Drosophila ochrobasis	Pomace fly (no common name)	E	Mesic to wet forest
Diptera	Drosophilidae	Drosophila mulli	Pomace fly (no common name)	T	Wet forest
Diptera	Drosophilidae	Emperoptera hawaiiensis	Pomace fly (no common name)	C	Wet forest
Diptera	Drosophilidae	Drosophila alsophila	Pomace fly (no common name)	C	Mesic forest
Diptera	Drosophilidae	Drosophila digressa	Pomace fly (no common name)	C	Mesic to wet forest
Diptera	Drosophilidae	Drosophila psilotarsalis	Pomace fly (no common name)	C	Mesic forest
Diptera	Drosophilidae	Phaeogramma sp.	Fly, Po'olanui	C	Mesic forest

#### 4.15 EXISTING USES AND ACTIVITIES

The project site has been partially developed by other owners over the past 40 years (*Figure 4-12*). Existing and operational development includes Colony I, a 76-unit condominium complex, Kalana I, a single-family residential subdivision mauka of the highway, the Nīnole Cove State-owned parcel, the Hokuloa Chapel and Cemetery, and six parcels with three existing homes near the Punalu'u black sand beach. The six parcels are owned by four private owners. The County of Hawai'i also leases 5.9 acres from SM Investment Partners to operate the Punalu'u Beach Park. A souvenir and lei stand is located adjacent to the beach area. The existing 18-hole golf course that meanders through the site is still open for business as well, and operations are run out of the pro shop next to the tennis courts. The lower level of the golf club house is utilized for golf cart maintenance and storage only. The wastewater treatment facility and supporting maintenance building are also currently serving existing on-site development.

Part of the existing development is no longer in use due to deterioration. Structures that are not in use anymore include the Black Sands Restaurant, gift shop and cultural center. The Aspen Institute conference facility building is also no longer in operation.

The current land uses adjacent to the site are either barren lava flows or low utility grazing lands. Located in the region are extensive former C. Brewer sugar plantation and macadamia nut orchards along with cattle ranching operations and other small diversified agricultural activities. EWM Investments, LLC owns the lands north of the project site. Land east of the site and mauka of the freeway is owned by the Department of Hawaiian Homelands, while land makai of the highway is owned by Kamehameha Schools, except for two parcels adjacent the highway owned by the State of Hawai'i.

Nīnole Cove, a State-owned parcel, and the County's park facilities at Punalu'u Beach Park are existing coastal recreational resources. Public shoreline access to Nīnole Cove is allowed over lands owned by SM Investment Partners with parking within the golf clubhouse parking lot. Additionally, all areas seaward of the certified shoreline are lands belonging to the State of Hawai'i.

Hawai'i County has developed the Punalu'u Beach Park with a pavilion, picnic shelters, a comfort station and a parking lot. Primary public access is provided via the east Nīnole Loop Road and from the remnants of an old government road along the black sand beach.



Figure 4-12. Aerial Photo of Project Area

## 4.16 ROADWAYS AND TRAFFIC

The proposed project straddles Māmalahoa Highway and is located between the communities of Pahala and Waiohinu (*Figure 4-13*) in the Ka'u district. Ninole Road loops through the makai portion of the project site and intersects the highway at two points. There are two very short roadways mauka of these two intersections. Details regarding existing roads and traffic conditions are provided in the Traffic Impact Assessment Report, as *Appendix K*.

Māmalahoa Highway (Highway 11) is a major state collector roadway that is oriented in the east-west direction from Na'alehu to Volcano, as a portion of the Hawai'i Belt Road. Highway 11 is part of the southern section of the circle island route around the island of Hawai'i and is under the jurisdiction of the State of Hawai'i Department of Transportation (State DOT). It is a two-way, two-lane highway with horizontal and vertical curves due to the rolling terrain. The posted speed limit is 55 miles per hour (mph) in the vicinity of the project.

Ninole Road is a two-lane local roadway serving the area makai of the highway. The west roadway leg serves the existing Sea Mountain development. After reaching the beach area, the east roadway leg returns to the highway passing through private lands that area not part of the proposed project. The west roadway intersection with the highway was improved to provide channelized lanes on all approaches. Both highway approaches have left turn, through and right turn lanes. Both side street approaches have a through/left turn lane controlled by a stop sign, and a channelized right turn lane controlled by a yield sign. The east roadway intersection has no channelized approaches; each approach has only one lane. The side street intersections are stop sign controlled.

Alahiki Road, the west mauka roadway opposite the main resort entrance, serves a small group of residents. Although the roadway is channelized at the highway, there is a "Road Ends 500 Feet" warning sign just mauka of the intersection. The east mauka roadway is identified on maps as Hilea Road and is a private roadway with only one lane and is not drivable at this time. Use of this road as a second access point for the mauka area may be considered in the future. If so, additional studies may be required at that time.

### 4.16.1 Existing Conditions

#### 4.16.1.2 Traffic Volumes

Traffic turning movement counts were taken at the two existing study intersections on Māmalahoa Highway on Wednesday and Thursday, September 7 and 8, 2005, during the morning and afternoon peak periods. Only the traffic on the highway and makai legs was counted due to very little traffic on the mauka roadways. Traffic counts taken by the State DOT indicate less than 40 vehicles per day and no vehicles in the peak hours leaving and entering Alahiki Road, compared to 700 vehicles per day on Ninole Road.

The resultant morning and afternoon peak hour traffic volumes are shown on *Figure 4-14*. The volumes are rounded to the nearest five vehicles per hour (vph), except for volumes less than 5 vph. The traffic on the highway during both peak hours can be described as light. The dominant direction of traffic flow is eastbound toward Hilo in the morning peak. During the afternoon peak hour, the westbound traffic volumes are slightly higher. There are very few turns into and out of the project site, especially in the morning peak.

Peak hour traffic volumes at the study intersections were analyzed using procedures for two-way, two-lane highways and unsignalized intersection analyses outlined in the Highway Capacity Manual – 2000. Level of Service (LOS) is a qualitative measure used to describe the conditions of traffic flow. LOS values can range from free-flowing conditions, LOS A, to congested conditions, LOS F, as described in Chapter 5.2.11. See *Figure 4-14* for 2005 Existing Peak Hour Traffic Volumes.

Highway 11 is currently operating at LOS B in both peak periods, both to the east and to the west of the project site. At the two unsignalized intersections, both northbound approaches to the highway are currently operating at LOS A in both peak hours. In addition, both westbound left turn movements from the highway are also operating at LOS A in both peak hours.

The traffic impact analysis report (TIAR) in *Appendix K* provides detail descriptions of existing trip counts and level of service relating to these intersections.

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement

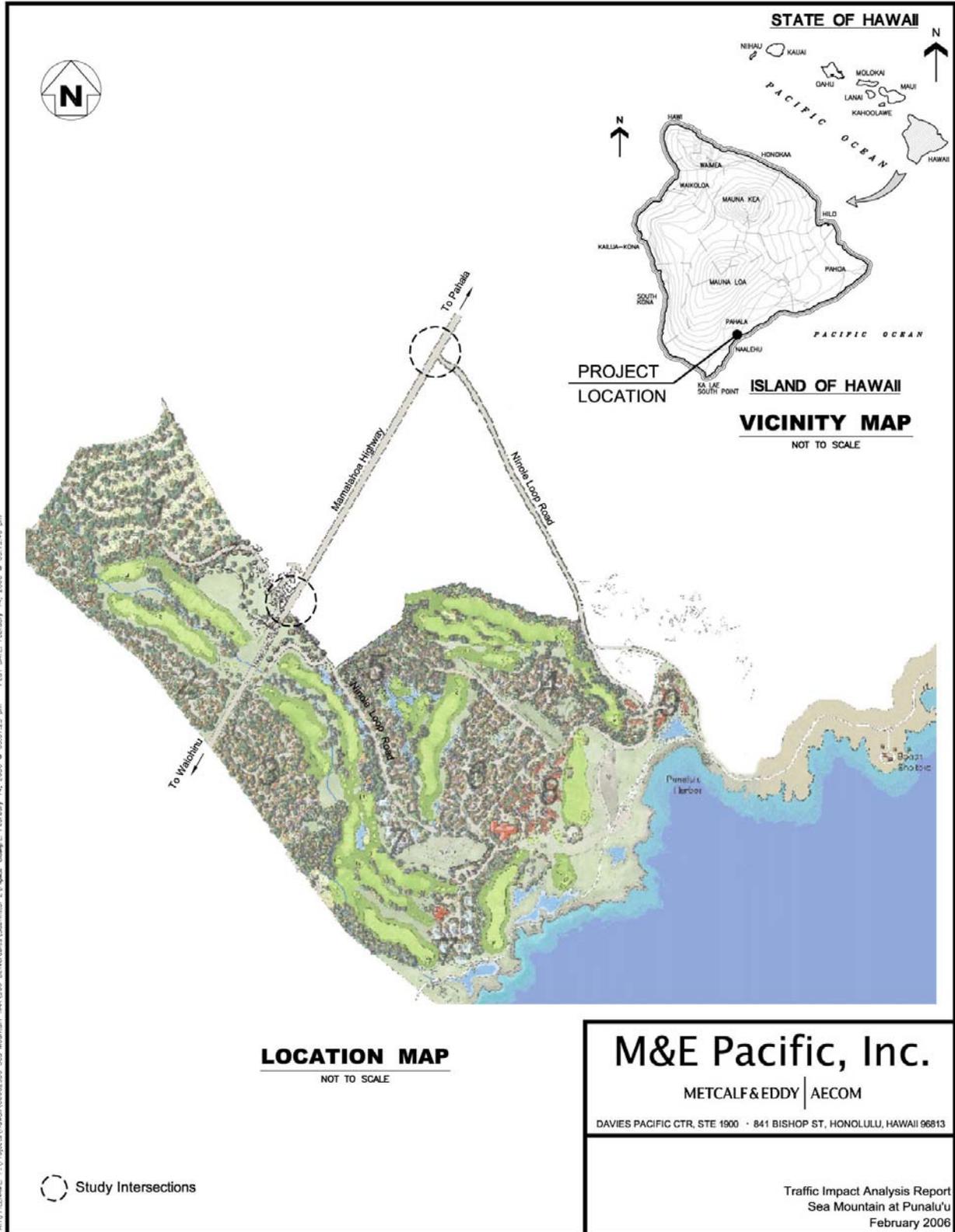


Figure 4-13. Roadway locations

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

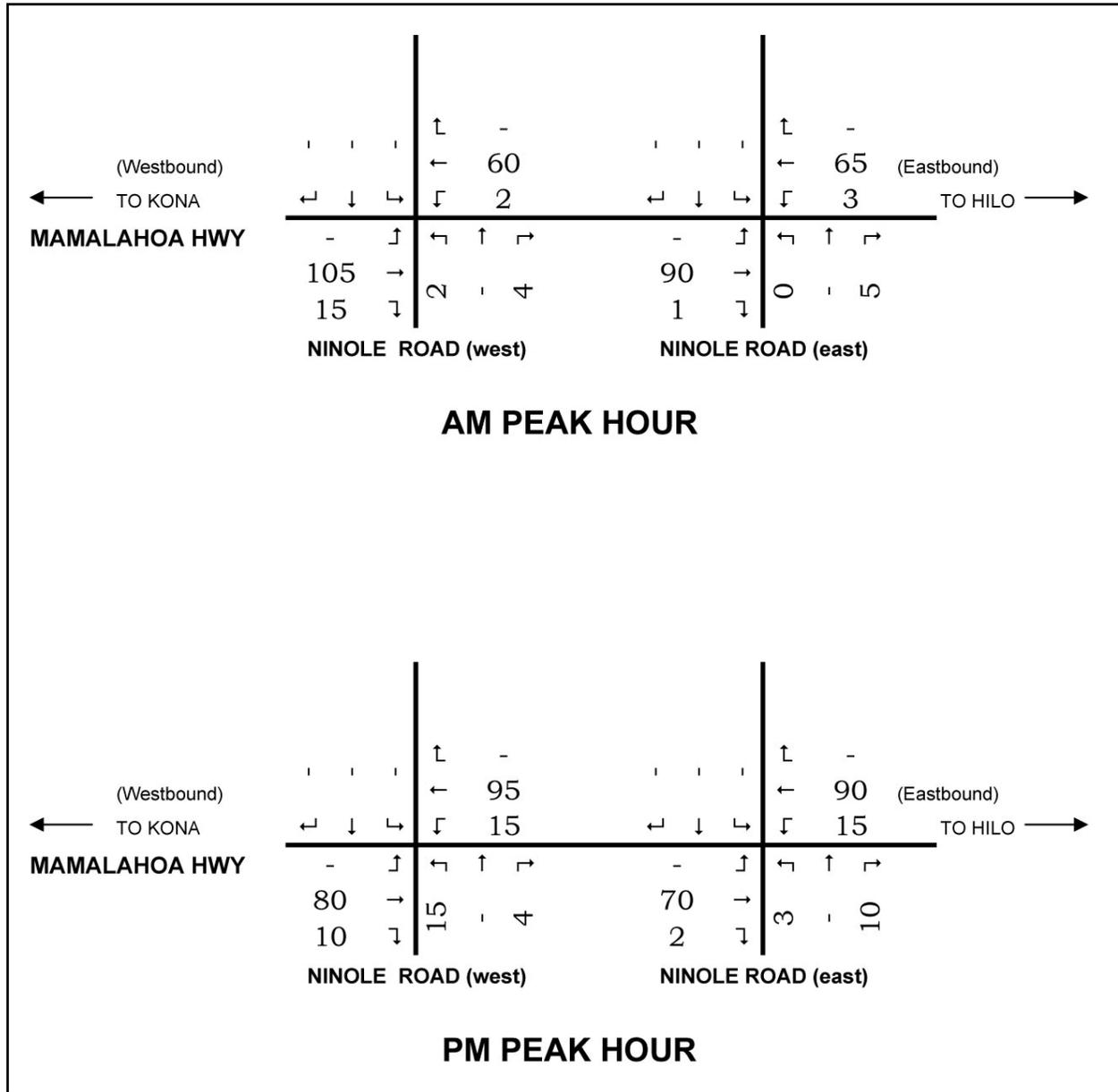


Figure 4-14. 2005 Existing Traffic Volumes

## 4.17 INFRASTRUCTURE

### 4.17.1 Drainage Facilities

There are no perennial streams in the Ka'ū District due to the highly permeable nature of the underlying lava. Runoff rarely reaches the sea, and even in the wet mauka areas, stream channels infrequently carry a substantial flow for more than a few days. However, during periods of intense rainfall over extended periods, these typical conditions can change dramatically. The ephemeral Nīnole Stream, which is on the western border of the project site, has flooded during prolonged heavy rains and has contributed to the filling of Nīnole Cove with sedimentation, rocks and debris.

The project area is predominantly characterized by large open spaces and minimal paved areas; currently the site has approximately 10% impervious area. Runoff from the site generally drains towards the southeast via Nīnole Gulch, which resides at the western portion of the site. Surface runoff from this area is eventually discharged to the Nīnole Cove and the Pacific Ocean. Flows from the eastern portion of the site drain southeasterly via two unnamed intermittent streams. The confluence of these two streams is located near the northern portion of the eastern project limits, with the final discharge point located at Punalu'u Harbor.

Storm runoff from the area mauka of the State Highway and west of Punalu'u Road is directed to catch basins and conveyed under the Highway via a reinforced concrete storm drain line to a natural drainage between Nīnole Cove and Punalu'u Beach Park prior to discharging to the Pacific Ocean. Runoff from the existing golf course area is conveyed to two drainage culverts, located within Punalu'u Beach County Park and near the former Punalu'u Black Sand Restaurant, prior to discharging to the Pacific Ocean.

### 4.17.2 Water Supply

There are currently two deep wells, located approximately 200 feet apart, and a pump station sited makai of the State Highway near the site entrance. These Nīnole wells are used as a potable water supply for the existing residential development as well as water supply for the irrigation of the golf course. These wells have combined pumping capacity of 3.0 million gallons per day (mgd). These wells appear to be in very poor repair and may need to be further inspected by video equipment and water quality testing prior to integration into the potable water system for the proposed community (*Figure 4-15*). The wells have a working chlorination system; however, the well piping and equipment is in very poor repair and will require replacement if the wells are used with the proposed project. Each well operates separately since simultaneous operation of the wells reduces the production capacity of each well. Each well thus provides backup support for the other well. Sea Mountain Five, LLC, plans to have each well inspected and production tested by a certified hydro geologist. Water quality samples will also be required to determine the suitability for a potable water supply and for the use with the landscaping.

A concrete reservoir of approximately 1 million gallon capacity is located mauka of the Kalana I residences above the Hawai'i Belt Highway. This reservoir, with a High Water Level (HWL) of approximately 305 feet elevation, provides the basis for water pressure throughout the existing community, and has been leaking for some time as indicated by previous engineering studies.

This reservoir will require structural inspection and repairs as required in order to integrate this facility into the proposed Sea Mountain water system.

Water is delivered through a distribution system that includes 16-inch and 12-inch ductile iron transmission pipes. The plans used for the construction of the underground piping system are not available; therefore no assessment of the piping can be made at this time. It is assumed that the piping system is intact and is as shown on exhibits from previous reports.

The potable water system also presently serves as the main water supply for the existing golf course, since only a small quantity of treated wastewater is available for irrigation use.

#### **4.17.3 Wastewater Collection, Treatment and Disposal**

The existing wastewater collection system consists of gravity flow sewer lines, force mains and two lift stations designed to transport the wastewater flows to a wastewater reclamation plant located within the project area. According to the Master Plan for Potable Water, Recycled Water and Wastewater Systems (Hunsaker, 2006) (*Appendix D*), little is known about the condition of the existing collection system and therefore it will be inspected by video camera and repairs made or pipes replaced as required.

The Punalu'u Lift Station, located near the former Punalu'u Black Sand Restaurant, is currently inoperative, but was designed to pump wastewater from the restaurant to the Nīnole Lift Station through a force main along the existing Punalu'u Road. The Nīnole Lift Station also receives wastewater that originates from the Kalana I subdivision area mauka of the highway, then gravity flows along Alahaki Road under the highway and down Punalu'u Road through 10-inch and 12-inch sewer lines. This lift station, which has an existing capacity of 325 gpm, pumps the merged flows from the Kalana subdivision and Colony I condominiums to the wastewater reclamation plant through a 6-inch force main that crosses under the fairways of the golf course holes 1, 18 and 11.

According to the Hunsaker report, the treatment plant was viewed during a preliminary reconnaissance visit. The treatment plant, is in very poor repair and the treatment system technology is over 35 years old. The treatment plant apparently was designed for a flow of 50,000 gpd but has seldom operated beyond a 10,000 gpd flow rate. Based upon the treatment requirements of the time, the plant should be able to process the collected wastewater to a disinfected secondary treatment level at a "R-2" treatment level. The treated wastewater is pumped to storage ponds along the 17<sup>th</sup> fairway and is used to irrigate the golf course when there is an irrigation requirement.

#### **4.17.4 Solid Waste**

Data for current solid waste generation is minimal. Estimates for current generation are based on the "Engineering Report Covering the Civil Improvements for the Sea Mountain Club of Hawai'i" (March 1974). Using a unit generation rate of 6 lbs/capita day for the existing residential units at Colony I and Kalana I, the current residential solid waste stream is calculated at 1,740 pounds/day. Refer to *Figure 4-15* for the location of solid waste facilities in the region.

#### 4.17.5 Power and Communications

Power and telephone utilities are currently being provided to the existing residences and facilities in the project area. Refer to *Figure 4-15* for the location of power generation facilities in the region.

Electrical service is supplied by HELCO through a single 12 kV circuit from the Punalu'u Substation located near the project site.

Telephone services are provided to the project site by Hawaiian Tel. Hawaiian Tel facilities in the vicinity include copper pairs along the Belt Highway and along Ninole Loop.

#### 4.18 SOCIO-ECONOMIC CONDITIONS

Hawai'i County's population has grown faster than the State as a whole in the last decade. The 2004 State Data Book reports that the population of Hawai'i County increased 23.6 percent from 1990 to 2000 compared with 9.3 percent increase for the State. Visitors accounted for about 14% of the State's de facto population in 2004 (2004 State of Hawai'i Data Book).

The Sea Mountain project site is located in the Ka'u District, a geographically remote but fast growing region of the State. Between 1990 and 2000, Ka'u had a 31.3 percent increase in population. Historically Ka'u's population has been sparse due to its isolated location and lack of economic opportunities. The expanding population of the Ka'u District today could be attributed to the availability of real estate at relatively affordable prices compared with the rest of the County.

The following *Table 4-8* is a brief summary of population, labor force statistics and race for Hawaii County, Naalehu and Pāhala. For a complete list of socio economic data for the County, Captain Cook, and towns in Ka'u, please refer to *Appendix N*.

Since the 1880's the dominant agricultural and economic driver of the Ka'u region was the sugar industry, led by the C. Brewer Kau Agribusiness. As sugar declined in the 1970s, unemployment rates in the region went up. Faced with lack of training or commutes to Hilo or Kona, many Ka'u residents had few options. Controversial proposals such as the Spaceport, State Prison, and the Hawaiian Riviera project failed to win approval and were never constructed. Slowly other agricultural industries moved into the region, but no large scale employment center has taken the place of the sugar plantations. Currently, agriculture in the Ka'u region includes coffee production, cattle ranching, fruit production, macadamia nuts, and vegetable cultivation. There is also a subsistence economy contingent in the region that relies on traditional farming and fishing activities to earn a living.

The Punalu'u Resort at one time provided a small economic center for the region; however, most of the buildings such as the restaurant, gift shop, golf clubhouse, cultural center and Aspen Institute conference center have been abandoned due to insufficient demand, deterioration and neglect. Only a handful of employees currently support the golf course and tennis courts. There are two small economic centers located in Pāhala and Na'alehu as well.

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement

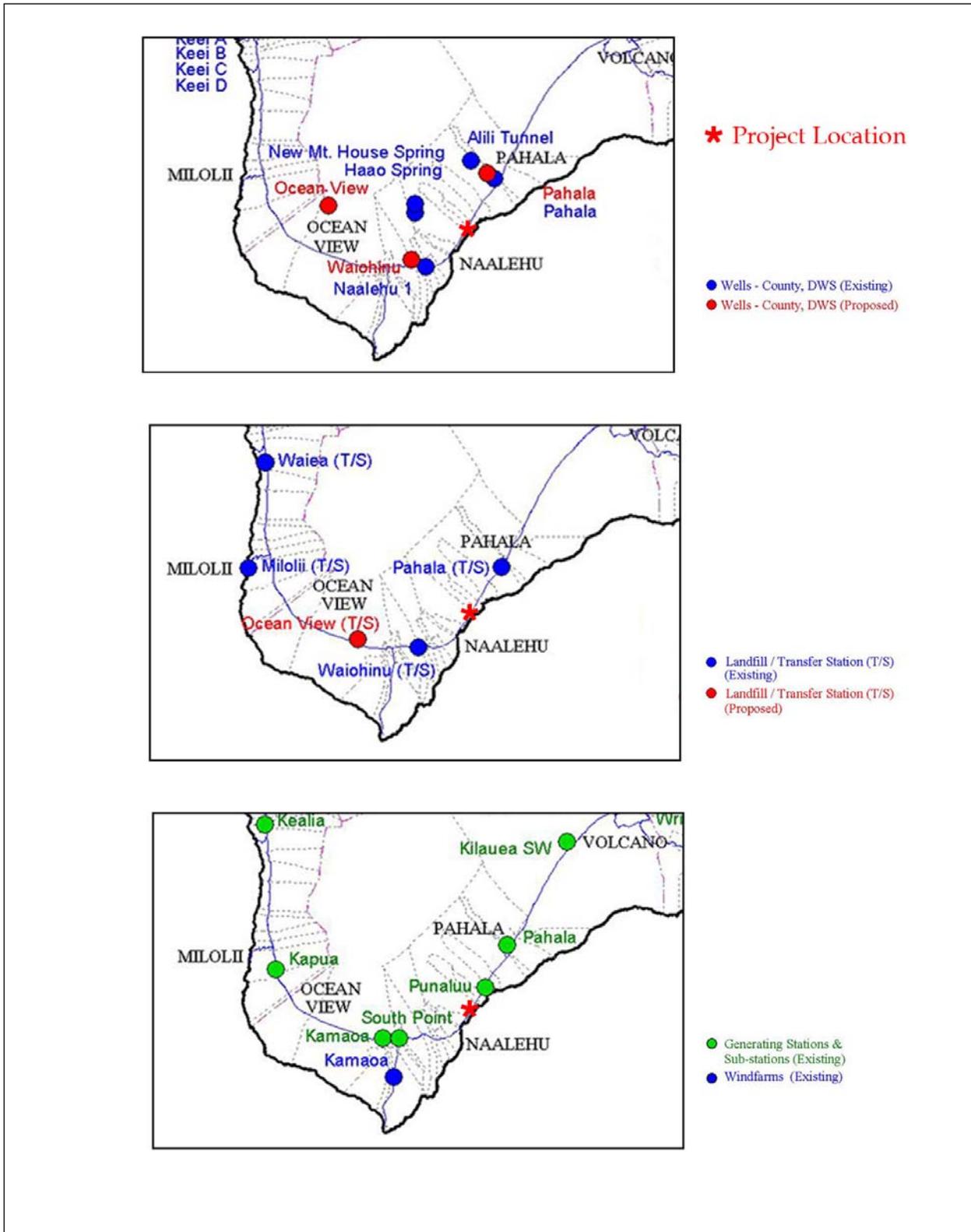


Figure 4-15. Regional Public Utilities – Wells, Landfill/Transfer Stations and Electricity Generating Station

**Table 4-8. Summary of Socio-economic Conditions for the County of Hawai'i and Ka'ū District**

	County of Hawai'i	Na'alehu	Pāhala
Total Population 16 years and over	114,647	1,422	1,194
Not in Labor Force	43,856	643	497
Total Population	148,677	1,930	1,466
Race – White	31.5%	27.3%	11.3%
Race – Asian	26.7%	28.4%	45.8%
Race – Native Hawaiian and Other Pacific Islander	11.2%	13.3%	10.6%
Race – two or more races	28.4%	29%	31.6%

The Hawaii Tourism Authority (HTA) regularly conducts surveys of resident attitudes on issues related to tourism in Hawaii. Through their surveys they track resident attitudes over time to see if public sentiments are changing or stable. In the most recent *Survey of Hawaii Resident Sentiments on Tourism (HTA, 2005)*, there is a declining belief that tourism has been good for individuals and their families. The year 2005 was the first year that a definite majority agreed with the sentiment that, "This island is being run for tourists at the expense of the local people." Positive evaluations of tourism, such as the idea that tourism benefits exceed any problems, and tourism is good for jobs and income have remained stable for the past 17 years. According to the survey, many believe that the economy is too dependent on tourism and that tourism has been bad for traffic, housing, costs, and crime (though in reality crime rates are falling and studies have not shown clear correlation between tourism and crime).

#### 4.19 PUBLIC AND SOCIAL SERVICES AND FACILITIES

*Figure 4-16* illustrates location of existing regional public facilities for schools, fire, police and hospitals.

##### 4.19.1 Schools

The public school system in the project vicinity consists of the Pāhala Elementary/Intermediate and Ka'ū High School Complex (*Figure 4-16*). There is also an Elementary School in Na'alehu.

##### 4.19.2 Libraries

The Ka'ū region is currently served by two public libraries, one in Pāhala and one in Na'alehu.

##### 4.19.3 Police

The Hawai'i County Police Department provides police protection for the 700 square mile Ka'ū Patrol District. The main station in the project area is the Na'alehu Police Station, which is staffed by one sergeant and two patrol officers. A substation is located in Hawai'i Ocean View Estates (*Figure 4-16*).

#### 4.19.4 Fire

The Hawai'i County Fire Department provides fire protection services to the region out of the Pāhala Fire Station #11. The Pāhala Fire station has a fire truck and a tanker, and is located approximately five miles from the project site. Response time to the project site is approximately 5 to 6 minutes. Emergency response to the district is provided by the Na'alehu Paramedic Station #11A. Equipment at this station includes a medic unit and ambulance (*Figure 4-16*).

#### 4.19.5 Health Care Services

The Ka'ū Hospital and Rural Health Clinic would serve the project site. The hospital is a critical access hospital that provides emergency services such as a three-bed emergency room, and in addition has 21 licensed beds, 16 long-term care beds and five acute care beds. Emergency medic services and ambulance are also located at the Na'alehu Paramedic Station. Patients needing more advanced care than the hospital can provide would be taken to the nearest hospitals in either Hilo or Kona, and in extreme situations, flown by air ambulance to Honolulu (*Figure 4-16*).

#### 4.19.6 Postal Services

A total of 33 post offices and stations are located around the island of Hawai'i. There are two federal post offices near to the project, one in Na'alehu and one in Pāhala.

#### 4.19.7 Recreational Resources

Neighborhood parks and school yards in Pāhala and Na'alehu provide limited recreational opportunities for the residents of Ka'ū. These facilities include gyms, tennis courts and community centers. Beach swimming areas in Ka'ū within a reasonable distance to the project site are limited to Whittington County Beach Park (0.8 acres) at Honu'apo Bay and Punalu'u County Beach Park (5.9 acres) within the Sea Mountain project area. The County Department of Parks and Recreation does not consider either beach as "safe." The pavilion at the Punalu'u beach park is used by Ka'u District community groups for picnics, meetings and general gatherings. These beach parks also provide good fishing areas. The Punalu'u beach area is used to watch and appreciate the numerous endangered sea turtles that frequent the nearshore waters.

South Point offers unique scenic landscapes, historic sites and fishing. The County's Kamaoa Park is presently undeveloped. Manuka State Botanical Park, the Kilauea State Recreational Area and Hawai'i Volcanoes National Park offer other unique recreational opportunities with the Ka'ū District. The District's forest reserve has limited access.

Both the 18-hole Volcano Golf Course and the existing Sea Mountain Golf Course, although privately owned, are open to the public. Shoreline and ocean fishing is enjoyed by Ka'ū residents and is practiced wherever shoreline access is available. Boat launching ramps are located at Punalu'u and at Kaulana Bay at South Point.

# SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

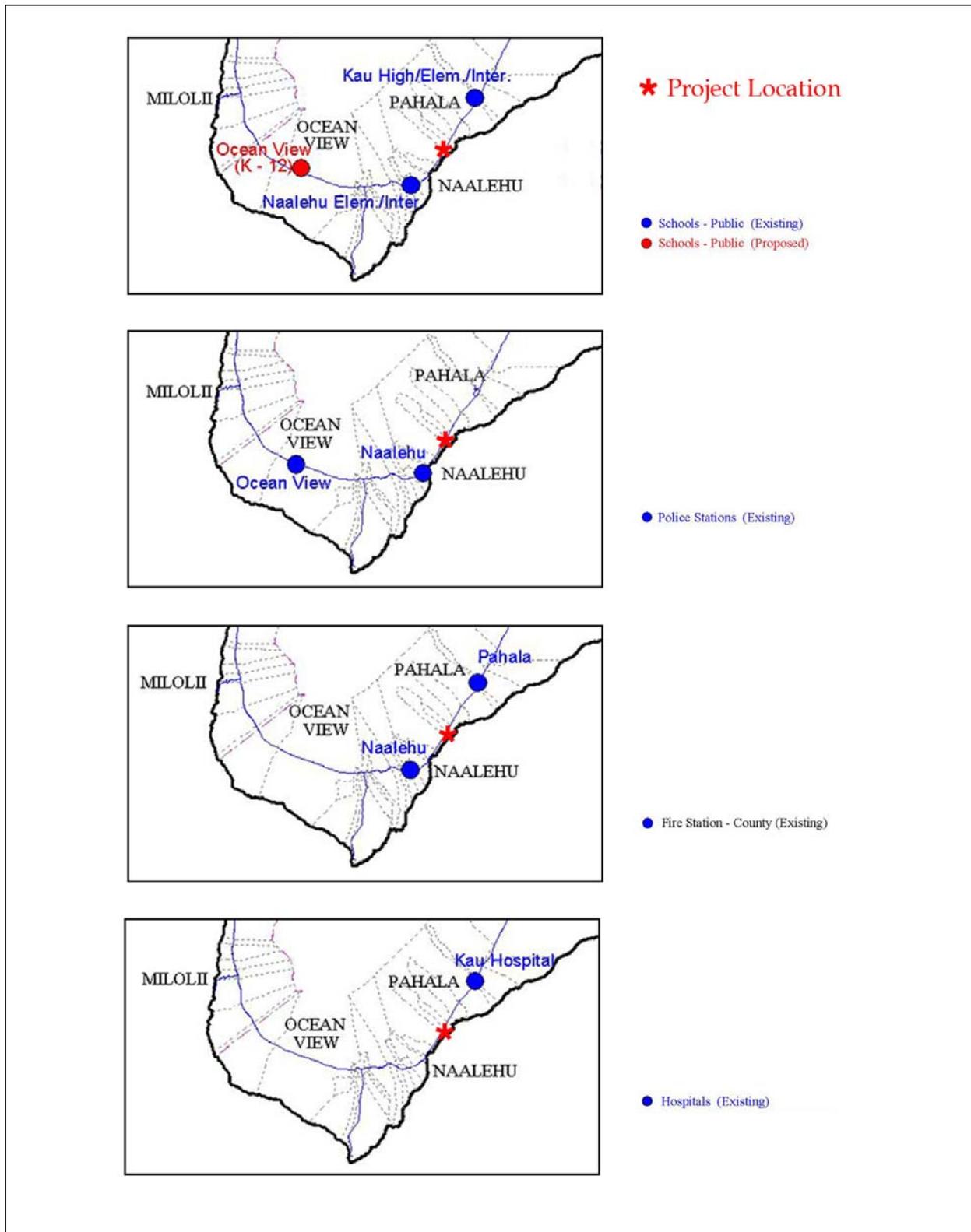


Figure 4-16. Regional Public Facilities – Schools, Police Stations, Fire Stations and Medical Facilities

Note: There are public beach parks at South Point, Green Sand Beach, and below Ocean View, but they are very far from the site. Other swimming beaches exist, but access is limited by private property.

#### 4.20 NOISE

The existing traffic noise levels in the project environs vary from levels of approximately 65 Day-Night Average Sound Level (DNL) along the Māmalahoa Highway Rights-of-Way, to less than 45 DNL at the mauka (north) property boundary and interior locations of the project site. Traffic noise levels along Māmalahoa Highway are less than 65 DNL at 31 feet or greater setback distances from the highway centerline. Along Nīnole Loop Road, existing traffic noise levels are approximately 50 DNL at 50 feet setback distance from the roadway centerline.

At locations removed from the highway and along Nīnole Loop Road, measured background noise levels were controlled by the sounds of birds, passing golf carts, and barking dogs. During periods of quiet, background noise levels dropped to values between 30 and 35 dB. With the sounds of birds present, background noise levels were typically between 50 and 55 dB.

Existing traffic noise levels at the existing residential subdivision north of the Māmalahoa Highway and Nīnole Loop Road intersection are in the "Minimal Exposure, Unconditionally Acceptable" noise exposure category. The sounds of traffic along Māmalahoa Highway, barking dogs, and the sounds of birds are the dominant noise sources for those existing homes within 300 feet of the highway centerline. Existing traffic volumes along the subdivisions access roadway (Alahaki Road) are very low and noise level contributions from local traffic on Alahaki Road are near zero DNL.

**Section 5.0**  
Probable Impacts and Mitigative Measures

## 5.0 PROBABLE IMPACTS AND MITIGATION MEASURES

Two types of probable impacts on the environment are discussed in this section: short-term or construction-related impacts, and long-term or operations related impacts. Also described are mitigative measures that are proposed for implementation, where appropriate and feasible, to minimize any adverse impacts.

Short-term impacts are related to the process of site work or construction. These are different or distinct from the potential long-term impacts that result from the existence of new facilities or improvements to the land.

### 5.1 POTENTIAL SHORT-TERM IMPACTS

#### 5.1.1 Cultural Resources

##### Probable Impacts

Significant effort was made to identify cultural, historic and archaeological resources throughout Sea Mountain in order to plan intensity and location of the proposed facilities. The Sea Mountain Master Plan has been designed to preserve these resources to the extent possible.

##### Mitigative Measures

An Integrated Natural Cultural Resource Management Plan (INCRMP) will be implemented to address potential short term and long-term impacts of the proposed project and ensure preservation and monitoring of the cultural, historic and archaeological resources.

If during the course of construction any cultural or archaeological deposits are inadvertently unearthed, all work in the area will be halted and the State Historic Preservation Office and Hawai'i Island Burial Council will be notified in case of human remains. The following cultural recommendations are made as to how to respond in the event that burials are encountered during subsurface work in the project area.

The following recommendations speak to cultural concerns the Hawaiian community in general regarding proper handling of iwi, or ancestral remains, consultation with appropriate parties and final disposition of any burial should they be encountered within the project area. It is stressed that utmost sensitivity, caring and understanding be employed when dealing with burial issues and iwi.

- In the event of an inadvertent discovery of ancestral remains, the applicable processes outlined in existing State regulations, specifically those provided in the Hawai'i Administrative Rules, Title 13, Chapter 300, Section 40 and Section 33, will be employed.
- If, for some reason, iwi must be moved or touched, it is highly recommended that this be conducted by a cultural monitor, a lineal/cultural descendant or someone of Hawaiian ancestry.
- Notify and consult with known and potential lineal and cultural descendants related to any burial discovery.
- Consult with appropriate agencies and organizations including: State Department of Land and Natural Resources, Historic Preservation Division (DLNR/SHPD), SHPD Burial staff, the Hawai'i Island Burial Council (HIBC), the Office of Hawaiian Affairs

(OHA), Hui Mālama I Nā Kūpuna o Hawai'i Nei, and other interested Hawaiian organizations.

- Prepare and implement a Burial Treatment Plan to be developed in consultation with the above agencies, the appropriate organizations and parties wishing to be consulted, including lineal and/or cultural descendants.

The coastal zone will remain largely undeveloped. Traditional cultural practices of subsistence gathering will remain accessible. Other cultural events and activities will continue to be allowed at the County Park and on private portions of the coastal zone.

Access to Hokuloa Chapel, the surrounding cemetery, and the adjacent cultural areas will be improved physically and an additional pathway to the site will be allowed through the adjacent hotel site. Access to other cultural sites within the site such as Lanipao Heiau will also be allowed on a managed basis after a preservation and stewardship plan has been prepared with input from the local community.

Long-term impacts and mitigative measures are discussed in *Section 5.2*.

### 5.1.2 Archeological Resources

#### Probable Impacts

The archaeological study described complexes, burials, heiaus, and remnants of trails in the project site. The Sea Mountain Master Plan has been designed to preserve significant archaeological features throughout the project area. Roadways, residential units, resort and golf amenities have been sited to avoid disturbance of archaeological assets. It is possible, however, that during construction of Sea Mountain, that archaeological sites may inadvertently be disturbed.

#### Mitigative Measures

An Integrated Natural Cultural Resource Management Plan will be developed to address preservation, mitigation, management and stewardship measures. Sea Mountain Five, LLC will strive to preserve more of the sites than those identified by project archaeologists.

Short-term, or interim, protection measures designed to protect the sites during construction of the project. These interim protection measures include the following:

- Notification of all construction personnel of the existence and location of the 27 archaeological sites slated for preservation.
- Defining a 50-foot temporary buffer zone around each site.
- Flagging of the temporary buffer zone boundaries around the sites.
- Monitoring the installation of plastic fencing on the site's buffer zone boundaries.
- Monitoring vegetation grubbing around the fenced areas.

Long-term impacts and mitigative measures are discussed in *Section 5.2*.

### 5.1.3 Air Quality

#### Probable Impacts

Short-term direct and indirect impacts on air quality could potentially occur due to project construction. For a project of this nature, there are two potential types of air pollution emissions that could directly result in short-term air quality impacts during project construction: (1) fugitive dust from vehicle movement and soil excavation; and (2) exhaust emissions from on-site construction equipment. Indirectly, there also could be short-term impacts from slow-moving construction equipment traveling to and from the project sites, from a temporary increase in local traffic caused by commuting construction workers, and from the disruption of normal traffic flow caused by lane closures of adjacent roadways.

Fugitive dust emissions may arise from the grading and dirt-moving activities associated with site clearing and preparation work. The emission rate for fugitive dust emissions from construction activities is difficult to estimate accurately. This is because of its elusive nature of emission and because the potential for its generation varies greatly depending upon the type of soil at the construction site, the amount and type of dirt-disturbing activity taking place, the moisture content of exposed soil in work areas, and the wind speed. The EPA has provided a rough estimate for uncontrolled fugitive dust emissions from construction activity of 1.2 tons per acre per month under conditions of "medium" activity, moderate soil silt content (30%), and precipitation/evaporation (P/E) index of 50. Uncontrolled fugitive dust emissions at the project site would likely be somewhere near that level, depending on the amount of rainfall that occurs. In any case, State of Hawai'i Air Pollution Control Regulations prohibits visible emissions of fugitive dust from construction activities at the property line. Thus, an effective dust control plan for the project construction phase is essential.

On-site mobile and stationary construction equipment also will emit air pollutants from engine exhausts. The largest of this equipment is usually diesel-powered. Nitrogen oxides emissions from diesel engines can be relatively high compared to gasoline-powered equipment, but the standard for nitrogen dioxide is set on an annual basis and is not likely to be violated by short-term construction equipment emissions. Carbon monoxide emissions from diesel engines, on the other hand, are low and should be relatively insignificant compared to vehicular emissions on nearby roadways.

Project construction activities will also likely obstruct the normal flow of traffic at times to such an extent that overall vehicular emissions in the project area will temporarily increase.

#### Mitigative Measures

The impact of construction activities on air quality will be mitigated by conforming to strict dust control measures, particularly those specified in the State Department of Health's (DOH) Water Quality Standards, Chapter 37-A, Public Health Regulations, 1968; and the U.S. Soil Conservation Service's Erosion and Sediment Control Guide for Hawai'i, 1968.

The major potential short-term air quality impact of the project will occur from the emission of fugitive dust during construction. Uncontrolled fugitive dust emissions from construction activities are estimated to amount to about 1.2 tons per acre per month, depending on rainfall. To control dust, active work areas and any temporary unpaved work roads will be watered at least twice daily on days without rainfall. Use of wind screens and/or limiting the area that is disturbed at any given time will also be considered. Wind erosion of inactive areas of the site that have been disturbed will be controlled by mulching or by the use of chemical soil

stabilizers. Dirt-hauling trucks will be covered when traveling on roadways to prevent windage. A routine road cleaning and/or tire washing program will also be implemented to help reduce fugitive dust emissions that may occur as a result of trucks tracking dirt onto paved roadways in the project area. Paving of parking areas and establishment of landscaping early in the construction schedule will also help to control dust. Monitoring dust at the project boundary during the period of construction could be considered as a means to evaluate the effectiveness of the project dust control program and to adjust the program if necessary.

Short-term increases in vehicular emissions, due to disruption of traffic by construction equipment mobilization, will be alleviated by moving equipment and personnel to the construction site during off-peak traffic hours. Increased traffic volumes in the long-term may increase vehicular emissions; however, the region is generally rural and undeveloped and exposed to negligible baseline emission levels. Worst-case concentrations of carbon monoxide should remain within both state and the national ambient air quality standards. Air quality conditions in the region are not anticipated to decline and no mitigative measures are required. Contractors will also be encouraged to properly maintain construction equipment to minimize exhaust emissions.

Long-term impacts and mitigative measures are discussed in *Section 5.2*.

#### **5.1.4 Topography**

##### **Probable Impacts**

The short-term impact of the proposed action on topography and soils is limited to the potential for erosion during grading and construction. Grading operations will be conducted in compliance with dust and erosion control requirements of the County of Hawai'i. A grading permit must be obtained from the County of Hawai'i in order to begin construction. During the grading permit review and approval process, the grading plans for the site are reviewed by the Department of Public Works and specific conditions may be attached.

The project does not propose major re-grading of the site. The existing topography will be altered by grading only to the extent necessary for construction of the proposed improvements, such as the realigned and/or new internal roadways, commercial and residential sites, and golf course improvements. It is anticipated that grading will occur on a localized scale, and that cut and fill quantities will generally balance as construction progresses.

Alterations to site topography will be relatively minor. Cut and fill operations will be generally balanced and grading plans will work with the slope as much as possible.

##### **Mitigative Measures**

Turf and grounds maintenance will minimize pollution potential from runoff through controlled applications. Strict erosion control measures, as required by the regulations, standards and guidelines cited below will be followed in order to ensure that any significant adverse effects are avoided. This will include the preparation and approval of an Erosion Control Plan prior to any construction. Erosion control measures will, where appropriate, include the use of cut-off ditches, temporary ground cover, and detention/sedimentation basins.

Primary fugitive dust control methods that will be implemented include the frequent watering of exposed areas, good housekeeping at the job sites, and paving or landscaping of exposed areas as quickly as possible.

The following documents specify erosion and dust control measures that will be followed during construction:

- State of Hawai'i, Department of Health, Water Quality Standards, Chapter 37-A, Public Health Requirements (1968).
- U. S. Soil Conservation Service's "Erosion and Sediment Control Guide for Hawai'i". This is a "how to" manual on ways to reduce erosion and sedimentation and conserve our soil resources. [This agency has been renamed the "U.S. Natural Resources Conservation Service".]

Long-term impacts and mitigative measures are discussed in *Section 5.2*.

### 5.1.5 Visual Resources

#### Probable Impacts

Construction related activities will impact the visual landscape of the project area temporarily through grading and disturbance of vegetation. Views of the project site will generally be obscured due to existing vegetation along the Highway. Lines of sight into the project site from the highway to the west or east may provide greater visibility into the site. Construction is planned over a ten-year build out period.

#### Mitigative Measures

Construction impacts are temporary in nature and no mitigation measures are available.

### 5.1.6 Soils

#### Probable Impacts

The short-term impact of the proposed action on topography and soils is limited to the potential for erosion during grading and construction. All grading operations will be conducted in compliance with dust and erosion control requirements of the County of Hawai'i. A Grading Permit must be obtained from the County of Hawai'i in order to begin construction. During the Grading Permit review and approval process, the grading plans for the site are reviewed by the Department of Public Works and specific conditions may be attached.

Erosion and siltation in the drainage area could be increased during construction of the proposed project. The potential for erosion and siltation would be greatest during the grading phase of construction. Detailed construction plans, rough grading plans and precise grading plans have not been prepared. Therefore, the exact amounts of increased erosion and siltation can not be determined in this report.

The amount of sediments entering the streams within the project site during construction is expected to be minimal with stringent implementation of the Storm Water Pollution Prevention Plan (SWPPP). This would include the development of a site-specific SWPPP and implementation of various combinations of construction site Best Management Practices.

In general, soils in the area will be minimally affected by the proposed project. Developed portions of the project site already have modified soil conditions. Much of the undeveloped portions of the site is 'a'ā or pāhoehoe lava fields with minimal soil; soil may have to be imported from off-site sources for golf course turf areas and site landscaping in various parts of

the project. Impacts on the soils of the project site could be caused by grading, roadway construction or realignment, underground utility infrastructure installation and the relocation or reconstruction of portions of the golf course. Impacts on the agricultural potential of the project site are not anticipated due to the lack of present or planned agricultural activity.

Adverse impacts to the soils are not anticipated. These soils pose slight to moderate erosion hazards when exposed to wind or water, however, natural conditions occurring in the Ka'ū area such as low annual rainfall and light winds suggest soil loss would not pose a major problem as long as erosion mitigation measures are implemented.

### ***Mitigative Measures***

Strict erosion control measures, as required by the regulations, standards and guidelines cited below will be followed in order to ensure that any significant adverse effects are avoided. This will include the preparation and approval of an Erosion Control Plan prior to any construction. Erosion control measures will, where appropriate, include the use of cut-off ditches, temporary ground cover, and detention/sedimentation basins.

The retention basins and drywells if needed will be designed to filter pollutants and silt through sand and gravel layers. Vegetated retention basins will also provide some biological uptake of nutrients in storm water. In addition, storm water entering the groundwater from the project site will be filtered through soil and lava layers ranging to approximately 380 feet above sea level. Percolation through deep soil and lava layers will effectively remove most pollutants from the storm water before it reaches groundwater.

If drywells are included in drainage system designs, runoff that enters drywells from hardscape areas would not be subject to biological uptake, but the deep lava filtration effectively removes many pollutants, except for some dissolved nutrients and persistent pesticides. Pesticides allowed for landscape and golf course use are strictly regulated, and are generally not persistent, as they break down rather quickly in the environment. The golf course and landscape management plans will select appropriate products to minimize the potential for discharge of fertilizers and pesticides.

Dust control methods that will be implemented include the frequent watering of exposed areas, good housekeeping at the job sites, and paving or landscaping of exposed areas as quickly as possible.

Soil that is imported for golf course and landscaping will be covered or planted promptly to minimize erosion. Besides serving as a recreational amenity, the golf course will accommodate regional drainage flows and provide wildlife habitat. Certain sections of the golf course may be designed with dry wells to serve as part of the storm water drainage system.

The following documents specify erosion and dust control measures that will be followed during construction:

- State of Hawai'i, Department of Health, Water Quality Standards, Chapter 37-A, Public Health Requirements (1968).
- U. S. Soil Conservation Service's "Erosion and Sediment Control Guide for Hawai'i". This is a "how to" manual on ways to reduce erosion and sedimentation and conserve our soil resources. [This agency has been renamed the "U.S. Natural Resources Conservation Service".]

- County of Hawai'i DPW Grading Ordinance
- NPDES Regulations

Potential long-term impacts and mitigative measures are discussed in *Section 5.2*.

### 5.1.7 Water Quality

#### 5.1.7.1 Surface Water Quality

##### Probable Impacts

Construction activities (including golf course installation) will be monitored continuously to ensure that fuel, other petroleum products, herbicides, and other hazardous materials are appropriately handled, used and stored. If an accidental spill or discharge occurs, the State Department of Health will be promptly notified and appropriate remediation will be done.

Erosion and silt run-off in the drainage area could affect surface water quality during construction of the proposed project. The potential for erosion and silt run-off would be greatest during the grading phase of construction. Detailed construction plans and grading plans have not been prepared. Therefore, the exact amounts of potential increased erosion and silt run-off can not be determined in this report. In compliance with county and NPDES permit conditions, mitigation measures presented below will be effective in minimizing erosion and silt run-off.

##### Mitigative Measures

Suspended sediment and other pollutants entering the surface waters during construction are expected to be minimal with implementation of the project's site-specific Storm Water Pollution Prevention Plan (SWPPP). This would include the development of a SWPPP and implementation of construction site Best Management Practices (BMP). The following is a list of requirements to be incorporated during construction of the proposed project to minimize adverse effects on water quality:

- The Contractor shall conform to the requirements of the NPDES General Permit for Construction Activities, and any subsequent permit, local plans and policies in effect at the time of project construction.
- A Storm Water Pollution Prevent Plan (SWPPP) will be prepared by the Contractor prior to the commencement of any soil-disturbing activities. The SWPPP will address state and federal stormwater control requirements and regulations. The SWPPP will address construction-related activities, equipment, and materials that have the potential to impact water quality. The SWPPP will include BMPs to control pollutants, sediment from erosion, storm water runoff, and other construction related impacts. In addition, the SWPPP will include elements as required by HAR 11-54 and 11-55 to ensure that the implemented BMPs are effective in preventing exceedance of any water quality standards.
- A Notice of Intent (NOI) will be filed with the State of Hawai'i Department of Health at least 30 days prior to any soil-disturbing activities.
- Construction of the proposed improvements will be conducted in various phases to limit the amount of exposed soil disturbed at any given point.
- Earthwork will conform to the State of Hawai'i construction site BMPs standards and requirements to control and minimize the impacts of construction and construction-related

activities, materials, and pollutants on the watershed. These include, but are not limited to, temporary sediment control, temporary soil stabilization, scheduling, waste management, materials delivery, storage and handling, and other non-stormwater BMPs.

- Construction activities will give special attention to storm water pollution control during the winter season. Water Pollution Control BMPs will be used to ensure all project runoff is contained onsite and to prevent impact to receiving waters. Measures will be incorporated to contain vehicle loads and avoid any tracking of materials, which may fall or blow onto adjacent roadways.
- A variety of sediment and erosion control BMP's will be utilized on the Sea Mountain project site. These BMP's consist of detention basins, rock berms, rock berms with an integral impermeable barrier, silt fences, gravel bags, check dams, sediment traps and other BMPs as applicable. Source control BMP measures will also be implemented throughout the site.
- Non-storm water discharges shall be prohibited from discharging to any State waters.
- Project related grading, grubbing, and stockpiling permits and operations shall conform to the erosion and sedimentation control standards and guidelines established by the Hawai'i County Department of Public Works in conformity with Chapter 180C, Hawai'i Revised Statutes (1975, Ord. No. 168, sec. 3.4.).

Potential long-term impacts and mitigative measures are discussed in *Section 5.2*.

#### 5.1.7.2 *Ground Water Quality*

##### **Probable Impacts**

Construction activities on the project site may present a risk to groundwater contamination from use or accidental spills of hazardous materials or from non-point source pollution. These activities have some potential to introduce contaminants to groundwater migrating beneath the project site towards the ocean. In general, impacts from short-term construction activities may reach groundwater resources after first potentially affecting surface waters, as noted in *Section 5.1.7.1*, so that discussion is also relevant here.

##### **Mitigative Measures**

Construction activities will be monitored continuously to ensure that fuel, other petroleum products, herbicides and other hazardous materials are appropriately used, handled and stored. If an accidental spill or discharge occurs, the State Department of Health will be promptly notified and appropriate remediation will be done. Further, the measures noted above in *Section 5.1.7.1* for mitigating potential impacts to surface water quality will also mitigate potential effects to ground water.

The following regulations and guidelines will be followed in order to minimize adverse effects on water quality:

- State Department of Health's "Water Pollution Control", Chapter 11-55 of the Hawai'i Administrative Rules.
- State Department of Health's "Water Quality Standards", Chapter 11-54 of the Hawai'i Administrative Rules.

- Section II “Best Management Practices” in the State Department of Health’s “Nonpoint Source Water Pollution Management Plan”.
- U.S. Environmental Protection Agency/National Oceanic and Atmospheric Administration’s “Guidance Specifying Control Measures for Sources of Nonpoint Pollution to Coastal Waters”.

Potential long-term impacts and mitigative measures are discussed in *Section 5.2*.

### 5.1.8 Flood, Hurricane, Tsunami, Lava Flow, Earthquake and Wildfire Hazards

#### Probable Impacts

**Flood:** Portions of the project site are subject to periodic coastal flooding, Federal Emergency Management Agency (FEMA) has designated several flood zones on the project site. Current zones are X, X500, and A. Historic zone designations include Zone AE (base flood elevations determined), and Zone VE (coastal flood with velocity hazard, base flood elevation determined). Nīnole Stream flows through the project site and drains to the ocean. The Nīnole stream channel is located in historic flood zone AE up to the 69 foot elevation. Site runoff will be directed to the golf course area, which will be designed to retain flows below the 100-year storm level. Portions of the golf course will be designed as infiltration basins, and contain various vegetative swales and buffer strips throughout the fairway and landscaped portions of the course. These areas will serve to decrease flow velocity, promote infiltration and filter out suspended sediment. Dry-wells may also be considered for drainage.

Coastal areas of the project site have a history of flooding and flood hazards are considered moderate to severe. Flooding can occur from storms or tsunamis.

**Hurricane:** The Punalu’u coast is potentially susceptible to hazards from Pacific hurricanes generated off the Coast of Mexico. Oahu Civil Defense data shows hurricanes approaching within 75 nautical miles of Hawaii on an average of once every 10 years. Based on historical tracks and computer simulations Hawaii County is at the greatest risk of impact from hurricanes despite the common perception that Kauai is the most vulnerable (Hwang, page 43). Hurricane hazards include drainage from high winds in excess of 74 mph and flooding due to heavy rainfall and storm surge. Storm surge is the rise in sea level due to low barometric pressure and the pile up of water due to persistent wind in the forward motion of the storm. These conditions can be exacerbated by high tide and mesoscale eddies in the Central Pacific. The coastal bathymetry off Punalu’u shows no fringing reefs that could mitigate some of the impacts of powerful hurricanes.

**Tsunami:** The Punalu’u shoreline is susceptible to tsunamis because it is exposed to southern storms, local seafloor motion off the south coast of Hawai’i County, and distant tsunamis generated in the Pacific Rim. Convex coastlines such as the Punalu’u black sand beach tend to concentrate tsunami wave energy. The last tsunami to strike Punalu’u in 1975 caused moderate damage. Tsunami and wave action may affect project structures that will be located within the storm wave and tsunami inundation area. According to the Hawai’i Coastal Hazard Mitigation Guidebook (Hwang, 2005), inundation due to tsunami run-up is considered in determining the base flood elevations on the Flood Insurance Rate Maps. The run-up inundation levels were utilized in determining the inland extent of the V, VE, A and AE zones. Therefore, elevating

new structures above base flood elevations determined by FEMA will mitigate the risk of potential tsunami inundation (Hwang, page 41).

**Lava Flows:** The Punalu'u area is within USGS hazard Zone 3, indicating a moderate hazard. Lava flows in Zone 3 areas tend to fan out and cover large areas. Avoidance of potential damage from lava flows cannot be addressed with construction techniques, and is only minimally addressed by siting and location of structures.

**Earthquakes:** The entire island of Hawai'i is susceptible to earthquakes originating in fault zones under and adjacent to the island. Under the Uniform Building Code seismic provisions, a Zone 4 area could experience severe seismic activity between .30 and .40 of the earth's gravitational acceleration (g-forces) causing major damage to poorly designed or built structures. According Hwang (2005), the State Civil Defense recommends that Hawai'i County adhere to the seismic provisions of the International Building Code (IBC). Although Hawai'i County currently uses the 1991 UBC, it is moving towards adoption of the 1997 UBC with amendments that model the seismic provisions of the IBC (Hwang, page 49).

**Wildfires:** Wildfires are common in the area. One fire occurred on-site last year, and several in the vicinity.

#### ***Mitigation Measures***

**Flood:** Siting of residential structures is discouraged within the coastal and stream channel flood zones. Structures sited within flood zones, will be elevated above the base flood elevation to mitigate impacts of flood waters. Critical facilities that provide essential emergency services to the community such as hospitals, police and fire stations, waste disposal facilities, and evacuation centers will be constructed outside of the flood zone (Hwang, pages 38-39).

**Hurricane:** Mitigation requires appropriate setbacks from the ocean and construction of structures to withstand hurricane force winds, and flying debris. Elevation of coastal structures is an alternative mitigation measure if desired setbacks cannot be met. Recently many new strategies for minimizing hurricane damage have been developed and these will be considered in any new construction.

**Tsunami:** Adherence to the mitigation measures prescribed for flood damage avoidance will also serve as mitigation for tsunami risks. In addition, a tsunami warning system will be installed for the project and an evacuation plan will be developed and shelter areas specified. In additionally, structures and facilities will be designed and constructed in accordance with all applicable federal, State and Hawai'i County building standards and codes. Park and golf course areas within the inundation zone would be designed to absorb tsunami conditions with minimal damage.

Due to the proximity of the site to active fault zones and the insufficient response time for locally generated tsunamis, a proactive education program is needed for the residents and visitors. As soon as the signs of a local tsunami are observed people need to move to higher ground immediately and not be caught lingering to observe and listen to unusual sounds, vibrations or ocean phenomenon. This requires awareness and training for all.

**Lava Flows:** There are no practicable mitigation measures for protection from potential damage from a lava flow.

**Earthquakes:** The potential of damage incurred by strong earthquakes is a prevalent concern for the entire county of Hawai'i. As such, the proposed projects will be in compliance with the

Uniform Building Code and County of Hawai'i structural design standards, including earthquake design provisions.

**Wildfires:** Wildfires are potentially serious hazards in arid environments and could be a concern during the construction phase. Care will be taken to prevent fires from affecting construction related activities

Potential long-term impacts and mitigative measures are discussed in *Section 5.2*.

### 5.1.9 Flora

Short-term effects to vegetation, wildlife and insects can be anticipated wherever site clearing and grading or excavation occurs. Of particular concern is the potential for disturbance that may affect habitats for endangered species of vegetation or wildlife.

#### Impacts and Mitigation Measures

Humans have substantially altered the vegetation of the entire property, either directly (e.g. clearing for farming, ranching, housing developments, and golf courses) or indirectly (e.g. introduction of cattle and goats, introduction of alien plants, and fire). Native plant species are a negligible component of the current vegetation, which is almost completely comprised of a large diversity of introduced species. Even the gulch that extends from the mauka to makai boundaries of the property contains very few native plants, and none that are uncommon in other areas.

The coastal strand community and the associated coastal ponds and tidal pools, based on current maps, much of the coastal strand community lies outside the project area and there should be little, if any, direct disturbance to this community. In order to minimize direct and/or indirect impact to the coastal strand plant community and to improve native plant habitats, the following measures are recommended:

- No construction will occur within the "native plant" sub-zone within Zone A of the accompanying vegetation zone maps *Figures 4-9 and 4-10*. The GPS coordinates used to produce this boundary are listed in *Appendix C*. The golf course, walking paths, and picnic tables could potentially encroach on small portions of the least sensitive areas of the zone. The precise locations of the encroachment should be determined during a site visit by a botanist and golf course/site designer at a later date.
- Minimal, if any, development will occur within that portion of Zone A that lies outside the boundary of the native plant sub-zone. This area should primarily serve as a buffer between the development and the coastal strand plant community.
- Land-owners will work with biologists and interested members of the local community to restore the coastal strand habitat while simultaneously preserving and improving public shoreline access. Restoration of the plant community would include both the removal of alien plant species such as Christmas-berry, and the out-planting of native plants that exist or formerly existed in the area.
- Land-owners will commit to providing a source of funding for habitat restoration within the native plant sub-zone.
- Even though the mauka-makai gulch does not currently contain many native plant species, this gulch will be preserved as potential habitat for any future native plant restoration efforts on the project site.

- Landscaping will include native Hawaiian plants wherever possible. Land-owners will consult with biologists to determine an appropriate list of native plants that a) currently exist or historically existed in the area, and b) show potential as landscaping elements. Many of the native plants listed in *Appendix 1 to Appendix C* would be suitable as landscaping plants.
- The owners will ensure that care is taken to minimize run-off and dust from the construction site that could adversely affect native plants and aquatic biota in this area.

Existing Pritchardia palms will be identified and located on a map for protection. They will be included in the landscaping plans for the project.

Long-term impacts and mitigative measures are discussed in *Section 5.2*.

#### **5.1.10 Fauna**

##### ***Bird Resources – Impacts and Mitigation Measures***

The Sea Mountain project site is comprised of large tracts of human-altered and disturbed landscape, none of which can be considered good habitat for native land birds. Given the current vegetation and low elevation of the project site, there is little chance for re-establishment of significant populations of native land birds. The project, therefore, is anticipated to have little effect on native land birds.

Nevertheless, there are numerous large, ornamental trees that have the potential to serve as nest sites for the endangered Hawaiian Hawk ('Io). In order to eliminate the chance that bulldozing or land-clearing could destroy an 'Io nest and nestlings, a trained biologist will conduct a survey for the presence of nesting 'Io within two weeks before the land is cleared. If an active 'Io nest is discovered, then no bulldozing will occur within a 200 meter radius of the nest. Bulldozing will resume when the chicks have fledged.

The shoreline habitat within Zone "A" contains good resources for native shorebirds and water birds. In particular, the federally-endangered species in the area include: Black-necked stilt (Ae'o), the Hawaiian coot ('Alae ke'oke'o), and the Nene goose. Each of these species has the potential to make use of the wetland areas within Zone A, especially with the habitat restoration measures recommended in this study. If habitat for native shorebirds and water birds is created, the management plan for the coastal zone will balance the shoreline access routes with the habitat requirements.

The Sea Mountain project has the potential to affect over-flying Dark-rumped Petrels ('Ua'u) and Newell's Shearwaters ('A'o). Both these federally listed sea-birds are known to be attracted to exterior lighting in populated areas. There is currently no information as to whether the lands mauka of the project site within Ka'u Forest reserve and the Kahuku Unit of Hawai'i Volcanoes National Park contain nesting populations of either seabird. If seabird colonies are present on these lands, then the project lighting may attract birds moving to and from their nesting grounds.

In order to minimize the potential for affecting petrels and shearwaters, shields will be placed on exterior lighting in accordance with County regulations. Low Pressure Sodium lighting will be used in street lights. This will have the added benefit of reducing the potential light disturbance on nesting sea-turtles.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

- In addition to habitat restoration within Zone "A", the selected landscaping plants will include native plants such as Milo, Kamani, Kou, Iliahi, Lama and 'Ōhi'a Wiliwili, that are known to attract native birds.

The Pacific golden-plover (Kolea) is the only abundant native bird on the project site and was most common on the golf course fairways and greens. Because the golf course represents winter feeding grounds for these birds, it is recommended that care be used when applying chemical fertilizers, herbicides, or insecticides.

- To avoid affecting these birds on golf courses, chemical applications will be specially restricted during the period of September to April, while Kolea are in Hawai'i.

#### **Bats – Impacts and Mitigation Measures**

On two occasions (10/14/2005 and 10/15/2005), as many as five bats were seen actively swooping near one another over the bay (survey Site 8). This "rutting" behavior is typical of some species following the birth and "fledging" of young bats in the summer, and indicates that hoary bats find the study area hospitable during the critical period of breeding.

The Hawaiian hoary bat is an obligate tree foliage roosting species (Wunder and Carey 1996, Menard 2001). Early observations of bat emergence (for example, nine minutes before sunset and 32 minutes before twilight ended on 10/15/2005 at Site 8) indicate that the species is using as roosting habitat the stands of trees within or in the immediate vicinity of the study area. Likely roost sites include the trees along the golf lawns, residences and within the dry gulch.

The original native lowland dry forest ecosystem has been completely altered throughout the region. Little is known about the potential impact that historical and current changes to the landcover may have had on the prey base of the Hawaiian hoary bat. However, roosting habitat is likely a limiting factor for the species, particularly in the dry low-elevation habitats of Hawai'i Island.

The following measures are recommended to minimize adverse impacts to the Hawaiian hoary bat:

The project landscaping plans will retain as many existing stands of tall trees and riparian trees as possible as these trees appear to serve both as roosting and foraging habitat for bats. In particular, the large, mixed, stand of introduced trees growing on the grounds of the abandoned restaurant and visitor center (Zone E, Figure 4-9) appears to be an important roosting area will be retained, as practical.

- New tree plantings of native Hawaiian dry forest trees will be done at the project, especially within the gulch area, to enhance bat habitat.
- As practical, the potential removal of tall trees will be performed only from September through May to avoid potential take of Hawaiian hoary bats during the breeding season.

#### **Insects – Impacts and Mitigation Measures**

No endangered or threatened species were identified during our survey of Sea Mountain, but one species listed as a candidate for federal protection, *Megalagrion xanthomelas*, was found within the coastal strand habitat. Construction-related threats to this species may include runoff from upslope development and direct disturbance to the shores. To maintain populations of this rare damselfly throughout its range, coastal areas will not be directly

disturbed and the project will adhere to the National Pollution Discharge Elimination System (NPDES) permit requirements for regulation of construction related runoff.

Potential long-term impacts and mitigative measures are discussed in *Section 5.2*.

### **5.1.11 Roadways and Traffic**

The development of traffic projections for the project involves the trip generation, trip distribution, and traffic assignment process. The traffic report (*Appendix K*) analyzed future traffic conditions in the area both with the project and without it for a 10 year period ending in 2015. Short-term (construction phase) traffic related impacts are expected to be minimal and were not evaluated in the study. Long-term traffic impacts are discussed in *Section 5.2.11* of this chapter.

### **5.1.12 Infrastructure**

#### *5.1.12.1 Drainage*

##### **Probable Impacts**

The project does not propose major re-grading of the site. The existing topography will be altered by grading only to the extent necessary for construction of the proposed improvements, such as the realigned and/or new internal roadways, commercial and residential sites and golf course improvements. It is anticipated that grading will occur on a localized scale and that cut and fill quantities will generally balance as construction progresses. There will be no substantive alterations to existing drainage patterns.

Erosion and siltation in the drainage area could be increased during construction of the proposed project. The potential for erosion and siltation would be greatest during the grading phase of construction. Detailed construction plans, rough grading plans and precise grading plans have not been prepared. Therefore, the exact amounts of increased erosion and siltation can not be determined in this report.

The amount of sediments entering the streams within the project site during construction is expected to be minimal with stringent implementation of the Storm Water Pollution Prevention Plan (SWPPP). This would include the development of a site-specific SWPPP and implementation of various combinations of construction site Best Management Practices.

The proposed project would involve some changes to the existing site. Currently, the site has approximately 10% impervious area. Construction of the planned development would increase impervious area to approximately 30% of the site.

Drainage from the site is not expected to be significantly different from the existing conditions nor is it expected to significantly alter stream flow. Current project plans propose to retain the existing drainage patterns.

In the existing condition, site drainage is divided into three (3) sub-areas, producing a 10-year 1-hour flow rate of 205.2 cfs. In the proposed condition, the site would be divided into 39 sub-areas and produce a 10-year 1-hour flow rate of 501.5 cfs (increase of 296.3 cfs). Runoff from the developed portions of the site will be directed to the golf course area, which will also serve as infiltration basins. Various landscape areas within the golf course, such as the "rough" and "fairway" areas, will serve as vegetative swales and/or buffer strips, to decrease flow velocity and to provide runoff filtration.

The project proposes to retain all runoff volumes up to the 10-year storm level onsite for filtration and infiltration. Based on preliminary calculations, the total capacity required to retain the 10-year storm volume for the site is 249.69 acre-feet.

Site drainage is not expected to be a significant issue. Drainage plans will meet or exceed the County of Hawaii requirements for this site. The proposed improvements at Sea Mountain will cause some minor changes to on-site drainage patterns. Soils are porous and the sloping topography facilitates site drainage. No flood plains, floodways or ponding areas are found on the site. Rainfall is low and storm drains, swales and detention areas will be designed to accommodate design storm conditions. Local drainage areas are managed by constructing dry wells or drainage sumps to redirect man-made runoff into the ground, rather than to channel the runoff to carry the water offsite. This is generally sufficient because of the high permeability of the underlying soil and low rainfall.

There is some potential for surface water runoff to carry petroleum-based products from vehicles which are left on roadways or parking areas. There is also potential for excess fertilizer or pesticides from golf course and landscape areas to leach into the underlying groundwater of the project. However, these amounts are anticipated to be small and not likely to create significant pollution events.

#### Mitigative Measures

Storm water runoff from impervious areas will be collected through a system of swales, catch basins, and pipes and transported to drywells or infiltration areas for disposal within Sea Mountain. Infiltration areas will be located in the golf course and other open spaces, where practical. Buffers and small siltation basins will help to filter and trap potential pollutants onsite through physical and biological means. Drywells will be located within roadway rights-of-way and within individual parcels, as needed. Turf and grounds maintenance will minimize pollution potential from runoff through controlled applications. Monitoring and mitigation measures will minimize adverse effects should contamination occur.

Vegetated retention basins will provide some biological uptake of nutrients in storm water. In addition, storm water entering the groundwater from the project site will be filtered through soil and lava layers ranging from to 380 feet above sea level. Percolation through such soil and lava layers should effectively remove most pollutants from the storm water before it reaches groundwater.

Provision of drywells is another option for drainage. The deep lava filtration will effectively remove most pollutants, except for some dissolved nutrients and persistent pesticides. Pesticides available these days are generally not persistent, as they break down rather quickly in the environment. The golf course and landscape management plans will be responsible for minimizing the discharge of fertilizers and pesticides, and selecting appropriate products to minimize storm water pollution.

Long-term impacts and mitigative measures are discussed in *Section 5.2*.

#### 5.1.12.2 *Water Supply*

#### Probable Impacts

The existing water supply system at the Sea Mountain site consists of two deep wells, located approximately 200 feet apart, and a chlorination/pump station sited makai of the State

Highway near the site entrance. A concrete reservoir of approximately 1 million gallon capacity is located mauka of the Kalana I residences above the Hawai'i Belt Highway. Water is delivered through a distribution system that includes 16-inch and 12-inch ductile iron transmission pipes. The various elements of this system are aging, and the proposed development plan includes a variety of improvements to these features.

The existing system will remain functional and intact while improvements are constructed; no significant short-term impacts to the existing water supply system are anticipated as a result of the construction phase of the proposed development.

The long-term impacts to the water supply system after it has been improved will be covered in Section 5.2.12.2.

**Mitigative Measures**

Other than appropriate planning to maintain a functional water supply as the existing system is improved, no short-term mitigative measures are necessary during the construction phase.

5.1.12.3 *Wastewater Disposal*

**Probable Impacts**

The existing wastewater collection system consists of gravity flow sewer lines, force mains and two lift stations designed to transport the wastewater flows to a wastewater reclamation plant located within the project area. The plant processes the collected wastewater to a disinfected secondary treatment level known as "R-2" treatment level. The treated wastewater is pumped to storage ponds along the 17<sup>th</sup> fairway and is used to irrigate the golf course when there is an irrigation requirement. The various elements of this system are aging, and the proposed development plan includes a variety of improvements to these features.

The existing system will remain functional and intact while improvements are constructed; no significant short-term impacts to the existing wastewater system are anticipated as a result of the construction phase of the proposed development.

The long-term impacts to the water supply system after it has been improved will be covered in Section 5.2.12.3.

**Mitigative Measures**

Other than appropriate planning to maintain a functional wastewater system as the existing system is improved, no short-term mitigative measures are necessary during the construction phase.

5.1.12.4 *Solid Waste*

**Probable Impacts**

No significant short-term impacts on the existing solid waste collection and disposal system or the environment are anticipated as a result of the proposed development. Pre-construction waste will be generated from demolition of existing structures and from site clearing. Approximately 3,962 tons of solid waste per year is expected to be generated from the construction of the proposed 1823 residential units. Approximately 120 tons of solid waste per year is expected to be generated from the construction of the proposed 73,000 square feet of

commercial activities. Solid waste typically generated by construction activities includes wood, drywall, cardboard, metals and other materials. Solid Waste calculations are provided in *Appendix M*.

**Mitigative Measures**

A solid waste management plan will be developed that will identify efforts to minimize waste generated at Sea Mountain during construction and operation. At minimum the plan will include the following:

- During site excavation and grading, green waste will be generated. Green waste will be recycled. Once construction begins, recycling will be encouraged and practiced as practicable and to the level available within the County of Hawai'i. Non-hazardous waste will be transported directly to the landfill.
- Prior to demolition, existing structures on-site constructed prior to 1980 will be tested for asbestos. If asbestos is present, proper asbestos abatement procedures will be followed and waste will be disposed of at the appropriate facility.
- Prevention of waste is called source reduction. Materials will be used efficiently during construction.
- Recycling will be an important part of both the construction and operational phase of the development. Recyclable materials will be separated out from non-recyclable materials, hauled from the site to the appropriate company, and eventually processed to make new products.

5.1.12.5 *Power and Communications*

**Probable Impacts**

Project construction will occur in three phases over a period of 10 years. Demand for electrical and telephone services will increase incrementally with each phase. Peak demand will occur after construction and occupation of each phase of the development has occurred. Short term impacts on electrical and telephone services are expected to be minimal. It is, however, unknown at this time whether HELCO facility upgrades will be required in order to serve the construction phase of the project.

**Mitigation measures**

Prior to issuance of building permits a projected electrical demand analysis should be done to determine whether existing HELCO facilities are suitable for handling the additional project generated load. If existing facilities are unsuitable to serve the project, necessary facility upgrades as determined by HELCO shall be coordinated and planned for within the proposed project area.

If the need for upgraded facilities is triggered prior to construction of the last house, all HELCO facilities upgrades shall be completed prior to construction of the first house that triggers the need.

5.1.12.6 *Housing*

**Probable Impacts**

The impacts to housing are positive. Overall, at full build-out, the project would provide up to 1523 new residential units and 300 hotel units. An average of 353 construction employees is anticipated each year until buildout. During construction there will be no displacement from existing housing. However, impacts will result from workers entering the already limited local housing market, and from workers commuting from Hilo or Kona on the overcrowded highway at those locations.

**Mitigative Measures**

Provision of short-term housing for construction workers could potentially mitigate some of these impacts. Sea Mountain Five, LLC is planning on providing approximately short-term construction housing units. Potential locations for this housing are on-site, on adjacent DHHL land, and off-site in Pahala or Na'alehu, however, the final location has not been determined. Construction housing units could potentially be converted to workforce or affordable housing units after the project is built out.

Long-term impacts and mitigative measures are discussed in *Section 5.2.12.6*.

**5.1.13 Socio-economic Conditions**

5.1.13.1 *Population and Employment*

**Probable Impacts**

Planned improvements will generate short-term direct employment, both on and off-site during the construction period. The project expects to support over 3,800 person years of construction employment over the life of the project. Construction activity will also generate indirect and induced employment opportunities and multiplier effects. Those affected will be local material suppliers and retail businesses. Long-term impacts are discussed in *Section 5.2*.

**Mitigative Measures**

The short-term employment effects will be beneficial to both the overall Hawai'i and local economies. No mitigative measures are considered necessary.

5.1.13.2 *Economic and Fiscal Impact to County and State of Hawai'i*

**Probable Impacts**

A Fiscal Impact Analysis projects that Sea Mountain will create approximately 372 permanent jobs by 2011 and around 517 jobs by 2017. Construction at Sea Mountain will support nearly 3,800 person years of employment over the construction period of the project. The economic and fiscal impact analysis (KBCG, 2006) is provided in *Appendix G* of this report.

For discussion of short-term construction housing see *Section 5.1.12.6*.

Employment trends are prime indicators of the economic growth of an area. Increases in employment generate growth for most sectors of the local economy and dictate the rate at which it will expand. Since 1980, the Hawai'i County market area has experienced growth in

almost all employment sectors. Fueling the Hawai'i County market area's employment growth is an increasingly diverse economic base.

Planned improvements will generate short-term direct employment, both on- and off-site, during the construction period which will last approximately ten years. The number of jobs at any given time will vary considerably, depending on the level of construction activity. Construction activity will also generate indirect and induced employment opportunities and multiplier effects. Those affected will be construction workers and those providing construction related services, local material suppliers and retail businesses. Total construction spending at Sea Mountain is expected to be about \$598 million. This spending supports over 3,800 person years of construction employment over the life of the project. In addition to the creation of construction jobs, the State of Hawai'i will receive excise tax revenue on finished development and building materials, conveyance taxes, and income taxes on construction wages. These will amount to an additional \$24.8 million in State revenue over the life of the project. Based on DBED model of the impact of construction on the Hawai'i economy, the construction expenditures of \$598 million on the Sea Mountain will result in an increase in total output of \$735 million, and additional 7,232 person year of employment, and an additional \$342 million in household income. See the economic and fiscal impact analysis in *Appendix G* for details.

**Mitigative Measures**

The short-term employment effects will be beneficial to both the overall Hawai'i and local economies. No mitigative measures are considered necessary in response to increased short-term employment.

Long-term impacts and mitigative measures are discussed in *Section 5.2*.

*5.1.13.3 Community Perceptions on Tourism*

**Probable Impacts**

See discussion under long-term impacts and mitigative measures in *Section 5.2.13.3*.

**5.1.14 Public and Social Service Facilities**

*5.1.14.1 Education*

**Probable Impacts**

The residents of Sea Mountain may include families with school-aged children which will generate a need for new school facilities. However, during construction there will be no short-term impacts on the need for new school facilities. Long term impacts are discussed in *Section 5.2.14.1*.

*5.1.14.2 Police and Fire*

**Probable Impacts**

New development including Sea Mountain increases the need for life safety services. Wildfires are potentially serious hazards in arid environments and could be a concern during the construction and occupation phases.

**Mitigative Measures**

Fair share contributions for police and fire services will be negotiated with the County. Sites for a new fire station or police substation can be made available if requested by the County Fire and Police Departments. A wildfire plan will be developed for Sea Mountain. This plan will consider both the risks to natural resources and environments as well as residences and other urban development.

5.1.14.3 *Medical and Emergency Services*

**Probable Impacts**

Medical emergencies and health care are important in modern life. This service becomes increasingly more necessary as the population ages. Ka'ū Rural Health Clinic provides medical services to the project area.

**Mitigative Measures**

During the construction phase, significant impacts on existing medical services are not anticipated. There may be some minor increase in health care needs due to the presence of construction workers on site.

For discussion of long-term medical and emergency services impacts, see *Section 5.2.14.3*.

5.1.14.4 *Recreational Resources*

**Probable Impacts and Mitigative Measures**

The proposed project is designed to increase and improve the recreational opportunities available to the residents of the Ka'ū district as well as to the residents and visitors of the Sea Mountain resort. Proposed improvements to recreational opportunities at Sea Mountain include enhancing the golf course to championship standards and upgrading the facilities at the beach park. These are considered positive impacts benefiting the residents of Ka'ū District and Hawai'i Island, as well as visitors to the resort.

While the details of the beach park improvements are still being developed, at a minimum the developer would renovate the existing comfort station and pavilion.

A shoreline trail would be developed linking Kaieie Heiau to Punalu'u Heiau on opposite sides of the Sea Mountain coastal frontage. The specific location of the trails and paths would be developed in consultation with appropriate governmental agencies and interested members of the community. These trails and paths would be designed and located to provide adequate recreational opportunities while preserving and protecting environmentally sensitive areas and wildlife habitats.

Discussions are planned with the State of Hawai'i to reclaim Nīnole Cove, which has been filled in with sediment and rubble after numerous floods and tsunamis. The restoration of this area could allow safe swimming to once again take place here, and would provide an additional recreational resource to the popular Punalu'u shoreline area.

During the construction period of these improvements, access to certain facilities may be limited for health and safety concerns.

In the long-term, the project will generate some increased demand for additional recreational resources. Long-term impacts and mitigative measures are discussed in *Section 5.2*.

### 5.1.15 Coastal Waters

#### Probable Impacts

Planned improvements are not expected to create short-term impacts on coastal waters. No surface run-off is expected to reach the coast, either by direct flow or, or flow into drainage ways north or south of the property. Minor contributions of golf course fertilizer and pesticide residue could affect the subsurface water quality and potentially affect coastal water quality.

#### Mitigative Measures

Mandated erosion control measures, flowing county and NPDES standards and guidelines, will be implemented to ensure that adverse effects are avoided. These are listed in *Section 5.2.15*. Sea Mountain Five, LLC will also participate in coastal water monitoring program for the area. The owners will support programs to trace the sources of contaminants found in nearby coastal waters and to minimize the potential contributions from the project area.

The coastal waters off Punalu'u are a high energy environment owing to strong winds and wind-generated waves. These conditions result in thorough mixing of nearshore waters, which quickly dissipates and disperses potential pollutants.

Potential long-term impacts and mitigative measures are discussed in *Section 5.2*.

### 5.1.16 Hazardous Materials

#### Probable Impacts

The property has been partially developed since the early 1970s and currently supports a 76-unit condo complex, an 18-hole golf course, a wastewater treatment facility, County beach park, and a 19-lot residential subdivision. Several existing structures including the old restaurant, cultural center and conference facility are in disrepair and have been abandoned. These structures will be demolished prior to construction. As these facilities were constructed prior to 1980, there is a possibility that they contain asbestos and lead paint. Asbestos and lead paint can cause health problems when it is released into the air. If asbestos is found in any of these structures, proper abatement methods must be followed in order to prevent impacts on public health. Abatement measures are defined below.

Demolition activities may uncover contaminated soil in the vicinity of the golf clubhouse where golf-cart maintenance activities occur, or in the vicinity of the wastewater treatment plant. If odorous or discolored soil is discovered, it may be a result of contamination and testing should be carried out. Proposed mitigation measures are discussed below.

#### Mitigative Measures

Asbestos and lead paint testing will be performed on structures to be demolished that were constructed prior to 1980. If asbestos is positively identified, it requires special handling in accordance with State Department of Health Solid and Hazardous Waste Branch Office of Solid Waste Management regulations. The following steps should be taken:

- Retain certified inspection personnel to perform asbestos survey in existing structures
- Conduct demolition per DOH requirements for containment of friable asbestos materials.
- Notify the nearest DOH permitted landfill (Pu'u Anahulu, Kona) of the presence of incoming asbestos containing waste material (ACWM), with testing results provided.

- Declare that the incoming load contains asbestos waste and follow any specific guidelines that the landfill operator provides.

In the event that potentially contaminated soil is encountered during demolition or grading activities, activities should cease until suspect soil is tested in accordance with DOH regulations. Soil remediation should then occur in accordance with DOH recommendations.

Potential long-term impacts and mitigation measures are discussed in *Section 5.2*.

#### **5.1.17 Noise**

##### **Probable Impacts**

Construction activities at the project site would generate noise impacts that are temporary in nature. The impacts of construction activities would be experienced by area residents to a degree consistent with each individual's reaction or tolerance to noisy stimuli. Anticipated construction noise would be audible at the existing residences within Sea Mountain and at neighboring properties.

##### **Mitigative Measures**

Construction-period noise will be mitigated in accordance with Title 11, Administrative Rules, Chapter 46, Community Noise Control of the State Department of Health. All construction equipment and on-site vehicles will be equipped with mufflers as required in Section 11-46-6(b)(1)(A). Required permit conditions for construction activities include:

*"No permit shall allow any construction activities which emit noise in excess of the maximum permissible sound levels for the hours before 7:00 a.m. and after 6:00 p.m. of the same day, Monday through Friday."*

*"No permit shall allow any construction activities which emit noise in excess of the maximum permissible sound levels for the hours before 7:00 a.m. and after 6:00 p.m. on Saturday."*

*"No permit shall allow construction activities which exceed the allowable noise levels on Sundays and on holidays."*

With these prevention measures are not expected to exceed permitted levels. Noise emanating from operational equipment such as air conditioning systems will be limited through facility design consistent with the Department of Health's Administrative Rules, Chapter 11-46, "Community Noise Control."

The implementation of curfew periods and adherence to construction noise limits established by the State of Hawai'i DOH would further minimize the nuisance to the residents of nearby communities in the project area. In light of these considerations, no short-term mitigation for noise impacts is proposed.

Long-term impacts and mitigative measures are discussed in *Section 5.2*.

#### **5.1.18 Agriculture**

The short-term and long-term probable impacts and mitigation measures are expected to be similar. No significant impacts are anticipated. There will probably be a net positive impact by stimulating the market for local agricultural products. See *Section 5.2.18* for discussion.

### 5.1.19 Conservation Lands

The short-term and long-term probable impacts and mitigation measures are expected to be similar. No significant impacts are anticipated. See *Section 5.2.19* for discussion.

## 5.2 POTENTIAL LONG-TERM IMPACTS

### 5.2.1 Cultural Resources

#### Probable Impacts

A probable positive impact of project development would be the provision of a cultural center to provide a place to showcase the history and culture of the area. The center will be an interactive place of convergence for visitors and locals that could include education, performance, craft and art programs. A center like this will help to preserve and perpetuate local history and traditions and provide a sense of cultural place for visitors.

The Cultural Assessment for the project is provided in *Appendix D*. The following describes the concerns and mitigative measures of the cultural and historic impact of this project identified by the cultural impact assessment report:

For over a hundred years, native Hawaiians have lived in a culturally repressed state. It has only been within the last thirty years, due to evolved and broader public awareness, that native Hawaiians have been aggressively trying to reclaim their wahi pana (sacred and/or legendary places). The passage of Act 50 in 2000 legally recognizes and supports this effort. It is in this spirit that the recommendations here have been made.

#### Mitigative Measures

Any inadvertent discovery of remains made during the various preparation and construction phases of the proposed project, will follow proper protocols as required by the Hawai'i State Historic Preservation Division (SHPD) Burial Sites Program.

An Integrated Natural Cultural Resource Management Plan (INCRMP) will be developed to address preservation, mitigation, management and stewardship measures. An Integrated Natural Cultural Resources Management Plan be implemented as it would address consultant issues and concerns regarding heiau, kū'ula, documented burial areas, fishponds, springs, ethno-botanical, indigenous and endemic plants, lava tubes, caves, cultural pebbles, and rocks. Specifically, the INCRMP will include the following elements regarding the preservation of the cultural resources:

- Development of a Punalu'u Burial Task Force – to develop and recommend protocol regarding burials found during development activity and direct relocation activities
- Maintain access roads or paths to cultural resources and provide ongoing maintenance of the roads, paths and resources.
- Create a monument acknowledging the Punalu'u Nui Iwi.
- Construct proper signage for cultural resources, naming them and granting them respect.

Although much effort was made to locate people who are knowledgeable about Punalu'u and/or the lands of Ka'u in general, there may be others who have even more pertinent

knowledge. Consideration should be given to them should they come forth as information about the land and development project is made public.

Sea Mountain Five, LLC and its archaeological and cultural consultants have solicited input from longtime residents of the project area and persons with knowledge and interest in the cultural and natural history of this area and the overall Ka'ū region. A number of these "cultural consultants" have met with the Sea Mountain "team" on more than one occasion and have provided valuable input on local resources. (See Cultural Assessment, *Appendix F*). Some of consultants and other local residents have agreed to meet periodically to provide on-going cultural input. This group is being called the Cultural Advisory Committee.

## 5.2.2 Archeological Resources

### Probable Impacts

An archaeological inventory study has been completed to identify the locations of the archaeological sites throughout the project site. A complete report of the findings is provided in *Appendix A*. The project has been designed to maximize the preservation of known archaeological sites and avoid and minimize the loss of these culturally significant resources.

Of the 32 on-site archaeological sites, 17 sites (53.1%) were determined to be exclusively or primarily historic sites, and 14 sites (43.8%) were determined to be exclusively or primarily pre-contact sites, and one site (3.1%), a wall, was indeterminate. The 17 historic sites included seven sites associated with ranching or livestock, five sites associated with transportation, a historic habitation, a site associated with the location of Ninole School, the wharf infrastructure, the Hoku Loa church site and historic cemetery, and the outlying historic burial crypt area. The 14 pre-contact sites include five burial sites, three habitation sites, two rock art sites, one heiau site, one agricultural site, and two sites of indeterminate function.

For a resource to be considered significant under National Historic Preservation criteria it must possess integrity of location, design, setting, materials, workmanship, feeling, and association and meet one or more of the following criteria:

- A) Be associated with events that have made an important contribution to the broad patterns of our history;
- B) Be associated with the lives of persons important in our past;
- C) Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value;
- D) Have yielded, or is likely to yield, information important for research on prehistory or history;
- E) Have an important traditional cultural value to the native Hawaiian people or to another ethnic group of the state due to associations with traditional cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts—these associations being important to the group's history and cultural identity.

Treatment recommendations fall into three categories: Preservation, Data Recovery, and No further work. Of the 32 designated sites, 27 (84%) are recommended for preservation and 5 (16%) are recommended for no further work. No data recovery program appears to be

indicated at this time with a preference for preservation of sites over data recovery. The five sites that are not recommended for preservation including two walls, a well, a remnant enclosure, and an agricultural mound were judged to be very unlikely to produce significant additional information.

***Mitigative Measures***

The Sea Mountain master plan has been redesigned to preserve the significant archaeological sites throughout the project site. Sites recommended for preservation will be surveyed, and the site plan modified as necessary to ensure proper treatment of significant archaeological features. In accordance with Hawai'i Administrative Rules (HAR), the following plans and programs will be implemented to safeguard any features determined to be archaeologically or historically significant.

*Preservation Plan*

A Preservation Plan is recommended in accordance with Hawai'i Administrative Rules (HAR) 13-277-3 to address buffer zones and protective measures for each of the 27 sites recommended for preservation.

*Burial Treatment Plan*

A Burial Treatment Plan is indicated in accordance with Hawai'i Administrative Rules (HAR) 13-300-33 (b) to address: 1) Site 4309 which is identified as the "Burial Bluff Complex". This includes what appears to be a large number of burials on either side of the Hōkūloa Church and cemetery site; 2) The site 24898 burial complex that lies at a pali on the south edge of the project area; 3) Site 24903 (if it does not lie entirely within the condominium exclusion), that was also suggested to have a burial (as well as habitation) function; 4) the cave (Site 24914) at the northeast side of Punalu'u Bay and 5) site 24912 in the west central portion of the Makai Survey Area that is thought to be a burial and/or shrine.

*Archaeological Monitoring Program*

The primary concern prompting an archaeological monitoring program (consisting of an archaeological monitoring plan, a combination of on-site and on-call monitoring, and a monitoring report in accordance with HAR 13-279) are burials associated with the Burial Bluff Complex (Site 4309) and human remains as may remain in the area just back of the main pond (the focus of prior development) for which there is anecdotal information. Given the history and extent of these lands it would not be surprising if there were additional finds during extensive ground disturbing development.

Once mitigated, there should be no further long-term impacts on archaeology. However, if in the future any inadvertent archaeological, cultural or historic discoveries are made on the property, Sea Mountain Five, LLC will report this matter to the State of Hawai'i, Department of Land and Natural Resources, Historic Preservation Division for review and assessment.

An Integrated Natural Cultural Resource Management Plan will be designed to identify specific preservation and mitigation measures regarding the archaeological resources.

### 5.2.3 Air Quality

#### Probable Impacts

After construction is completed, use of the proposed facilities will result in increased motor vehicle traffic in the project area, potentially causing long-term impacts on ambient air quality. Motor vehicles with gasoline-powered engines are significant sources of carbon monoxide. They also emit nitrogen oxides and other contaminants.

For this project, three scenarios were selected for the long-term air quality impact analysis: (1) year 2005 with present conditions, (2) year 2015 without the project, and (3) year 2015 with the project. Generally speaking, roadway intersections are the primary concern because of traffic congestion and because of the increase in vehicular emissions associated with traffic queuing. For this study, the two key intersections identified in the traffic study were also selected for air quality analysis. These included Māmalahoa Highway at Nīnole Loop West and Māmalahoa Highway at Nīnole Loop East.

Any long-term impacts on air quality in the project area due to emissions from project related motor vehicle traffic should be small (Neal, 2006). The analysis found that worst-case concentrations of carbon monoxide from motor vehicle traffic should remain well within both the State and the national ambient air quality standards.

#### Mitigative Measures

Implementing any air quality mitigation measures for long-term traffic-related impacts is probably unnecessary and unwarranted due to the expected low air pollution levels..

### 5.2.4 Topography

#### Probable Impacts

The project does not propose major re-grading of the site. The existing topography will be altered only to the extent necessary for construction of the proposed improvements. It is anticipated that grading will occur on a localized scale and that cut and fill quantities will generally balance as construction progresses.

#### Mitigative Measures

No significant long-term impacts to the topography are expected.

### 5.2.5 Visual Resources

#### Probable Impacts

Typical existing views of the project site include that of open landscaped golf course greens and low-rise multi-family residential development. The proposed Sea Mountain development intends to preserve the low-rise character and open feel of the site. Attention will be given to preservation of existing viewsheds, preservation of lines of sight to important landscape features, and limitation of imposing coastal development.

Clustering of dwelling units in sections of the project will preserve the open space character. The philosophy of the development is to "build to the land," avoiding major cuts and fills, designed to facilitate pedestrian access and provide a better quality of life for residents over the long-term.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

All buildings in the project will be one to three stories to create a low profile that is compatible with the expansive open setting of the site. The character and color of the surrounding area would be used as a design element that contributes to a Hawaiian sense of place. The new visual character of Sea Mountain will have a cohesive design framework.

In planning the residential areas of the project and the golf course, the natural topography has been respected. The development of a golf course will add ornamental landscaping including native plants, enhancing the visual impacts of the area, increasing the desirability and adding value to the residential component.

Three viewsheds are considered in this analysis, views from the Highway, views of the coast from the Colony I condominiums, and views from the coast. Locations of view frames are shown in *Figure 5-1*. *Figures 5-2 and 5-3* depict existing and proposed built conditions for the latter two viewsheds in renderings.

#### *View Impacts: From the Hawai'i Belt Highway*

In the vicinity of the project site, views from the highway include ocean views, limited and sporadic coastal views, vegetation, expansive views of the Ka'u region from areas of elevation. At the project site, a sign is located along the Highway, calling attention to the intersection with Nīnole Loop Road and Alahaki Road. Adjacent to the project site, due to the presence of vegetation and landscaping makai of the highway, very little of the project site is actually visible. Mauka portions of the site are primarily hidden, although views of the single family residences along Alahaki Road are visible from the intersection. The landscaping buffer along the highway would be filled in with additional plantings and possibly a privacy/noise buffering wall at some locations. At project buildout, from the highway, it is likely that no more of the resort would be visible than is presently visible. The most exposed side of the project site, and the most visible side from the Highway is the western project boundary. Vehicles approaching the project area from the west may have partial views of multi-family residential units. As discussed earlier, the project has been designed to be compatible with existing views as much as possible.

#### *View Impacts: From Colony I Condominiums*

A view impact analysis was conducted for the view from the Colony I condominiums taken from the poolside area. Views from this location include the existing condominiums, the driving range, a series of golf tees and greens, landscaping, the road to the golf clubhouse, Nīnole Cove and the Kaieie heiau complex in the distance, the distant coastline with waves crashing on lava cliffs, and distant ocean views (*Figure 5-2 Existing Conditions*). The architectural rendering shows what the addition of the proposed three-story multi-family residential structures, access road, and new golf clubhouse would look like in the viewshed. Again, most of the viewshed remains the same, except that the distant view of the coastline has been obstructed. Although the proposed buildings do not overwhelm or contrast with the viewshed, their addition results in the loss of a view from Colony I (*Figure 5-2 Proposed Built Conditions*).

#### *View Impacts: From the Existing Beach Park*

Current views from the existing beach park looking mauka and taken from next to the comfort station structure include views of the Punalu'u Nui heiau, boat ramp, black sand beach, Punalu'u Harbor, the coconut tree cluster around the former restaurant location and privately owned properties, Pu'u Enuhe and Pu'u Kaiholena, the bluff, Henry Opukahaia Chapel, and the park pavilions (*Figure 5-3 Existing Conditions*). An architectural rendering was prepared to

show the proposed built conditions within this viewshed. The proposed resort would be setback approximately 400 feet mauka of the bluff area. At three stories tall, just the tops of some of the buildings would be visible from the beach park location. Resort color schemes and surrounding landscaping would be planned to be non-intrusive and blend in with existing site colors and features. Portions of the development proposed in the vicinity of the old restaurant may be visible through the vegetation, however details of this were difficult to determine this early in the planning stage. Although a small portion of Pu'u Kaiholena is obscured from some vantage points, the viewshed is essentially similar to the existing conditions (*Figure 5-3, Proposed Built Conditions*).

***Mitigative Measures***

Makai view planes from Colony I are generally preserved. An inevitable by-product of development is the intrusion of structures into existing viewsheds. The intrusion of structures into this viewshed results in some loss of distant coastal views. Planning efforts will be made to minimize the intrusion, such as complementary landscaping to minimize the impacts of massing. A reduction in building height or number of units can also be considered. The separation created by the golf course will also continue to mitigate view impacts by distancing the new housing from the existing Colony I site. Even through planning efforts there may be residual viewshed impacts that cannot be avoided. If so, the impact would be considered an unavoidable long-term effect.

SEA MOUNTAIN AT PUNALU'U  
Draft Environmental Impact Statement



Figure 5-1. View Frames Locations for Existing and Built Conditions

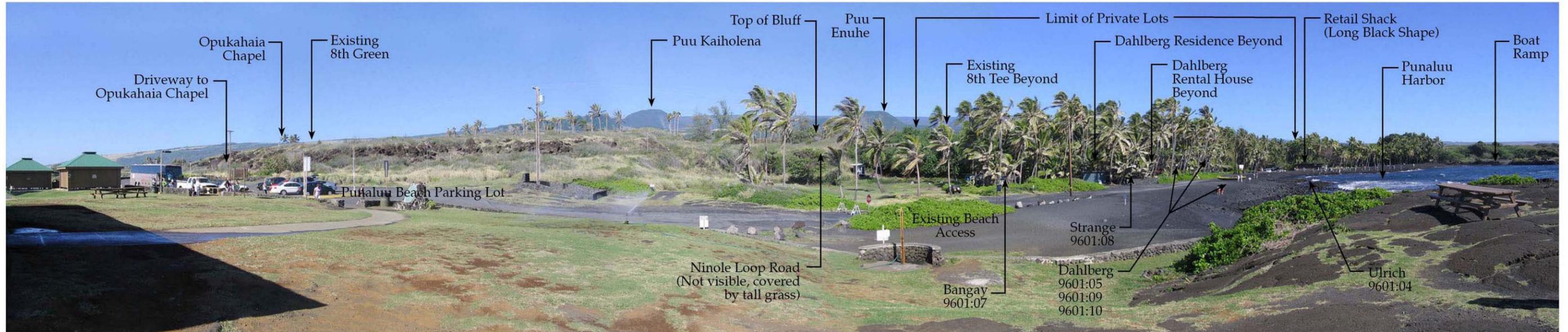


EXISTING CONDITION



PROPOSED BUILT CONDITION

Figure 5-2. Existing and Proposed View Conditions from Colony I Condos to Ninole Cove (View Frame A)



EXISTING CONDITION



PROPOSED BUILT CONDITION

Figure 5-3. Existing and Proposed View Conditions from Punalu'u to Bluff (View Frame B)

## 5.2.6 Soils

### Probable Impacts

There is no good soil in the project area for agriculture, and there is a complete absence of cultivable land in most of the site. Soil will be imported for construction of the golf course and landscaping.

### Mitigative Measures

Soil that is imported for golf course and landscaping will be covered or planted promptly after installation of the soil to minimize erosion.

## 5.2.7 Water Quality

### 5.2.7.1 *Surface Water Quality*

#### Probable Impacts

Runoff from the site is expected to be characteristic of residential areas and golf courses, which may include bacteria and viruses, metals, nutrients, herbicides, pesticides, organic compounds, sediments, trash and debris, oxygen-demanding substances, and oil and grease. All runoff leaving improved areas of the site will be treated via filtration and infiltration. The project will retain on-site all flows below the 10-year storm.

The proposed structural BMPs incorporated into project plans are expected to adequately address any potential pollutants in the project's runoff and ensure that all discharge is in compliance with the discharge requirements of the National Pollutant Discharge Elimination System and the State and County of Hawai'i. With incorporation of proposed non-structural BMPs, structural treatment BMPs and the proposed retention of all flows below the 10-year storm volume, the proposed project is not anticipated to result in a significant impact to surface water quality for areas within the site. For areas located downstream of the site, please refer to the following section.

#### Mitigative Measures

To satisfy the requirements of various Federal, State and County regulations regarding new developments, the proposed project shall develop and implement a comprehensive water quality management plan, which addresses the employment of various non-structural, structural and treatment control BMPs, as well as to ensure that pollutants from the site's runoff has been treated to the maximum extent practicable (MEP). In addition to the water quality management plan, the project shall also implement an Integrated Golf Course Management Plan, as discussed later in this section.

#### *Non-structural BMPs*

Non-structural BMPs are procedures, rules and methods, that when implemented and followed, should reduce and/or eliminate the specific source of pollution targeted. These BMPs include:

1. Education for Property Owners, Tenants, Occupants and Facility Users – The Developer will ensure that all property owners, tenants, occupants and facility users be notified of the impacts of their actions on water quality. Prior to first sale of units, the Developer will establish requirements for the implementation of an awareness program that informs homeowners, tenants and facility users of the impacts of dumping oil, paints,

solvents or other potentially harmful chemicals into the storm drain; the proper use and management of fertilizers and pesticides in home landscaping and gardening practices; the impacts of littering and improper watering. The Developer will also be responsible for providing environmental awareness education materials to all homeowners at first sale of units.

2. Landscape Management – Management programs will be designed and established by the developer, which will own and maintain all common areas within the project site. These programs will include how to mitigate the potential dangers of fertilizer and pesticide usage.
3. BMP Inspection and Maintenance – The Developer shall be responsible for implementation of each applicable non-structural BMP as well as scheduling inspection and maintenance cleaning of all applicable structural BMP facilities within the common project areas. Individual owners shall be responsible for all areas within their private lots.
4. Litter Control – The Developer, through the site maintenance contractor, will be required to maintain weekly sweeping and trash pick-up within the common private areas of the site. Daily inspection will be made of trash enclosures at the apartment sites and any other site with trash enclosures to ensure trash lids are closed and pick-up of any excess trash on the ground has occurred. Homeowners will be responsible for maintaining all areas within their lots.
5. Employee Training – An annual employee training/education program will be established by the Developer and would apply to future employees, contractors and volunteers of the developer to inform and train employees and contractors engaged in maintenance activities regarding the impact of dumping oil, paints, solvents or other potentially harmful chemicals into storm drain; the proper use of fertilizers and pesticides in landscaping maintenance practices; and the impacts of littering and improper water disposal.
6. Street Sweeping – The Developer shall have all private common parking areas and streets vacuum swept on a weekly basis to prevent the build up of pollutants that may be washed downstream during storm events.

### ***Structural BMPs***

Structural BMPs are structural practices which are designed into a site's infrastructure to meet storm water quality objectives. These BMPs include various devices designed to control and/or detain runoff and prevent contact with rain and storm water run-on. Applicable structural BMPs include:

1. Site Design and Landscape Planning – As a part of the design of all common area landscape areas, similar planting material with similar water requirements will be used in order to reduce excess irrigation runoff and promote surface filtration. Such common areas will be owned and maintained by the Developer and private homeowners.
2. Roof Runoff Controls – Runoff from the roofs of private residences, apartments, golf course related buildings, etc. will be directed to landscape areas to promote plant filtration and soil infiltration.

3. Efficient Irrigation – As a part of the design of all common area landscape irrigation, such provisions as water sensors, programmable irrigation times (for short cycles), etc., will be used. Such areas will be maintained by the appropriate parties (homeowners, golf course, etc.).
4. Catch Basin Stenciling - During construction, the Developer shall have all catch basins stenciled with the message “No Dumping - Drains to Ocean”. This will be done in a location that can be clearly seen by all and will be routinely inspected and re-stenciled, as required.
5. Pervious Pavements – The use of porous concrete, vegetated/natural parking areas and other designs which allow for the filtration and infiltration of runoff, will be considered during the project’s design phase and employed where feasible.
6. Alternative Building Materials – Materials that minimize leaching, such as in special roofing materials, will be considered and employed where feasible to minimize contamination of storm water runoff.
7. Trash Enclosures – Trash enclosures will be provided for the golf course area as well the residential high density areas. The enclosures will be covered and protected from rain and storm water run-on. Any drains located within the trash enclosure area will be connected to the sanitary sewer and prohibited from discharging to the storm drain system.
8. Designated Work and Material Storage Areas – Special work and storage areas will be required within the golf course area. These areas will be kept clean at all times. Additionally, these areas will be covered to prevent contact with rain and storm water run-on.

***Treatment Control BMPs***

Treatment BMPs include natural and mechanical devices that are specifically designed to target storm and non-storm water pollutants of concern from various development types. Applicable treatment BMPs for the Sea Mountain Project include a combination of vegetated buffer strips, vegetated swales, and infiltration basins.

All onsite runoff will be directed to the proposed golf course areas, which will be designed with a depression and also utilized as infiltration basins. The golf course perimeter areas will be designed to include vegetated buffers strips designed with a minimum length in the direction of flow of 15 feet. The strips will be employed to pre-treat storm water runoff from the developed areas of the project site via filtration and sedimentation. Storm water will then be conveyed to the fairway area of the golf course, which will be used as vegetated swale during rain events. The runoff will receive further treatment from the vegetated swale via filtration, sedimentation, as well as adsorption and plant uptake. The swales will convey runoff to the lowest points of the golf course area and allowed to infiltrate to the ground water basin.

The proposed infiltration basins are anticipated to remove project pollutants via precipitation, sorption, physical filtration and bacterial degradation. The project soil is anticipated to provide high removal efficiencies for particulate pollutants and moderate removal of soluble pollutants. Based on the preliminary soils investigation prepared for this project, the site is suitable for infiltration basins, with the assumption that existing groundwater depth will be greater than ten feet from the proposed basin invert, and the infiltration rate is greater than 0.5 inches per hour

and less than 2.5 inches per hour. The basin design will be modified to the specific requirements of the site as it pertains to golf course designs.

In the event that infiltration basins are not feasible for various portions of the Sea Mountain project due to site constraints, a combination of treatment BMPs will be designed to ensure storm runoff from the site is properly treated prior to discharge. These alternative BMPs include the use of vegetated filter strips, vegetated drainage swales and detention basins that will treat project runoff via filtration and sedimentation.

Specifically, the golf course areas located adjacent to the coastal ponds is of concern. Due to the proximity to the shoreline, groundwater in this portion of the site may be relatively shallow. In this scenario, infiltration basins would not be recommended nor proposed. These areas will likely receive the combination of treatment practices previously described, or be equipped with a dry weather diversion drainage system capable of diverting first flush and dry weather flows to the sanitary sewer system for treatment.

#### *Integrated Golf Course Management Plan*

An Integrated Golf Course Management Plan (IGCMP) has been prepared that discusses the following: appropriate irrigation techniques, including an assessment of evapotranspiration needs and nutrient and pest management as described below. For details regarding the IGCMP, please refer to the study in the Appendix prepared by Blankinship & Associate, Inc.

#### Nutrient Management

The goal of nutrient management is to limit raw water and fertilizer nutrient applications to levels equal to or less than turfgrass and vegetation nutrient uptake in order to minimize nutrient transportation via runoff, interflow, or deep percolation.

1. The following nutrient management components are included:
  - a. Nutrient budget shall account for nutrient constituents in fertilizers, raw water, and rainfall.
  - b. Application of fertilizers shall be done to maximize plant uptake and minimize nitrogen loss below the root zone. Quick release fertilizers may be used as part of a 'spoon feeding' program.
  - c. Fertilizer applications shall be made at times and amounts commensurate with turfgrass growth requirements based on species and cultivar, climate, and soil conditions.
  - d. The IGCMP shall require plant tissue and soil testing. For soil testing only, all species of nitrogen will be analyzed along with total phosphorus and plant available phosphorus, in order to help ensure that excesses of these nutrients are not applied.
2. The following specific requirements shall be included in the IGCMP:
  - a. Nutrient applications shall be made not to exceed turf and plant uptake requirements during any season.
  - b. Chemical applications on bare soils shall be prohibited.

- c. Increased care and handling of pesticides and fertilizers shall be used in areas with shallow soil depth.
- d. Nutrient uptake efficacy shall be maximized through selection of realistic turfgrass goals, selection of application rates to meet goals, and use of soil and tissue tests to direct application rates.

### Integrated Pest Management

Design and implement an integrated pest management (IPM) component of the IGCMP in order to accomplish effective pest management that is protective of sensitive species and natural resources on the golf course.

- 1. The following pesticide management components shall be included in the Plan:
  - a. The IGCMP shall integrate the concepts and approaches to Integrated Pest Management (IPM) and various aspects of turf grass agronomy, including irrigation, fertilization and maintenance.
  - b. Action thresholds shall be developed and implemented for insect, weed, and disease pests to guide the implementation of chemical, biological and cultural control measures.
  - c. Pesticides shall be selected using pest-specific products that are the most efficacious, while being the least toxic, mobile, and persistent.
  - d. All pesticide applications shall be made according to label instructions at rates that are the most efficacious and minimize hazards to non-target receptors.
- 2. The following specific requirements are required to be included in the IGCMP:
  - a. Spot treatments shall be used wherever possible, rather than broadcast treatments.
  - b. Pesticides shall be incorporated into soil/turf to reduce exposure to runoff and enhance adsorption.
  - c. Proper equipment maintenance and calibration shall be performed for all volumes of application.
  - d. Proper disposal of all unused chemicals and containers shall be maintained.
  - e. Use of chemigation equipment shall be prohibited.
  - f. Pesticide formulations shall be selected to reduce non-target impacts, including leaching losses.
  - g. Pesticide applications shall be controlled and timed in relation to local environmental conditions.

### Maintenance Facility Management

The IGCMP shall also provide guidance on proper design and management of the maintenance facility. Specifically, guidance shall be provided on chemical storage and handling, spill response and clean-up, and the management of equipment washdown.

Irrigation Management

The IGCMP shall provide guidance on irrigation water application that sustains healthy turf while minimizing runoff and subsurface losses of nutrients and pesticides are minimized. Irrigation management is based on a water budget, weather conditions obtained by an on-site weather station, and soil moisture, salt and nutrient data.

A. The following irrigation management components shall be included in the IGCMP.

1. A water budget will be developed that shall incorporate all water inputs, such as raw surface water, collected storm water, well water, and rainfall for a reliable irrigation plan.
2. Reservoir and pond total storage capacity, including design freeboard, shall be based on seasonal supply and plant requirements.
3. An on-site weather station shall be maintained to measure rainfall, temperature, wind conditions and soil moisture sufficient to determine evapotranspiration. This information will be used to assess turf and other plant evapotranspiration rates in order to govern irrigation amounts and frequencies.
4. The irrigation practices will account for differences in turf types and drainage characteristics in different areas of the golf course. In addition, the irrigation practices shall account for the plant growing season and dormant season on all irrigated areas.

B. The following specific requirements are to be included in the IGCMP.

1. Irrigation rate shall be the minimum necessary to establish and maintain healthy and vigorous turfgrass growth without allowing transport of applied fertilizer or pesticides below the root zone as calculated from the daily water balance.
2. Irrigation shall be prohibited during rain, and prudent judgment shall be used before irrigating when rain is pending.
3. Irrigation facilities shall be properly maintained, including maintenance to ensure the structural integrity of drainage features and application equipment.
4. Watering efficiency shall be maximized by proper placement and operation of appropriate sprinkler heads, consistent with industry standards.
6. Irrigation equipment shall be operated to encourage deep root development and to avoid wilting and other stress conditions.

### 5.2.7.2 *Ground Water Quality*

#### **Probable Impacts**

The urban uses of the land can present a risk of contamination from accidental spills of hazardous materials or from non-point source pollution. The leaching of fertilizers and pesticides used on landscaped areas presents a potential for some degree of adverse effects on groundwater.

Groundwater quality is of concern as surface runoff from the site will percolate into the underlying soils. This implies that pollutants commonly associated with residential and golf course developments would have the potential to enter the groundwater lens, which supports the existing coastal ponds and is eventually discharged to the ocean at a magnitude of 10-12 mgd per mile of shoreline.

Although the vast majority of the anticipated pollutants of concern will be removed within the topsoil and the vadose zone, there still remains a potential for the leaching of nitrate to groundwater, which would eventually be conveyed to the existing coastal ponds and ocean habitats. However, the findings of the marine study prepared for the Sea Mountain project, which assume a worst-case-scenario of approximately 10% of the applied golf-course nitrogen reaching the groundwater, estimate that the subsidy of nitrogen would not have any effect on coastal ponds or marine habitats.

There is very little likelihood of saltwater intrusion into the groundwater aquifer, given the large volume of groundwater flowing to the ocean (~10-12 mgd along the roughly 1 mile of Punalu'u shoreline), and the estimated maximum amount of potable water that would be required to be withdrawn from mauka wells to supply the Sea Mountain development (1.28 mgd at 100% occupancy). The fact that most of this potable water would be recycled back into the groundwater system via the golf course irrigation system, would also help to discourage saltwater intrusion.

#### **Mitigative Measures**

The measures noted in *Section 5.2.7.1* for mitigating potential impacts to surface water quality will also be appropriate for mitigating impacts to groundwater, as most potential impacts to groundwater originate as surface water issues.

Further, the following regulations and guidelines will be followed in order to minimize adverse effects on water quality:

- State Department of Health's "Water Pollution Control", Chapter 11-55 of the Hawai'i Administrative Rules.
- State Department of Health's "Water Quality Standards", Chapter 11-54 of the Hawai'i Administrative Rules.
- Section II "Best Management Practices" in the State Department of Health's "Nonpoint Source Water Pollution Management Plan".
- U.S. Environmental Protection Agency/National Oceanic and Atmospheric Administration's "Guidance Specifying Control Measures for Sources of Nonpoint Pollution to Coastal Waters".
- Lysimeters or other monitoring systems will be installed to provide an early warning system to detect and address any potential ground water conditions.

- Additional groundwater testing will be conducted along with analysis of near shore water flows prior to project finalization.

## 5.2.8 Flood, Hurricane, Tsunami, Lava Flow, Earthquake and Wildfire Hazards

### *Probable Impacts*

The discussion of long-term impacts in this section is identical to the short-term, as most mitigation occurs during the construction phase (short-term). However, the potential for impacts from flooding, tsunami, lava and earthquakes will endure throughout the life of the project.

**Flood:** The project site is subject to periodic coastal flooding and FEMA has designated several flood zones on the project site, including Zone AE (base flood elevations determined), and Zone VE (coastal flood with velocity hazard, base flood elevation determined). Ninole Stream flows through the project site and drains to the ocean. The Ninole stream channel is located in flood zone AE up to the 69 foot elevation. Construction of the proposed development is not expected to cause flooding downstream. All site runoff as well as offsite run-on will be directed to the golf course area, which will be designed to retain all flows below the 100-year storm level. Portions of the golf course will be designed as infiltration basins, and contain various vegetative swales and buffer strips throughout the fairway and landscaped portions of the course, which will serve to decrease flow velocity, promote infiltration and provide treatment via filtration.

Coastal areas of the project site have a history of high flooding and flood hazards are considered moderate to severe.

**Hurricane:** The Punalu'u coastline has a high likelihood of being impacted by a future hurricane. NOAA and Civil Defense data from historic hurricane tracks and the climatological models all indicate the question is one of "when" not "if" the event will occur. Probable impacts of such an event will depend on the type of construction, location of development, the existence of emergency plans and shelters and the education of residents and visitors.

**Tsunami:** The Punalu'u shoreline is susceptible to tsunamis because it is exposed to southern storms and local seafloor motion off the south coast of Hawai'i County. Convex coastlines such as the Punalu'u black sand beach tend to concentrate tsunami wave energy. The last tsunami hit Punalu'u in 1975 and caused moderate damage. Impacts on the proposed project due to tsunami and wave action may occur if structures are located within the storm wave and tsunami inundation area. According to the Hawai'i Coastal Hazard Mitigation Guidebook, Inundation due to tsunami run-up was considered in determining the base flood elevations on the Flood Insurance Rate Maps for the islands of O'ahu, Kaua'i, Maui, Moloka'i and Hawai'i. The run-up inundation levels were utilized in determining the inland extent of the V, VE, A and AE zones. Therefore, elevating structures above base flood elevations determined by FEMA will also mitigate the risk of potential tsunami inundation (Hwang 41).

**Lava Flows:** The Punalu'u area is within Zone 3, indicating a moderate hazard. Lava flows tend to fan out and cover large areas. Lava flows cannot be addressed with construction techniques and is only minimally addressed by siting and location of structures.

**Earthquakes:** The entire island of Hawai'i is susceptible to earthquakes originating in fault zones under and adjacent to the island. Under the Uniform Building Code seismic provisions, a Zone 4 area could experience severe seismic activity between .30 and .40 of the earth's

gravitational acceleration (g-forces) causing major damage to poorly designed or built structures. According to Dennis Hwang, the State Civil Defense recommends that Hawai'i County adhere to the seismic provisions of the International Building Code (IBC). Although Hawai'i County currently uses the 1991 UBC, it is moving towards adoption of the 1997 UBC with amendments that model the seismic provisions of the IBC (Hwang, 49).

**Wildfires:** Wildfires are potentially serious hazards in arid environments and could be a concern during the occupation phase.

#### Mitigation Measures

**Flood:** Siting of residential structures is discouraged within the coastal and stream channel flood zones. However, if siting of structures does occur within flood zones, structures should be elevated above the base flood elevation to mitigate impacts of flood waters. Critical facilities that provide essential emergency services to the community such as hospitals, police and fire stations, waste disposal facilities, and evacuation centers should be constructed outside of the flood zone (Hwang 38-39).

**Hurricane:** Project development should be setback from the coastal areas to avoid storm surge inundation. Where this is possible, structures should be elevated on reinforced piers above the calculated storm surge elevation. New construction should be built to withstand at least category III winds if not higher. Existing structures should be retrofitted to these new standards. An evacuation plan should be developed with Hawaii Civil Defense and plans for emergency back-up water and energy should be prepared. Additionally a public education program for visitors and residents alike should inform the public about the risks, signs, and emergency procedures to follow.

**Tsunami:** Adherence to the mitigation measures prescribed in the *Flood* section above will also serve as mitigation for tsunami risks. In addition, a tsunami warning system should be installed for the project and an evacuation plan should be developed and shelter areas specified. All structures and facilities will additionally be designed and constructed in accordance with all applicable federal, state and Hawai'i County building standards and codes. Park and golf course areas within the inundation zone would be designed to withstand tsunami conditions with minimal damage.

**Lava Flows:** There are no practicable mitigation measures for protection from lava flow.

**Earthquakes:** The potential of damage incurred by strong earthquakes is a prevalent concern for the entire county of Hawai'i. As such, the proposed projects will be in compliance with the adopted Uniform Building Code and County of Hawai'i structural design standards, including earthquake design provisions.

**Wildfires:** A wildfire plan will be developed for Sea Mountain. This plan will consider both the risks to natural resources and environments as well as residences and other urban development. This plan will be circulated to residents and landowners.

## 5.2.9 Flora

### Probable Impacts

The development of Sea Mountain will result in changes to existing vegetation. Land clearing activity has the potential for disturbing existing flora and fauna within the project area.

Human impact has already substantially altered the vegetation of much of the property, either directly (e.g. clearing for farming and ranching) or indirectly (e.g. introduction of cattle and goats, introduction of alien plants, and fire). Native plant species are a small component of the current vegetation, which is almost completely comprised of a large diversity of introduced alien species.

Hart (2006) recommends preservation of a native plant zone in the coastal area (*Figures 4-9 and 4-10*). The entire biological survey is available in *Appendix C*.

### **Mitigative Measures**

An Integrated Natural Cultural Resource Management Plan will be developed to address preservation, mitigation, management and stewardship measures relating to the botanical resources within Sea Mountain. Land clearing will be coordinated to avoid disturbing nesting birds during the breeding season. Short-term mitigation measures apply to these long-term mitigation measures. The INCRMP will incorporate the following:

- Native species that occur naturally on the property will be selected as landscaping elements in areas that will be graded. This will ensure that rare and endangered species will be protected and will create more of a linkage between the built and natural environments. Use of native plants in the landscaping, including the golf course, will create a net increase in coverage by native botanical species.
- Restoration of plant community would include both removal of alien plant species such as Christmas-berry, and the out-planting of native plants that exist or formerly existed in the area.
- The INCRMP will need to address the preservation and restoration of the coastal zone, as well as balance the shoreline access needs for the people of the community with the habitat requirements of birds.
- Provide habitat restoration (in Zone A) as well as ongoing maintenance of this native plant zone.
- Post construction measures to mitigate any potential wildland fires will be identified.
- Rodent and ungulate control plans will be considered.
- The issue of a "take" of an endangered species will be addressed so as to be in compliance with Sections 9 and 10 of the Endangered Species Act.

### **5.2.10 Fauna**

#### **Probable Impacts**

The development of Sea Mountain will result in changes to existing vegetation. Land clearing activity will disturb some existing flora and fauna within the project area.

The Sea Mountain project site is comprised of large tracts of previously altered and disturbed landscapes, none of which can be considered good habitat for native land birds. Given the current vegetation and low elevation of the project site, there is little chance for re-establishment of significant populations of native landbirds. The project, therefore, will have little effect on native landbirds. Improvement of the coastal pond environment may be beneficial to native waterbirds, although this may attract more visitors to the coastal area, which would be a

negative factor. The Hawaiian hoary bat, however, may breed in the area at certain times of the year. Volant bats may roost in the area at any time during the year. Although unlikely, 'Io may use the area for foraging and loafing at any time during the year. The *Megalagrion xanthomelas* damselfly was discovered in the coastal pond area. This species is listed as a Candidate for federal protection.

All the above mentioned species could be disturbed or directly harmed by ground disturbance, grubbing and tree felling. The project may have a positive effect by the establishment of a coastal conservation zone and the use of native vegetation in landscaping.

### Mitigative Measures

An Integrated Natural Cultural Resource Management Plan will be developed to address preservation, mitigation, management and stewardship measures relating to the botanical resources within Sea Mountain. Land clearing will be coordinated to avoid disturbing nesting birds during the breeding season. Short-term mitigation measures apply to these long-term mitigation measures. In relation to fauna the INCRMP will incorporate the following:

- Tall trees will be protected as much as practicable to preserve habitat favored by the native bat.
- Signage will be added to the coastal zone area to instruct people about appropriate protocol regarding turtles and an occasional monk seal that may rest on the shoreline area.
- Hawai'i County Parks and Recreation, DLNR, the National Park Service and the U.S. Fish and Wildlife Service will be consulted in the preparation of a turtle protection program.
- The coastal pond area will be improved to make it more desirable for native waterbirds with a proper balancing of open water and wetland vegetation.
- A docent program to educate people will be developed as part of the cultural and environmental center to be developed around the lagoon pond area.
- The INCRMP will need to address the preservation and restoration of the coastal zone, as well as balance the shoreline access needs for the people of the community with the habitat requirements of birds, turtles, and bats as well as shoreline species used for subsistence such as limu and wana.
- Habitat restoration shall be provided (in Zone A) as well as ongoing maintenance of this native plant zone to assist native waterbird use of the zone and enhance habitat for the damselfly.
- Reduction of numbers of alien fish species in coastal ponds that prey on damselfly larvae will be considered, especially during peak breeding periods, in order to increase reproductive output of these species.
- Rodent and ungulate control plans will be considered to reduce impact on native bird populations and nesting turtles.
- The issue of a "take" of an endangered species will be addressed so as to be in compliance with Sections 9 and 10 of the Endangered Species Act.

### 5.2.11 Roadways and Traffic

A Traffic Impact Assessment Report (February 2006) (*Appendix K*) details the probable traffic impacts and mitigation measures related to the proposed project. The traffic report analyzed future traffic conditions at the project roadways and intersections.

Full occupancy of the proposed project is expected by about 2015. During the ten-year period from the traffic count date to expected full occupancy, ambient traffic on the area roadways can be expected to increase due to regional growth and new projects in the area. The traffic that would be generated from the proposed project was added to the ambient traffic forecast to obtain the total with project traffic forecast.

#### 5.2.11.1 *Ambient Traffic Forecast*

There are no new major projects planned in the vicinity of the proposed project. Ambient traffic on the highway fronting the project site will increase due to regional growth in other areas. Therefore, the 7.4% ten-year traffic growth rate indicated by the State DOT traffic volumes was used as the index of regional traffic growth from 2005 to 2015. The 2005 existing through traffic volumes at the two study intersections were increased by 7.4%. The volumes of traffic entering and exiting the project site were not changed. The results of the ambient traffic forecast are summarized on *Figure 5-4*, with volumes rounded to the nearest five vph, except for volumes less than 5 vph.

#### 5.2.11.2 *Project Generated Traffic*

The traditional three-step process of trip generation, trip distribution and trip assignment was used to forecast future traffic that would be generated by the proposed project. The trip generation step forecasts the number of new trips that would be produced in each of the two study periods. The trip distribution step allocates these new trips by direction of travel. Finally, the trip assignment step assigns the trips to the specific turning movements at the study intersections.

The trip generation and distribution analyses are summarized in *Appendix K*. The trip generation step forecasts the volume of vehicle trips that would be generated by the proposed project during the morning and afternoon peak hours. The proposed project would have a mix of primary and second buyer homes: single-family, multi-family and resort units. The Institute of Transportation Engineers' Trip Generation (Seventh Edition, 2003) report has trip generation equations or rates to calculate the number of morning and afternoon peak hour trips that would be generated by various land uses. The report also provides the proportion of inbound and outbound trips in each peak hour.

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

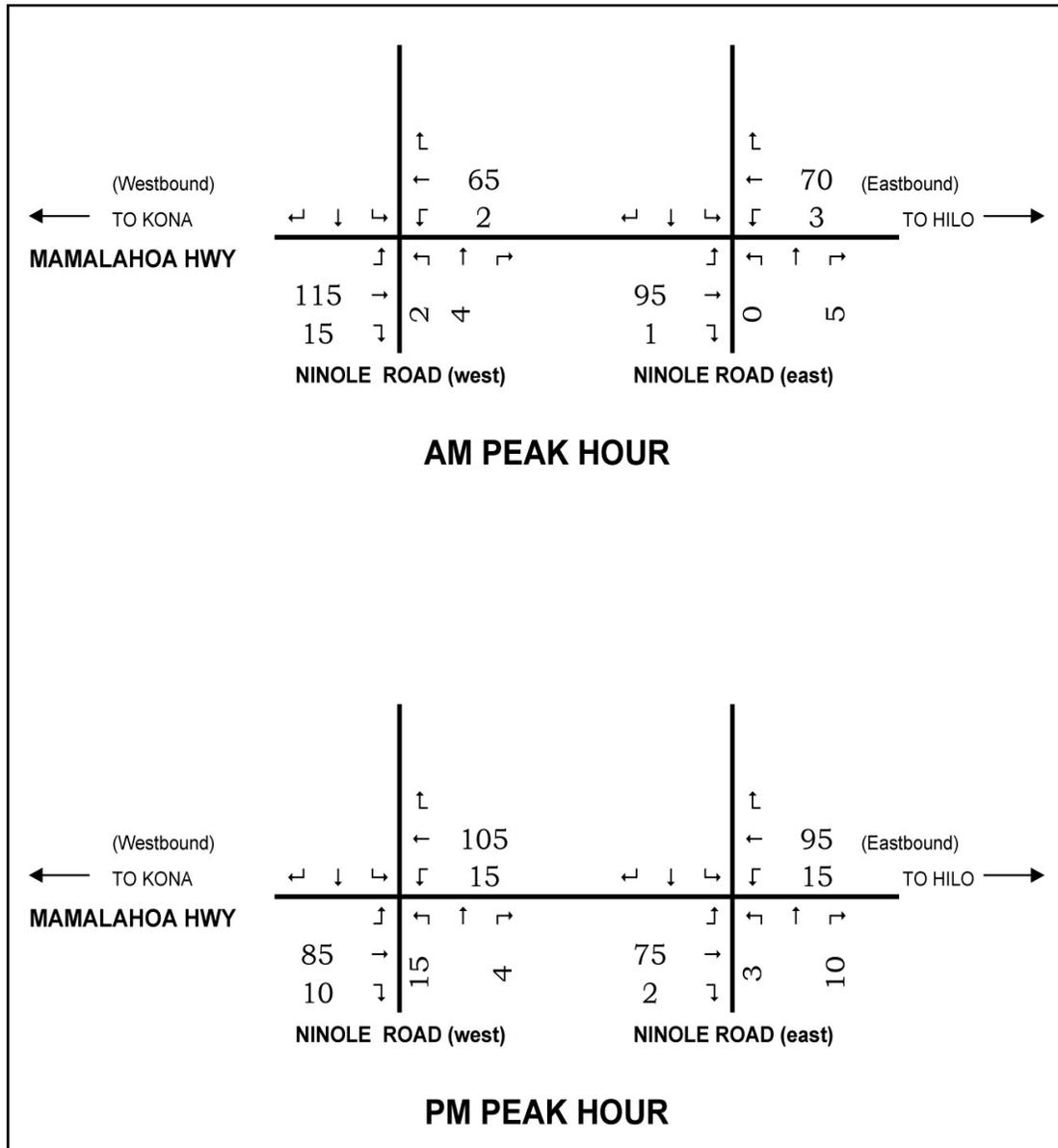


Figure 5-4. 2015 Ambient Traffic Forecast

The residential units in areas 1 to 7 are expected to be occupied by 30% primary home buyers and 70% second home buyers, with the latter units half occupied at any one time. Therefore, 30% of the housing units in each area were analyzed as primary homes while half of the remaining homes were analyzed as recreational homes. The Trip Generation report has the following definition for recreational homes. "Recreational homes are usually located in a resort containing local services and complete recreational facilities. These dwellings are often second homes used by the owner periodically or rented on a seasonal basis. A large number of internal trips were made for recreational purposes in resort communities containing recreational homes." The residential resort units in areas 8 and 9 were analyzed as 100% recreational homes at 100% occupancy.

For the trip generation analysis, it was assumed that there would be 55 affordable housing units in area 2. These units were analyzed as primary multi-family housing units. Therefore, area 2 was assumed to have 94 primary units: 39 market and 55 affordable units; and 91 second home buyers. If the affordable housing were located off-site, all 185 units in area 2 would be market units. Then this area would generate about 30% less trips. For this reason, the latter assumption was not analyzed.

The trip generation analysis is summarized in *Appendix K*. The residential units in areas 1 to 9 are forecast to generate 277 inbound and 441 outbound trips in the morning peak hour, and 367 inbound and 345 outbound trips in the afternoon peak hour.

Non-residential trip generators are planned for areas 7 to 9 including an 18-hole championship golf club and Golf Club Center in area 7, a 50,000 square foot resort Village Center in area 8, and a 15,000 square foot cultural/marine center with gift shop and possibly restaurant in area 9.

The non-residential land uses are forecast to generate 95 inbound and 49 outbound trips in the morning peak hour, and 243 inbound and 268 outbound trips in the afternoon peak hour. A detailed trip generation and distribution analysis is shown in TIAR, Table 1 (*Appendix K*).

The project generated traffic volumes were assigned to the study area network encompassing the entire project site. Trips to/from the mauka areas 1 and 2 were assigned to only the west study intersection since only one access route would be provided mauka area residents. (It should be noted that a second access may be considered in the future, and additional traffic analysis may be required at that time.) Trips from the remaining makai areas 3 to 9 were assigned to both the west and east roadways. Due to the layout of the proposed project and roadway system, most of the trips were assigned to the west roadway. Only a portion of the trips from areas 4, 8 and 9 were assigned to the east roadway and intersection. The results of the traffic assignment analysis are shown on *Figure 5-5* with the volumes not rounded.

#### 5.2.11.3 Total Forecast Volumes

The project generated traffic assignment volumes were added to the 2015 ambient traffic forecasts to obtain the 2015 total with project traffic forecasts shown on *Figure 5-6*. The traffic volumes are rounded to the nearest five vph except for volumes less than 5 vph. The proposed project is forecast to increase traffic volumes at the two study intersections and on the highway relative to the ambient forecast conditions. The implications of this increase are discussed in the next section.



SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

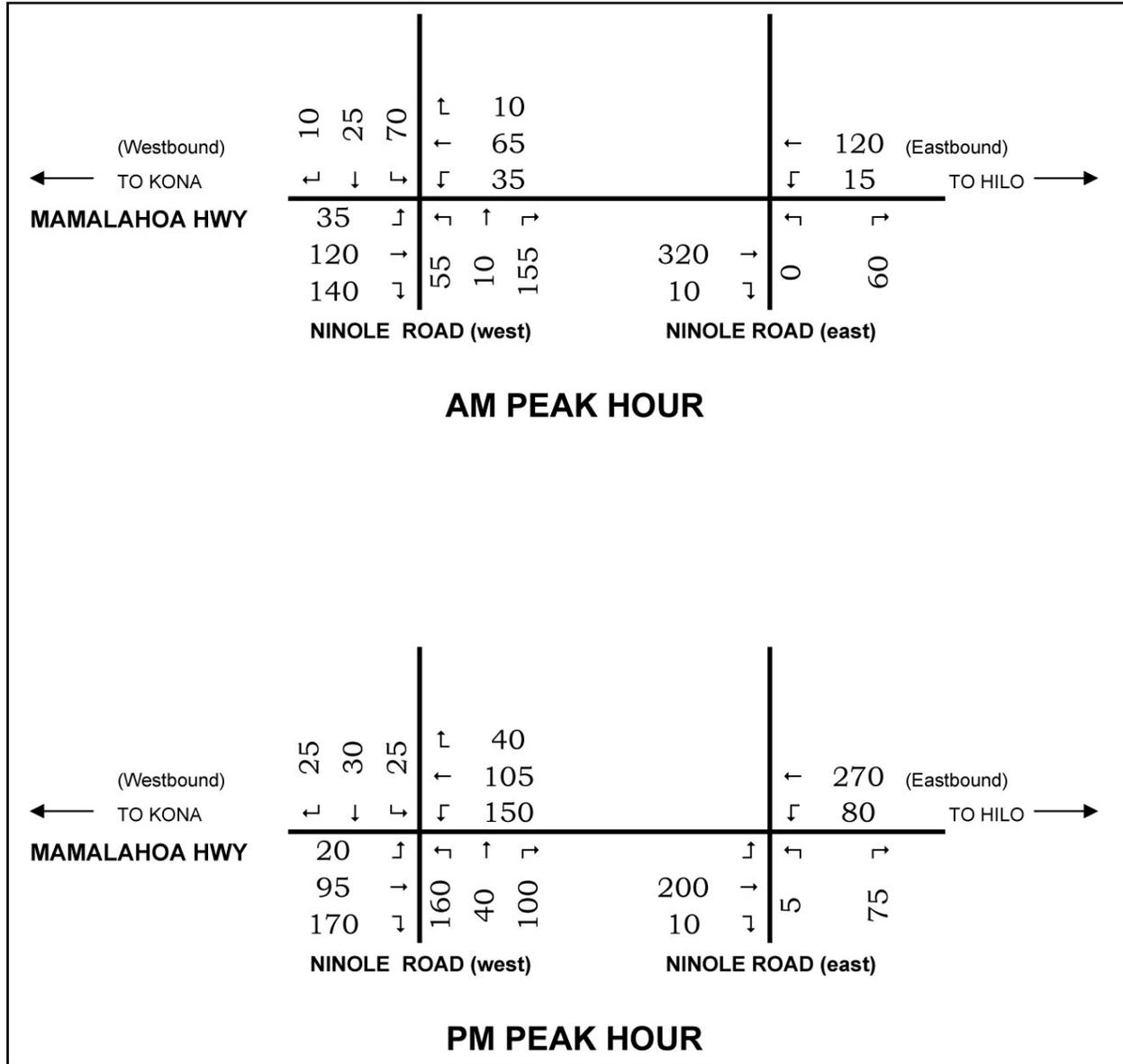


Figure 5-6. 2015 Total with Project Traffic Forecast

5.2.11.4 *Level of Service Analysis*

The concept of level of service is used to quantify the quality of traffic flow on roadway facilities. The Transportation Research Board (TRB) has developed procedures to calculate level of service value(s) by measuring traffic volumes against the capacities of different types of roadway facilities. Their Highway Capacity Manual 2000 (HCM2000) describes the various procedures developed for freeways, highways, signalized and unsignalized intersections, etc. The two procedures pertinent to this study are for two-way two-lane highways and unsignalized intersections.

5.2.11.5 *Two-Way, Two-Lane Highway Analysis*

Highway 11 in the vicinity of the project site is a Class I highway. The level of service criteria for Class I two-lane highways is shown in *Table 5-1*.

**Table 5-1. Level of Service Criteria**

Level of service	Percent time spent following	Ave. Travel speed (miles/hour)
A	< 35	> 55
B	>35 to 50	>50 to 55
C	>50 to 65	>45 to 50
D	>65 to 80	>40 to 45
E	> 80.0	< 40

Level of service F occurs when the traffic volumes exceed the capacity of the highway. Level of service C or better is considered desirable for highway operations in rural areas. Rural communities may consider level of service D to be minimally desirable or undesirable and would indicate the need to plan for future improvements.

Levels of service were calculated both east and west of the project site and the results are shown on *Table 5-2*. Ambient forecast levels of service are not expected to change from existing level B due to the low rate of traffic growth assumed. The additional traffic generated by the proposed project would change the level of service by one level to C, which is still considered acceptable. Hence, the analysis indicates that the proposed project would not have an adverse traffic impact on highway operations. The level of service calculations are provided in the TIAR (*Appendix K*).

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

**Table 5-2. Two-Way Two-Lane Highway Level of Service Analysis**

Highway Segment	2005 Existing			2015 Ambient			2015 Total w/Project		
	LOS	A.SPD	PTSF	LOS	A.SPD	PTSF	LOS	A.SPD	PTSF
<b>AM PEAK HOUR</b>									
Māmalahoa Highway (west of project)	B	51	25	B	51	26	C	49	39
Māmalahoa Highway (east of project)	B	52	23	B	51	24	C	49	44
<b>PM PEAK HOUR</b>									
Māmalahoa Highway (west of project)	B	51	25	B	51	26	C	48	46
Māmalahoa Highway (east of project)	B	51	25	B	51	26	C	48	50

LEGEND:

LOS Level of Service

A.SPD Average Speed (mph)

PTSF Percent of Time Spent Following (another vehicle)

*5.2.11.6 Unsignalized Intersection Analysis*

Both study intersections are currently unsignalized. The procedure used for analyzing unsignalized intersections calculates vehicle delays and levels of service based on the distribution of gaps in traffic on the major street and driver judgment in selecting gaps through which to execute turns. For two-way stop intersections where only the minor street traffic is controlled by a stop sign, levels of service are calculated for the critical turning movements including outbound movements from the stop-controlled approach, and left turns from the major street to the minor street. The procedure does not calculate an overall intersection level of service.

The Highway Capacity Manual defines the relationship between level of service and delay (in seconds/vehicle) for unsignalized intersections as shown in *Table 5-3*.

**Table 5-3. Relationship between Level of Service and Delay**

Level of Service	Delay (Seconds/Vehicle)
A	< 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	> 50.1

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

Levels of service A to E are considered acceptable for unsignalized intersections. Level of service F (with average delays longer than 50 seconds) is considered undesirable for unsignalized intersections and would indicate the possible need for mitigation. Level of service F conditions could be tolerated if the delays are not much higher than 60 seconds, traffic queues are short, and there are no reasonable mitigating measures available.

The calculated levels of service and average delays in seconds per vehicle for the critical turning movements at each study intersection are shown on *Table 5-4*. The results for the southbound (mauka) movements and the eastbound left turns are not shown for the existing and ambient scenarios at both intersections since these movements were not counted. As previously stated, the State DOT traffic counts showed no inbound and outbound traffic volume on the north (mauka) leg of the west intersection during the peak hours. The level of service calculations are provided in *Appendix K*.

**Table 5-4. Unsignalized Intersection Level of Service Analysis**

Intersection (Approach)	AM PEAK HOUR						PM PEAK HOUR					
	2005		2015		2015		2005		2015		2015	
	Existing LOS	Delay	Ambient LOS	Delay	Total LOS	Delay	Existing LOS	Delay	Ambient LOS	Delay	Total LOS	Delay
Nīnole Road (west intersection)												
NB RT lane	A	8.9	A	8.9	A	9.9	A	8.7	A	8.8	A	9.3
NB LT/THRU lane	A	9.7	A	9.8	B	12.9	B	10.1	B	10.3	E	37.1
SB RT lane	NC		NC		A	8.7	NC		NC		A	9.0
SB LT/THRU lane	NC		NC		C	16.1	NC		NC		C	20.1
Māmalahoa Hwy EB LT	NC		NC		A	7.4	NC		NC		A	7.5
Māmalahoa Hwy WB LT	A	7.5	A	7.5	A	7.6	A	7.4	A	7.4	A	7.7
Nīnole Road (east intersection)												
NB lane	A	8.8	A	8.8	B	10.8	A	9.0	A	9.0	B	10.6
Māmalahoa Hwy WB LT	A	7.4	A	7.4	A	8.1	A	7.4	A	7.4	A	7.9

LEGEND:

LOS	Level of Service	EB	Eastbound	RT	Right Turn
DELAY	Control Delay (seconds)	WB	Westbound	LT	Left Turn
NC	Not counted	NB	Northbound	THRU	Through
		SB	Southbound		

The west intersection is fully channelized and shows two (right turn and left turn/through) movements on the northbound and southbound approaches. During the morning peak hour, both northbound (makai) lanes are currently running at level of service A and are forecast to remain the same for the ambient forecast condition. The right turn lane is forecast to remain at level of service A for the total with project scenario. The northbound left turn lane is forecast to change to level of service B for the total with project scenario, still a very acceptable level. With the proposed project, the southbound (mauka) right turn lane is forecast to be at level of service A while the left turn/through lane is forecast to be at level of service B. The two left turn lanes on Māmalahoa Highway are forecast to operate at level of service A for all current and future conditions.

During the afternoon peak hour, the northbound (makai) right turn lane is currently operating at level of service A while the left turn/through lane is operating at level B. The right turn lane is forecast to remain at level of service A for all three future scenarios. The left turn/through lane is forecast to remain at level of service B for the ambient forecast and change to level E for the total with project forecast, indicating minimally acceptable conditions. With the proposed project, the southbound (mauka) right turn lane is forecast to be at level of service A while the left turn/through lane is forecast to be at level of service C. The two left turn lanes on Māmalahoa Highway are forecast to operate at level of service A for all current and future conditions.

The east intersection currently has single lanes on all four approaches. Additional traffic at this intersection can be expected from portions of the proposed project that would utilize the makai leg of this intersection, and through traffic from the west intersection. During the morning peak hour, the northbound (makai) lane is currently running at level of service A and is forecast to remain the same for the ambient forecast condition but change to level of service B for the total with project scenario. The westbound left turn lane on Māmalahoa Highway is forecast to operate at level of service A for all current and future conditions. The afternoon peak hour traffic has the same pattern of results.

The east intersection westbound left turn lane on Māmalahoa Highway would warrant a separate left turn lane despite the level of service A forecast for the movement. This conclusion was arrived when using the PM peak hour volumes from the Federal Highway Administration Guidelines for the Control of Direct Access to Arterial Highways, Report No. FHWA-RD-76-86 (1975). The graph on the figure uses hourly advancing and opposing volumes, and percent of left turns in the advancing volume as input variables. In the TIAR, the PM peak hour total with project forecast traffic volumes from TIAR, Figure 7 were charted on the FHWA Figure 8 and the results are shown on TIAR, Figure 8 (*Appendix K*).

### **Mitigation Measures**

The proposed project will add to traffic on Māmalahoa Highway in the vicinity of the project site. However, the proposed project is not expected to have a significant adverse traffic impact due to the current low volume of traffic in the study area. Both study intersections could operate under stop sign control although the east intersection should be improved to provide a fully channelized design like the west intersection. Improvements on Māmalahoa Highway include a separate left turn lane on the westbound approach and a right turn deceleration lane on the eastbound approach. Improvements on the south leg of Nīnole Road include a channelized right turn lane controlled by a yield sign and a left turn lane controlled by a stop sign.

Additional mitigating measures such as the installation of traffic signals at the west intersection may be required if the proportion of primary buyers exceeds the 30% estimate assumed in the study. Should this occur, the number of external trips generated by the proposed project could exceed the volume of trips forecast in this study and the installation of traffic signals at the west intersection would become warranted at some future time. The State DOT should also consider reducing the speed limit in the area from 55 to 45 miles per hour if traffic signals are installed.

## 5.2.12 Infrastructure

### 5.2.12.1 Drainage

#### Probable Impacts

Proposed improvements at Sea Mountain will alter drainage patterns in minor ways. The use of drywells and retention basins will be implemented to mitigate the drainage impacts from this project. Overall, drainage impacts are not expected to be significant.

#### Mitigative Measures

The general solution to local drainage in Hawai'i County has been to construct dry wells, which redirect any man-made runoff into the ground. The dry wells and retention basins will be designed to filter pollutants and silt through sand and gravel layers. Vegetated retention basins will also provide some biological uptake of nutrients in storm water. In addition, storm water entering the groundwater from the project site will be filtered through soil and lava layers ranging to 380 feet above sea level. Percolation through such thick soil and lava layers will effectively remove most pollutants from the storm water before it reaches groundwater.

Runoff that enters drywells from hardscape areas would not be subject to biological uptake, but the deep lava filtration effectively removes many pollutants, except for some dissolved nutrients. Pesticides intended for use on the golf course break down in the environment relatively quickly. The golf course and landscape management plans will be responsible for minimizing the discharge of fertilizers and pesticides, and selecting appropriate products to minimize storm water pollution. Storm water runoff from impervious areas will be collected through a system of swales, catch basins, and pipes and transported to storm water drywells or infiltration areas for disposal. The permeability of the existing soils is evident by the absence of any natural storm water channels or gullies in the vicinity of the site. Infiltration areas will be located in the golf course and other open spaces, where practical. Drywells, where needed, will be located within roadway rights-of-way and within individual parcels and designed to reduce contaminants.

### 5.2.12.2 Water Supply

#### *Water Supply Requirements*

This section estimates the water requirements for the proposed Sea Mountain Village, and develops a basis for the related infrastructure required to serve the project. The project hydrologist will analyze sustainable yields of the aquifer to ensure water use does not exceed demand. The design of potable water systems will be based upon the requirements of the County of Hawai'i, Department of Water Supply, (DWS) as well as the Department of Health, State of Hawai'i (DOH). Because potable water may be used on a regular basis to supplement the recycled wastewater for golf course irrigation, potable water and recycled water (irrigation) will be estimated and described together under the "estimated water demand" section.

**Golf Course Irrigation:** The maximum irrigation requirements for the golf course are based upon calculations dated February 23, 2006, prepared by Brent Harvey, ASLA of Harvey Mills Design. Mr. Harvey's calculations assume no rainfall and an average irrigation rate of 887.41 acre-feet per year over 156 acres, including 106 acres of turf, greens and tees, 47 acres of landscaping and 3 acres of lakes. The Nīnole Stream was assumed to be left natural. The average 24-hour flow rate for the high season average of 887.41 acre-feet is 792,229 gallons per

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

day. Mr. Harvey estimated the peak daily flow to be 919 gpm for 18 hours or **992,520** gallons per day. The irrigation water demands calculations are included in the appendix of the Master Plan for Potable Water, Recycled Water and Wastewater Systems report.

**Potable:** The potable water demands for the Sea Mountain Resort are based upon the standards of the County of Hawai'i, DWS. The estimated water demands for the various project areas are based upon a "duty" factor and are as shown in *Table 5-5* at full build-out and 100% occupancy.

As a refinement, *Table 5-6* was prepared to estimate water demands based upon separately identified interior and exterior water use for each project area. The interior use is based upon the water consumption as determined by the City and County of Honolulu standards, which are used by the County of Hawai'i. Exterior use is determined based upon landscape area as determined by FORMA and by water consumption duties developed by the project golf course irrigation consultant, Harvey Mills Design.

**Table 5-5. Estimated Water Demands County of Hawai'i, Department of Water Supply Duty Factors - Potable Water**

Area	Land Use	DU/SF	Duty (gpd)/DU	ADD (gpd)	MDD *(gpd)
1	SFD	142	400	56,800	85,200
2	Duplex	185	400	74,000	111,000
Exist. Kalana 1	SFD	19	400	7,600	11,400
<b>Subtotal 500</b>		<b>346</b>		<b>138,400</b>	<b>207,600</b>
3	Triplex	248	400	99,200	148,800
4	Cluster TH	180	400	72,000	108,000
5	CTH	282	400	112,800	169,200
6	CTH	220	400	88,000	132,000
7	Lanai	114	400	45,600	68,400
8	Stacked	332	400	132,800	199,200
9	Flat	120	400	48,000	72,000
	Comm.	73,000	0.14	10,200	15,300
Exist. Colony I		76	400	30,400	45,600
<b>Subtotal 305</b>		<b>1,572</b>		<b>639,000</b>	<b>958,500</b>
<b>Total Project</b>		<b>1,918</b>		<b>777,400</b>	<b>1,166,100</b>

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

**Table 5-6. Estimated Water Demands, Modified DWS Method Using Area Landscape Irrigation - Potable Water**

Area	Land Use	DU/Ac	Duty (gpd)/	ADD (gpd)	MDD *(gpd)
1 & 2	Table 6-6	327	320	104,600	104,600
1 & 2	Landscape	37.45	3,100	116,100	267,000
Exist. Kalana 1	SFD	19	400	7,600	11,400
<b>Subtotal 500</b>		<b>346</b>		<b>228,300</b>	<b>383,000</b>
3	Triplex	248	320	79,400	79,400
3	Landscape	9.57	3,100	29,700	68,300
4, 5 & 6	CTH	682	320	218,200	218,200
4, 5, & 6	Landscape	29.20	3,100	90,500	208,200
7, 8 & 9	Table 6-6	566	320	181,100	181,100
7, 8, & 9	Landscape	9.62	3,100	29,800	68,500
	Comm.	73,000	0.14	10,200	15,300
Exist. Colony I		76	400	30,400	45,600
<b>Subtotal 305</b>		<b>1,572</b>		<b>669,300</b>	<b>884,600</b>
<b>Total Project</b>		<b>1,918</b>		<b>807,100</b>	<b>1,267,600</b>

Following is a summary of the estimated water demands at ultimate development and 100% occupancy for the Sea Mountain Village in million gallons per day (mgd), including potable and golf course irrigation (Table 5-7).

**Table 5-7. Summary of Estimated Water Demands, - Potable**

	DWS Basis		Modified DWS	
	ADD*	MDD**	ADD	MDD
Potable	0.777	1.166	0.807	1.268
Golf/Landscape	0.431***	0.992****	0.431	0.992
<b>Total Estimated Demands</b>	<b>1.208</b>	<b>2.158</b>	<b>1.238</b>	<b>2.260</b>

\*ADD = Average Day Demand

\*\*MDD = Maximum Day Demand

\*\*\*Based upon Harvey Mills Design (HMD) total season water demand of 482.62 acre feet, including historical rainfall.

\*\*\*\*Based upon the ratio of no rainfall water supply requirement of 919 gpm (0.992 mgd) to ADD (0.431 mgd) = 2.3.

However, occupancy of the various dwelling units will affect the estimated flows for both water and wastewater. Table 5-8 shows the effect of a presumed occupancy factor of 25% on the

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

apparent dwelling unit count. Finally, *Table 5-9* shows the effect of a 25% occupancy factor upon the water demands estimated in *Table 5-6*, which separates out the interior and exterior usages, to provide the most realistic estimation of total water demand.

**Table 5-8. Phasing/Occupancy**

Phase	Planning Areas	DU's	Area (SF)
1	6,7,8,9	196	
	Retail		18,000
	Existing	95	
	<b>Subtotal Phase 1*</b>	<b>291</b>	<b>18,000</b>
2	3,4,5	178	
3	1,2	82	
	<b>Total Phase 1,2,3</b>	<b>551</b>	<b>18,000</b>

**Table 5-9. Estimated Water Demands, Modified DWS Method Using Area Landscape Irrigation - Potable Water - 25% New Occupancy**

Area	Land Use	DU/Ac	Duty (gpd)/	ADD (gpd)	MDD *(gpd)
1 & 2	<i>Table 6-6</i>	82	320	26,200	26,200
1 & 2	Landscape	37.45	3,100	116,100	267,000
Exist. Kalana 1	SFD	19	400	7,600	11,400
<b>Subtotal 500</b>		<b>101</b>		<b>149,900</b>	<b>304,600</b>
3	Triplex	62	320	19,800	19,800
3	Landscape	9.57	3,100	29,700	68,300
4, 5 & 6	CTH	170	320	54,400	54,400
4, 5, & 6	Landscape	29.20	3,100	90,500	208,200
7, 8 & 9	<i>Table 6-6</i>	142	320	45,400	45,400
7, 8, & 9	Landscape	9.62	3,100	29,800	68,500
	Comm.	18,000	0.14	2,500	2,500
Exist. Colony I		76	400	30,400	45,600
<b>Subtotal 305</b>		<b>450</b>		<b>302,500</b>	<b>512,700</b>
<b>Total Project</b>		<b>551</b>		<b>452,400</b>	<b>817,300</b>

The following is a summary of the estimated water demands for a 25% occupied Sea Mountain Village in mgd, including potable and golf course irrigation (*Table 5-10*).

**Table 5-10. Summary of Estimated Water Demands, 25% Occupied**

	Table 6-7 DWS Basis		Table – 6-10 25% Basis	
	ADD*	MDD**	ADD	MDD
Potable	0.807	1.268	0.452	0.817
Golf/Landscape	0.431***	0.992****	0.431	0.992
<b>Total Estimated Demands</b>	<b>1.238</b>	<b>2.260</b>	<b>0.883</b>	<b>1.809</b>

\*ADD = Average Day Demand

\*\*MDD = Maximum Day Demand

\*\*\*Based upon Harvey Mills Design (HMD) total season water demand of 482.62 acre feet, including historical rainfall.

\*\*\*\*Based upon the ratio of no rainfall water supply requirement of 919 gpm (0.992 mgd) to ADD (0.431 mgd) = 2.3.

**Fire Flows:** Estimated fire flows are based upon Table 100-19, Fire Flow Requirements of the County’s DWS standards. All residential development proposed for Sea Mountain will require a fire flow of 1,500 gpm for one hour for the new 500 pressure zone. Neighborhood business, small shopping centers and hotels require a fire flow of 2,000 gpm. for 2-hours. The highest fire flow requirement for the Sea Mountain project is therefore 2,000 gpm for 2-hours for the 305 pressure zone.

*Water Supply Sources*

Upon full development of the Sea Mountain Village, a water supply equal to the maximum day demand will be required. Generally, the water supply must also be available assuming one of the key sources is out of service. There will be two sources of water supply available to the project; namely, water wells and R-1 quality recycled water from the wastewater reclamation plant.

**Recycled Water:** Based upon service to 1,523 homes and 300 hotel units plus related commercial development, the project’s civil engineers have estimated, using City and County of Honolulu Standards provided by the DWS, the wastewater treatment requirements to be about 80% of the average day potable water requirements for the community, including commercial development. Accordingly, the engineers recommend a 600,000 gpd treatment plant; phasing of the treatment plant would be in accordance with development needs.

Treated R-1 recycled water can usually be recaptured at a rate of 90% or greater of the treated wastewater flows. Project engineers therefore have estimated that approximately 540,000 gpd will be available for irrigation of the golf course during maximum occupancy, while only 160,000 gpd would be available during 25% occupancy.

**Wells:** Simply as a matter of public health and safety, the civil engineers recommend that the use of the existing wells be limited to meeting irrigation water demands due only to the relatively lower quality of water available from these wells. In addition, the construction of three or four new wells is recommended at or above the elevation of the existing 305-foot reservoir, all of which would be designed to meet the project potable water requirements. Each well would be designed with a capacity of approximately 700 gpm. There will be at least one well that will not be required for service at any given time but will be dedicated as “standby

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

duty” for any well that is out of service for any reason. Upon additional well testing, it is assumed that this well development concept may be refined.

**Water Supply Summary:** The following is a summary of the estimated water demands in mgd for the project based upon the modified DWS technique employed in the development of *Tables 5-6 and 5-9* and the corresponding water supply source available to meet the demands (*Table 5-11*).

**Table 5-11. Summary of Estimated Water Demands and Corresponding Sources Available**

	100% Occupancy		25% Occupancy	
	ADD	MDD	ADD	MDD
Irrigation Demand	0.431	0.992	0.431	0.992
Available R-1 Recycled	0.540	0.540	0.160	0.160
Net Irrigation Well Supply *	0.000	0.452	0.271	0.832
Potable Well Supply**	0.807	12.68	0.452	0.817
<b>Total Required Well Supply (mgd)</b>	<b>0.807</b>	<b>1.720</b>	<b>0.723</b>	<b>1.649</b>

*\*Existing wells can provide the water required to meet the golf irrigation water demands as they do now.*

*\*\*New wells will be constructed in order to meet the potable water demands*

**Probable Impacts**

The existing private water system for the Punalu’u area would not be able to handle the needs of the proposed development of Sea Mountain. Therefore, the existing system will require substantial improvements, as described below:

**Distribution System:** The existing Sea Mountain water distribution system is supplied from two wells sited makai of the State Highway. These wells together with a booster pump station deliver water to a existing concrete reservoir located at an elevation that provides a HWL of 305 feet. All existing development is served from the existing reservoir. The project’s civil engineer recommends dedication of the existing wells to irrigation service only, based upon isolation of the potable water supply from the irrigation water supply.

Future development will require that an offsite reservoir be sited at an elevation that can serve the highest developed lot with at least 40 psi of water pressure. The project engineers recommend that a reservoir be located offsite at an elevation that will permit a HWL of approximately 500 feet.

The future water system should be divided into two pressure systems or service pressure zones. The project engineers recommend that the existing pressure system serve only the development located makai of the State Highway, including Development Area Nos. 3 through 9 and the Colony I condominiums. A new pressure system should be created at the 500 foot elevation that will serve only the development mauka of the State Highway (Planning Areas Nos. 1 and 2).

**Reservoirs:** Reservoir storage requirements are based upon the requirements of the County DWS Standards, Generally, one maximum day water demand plus fire flow describe the water storage criteria. The maximum day water demands are dependent upon the water storage

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

available for golf course irrigation. If golf course irrigation is removed from the equation, through independent storage, then only potable water demands need be considered (Table 5-12).

**Table 5-12. Potable Water Demands Only (Golf Course Excluded)**

System	MDD	Fire Flow	Required	Storage
500	207,600	90,000	297,600	*500,000
305	958,500	240,000	1,198,000	1,000,000
<b>Total</b>			1,495,600	1,500,000

The project's civil engineers have assumed that the existing 305 foot elevation reservoir can be maintained to serve the 305 water system; therefore a new 500,000 gallon reservoir can be constructed to serve the 500 zone, as well as supplement water storage for the 305 zone.

**Proposed Water System Facilities:** Figure 2-3 shows the water system facilities recommended by the project engineers for the Sea Mountain Village, including pipelines and reservoirs based upon the preliminary development information available.

***Mitigative Measures***

Sea Mountain Five, LLC, will undertake the water supply improvements recommended by the project's civil engineers in order to prevent any supply deficiencies that could occur to the existing system due to the demand of the proposed project development.

5.2.12.3 *Wastewater Disposal*

*Existing Wastewater System*

**Collection System:** The existing wastewater system is based upon a gravity collection system with two sewage lift stations provided to collect the wastes that drain to areas too low to be served by the gravity system. The sewer lift station located near the beach is currently inoperative. Little is known about the condition of the existing collection system and therefore will be inspected by video camera and repairs made or pipes replaced as required.

**Wastewater Treatment Plant:** The treatment plant was viewed during a preliminary reconnaissance visit. The treatment plant appears to be in very poor repair and treatment system technology is over 35 years old. A more detailed inspection of the system will be completed later. The treatment plant apparently was designed for a flow of 50,000 gpd but has seldom operated beyond a 10,000 gpd flow rate.

Based upon the treatment requirements of the time, the plant should be able to process the collected wastewater to a disinfected secondary treatment level known as "R-2" treatment level. The treated wastewater is disposed of to the golf course when there is an irrigation requirement. R-2 level treatment is approved for disposal to golf courses according to State Guidelines with a 500 foot setback to dwellings.

Currently R-2 treatment no longer meets the DOH requirements for reuse or disposal and R-1 treatment level is required. The project's civil engineers have assumed that the treatment plant will be replaced when the new development begins. The location of a new treatment plant has

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

not yet been finalized. Another option would be to upgrade or expand the existing treatment plant at its current location.

*Estimated Wastewater Flow Requirements*

The project wastewater flow requirements are based upon the Design Standards of the Department of Wastewater Management, City and County of Honolulu, as required by the County of Hawai'i. The estimated wastewater flows contained in this section are based upon proposed development phasing over a ten year development period. *Table 5-13* shows the estimated wastewater flows based upon 100% occupancy while *Table 5-14* reflects a uniform 25% occupancy of the Sea Mountain Village.

It is apparent from *Tables 5-13 and 5-14* that the estimated wastewater flows can vary significantly based upon the occupancy of the Sea Mountain Village. While projected occupancy figures have not been developed at this time, actual operating treatment capacity could vary from a maximum of approximately 600,000 gallons per day to less than 180,000 gallons per day based upon 25% occupancy of the project.

**Table 5-13. Estimated Wastewater Flows, Department of Wastewater Management, City and County of Honolulu Standards @ 100% Occupancy**

Phase	Planning Areas	DU's	Duty (gpd)	Est. Flow (gpd)
1	6,7,8,9	786	320	251,500
	Retail	73,000	0.11	8,000
	Existing	95	320	30,400
	<b>Subtotal Phase 1</b>	<b>881</b>		<b>289,900</b>
2	3,4,5	710	320	227,200
	<b>Subtotal Phase 2</b>	<b>606</b>		<b>227,200</b>
3	1,2	327	320	104,600
	<b>Subtotal Phase 3</b>	<b>327</b>		<b>104,600</b>
	<b>Total Phase 1,2,3</b>	<b>1,918</b>		<b>621,700</b>

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

**Table 5-14. Estimated Wastewater Flows, Department of Wastewater Management, City and County of Honolulu Standards @ 25% Occupancy**

Phase	Planning Areas	DU's	Duty (gpd)	Est. Flow (gpd)
1	6,7,8,9	196	320	62,700
	Retail	18,000	0.11	2,000
	Existing	95	320	30,400
	<b>Subtotal Phase 1</b>	<b>291</b>		<b>95,100</b>
2	3,4,5	178	320	57,000
	<b>Subtotal Phase 2</b>	<b>178</b>		<b>57,000</b>
3	1,2	82	320	26,200
	<b>Subtotal Phase 3</b>	<b>82</b>		<b>26,200</b>
	<b>Total Phase 1,2,3</b>	<b>551</b>		<b>178,300</b>

**Wastewater Treatment, Reuse and Disposal:** Based upon the preceding wastewater flow estimates a new treatment plant will be required to meet the generated flows as development occurs. If the Sea Mountain Village develops seasonal occupancy differentials, the treatment system will be required to operate at reduced capacity. While the main use of the R-1 treated wastewater will be irrigation of the proposed golf course, a secondary system of disposal of the treated effluent below the UIC line will be required by the DOH for operation of the wastewater treatment and reuse system (*Figure 5-7*). Biological nutrient removal will be included with the treatment process to mitigate impacts to down gradient receptors.

A properly design treatment plant can be expected to convert approximately 90% of the plant influent to usable recycled water. For the full capacity plant, a usable recycled water supply of approximately 540,000 gallons per day would be produced. Alternatively, should occupancy rates average at a 25% level, only 178,000 gallons of wastewater would be generated and only 160,000 gpd of treated effluent would be available for golf course irrigation.

**Probable Impacts**

The existing private wastewater system for the Punalu'u area would not be able to handle the needs of the proposed development of Sea Mountain. Therefore, the existing system will require substantial improvements, as described below. The long-term impact of the proposed on-site wastewater collection, treatment, and disposal systems would be to provide a substantial amount of the irrigation water required for maintenance of the golf course.

**Mitigative Measures**

Sea Mountain Five, LLC, will undertake the wastewater system improvements recommended by the project's civil engineers in order to prevent any deficiencies that could occur to the existing system due to the demand of the proposed project development. One possible wastewater collection system is shown schematically in *Figure 5-7*.

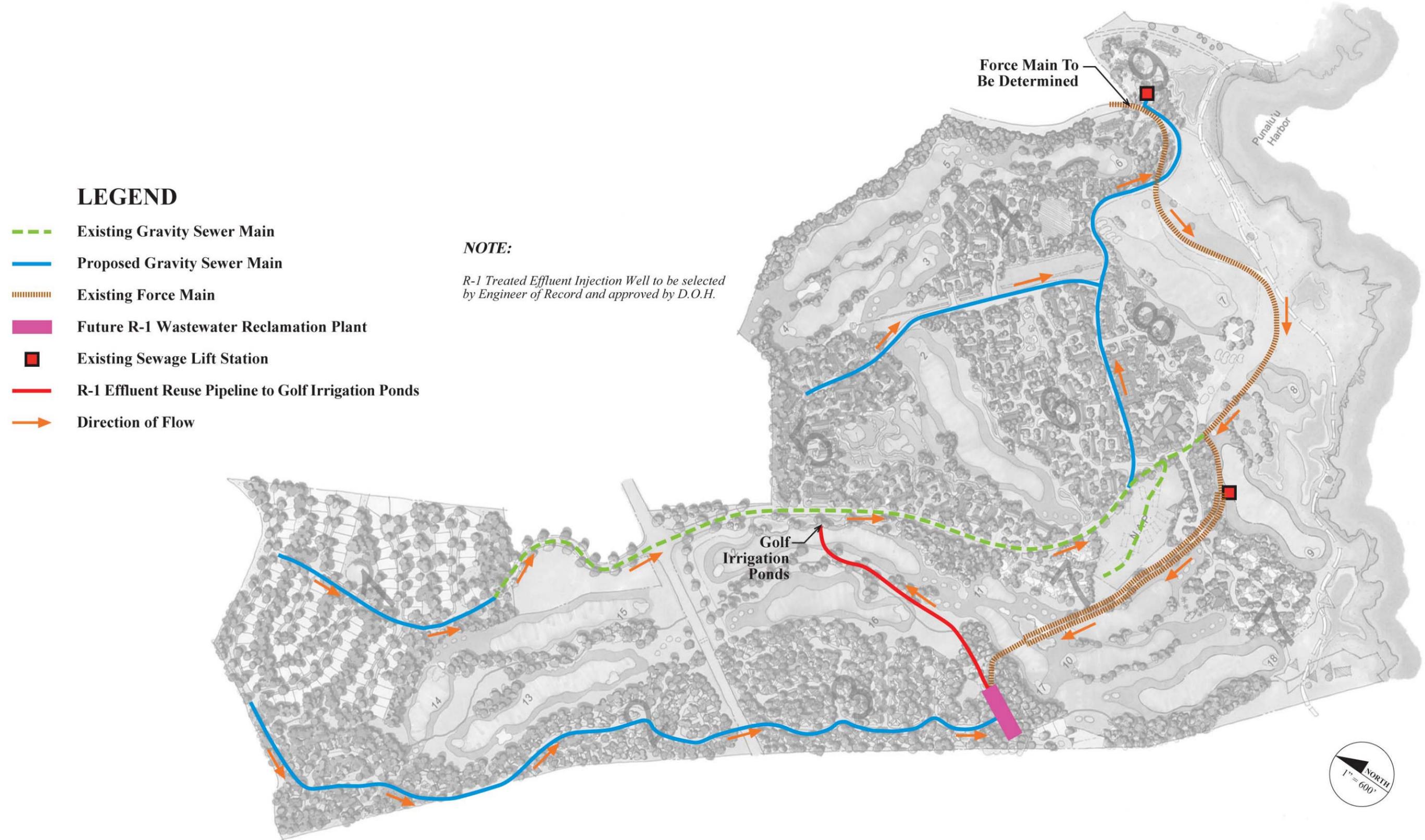


Figure 5-7. Proposed Wastewater System

Wastewater from the Sea Mountain project would be processed at a new/renovated private wastewater treatment plant that will be built as part of the project. The proposed treatment level will produce an effluent suitable for golf course and landscape irrigation, thus conserving the available water resources. Effluent that would be discharged to the ground through dry wells due to inclement weather (thus eliminating the need for irrigation) or other factors would be of high quality R-1 and would not detrimentally affect the aquifer or regional coastal waters.

Wastewater plans will conform to applicable provision of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater systems" and to the Department's Guidelines for the Treatment and Use of Recycled Water, May 15, 2002. Pre-final plans will be submitted to the Department of Health for review and conformance. Sea Mountain Five, LLC, will develop a water quality monitoring program and install at least one groundwater monitoring well.

#### 5.2.12.4 Solid Waste

##### Probable Impacts

Solid wastes generated on site will be collected and disposed at approved County solid waste disposal facilities. Recycling of solid wastes will be accommodated and implemented to the extent practicable. Green wastes generated by golf course and landscape maintenance will be composted at the proper facility. Solid waste systems will be designed to comply with the applicable DOH and County requirements. Solid waste from multifamily, commercial and institutional uses will be handled by private waste hauling contractors.

Sea Mountain is expected to reach full build out in 2015. After build out, solid waste generated during the operational life of the residential and commercial activities includes paper, plastic, yard waste, glass, metals, other organics and other solid wastes. It was assumed for this analysis that each single-family residential unit will generate nine pounds of waste per day, each multi-family residential unit will generate six of waste per day, and each commercial facility will generate seven pounds of waste per 1,000 square feet per day. Solid waste generated by operation activities from the residential units is estimated at 1,852 tons a year. Solid waste generated by operation activities from the commercial units is estimated at 83 tons a year.

Pu'u Anahulu Landfill is the closest solid waste disposal facility to the proposed project. According to the Draft EIS for the East Hawai'i Regional Sort Station, September 2003, "At the end of 2002 the Pu'u Anahulu Landfill had slightly more than 12 million cubic yards of permitted air space. Assuming the in-place density averages 1,100 pounds per cubic yard, and cover materials make up 20% of the volume, the remaining capacity of the Pu'u Anahulu Landfill is 5.28 million tons." For use in this study, we have estimated current landfill capacity at 5 million tons. Approximately 1,935 tons of solid waste are estimated to be generated a year from the operation of the residential and commercial components of the proposed project. Using recycling and sustainable design efforts, we estimate a 15-40% reduction in the amount of solid waste generated a year for a reduced total of 1,645 – 1,161 tons of solid waste per year. The proposed project will contribute less than .0003% of total capacity of solid waste to the landfill a year. In effect, this project will have a very small impact on the life of the landfill. Solid Waste calculations are provided in *Appendix M*.

**Mitigative Measures**

Using recycling and sustainable design efforts, we estimate a reduction in the amount of solid waste generated. The proposed project will provide an easily accessible area that serves the entire site that is dedicated to the separation, collection and storage of materials for recycling including at a minimum, paper, glass, plastics, green waste and metals. The provision and use of the collection bins should be able to accommodate a high diversion rate when easily accessible to custodial staff and recycling collection workers.

A solid waste management plan will be developed which will identify efforts to minimize waste generated at Sea Mountain during construction and operation. At minimum the plan will include the following:

- Prevention of waste is called source reduction. During operation, minimization of waste generation, such as limiting the number of non-reusable products will be implemented.
- Efforts to re-use materials will be a component of the solid waste plan. The primary re-use taking place in the operational phase will be composting / re-use of green waste.
- Recycling will be an important part of both the construction and operational phase of the development. Recyclable materials will be separated out from non-recyclable materials, hauled from the site to the appropriate company, and eventually processed to make new products.

A recycling program will be promoted among commercial retailers to reduce the impact Sea Mountain may have on the County landfill. Tenants of the commercial center will be encouraged to utilize separate containers for cardboard disposal and other recyclable waste. This will reduce the commercial element's potential contribution to the landfill by between 15 and 40%. Space for recycling operation will be provided in the development.

A successfully implemented recycling program will significantly reduce potential impacts on the County landfill. Sea Mountain will encourage recycling amongst commercial tenants and residents, work to educate tenants and residents on the benefit of recycling, and will provide separate waste receptacles for recyclable products. Grounds maintenance crew will separate out green waste for appropriate disposal to one of the composting companies on Hawai'i. Chipping and composting will be utilized to the extent practicable; especially during the operational phase. Yard and landscaping maintenance may use compost and chipped material for mulching and soil conditioning. These activities will reduce the amount of green waste that needs to be transported off-site.

5.2.12.5 *Power and Communications*

**Probable Impacts**

HELCO will be able to provide electrical services to the proposed project, but it is unknown at this time whether facility upgrades will be required in order to serve the project. This remains an unresolved issue.

Hawaiian Tel will be able to provide telephone services to the proposed project. Facility upgrades including two 25 by 30-foot pairgain easements for electronic equipment will be necessary to serve the project. One easement would serve the first phase of the project and one would serve the later phases.

**Mitigation Measures**

Prior to building permits (or SMA or other point in the process) a projected electrical demand analysis should be done to determine whether existing HELCO facilities are suitable for handling the additional project generated load. If existing facilities are unsuitable to serve the project, necessary facility upgrades as determined by HELCO shall be coordinated and planned for within the proposed project area.

Hawaiian Tel facility upgrades should be constructed to serve each phase prior to occupation of that phase. Siting of the easements shall be coordinated with Hawaiian Tel.

Electrical and telecommunication lines should be located underground whenever possible to preserve existing views.

5.2.12.6 *Housing*

**Probable Impacts**

The long-term impacts to housing are positive. Overall, the project will provide 1,523 new residential units and 300 hotel rooms. If the developers pursue rezoning of the mauka portion of the project site above the highway, the affordable housing policy is triggered for that portion only. The Hawai'i County Affordable Housing policy requires a 20% contribution of total units to be affordable. In that event, Sea Mountain Five, LLC will comply with Hawai'i County's affordable housing policy by either providing the required affordable housing units within planning areas 1 and/or 2 of the project site or at an acceptable off-site location.

A condition of the original resort zoning designation on the project site requires the provision of workforce housing proportional to the number of employees of the resort. For resorts generating over 100 employees, one affordable housing unit must be provided for every four full-time equivalent employees. The hotel is projected to generate 240 full-time employees, which would translate into a requirement of approximately 60 workforce housing units. The project will include workforce housing to meet this requirement, however, the exact location of the housing has yet to be determined. Potential locations include on-site, on adjacent DHHL land, or off-site in Pahala or Na'alehu. It is possible that some of the construction housing will be converted into workforce or affordable housing units. All affordable housing provisions will be negotiated directly with the County.

**Mitigative Measures**

Sea Mountain Five, LLC will include workforce housing in accordance with the County's existing workforce housing requirement. If the mauka portion is rezoned, the project will also comply with Hawai'i County's 20% affordable housing policy. However, the decision to pursue rezoning of the mauka portion has not been made, and therefore it is unknown whether there will be an affordable housing component to this part of the project. This also remains an unresolved issue.

### 5.2.13 Socio-economic Conditions

#### 5.2.13.1 Population and Employment

##### Probable Impacts

The proposed action would provide a housing mix, including single-family residential lots, and multifamily units for sale, and workforce housing.

Trends in population and household growth are principal indicators of the potential demand for real estate development. Population growth in the market area has been moderate to high since 1980; recent data shows this trend continuing. Although the district of Ka'ū contributed to only 1% of the growth in Hawai'i County from 1980 to 2000, between 1980 and 2000, Ka'ū had a 58% percent increase in population. This trend of population growth in the Sea Mountain region indicates a demand for more residential development in the area which this project will provide.

Based upon the demographic patterns of Hawai'i County as well as surveys of resident and seasonal home owners in Kona and Waikoloa Village, the economic and fiscal study (*Appendix G*) projected that most seasonal residents will be empty nesters and in pre-retirement or retirement. The average number of persons per seasonal/ renter household at Sea Mountain is expected to be 2.75 as shown in *Table 5-15*.

**Table 5-15. Household Size Distribution for Sea Mountain**

Family Size	%
2	66%
3	10%
4	16%
5	7%
6	1%
Average family members per household	
	2.65
% with caretaker/ caregiver	
	10%
Average persons per household	
	2.75

The family size for permanent residents will also be a majority of empty nesters along with some families in the work force housing units. For permanent residents, the average household size will therefore be somewhat larger at 2.9 persons per unit. At the end of Phase 1 (2011), there should be 235 new permanent residents at the redeveloped Sea Mountain community who reside there at least 180 days per year. In addition, there will be a non-resident population that will occupy their residences on a seasonal basis. They may also rent them as vacation rentals. We anticipate that up to 80% of the seasonal residences may be occupied during peak periods resulting in a maximum seasonal population of 2,382 part time residents and renters. This leads to a peak population of permanent and seasonal residents plus renters of just under 3,700 persons and an average population of around 2,430 persons.

Employment trends are prime indicators of the economic growth of an area. Increases in employment generate growth for most sectors of the local economy and dictate the rate at which it will expand. Since 1980, the Hawai'i County market area has experienced growth in almost all employment sectors. Fueling the Hawai'i County market area's employment growth is an increasingly diverse economic base. The market area will continue to experience steady growth especially with the addition of a resort and commercial businesses in the project area, which will serve as a catalyst for more economic growth.

This project will provide approximately 372 permanent jobs by 2011, and approximately 517 jobs by 2017.

Total construction spending at Sea Mountain is expected to be about \$598 million. This spending supports over 3,800 person years of construction employment over the life of the project. In addition to the creation of construction jobs, the State of Hawai'i will receive excise tax revenue on finished development and building materials, conveyance taxes, and income taxes on construction wages. These will amount to an additional \$26.5 million in State revenue over the life of the project. Based on DBEDT model of the impact of construction on the Hawai'i economy, the construction expenditures of \$598 million on the Sea Mountain project will result in an increase in total resident and visitor spending of \$45.5 million dollars at buildout, and additional 3,800 persons years of employment, and an additional \$114 million in household income. See Fiscal Impact Analysis in *Appendix G* for details.

The proposed action will place residents and visitors on land that is currently undeveloped and will also result in a need for suitable retail and commercial facilities to support those residents. Requiring such persons to go outside the project area will increase traffic on the Hawai'i Belt Highway.

#### Mitigative Measures

The proposed action will provide suitable retail and commercial facilities to support the residents and visitors to the community.

#### *5.2.13.2 Economic and Fiscal Impact to County and State of Hawai'i*

The Sea Mountain project will have a project cost/investment of approximately \$598 million over a ten-year period (2008 – 2017). Sea Mountain will create just over 370 permanent jobs by 2011 and around 517 jobs by 2017. Construction at Sea Mountain will support nearly 3,800 person years of employment or about 350 jobs per year over the life of the project.

The County of Hawai'i would receive annual real estate tax revenues of \$7 million at project buildout (2017) as well as other county revenue of \$3.4 million. This total revenue of \$10.4 million will be offset by county service costs of \$5 million. The net annual County surplus is \$2.4 million in 2011, increasing to \$5.4 million by 2017. The cumulative surplus from project opening to final buildout is \$33.4 million.

The State of Hawai'i would receive an estimated \$4.9 million per year in excise tax, income tax and other revenues from residents at buildout (2017). This will be supplemented by \$3.2 million in revenue from excise taxes on commercial operations, including retail sales, hotel taxes, and taxes on commercial rents.

Comparing state revenues to state costs over the life of the project, state revenues should exceed expenditures by 26.5 million.

Including indirect impacts of construction expenditures recirculating in the Hawai'i economy, construction of the Sea Mountain project will generate: \$735 million in economic output; 7,232 person years of employment and; \$342 million in household income.

Details of the Fiscal Impact Analysis are provided in *Appendix G* of this report.

**Mitigative Measures**

The economic impacts are viewed as beneficial to the state, county and households. The developer is taking necessary steps to assure that the project can be developed in order to produce these economic benefits to the community.

**5.2.13.3 Community Perceptions on Tourism**

According to the Hawaii Tourism Authority, recent trends indicate that public perceptions on tourism are increasingly negative.

**Mitigative Measures**

This increasingly negative impression of tourism may or may not pose obstacles to the proposed project. Community sentiment may create development opposition, but it is not development policy. The proposed project intends to create public benefits such as local jobs and economic opportunities, preservation of the environment, protection of cultural resources, and education programs for tourists.

**5.2.14 Public and Social Service Facilities**

**5.2.14.1 Education**

**Probable Impacts**

The residents of Sea Mountain will include families with school-aged children which will generate a need for school facilities. According to the Hawai'i Department of Education, the project is estimated to generate a total of 37 students by the buildout year of 2015. The following table (*Table 5-16*) assumes a 10-year construction timeline from 2005-2015.

**Table 5-16. Sea Mountain Student Generation**

<b>Sea Mountain</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Elementary	10	11	12	11	16	16	16	22
Intermediate	4	4	4	4	6	6	6	8
High school	3	3	4	3	2	5	5	7
<b>Total</b>	<b>17</b>	<b>18</b>	<b>20</b>	<b>18</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>37</b>

Source: Clyde Igarashi, Hawai'i DOE

The nearest K-12 school facility is Pāhala Elementary and Ka'ū High school complex in Pāhala. According to the DOE, the enrollment for the complex in 2005 was 502 students. Projected enrollment for 2011 is 579 students and the school capacity is approximately 678 students. The school is currently under capacity. With the additional 37 students expected from the Sea Mountain development, the school would be nearing capacity, but would not reach capacity.

Department of Education (DOE) fair share contributions are imposed at the State Land Use Commission level. The project does not trigger contribution to DOE fair share conditions

(Heidi Meeker, Hawaii DOE, personal communication). As the proposed project has been zoned for many years, the proposed project is not anticipated to trigger regulatory requirements pertaining to fair share contributions for school facilities or programs. Nonetheless, the ongoing discussions with the DOE will be pursued to assure compliance with all applicable requirements.

Significant impacts to the existing school system are not anticipated. Nevertheless the project will cause additional strain on a school system already nearing capacity.

**Mitigative Measures**

If DOE imposes a fair share contribution, Sea Mountain Five, LLC will 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 DOE. Terms of the contribution will be agreed upon in writing by Sea Mountain Five, LLC and the DOE prior to obtaining county subdivision and building permits.

Sea Mountain Five, LLC is currently developing a benefits package that includes the school as potential beneficiaries of a community trust. The details and amounts are currently being discussed and detailed.

5.2.14.2 *Police and Fire*

**Probable Impacts**

At buildout, the proposed project may add up to 1,523 residential units and 300 hotel rooms requiring police and fire services.

The proposed project would be built to meet applicable County fire codes and fire hydrants and water storage would be installed as part of the upgraded water system. The County Fire Department was contacted regarding potential impacts of this project, but no comments were received. It is possible that as the project expands additional fire personnel would be required.

There is currently very limited police staff for the Ka'ū district. According to Sgt. Rollin Rivara, an increase in population in the district would result in additional public safety concerns such as property crime associated with drug-related activities, and traffic concerns, especially when the Highway floods. Manpower to the Ka'ū district is already a problem and additional population from this project would worsen the situation (Rivara, pers. comm.). Additional police staff would likely need to be hired.

The likelihood is great that both the police and fire departments will need additional staff and/or facilities to serve the proposed project, however, the exact number of employees and/or facilities is unknown at this time. Discussion with the County Police and Fire Departments will continue and the developer is prepared to provide space for substations and/or make fair-share contributions to facilitate provision of additional services. This will remain an unresolved issue until it is discussed further with Hawai'i County Fire and Police Departments.

**Mitigative Measures**

The developer will assist in provision of additional police and fire services through provision of substation sites and/or through fair-share contributions for additional services as required by the County, if any. As exact details of this requirement are unknown at this time, this remains an unresolved issue.

5.2.14.3 *Medical and Emergency Services*

**Probable Impacts**

Medical emergencies and health care are important in modern life. The Ka'ū Hospital and Rural Health Clinic in Pāhala would serve the project site. This small facility is working with aged infrastructure and equipment. In a survey of Ka'ū residents the UH Department of Urban and Regional Planning showed that a hospital topped the list of the top five public facilities needed in the Ka'ū region. The majority of the homeowners at Sea Mountain are not expected to use the Ka'ū Hospital for primary medical care. The developer is not currently bound to any mitigation measures concerning provision of medical services. Nevertheless, the additional population will ultimately contribute to the need for additional medical services. Sea Mountain Five, LLC would like to help mitigate this impact, however, a mitigation mechanism has not been determined. This remains an unresolved issue and further discussion is required.

Sea Mountain Five, LLC is currently developing a benefits package that includes the hospital and other health care providers as potential beneficiaries of a community trust. The details and amounts are currently being discussed and detailed.

**Mitigative Measures**

No mitigation measures are required, however, the issue remains unresolved.

5.2.14.4 *Recreational Resources*

The residents of Sea Mountain will add to the total number of residents in the Ka'ū area who will need access to recreational resources.

One way of offsetting the impacts on existing recreational facilities is to provide other on-site recreational opportunities. The proposed project is designed to increase and improve the recreational opportunities available to the residents of the Ka'ū district as well as to the residents and visitors of the Sea Mountain resort.

The coastal area at Punalu'u is presently a major recreational asset to residents and visitors to the area, and development of the larger Sea Mountain project will bring an influx of additional visitors to the existing beach area. Additional persons on the beach have the potential to impact the natural resources as well as potentially affect recreationists who regularly utilize the coastal area.

The issue of carrying capacity was evaluated for the Punalu'u black sand beach (*Appendix L*). The main points in the analysis are shared here. Carrying capacity is defined as the maximum number of people that a tourist destination can accommodate without adverse impacts to the physical and socio-cultural environment and without a decrease in visitor enjoyment of the destination. A traditional approach to carrying capacity has been to limit access to the destination in order to reduce the number of tourists, and therefore reduce the impacts to resources. Using this method, the maximum number of tourists that a site can accommodate would be derived from a factor, so many people per square foot of beach. This method has been criticized for using too many assumptions, and not taking into consideration the environmental, social, economic, and physical factors that can influence the impacts to and experience of a tourist destination. When the carrying capacity of the black sand beach was examined in light of environmental, social, economic, and physical factors, many concerns were identified, such as concern for turtles, beach erosion, destructive tour bus traffic, access for local people. The intention of the Sea Mountain development is to balance what residents and

visitors want while protecting the natural resources that make this location unique. A complete list of mitigation measures identified in the study are listed below.

**Mitigative Measures**

The Sea Mountain project plans to expand access to recreational resources for residents and visitors.

A championship golf course is planned for private and public use. Sea Mountain Five, LLC is contemplating a membership program for Sea Mountain residents. Public play on a fee basis will be scheduled into normal golf course operations on a space available basis. The fees for public play will be set at a price level competitive with the other resort golf courses on the Island of Hawai'i. There will be a kama'aina rate for local golfers. Sea Mountain Five, LLC anticipates that the golf course will participate in organized youth golf programs for students attending schools on the Island of Hawai'i. The golf course also provides a major open space recreational amenity.

The existing seven-acre will be upgraded and possibly expanded to accommodate additional visitors. Park facilities such as parking, picnic tables, pavilions, barbeques, campsites, and a boat ramp will be accessible for public use; that area can be dedicated to the County of Hawai'i if the County is agreeable to accepting the dedication.

With the increased usage of resources comes the increased need for maintenance. A beach maintenance plan will be prepared that will address coconut tree pruning, litter cleanup, waste disposal, restroom cleaning and maintenance, landscaping maintenance, possible beach nourishment, and graffiti removal.

Sea Mountain Five, LLC is also pursuing the restoration of Nīnole Cove area as an additional recreational space. This will require permission from the State of Hawai'i and a permitting process. The developer seeks to provide picnic grounds and walking trails accessing this area.

Educational tourism can be considered a recreational resource. Prospective residents at Sea Mountain could enjoy participating in cultural and environmental awareness educational programs as a form of recreation. These educational programs would provide cultural and environmental awareness of the unique aspects of the project area and the Ka'ū area in general. Features such as the black sand beach, Hawksbill and green turtle nesting, heiau, archaeological sites, and historic sites can provide this low impact educational and recreational opportunity. This would also provide open space recreational resources. Educational programs could be offered through programs organized by the hotel(s) and cultural center.

The following potential mitigation measures are included from the carrying capacity analysis in *Appendix K*.

**Environmental mitigation measures**

1. Visitor education programs on erosion.
2. Wooden walkways for viewing beach.
3. Beach nourishment (depending on cost and further scientific studies).
4. Erosion-slowing plants.
5. Educational programs on turtles.
6. Educational signage about turtles.
7. Designated turtle viewing areas.

8. Educational program on delicate coastal resources.

Social mitigation measures

1. Signage indicating the location of natural and historic resources and trails.
2. Buffers to separate visitors from sensitive resources.
3. Raised walkways to help direct desired traffic patterns.
4. Designated bus parking areas away from the beach.
5. Prohibition of bus and vehicle access to any beach areas.
6. Education of bus drivers concerning the area.
7. Educational brochures.
8. Enforcement of warning signs regarding the rough ocean current and turtles.
9. Provide a variety of recreational options for residents in addition to the black sand beach area (pools, walking, hiking and biking trails, picnic areas).

Physical mitigation measures

1. Construction of raised walkways.
2. Restoration of Ninole Cove and coastal ponds.
3. New improved park area.
4. Existing and new parking areas clearly marked and maintained.
5. Include low-impact lighting and fixtures.

The approach of the Sea Mountain development is to focus on desired beach conditions, not numbers. Rather than just reducing the number of visitors, through implementation of educational programs and signage we intend to create “smart” visitors and reduce the impact per visitor. Hotel and resort staff, especially security and docent positions, would be trained to educate and enforce regulations and policies.

Through the mitigation measures listed above we intend to meet the needs of residents and visitors and involve everyone in the protection and perpetuation of resources at the Punalu’u black sand beach.

### **5.2.15 Coastal Waters**

**Probable Impacts**

An assessment of the marine and pond environments at Sea Mountain was conducted by Marine Research Consultants (MRC) (April 2006) (*Appendix J*). MRC evaluated the nearshore and pond water chemistry and biota off the proposed Sea Mountain Village project in late 2005 and early 2006. Sixty-six water samples were collected at five offshore sites located in the vicinity of the project, as well as from shoreline. Water samples were collected on transects perpendicular to shore, extending from the shoreline to a distance of up to 50 m offshore. Samples were also collected from five potable wells upslope of the project site in order to determine chemical composition of unaltered groundwater. Analysis of twelve water chemistry constituents included all specific constituents in DOH water quality standards.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

The results of the analysis are presented here in summary. Dissolved nutrients (Si,  $\text{NO}_3^-$ ,  $\text{PO}_4^{3-}$ , TN and TP) displayed strong horizontal gradients at all ocean transect sites with highest values closest to shore and lowest values at the most seaward sampling locations. Correspondingly, salinity was lowest closest to the shoreline, and increased with distance from shore. These patterns are indicative of groundwater efflux at the shoreline, producing a zone of mixing where nearshore waters are a combination of ocean water and groundwater. Chl *a* and turbidity were generally elevated in nearshore samples with decreasing values moving seaward. During the sampling, typical physical forces (breaking tradewind waves) were sufficient to mix the water column within several meters of the shoreline.

Water chemistry of shoreline ponds revealed low salinities in the ponds, and very little vertical stratification. Such patterns indicate very high flux rates of groundwater through the ponds with little mixing of ocean water.

MRC applied a hydrographic mixing model to the water chemistry data to indicate if increased nutrient concentrations are the result of mixing of natural groundwater with oceanic water, or are the result of inputs from activities on land. The model indicates that at the time of sampling there was no external subsidies of  $\text{NO}_3^-$  nitrogen or other nutrients to the ocean at any of the sampling sites. Within the ponds, there was active uptake of  $\text{NO}_3^-$ , presumably by photosynthetic activity of pond plants. Even with such uptake, the concentration of  $\text{NO}_3^-$  in the ponds was never depleted to the point of nutrient limitation. The lack of any indication of alteration of  $\text{NO}_3^-$  delivery to the ocean other than from pure mixing of groundwater and ocean water suggests that changes in nutrient concentrations showing metabolic activity within the ponds is small in comparison to the flux of groundwater through the ponds to the ocean.

Qualitative evaluation of nearshore marine biota indicates a very depauperate community that is the result of very rigorous physical conditions of salinity variation and wave impact. Hence, any changes in groundwater composition owing to the project would not likely have any effect on the biotic composition of the area as such communities are already subjected to severe natural stresses.

Evaluations of changes to groundwater from golf course irrigation were also estimated by MRC. These calculations were based on estimates of annual golf course application rates of N and P, groundwater flux and compositions, and a worst case scenario of 10% of applied fertilizer leaching to groundwater. Results of this model indicate that there is the potential to increase the groundwater concentration of N by about 10% and increase the groundwater concentration of P by 6% during normal operations and 15% during the initial grow-in phase. While such subsidies may be detectable during groundwater monitoring, they are not likely to result in any changes to the composition of marine or pond biotic communities. Groundwater concentrations of N and P are already high, and non-limiting to pond biota. Hence, the estimated maximum subsidies would not likely change the overall nutrient dynamics as exist at present. Such subsidies also would not have an effect on the nearshore marine environment as the typical high energy is sufficient to remix the input from land to background oceanic levels within a narrow zone close to the shoreline.

While Punalu'ū Bay contains a large population of federally protected turtles, there is little potential for impact to these populations from changes in water chemistry. Long-term studies of turtle populations indicate that the numbers of turtles have increased, while the growth rate has slowed. If the slowed growth rate is a result of decreased food sources (marine algae), the only

effect of the project may be a benefit to turtle populations owing to an increase in algal growth through slight increases in nutrient fluxes.

MRC concludes that overall, if the proposed project utilizes best management practices during construction and operation, there is little potential for impacts to the marine and pond environments.

#### **Mitigative Measures**

The golf course will be properly designed and managed as to minimize impact on the coastal waters. The turf areas will be properly graded and covered with layers of subcourse and the turf will be thick enough to absorb and bind nutrients to the surface. Additionally, golf course maintenance will follow best management practices and will be fertilized only as much as the turf requires, no more. This will ensure that little or no fertilizer will leach into the ground. The arid climatic conditions will require additional irrigation using brackish non-potable water, which will be provided by on-site wells and treated wastewater from the project. The use of treated wastewater to supplement irrigation will result in the consumption of phosphorus and nitrogen in the treated wastewater in the turf. This will allow reduced supplemental fertilization. Landscaping design, including plant selection and depth of soil will limit the need for excessive irrigation.

Best management practices will be employed in handling storm water and surface water runoff to minimize non-point source pollutants. Given these controls, the nature of the proposed development and the distance from the shoreline, it does not appear that there would be any significant impact on the quality of groundwater as it approaches the shoreline.

### **5.2.16 Hazardous Materials**

#### **Probable Impacts**

With long-term operations of the planned development, there exists a possibility of hazardous materials being generated and disposed. In particular, golf course operations will require use of pesticides and fertilizers in their maintenance operations. Commercial and resort activities may also have to potential to generate small amounts of hazardous materials.

#### **Mitigative Measures**

As part of the solid waste plan, the production and disposal of hazardous waste materials for commercial operations will be addressed. The golf course will be professionally managed with best management practices pursuant to an Integrated Golf Course Management Plan (as discussed in *Section 5.2.7.1 "Surface Water Quality"*).

### **5.2.17 Noise**

#### **Probable Impacts**

The existing and future traffic noise levels for Sea Mountain were evaluated for their potential impact on present and future noise sensitive areas. The future traffic noise levels along the primary access roadways to the project were calculated for the year 2015.

#### *Traffic Noise at Existing Residences*

The traffic forecasts for CY 2015 conditions indicate that future traffic noise levels with the project should not exceed the FHA/HUD acceptability threshold of 65 DNL at existing residences in the project environs. For this reason, traffic noise mitigation measures should not be required at these existing residences.

*Traffic Noise at Future Project Residences*

Future Sea Mountain residences are planned along Māmalahoa Highway on both the mauka (north) and makai (south) sides of the highway. The locations of the residences closest to the highway are marked as Locations PA through PG in *Figure 5-8*. At two of the planned residences (Locations PB and PC), forecasted traffic noise levels are expected to exceed the FHA/HUD standard of 65 DNL, and be in the "Significant Exposure, Normally Unacceptable" noise exposure category by CY 2015. The remaining project residences fronting the highway are expected to be in the "Moderate Exposure, Acceptable" noise exposure category.

Along the section of Māmalahoa Highway west of the Nīnole Loop Road intersection, potential noise impacts from project and non-project traffic are possible by CY 2015 at two planned residences which are located within 78 ft from the centerline of the highway. As long as these future residences are single story, attenuation of traffic noise to levels below the 65 DNL FHA/HUD thresholds should be possible with 6 ft high sound walls located along the highway Right-of-Way. If two-story residences are constructed near the highway and inside the 78 ft setback distance to the 65 DNL noise contour, closure and air conditioning of the upper floors would also be required, because 6 FT high walls would not provide sufficient sound attenuation for the second floor rooms.

The construction of minimum 6 ft high sound attenuation walls for the planned residences at Locations PB and PC in *Figure 5-8* is recommended. The exact height and length of the sound attenuation wall will need to be determined after the lot, house pad, and grading plans become available.

It should be noted that the "Minimal Exposure, Unconditionally Acceptable" noise exposure level is 55 DNL. Essentially all of the future residences fronting Māmalahoa Highway in *Figure 5-8* are predicted to be exposed to traffic noise levels greater than 55 DNL, so there is some risk of occupant dissatisfaction due to future traffic noise levels at these future residences. In order to reduce future traffic noise levels at these frontage lots to 55 DNL or less, sound attenuation wall heights in the order of 10 ft will be required for single story homes. The exact height and length of the sound attenuation walls will need to be determined after the lot, house pad, and grading plans become available. The construction of sound attenuating walls and/or the use of air conditioning should be considered to minimize risks of occupant dissatisfaction along the first row of homes fronting Māmalahoa Highway.

**Mitigative Measures**

The applicant shall reduce noise levels to at future residences to below the 65 DNL FHA/HUD threshold by either constructing a minimum of a six-foot sound wall along Māmalahoa highway or by constructing residences outside of the 65 DNL noise contour per the recommendations of the noise study (*Appendix I*). Specific plans for walls or setbacks shall be drafted when grading plans are available and all mitigation would be subject to approval of the County Planning Department.

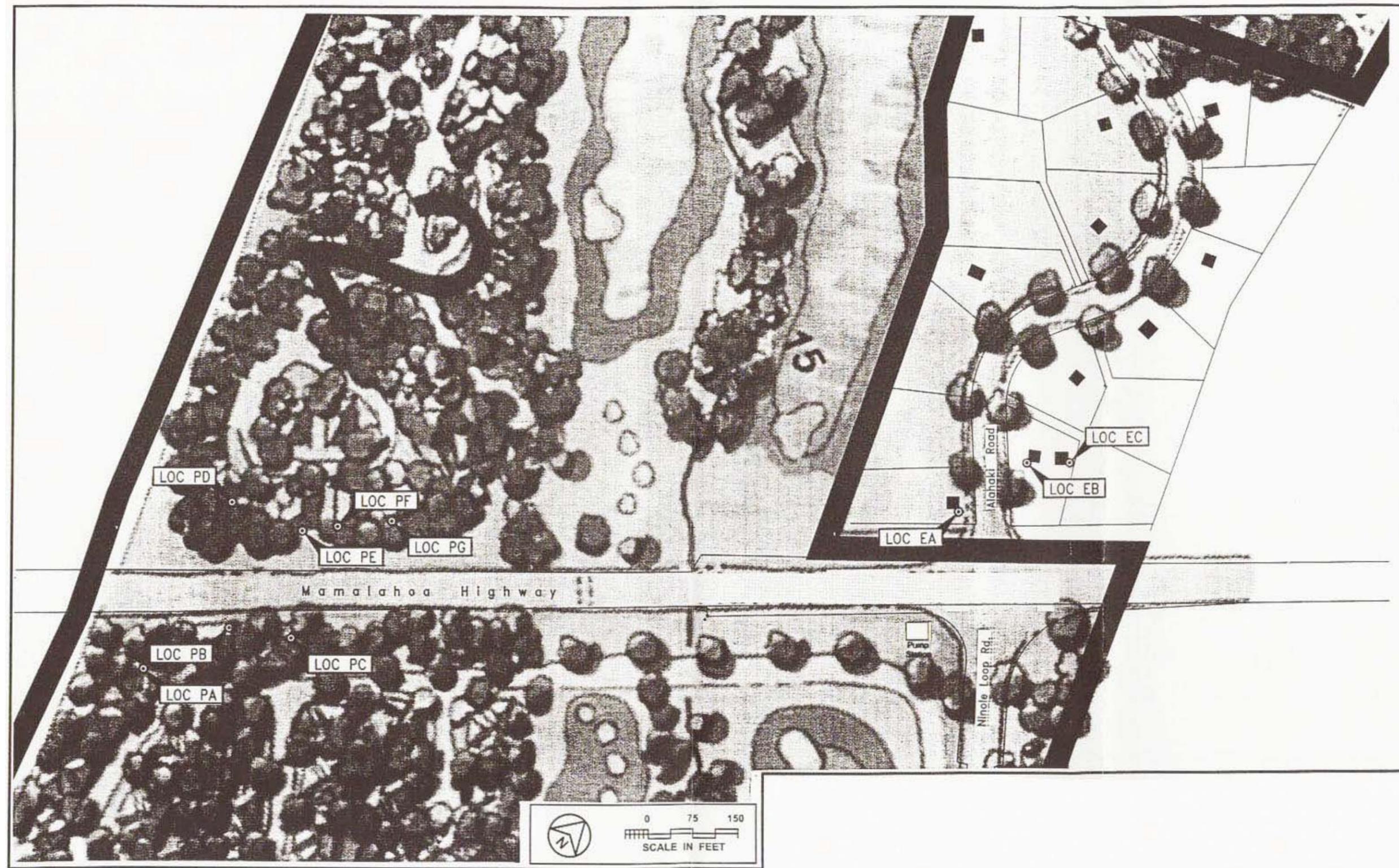


Figure 5-8. Locations of Existing and Future Residences Fronting Māmaloa Highway

### 5.2.18 Agriculture

#### Probable Impacts

The project site is currently not being used for agricultural operations of any kind. The "Agricultural Lands of Importance in the State of Hawai'i" map does not designate any agricultural lands on the project site. The State Land Use District for the site is primarily Urban with a band of Conservation adjacent to the coast. The County of Hawai'i has designated all lands makai of the highway for open space and urban development, while mauka of the highway, approximately 109 acres is zoned A-20a Agricultural District.

The USDA Soil Conservation Service rates soils for their agricultural suitability according to a series of eight capability classes. Class I soils have few limitations for agricultural uses, while Class VIII soils are wholly unsuitable for agricultural uses. Of the four soil types located on the project site, the 'a'a and Pāhoehoe lava types which comprise approximately half the site are both rated a Class VIII soil and unsuitable for agriculture. The remaining two soils, Punalu'u soil and Very Stony Land are both rated a Class VII soil and severely limited for agricultural production, but suited for pasture or range.

Only if the mauka portion is rezoned, will the project result in the loss of 109 acres of County designated agricultural land. Conversion of these lands, which are severely limited in their agricultural usefulness, and are not currently used for agricultural production, and partially developed as a golf course, will not constitute a significant impact.

#### Mitigative Measures

No mitigation required.

### 5.2.19 Conservation Lands

#### Probable Impacts

The State Land Use District designation for the site is primarily Urban with an approximately 200-foot wide band of Conservation adjacent to the coast (*Figure 1-3*). The Conservation district extends approximately 700 feet inland to wrap around Nīnole Cove. Just west of the old restaurant site, the Conservation district extends approximately 600 feet inland to encompass several privately owned parcels as well as a portion of the black sand beach area. Except for some pathways, landscaping and outdoor recreational facilities, the proposed project does not involve development of lands that lie in the State Conservation District. Sea Mountain Five, LLC does not foresee future construction within Conservation District lands. However, if at any future time, any improvements are proposed within the conservation district, the proper Conservation district use permit will be obtained prior to any installation of improvements.

This growth is consistent with and planned for in the County General Plan designation of the site and within its urban expansion areas.

#### Mitigative Measures

No mitigation required.

### 5.3 SUMMARY OF PROBABLE IMPACTS

#### 5.3.1 Interrelationships and Cumulative Environmental Impacts

This project and those projects identified in 5.3.1.1 below are expected to have long-term cumulative impacts such as increased traffic and need for more potable water by the time the projects reach full development. The design of this project in a village cluster pattern with its proposed mixed uses will reduce some of its potential impacts. The cumulative impacts of all of the projects will create the need for additional improvements to regional infrastructure. However, development of these projects will be accompanied by appropriate mitigative measures to address impacts. The accompanying economic development will expand employment opportunities for Ka'ū residents and will provide additional tax revenue to the State and County governments to fund needed public services. The anticipated net cumulative impact is expected to be positive for the Ka'ū community.

##### 5.3.1.1 *Projects in the Region*

This project will add to the urbanization of the Ka'ū region. There are a number of development projects in various stages of planning within a 10 mile radius from the Sea Mountain site. The following listing identifies projects and other developments that could have a cumulative impact in association with the Sea Mountain project at the time this report was prepared. (Figure 5-9). Most of these projects would add to regional growth along with the Sea Mountain project and would probably work synergistically to maintain the current growth in Ka'ū and develop a growing critical mass of people and economic activity that will influence activity in the region for several years. Some will have direct impacts to Sea Mountain and vice versa. Most will have indirect impacts to the proposed action and become part of the ambient growth of the region.

**Hawai'i Ocean View Estates (HOVE):** The land at Ocean View was once part of the Kahuku Ranch. The 10,697 lot subdivision begins makai of the Hawai'i Belt Highway and continues mauka up to the 5,000 foot elevation. Crawford Oil Company, the original developer of HOVE, began initial lot sales in the 1950's. Throughout the past five decades commercial areas were constructed to support the growing Ocean View population that now includes developments of Hawaiian Ocean View Ranchos, Kahuku County Gardens, Kula Kai View Estates, Kona Gardens, Keone's Ranchos, and Kona View Estates. HOVE and the town of Ocean View have not reached buildout and continue to attract residents.

Source: [www.southpointhawaii.com/subdivision\\_HOVE.htm](http://www.southpointhawaii.com/subdivision_HOVE.htm)

**Hills above Honu'apo:** Hawaiian Isle Ventures owns thousands of acres including the hills above Honu'apo. It is reported that the first project would be agricultural subdivision project on approximately 1,653 acres mauka of Honu'apo Bay. These lands are zoned for 20-acre lots (Ka'ū Calendar, January 2006).

**Honu'apo Lookout:** Sunrise Oceanfront Farms, a Farminton, Michigan based firm, purchased approximately 1,200 acres of land on the makai hill above Honu'apo from Ka'ū Agribusiness in 2005. Sunrise Oceanfront Farms reported that 300 acres would remain untouched while the rest would be developed into 46 twenty-acre farms (Ka'ū Calendar, December 2005).

**Development at the "Great Crack":** Hawaii Outdoor Tours, Inc is proposing a 90-lot agricultural subdivision on approximately 2,000 acres which abuts 2.5 miles of the Ka'ū coast

between Pāhala and Volcano, makai of the highway. Some of the lots would be located on the 17-mile long cavernous rift known as the "Great Crack (Ka'ū Calendar, December 2005)."

**New Coastal Lots at Kāwala:** The Kamuela based group Kāwala, LLC has proposed to move a series of lots on their 1,000 plus acre parcel onto the Ka'ū coast. They intend to create 14 lots on the coast consisting of one 5-acre lot, one 5.3-acre lot, three 5.5-acre lots, five 20-acre lots and four 100-acre lots (Ka'ū Calendar, May 2006).

### 5.3.2 Potential Secondary Effects

This section evaluates the potential for the new development to induce growth outside the project area. Examples of these types of effects include the stimulation of additional development in an area, or a higher density development, as a result of the construction of public facilities such as a new sewerage system.

New development tends to attract other development. Having said that, it is important to note that the Sea Mountain site is the only area zoned for residential and urban development between Na'alehu and Pāhala. However, several adjacent property owners have expressed interest in working with the developers to bring infrastructure to their property. Another secondary impact could be growth induced by the availability of more jobs. This is a mostly positive secondary impact, as we anticipate most of the jobs will go to local residents.

### 5.3.3 Relationship between Local Short-Term Uses and the Environment and the Maintenance and Enhancement of Long-Term Productivity

These relationships are described below in context of the following four specific areas of potential concern: (1) narrowing the range of beneficial uses of the environment; (2) long-term risks to health and safety; (3) foreclosure of future options; and (4) trade-offs among short-term and long-term gains and losses. The following discussion addresses each of these potential areas of concern.

- (1) Narrowing the range of beneficial uses of the environment: The planned improvements are considered to be beneficial uses of the environment. Infrastructure improvements will further broaden the range of beneficial uses of this environment.
- (2) Long-term risks to health and safety: The project is not expected to generate risks to health and safety.
- (3) Foreclosure of future options: The foreclosure of future options is very limited. The range of viable uses is limited. Agricultural feasibility is marginal, and, in the more than 10 years since the close of the sugar mill, little has proved viable in taking its place.

# SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

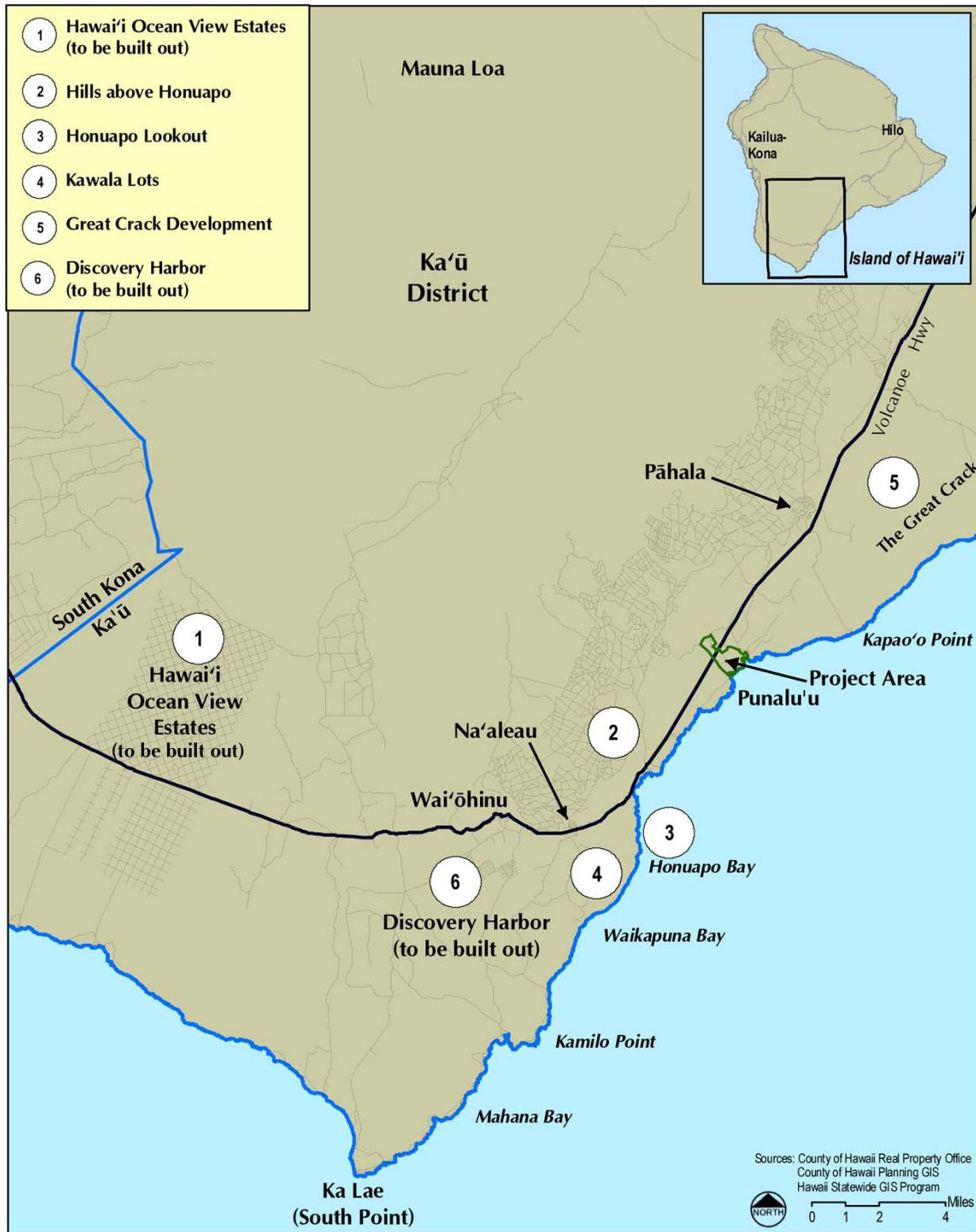


Figure 5-9. Proposed Projects in the Area

- (4) Trade-offs among short-term and long-term gains and losses: There is no known significant economic “trade-off” involved in implementing the planned improvements for the use of the site. Potential short-term impacts and long-term impacts are offset by the planned mitigative measures. The short-term and long-term gains due to the project development outweigh any short-term or long-term losses. However, it is acknowledged that urbanization results in a loss of open space and the natural environment. There is a “value” to the natural environment that is hard to compare with the “value” of an urban environment. With that understanding the project has been designed with an awareness of the climate and landscape. Sustainable design will be practiced as much as practicable.

The Sea Mountain project will have a significant impact on the land. However, many impacts are positive and most negative impacts can be mitigated. Additionally, the benefits of the project significantly outweigh potential negative impacts.

Established standards and controls that require developers to consider and manage potential negative effects should effectively limit and mitigate foreseeable long-term impacts. For example, anticipated potable water requirements and proposed potable water systems for the project must be coordinated with the County of Hawai'i Department of Water Supply to ensure that water resources are available. Wastewater disposal systems must meet State of Hawai'i Department of Health requirements to prevent unintended effects to affected water bodies or water resources. Runoff concerns must be addressed with on-site controls in accordance with County construction permits. Compliance with and adherence to established controls are expected to lessen the impact on natural resources, and achieve lasting effects in resource protection and conservation.

Preservation and resource management plans will aid in protecting natural and cultural resources. In some cases this is better than a no action scenario in that the no action alternative means the resource is unmanaged and the natural course of events could result in the inadvertent damage, deterioration or loss of these resources.

The man-made environment would be impacted as a result of the proposed project combined with the anticipated impacts from the projects identified in the previous section. However, the developers must abide by established controls and provide appropriate mitigation for project-generated effects such as traffic and utility demands. Incremental traffic increases are likely to occur from specific and incremental developments that generate trip traffic in proportion to their scale. Where deemed necessary, developers may be required to include signalization, stop signs, and similar features as part of mitigation for project impacts. Demands for water and wastewater services, solid waste disposal, electrical power and communications need to be coordinated with utility providers to ensure adequate service. For economic reasons and as a function of sound policy, projects are encouraged to be designed with energy-efficient and energy conservation features.

Socio-economic impacts resulting from the proposed project in addition to the foreseeable projects identified in the previous paragraphs are generally expected to be beneficial. Construction will generate employment and economic opportunities. A population shift is anticipated due to the proposed single-family, multi-family, and resort housing. Job generation will expand the work force required for a growing economy. The proposed project also includes interpretive venues for educating residents, and visitors about Hawaiian history, culture and natural resources, thereby providing a valuable resource for social and cultural enrichment. A double-edged impact is the general rise in real property values. It is positive

from a tax revenue and asset value increase perspective but negative in that it raises housing prices and makes housing less affordable to lower income families. There will likely be a slow demographic shift in some parts of the region, possibly a kind of gentrification, as income and ethnic profiles slowly shift with the increasing rise in property values.

#### **5.3.4 Irreversible and Irrecoverable Commitments of Resources**

Construction and operation of the proposed action will result in the irreversible and irretrievable commitment of certain natural and fiscal resources. Major resource commitments include the land on which the facilities will be constructed as well as money, construction materials, manpower, and energy.

#### **5.3.5 Adverse Environmental Effects that Cannot be Avoided**

Adverse impacts can be divided into short- and long-term effects. Short-term effects are generally associated with construction, and prevail only for the duration of the construction period. Long-term effects generally follow completion of the improvements, relate either simply to their existence or to the operation of the new facilities, and are permanent. Effects that can be considered both adverse and unavoidable are discussed below.

##### *5.3.5.1 Unavoidable Adverse Short-Term Effects*

Construction impacts to air quality are short-term and temporary in nature. If mitigation measures are not provided, significant airborne emissions could include fugitive dust (resulting in PM-10 emissions). Fugitive dust emissions are expected to result from earth-moving, cement-mixing activities, and vehicular travel in construction areas. HAR Section 11-60.1-33 prohibits the generation of fugitive dust without taking reasonable precautions to limit these emissions. As a result, significant fugitive dust generating activities will be minimized through mitigation measures identified in *Section 5.1.3*.

Construction activities will also result in increased runoff from the project site.

Construction will bring an influx of construction workers to the project area during the ten year buildout period. This will likely create additional demand for housing in the area, and create additional traffic impacts.

Besides emissions resulting from combustion of fossil fuels from construction equipment, vehicular emissions will also occur from commuting construction workers.

Noise impacts generated by the proposed action will come from the operation of equipment during the construction phase.

##### *5.3.5.2 Unavoidable Adverse Long-Term Effects*

After the proposed project is completed, any long-term impacts on air quality in the project area due to emissions from project-related motor vehicle traffic should be small. Worst-case concentrations of carbon monoxide should remain within both the state and the national ambient air quality standards. The urbanization of this project will result in a loss of natural

and open space as well as minimal intrusion into existing viewsheds. There will be an increase in density, and a loss of habitat that is considered less than significant.

There will also be long-term negative impacts on the project site if the project is *not* implemented. Some of these potential risks are listed below:

- The lease for the park could be terminated and there would be no park.
- The roads to the park are not public roads and could be closed or gated. This would cut off shoreline access, access to the beach, the boat ramp etc.
- The combination of condo owners and single family home owners, the park and the landowners, is not a viable group to maintain the roads, golf course, water facilities, sewage treatment, etc. By not allowing the property to gain enough critical mass, the property and the current residents are headed for a financial disaster
- The golf course is not financially viable and would be closed.
- The sewer plant is outdated and needs repair. Continued lack of maintenance may lead to contamination.
- The water system already leaks. The wells aren't adequate to support the drinking water needs of the existing community and the golf course at one time.
- The roads and the landscaping are not properly maintained and will continue to deteriorate unless the property becomes financially viable.
- The cultural and historical sites will have no protection if the project goes into disrepair. The destruction of the Herb Kane painting in the old cultural center is an example of what has already happened.
- Further decay may cause the County to perform emergency maintenance to protect the residents and pay the costs of repair and proper maintenance so basic services are restored.

If the project attains a certain density, it will be able to support upgrades to facilities, provide ongoing facility maintenance, keep the golf course in operation, showcase local culture, and revive economic viability in the area.

### 5.3.6 Significance Criteria

Significance criteria for assessing environmental impacts pursuant to Chapter 343 are identified in Title 11 Section 200-12 of the Department of Health's Administrative Rules. The following is an evaluation of the project based on those criteria.

1. *Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;*

The Master Plan recognizes the richness of the cultural history of this area and intends to avoid development on known significant sites of natural or cultural significance. Archaeological studies and cultural assessments were conducted during the EIS phase to determine the existence of such resources. Appropriate mitigative measures will be taken should such resources be discovered and potentially impacted by the planned development.

The archaeological inventory survey identifies sites for preservation, data recovery, and no further action. The Cultural Impact Study includes additional recommendations for preservation and protection. These items will be developed further and protected or enhanced as appropriate.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

As stated previously both a coastal preservation zone will be created to reduce impact on coastal resources. Additionally, we will continue to work with the advice of a cultural committee made up of local kūpuna who will continue to advise the project on other items of significance.

The State of Hawai'i Historic Preservation Division will be consulted regarding the significance of the archaeological resources involved.

*2. Curtails the range of beneficial uses of the environment;*

While any development closes off other options; Sea Mountain Five, LLC intends to increase the range of beneficial uses of the environment by the community. This project will provide an increased housing stock, recreational uses, and above all, employment opportunities and cultural uses which will benefit the community. Agricultural use is marginal so loss of this option is considered minor.

An Integrated Natural Cultural Resource Management Plan (INCRMP) will also protect sensitive ecological resources such as the coastal environments.

*3. Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;*

The Sea Mountain project is being developed with the State's long-term environmental policies, goals and guidelines in mind. Pursuant to Section 344-3 (2), HRS, the project will enhance the quality of life for residents and visitors alike by establishing a community incorporating a sense of identity, wise use of land, efficient transportation, and aesthetic and social satisfaction in harmony with the natural environment which is uniquely Hawaiian in character. Conservation programs are planned to educate people and protect valuable natural resources such as sea turtle foraging and nesting areas, and a cultural center will offer current and future residents and visitors a variety of opportunities to participate in Hawaiian activities, such as hula, art and craft programs.

*4. Substantially affects the economic or social welfare of the community or State;*

The implementation of the Sea Mountain development will improve the economic and social welfare of the state through increased dollars that are anticipated with the expanded program focus. More jobs will be created. The construction of the project will provide both short-term construction jobs and long-term jobs in the service, commercial/retail and resort sectors. It will increase the economic and social welfare of the State.

Nearly six hundred million dollars in funds will be invested into the project; increasing capital development in Hawai'i. Sea Mountain will create approximately 372 permanent jobs by 2011 and around 517 jobs by 2017. Construction at Sea Mountain will support nearly 3,800 person years of employment. Net revenues to the County and the State will total \$33.4 million and \$26.5 million until buildout. Net revenues should continue into the foreseeable future. These numbers do not include the anticipated multiplier effects that are anticipated to add millions more to the State's economy.

*5. Substantially affects public health;*

The impact of the proposed developments on public health is positive. Additional homes will provide shelter for families. Recreational opportunities such as golf are necessary for good health. Making recreational resources more accessible gives people greater opportunities for

healthy living. The design of the village will be of a walkable scale encouraging outdoor activities and a healthy lifestyle. A community benefits trust will provide additional funding for the Ka'ū Hospital and regional health services.

6. *Involves substantial secondary impacts, such as population changes or effects on public facilities;*

The project is expected to increase population to the area. Services are being planned to support population needs including housing, utilities and recreational opportunities. At build out, this project will consist of 1,523 residential units and a 300-room Inn to be completed in three phases. At buildout this leads to a peak population of permanent and seasonal residents plus renters of just under 3,700 persons and an average population of around 2,430 persons. There will probably be a slight demographic shift as many of the homes will probably be purchased by outside buyers.

As noted previously there are both positive and negative secondary effects. However, in total, the secondary positive impacts outweigh negative impacts in that they protect valuable natural resources and enhance the reputation of Ka'ū as a destination location.

7. *Involves a substantial degradation of environmental quality;*

While overall there will be some deterioration due to increased density and traffic, we feel the project does not involve an overall substantial degradation of the environment. The buildings will be low 1-3 story designs that minimize view impacts. Threatened species will be protected in a managed way. The project will follow sustainable design practices where practicable to reduce its impact on the environment. The mixed-use concept is integrated into the project and community residents will be able to obtain all their basic necessities in the village and will not have to commute to other areas in cars. This will minimize impacts to noise and air quality.

An Integrated Cultural and Natural Resources Management Plan will be provided to protect archaeological, cultural and natural resources on the site.

8. *Is individually limited but cumulatively has a considerable effect upon the environment or involves a commitment for larger actions;*

All developments have incremental and cumulative impacts. However, the nature of plans and programs that are being developed will ensure that our impacts to the environment will be minimized and positive in many respects.

The potential negative impacts include contribution to incremental urbanization of Ka'ū; impacts to natural and cultural resources; increased density and impacts on views; groundwater impact; increasing traffic; and increasing need for public services.

Positive benefits from the proposed project includes the provision of housing; more jobs; access and protection of resources that may deteriorate naturally; more recreational resources; and improvements to the infrastructure (i.e., water and wastewater systems); avoiding future problems of maintenance due to inadequate funding.

Mitigation strategies to minimize the impacts on the environment at the proposed project site are discussed in other sections of this report. If this project is not developed, there is a possibility the resources associated with the coastal area and recreational areas may disappear over time.

9. *Substantially affects a rare, threatened, or endangered species, or its habitat;*

As previously stated, efforts will be made to preserve the coastal area as defined by the biologist Patrick Hart. Although the development areas of the project site do not comprise Critical

Habitat for any federally listed threatened or endangered plant species, preservation of this ecosystem will protect native and preserve habitats for the A'eo, 'Alae ke'oke'o, Kolea, and the 'Io. Additionally, isolated stands of trees associated with bat habitat will also be preserved. The coastal areas inhabited by endangered turtles and an occasional monk seal will remain undeveloped. Additional turtle protection measures will include educational programs and signage advising visitors of proper conduct and low-impact lighting systems to keep lighting away from the coastal area.

While all development will have some role in reducing the amount of habitat available to a species, we feel the preservation and protection of isolated tree stands, and the encouragement of native species in the landscape will provide a higher quality and better environment for these species in smaller areas.

The Hawaiian hoary bat utilizes the area for foraging. However, the survey numbers indicate that development is not incompatible with this species, as long as large trees and open spaces remain. The project will maintain most of these habitats.

*10. Detrimentially affects air or water quality or ambient noise levels;*

The most noticeable impacts will occur during construction and are short-term. An acoustic study projecting future traffic noise levels along the primary access roadways to the project were calculated for the year 2015. Traffic noise increases due to the project traffic are predicted to be insignificant to moderately significant. Noise impacts will be mitigated through provision of adequate setback distances or appropriately sized sound walls.

No significant impacts to air quality are anticipated.

Impacts to groundwater sources were evaluated. With proper golf course design and best management practices the golf course development and operation is not expected to have a negative impact on ground water resources. Monitoring programs will insure that impacts to ground water are avoided. While the project should not have any impact on ocean water quality due to our distance from the shoreline and the use of best management practices, Sea Mountain Five, LLC is willing to participate in an ocean water quality monitoring programs if that is considered necessary by the Department of Health. In general, storm drains and dry wells will be designed to avoid negative impacts to groundwater sources. Landscaping throughout the project area will be designed and used to filter and absorb pollutants in runoff wherever practicable. Additionally, the great capacity of the groundwater resource and the turbulent mixing of the off shore marine environment further protect these resources.

*11. Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a floodplain, tsunami zone, beach, erosion prone area, geologically hazardous land, estuary, fresh water, or coastal waters.*

The coastal portion of the project is located in a flood zone, coastal zone, tsunami zone and contains a black sand beach and fresh water ponds. The hazards and sensitivity associated with these areas will be addressed through appropriate siting of structures, construction practices and protective measures.

*12. Substantially affects scenic vistas and viewplanes identified in county or state plans or studies;*

Design guidelines will insure that buildings integrate well with the land and climate. Site planning will create setbacks and buffers to soften the impact of development on the landscape. It is expected that all buildings will be one, two, or three-story to create a low profile that is complementary and compatible with the expansive setting of the site. Buildings will be

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

designed to blend into or compliment the surroundings of the project site. Roof colors and building materials will help to tone down their visual impact.

Landscaping will emphasize native plants species that are compatible with the arid climate of the region. Therefore, negative impacts to visual resources are minimized.

#### *13. Requires substantial energy consumption.*

The development of the Sea Mountain plan will require short-term energy consumption for construction. The creation of housing and commercial activities will demand utility upgrades including roadways, electricity and water, as well as sewage systems. Effluent will be used to partially irrigate the golf course which is an effective water conservation method.

Design guidelines that are being development will encourage sustainable design practices that reduce waste, conserve energy and increase efficiency.

Utility systems such as the wastewater system will be designed to utilize gravity to minimize energy consumption.

The creation of bike paths and jogging paths encourages walking and a healthy lifestyle. This reduces the use of cars and gasoline consumption. A major purpose of the village is to create a service and jobs complex that reduces the need to drive for these goods and services.

**Section 6.0**  
Relationships of the Proposed Project  
to Existing Plans and Policies

## 6.0 RELATIONSHIPS OF THE PROPOSED PROJECT TO EXISTING PLANS AND POLICIES

### 6.1 OVERVIEW

An important consideration in evaluating the potential impacts of a proposed action on the environment is how it may conform or conflict with approved or proposed land use plans, policies, and controls for the affected area. In addition to State of Hawai'i policies and controls, this EIS addresses applicable Federal regulations regarding endangered species and equal accessibility, and the consistency of the proposed Sea Mountain project with respect to the County of Hawai'i General Plan, and County of Hawai'i Zoning.

### 6.2 U.S GOVERNMENT PLANS AND CONTROLS

#### 6.2.1 Endangered Species Act

The Endangered Species Act of 1973 provides a legal means by which identified ecosystems that are determined to be essential to the sustainability of an endangered or threatened species can be conserved. Under this Act, the U.S. Fish and Wildlife Service in the Department of the Interior is responsible for all terrestrial and freshwater species, as well as migratory birds, while the National Marine Fisheries Service is responsible for marine species.

**Discussion:** Punalu'u's unique black sand beach hosts many Hawaiian Green Sea Turtles (Honu), which are listed as threatened under the Endangered Species Act. These marine reptiles are commonly seen foraging for seaweed (limu) in the nearshore waters and often crawl ashore to bask on the sandy beach. In addition, the endangered Hawksbill Turtle (Honu'ea) occasionally enters Punalu'u Bay at night to crawl shore and lay eggs in a nest dug into the sand. Punalu'u is the setting for perhaps the most significant legend relating to sea turtles in ancient Hawaiian culture, and an educational sign and monument explaining the legend exists at the beach. Turtle watching by residents and visitors is a popular activity at the beach, and the area has long been a research site for scientists and resource managers investigating the turtles. The Sea Mountain project will continue to support the on-going conservation efforts at Punalu'u.

The Hawaiian Hoary Bat (*Lasiurus cinereus semotus*) is a state and federally listed endangered species. It is the only land mammal that is native to Hawai'i. Results of a bat survey indicate presence of bats throughout most, if not all, of the subject area. In particular, the large, mixed, stand of introduced trees growing on the grounds of the abandoned restaurant and visitor center appears to be an important roosting area. Unfortunately, the natural history of these bats is poorly understood. What is known suggests that the removal of large trees, especially during the summer months, could result in the incidental "taking" of bats; accordingly, suggested mitigation is to minimize the cutting of large trees wherever possible, and then cut only from September through May.

Recently there seems to have been a moderate increase in the number of monk seal sightings along the beaches of Ka'u. Measures similar to turtle protection will be extended to this species as well.

As described in *Section 4*, fourteen species of birds were detected during the surveys, all alien introductions except one indigenous heron species and one indigenous shorebird species. No rare, threatened or endangered species were encountered during the surveys. While the

federally endangered Hawaiian Hawk ('Io) and federally threatened Hawaiian short-eared owl (Pueo) were not detected during the surveys, both are likely to occasionally be found on the project site. However, because the project site is highly disturbed and likely contains a high density of mammalian predators such as cats, rats, and mongooses, it is possible but unlikely that either species nests in the area.

Additionally, three species of rare seabirds have the potential to use the property: the federally endangered Dark-rumped petrel ('Ua'u; *Pterodroma phaeopygia sandwichensis*), the federally threatened Newell's shearwater ('A'o; *Puffinus auricularis newelli*), and the Band-rumped storm-petrel (*Oceanodroma castro*). The Petrels and Shearwater hunt over the ocean during the day and fly to higher elevations at night to roost and nest. Dark-rumped petrels presently nest on the southwest rift zone of Mauna Loa (Banko 1991, Hu 2001), which is mauka of Punalu'u. However, because the project site is highly disturbed and likely contains a high density of mammalian predators such as cats, rats, and mongooses, it represents very poor nesting habitat for any seabird.

The project site does not comprise Critical Habitat for any federally listed threatened or endangered animal or plant species (US Federal Register, July 2003). In addition, no threatened or endangered plant species were detected, nor are any likely to be present due to the long history of human disturbance in the area. An avian recovery program may be initiated if this is deemed helpful or necessary by the U.S. Fish and Wildlife Service.

### 6.2.2 American with Disabilities Act of 1991

In 1991, the Federal government enacted the American with Disabilities Act to provide equal accessibility for persons with disabilities. Part of this statute is having building designs consider the needs of persons with disabilities. Chapter 103-50 of the Hawai'i Revised Statutes (HRS) states, "... all plans and specifications for the construction of public buildings, facilities, and sites shall be prepared so that the buildings, facilities, and sites are accessible to and usable by persons with disabilities." The Disability and Communication Access Board shall adopt rules for the design of buildings, facilities, and sites, by or on behalf of the state and counties.

**Discussion:** The Sea Mountain project will be cognizant of the design of buildings and facilities being accessible to persons with disabilities. This project will provide accessible designs of buildings, facilities, and sites in compliance with the policies set forth by the Disability and Communication Access Board. Facilities and structures shall comply with the requirements of the Americans with Disabilities Act.

Facilities will be designed to meet the requirements of the Americans with Disabilities Act, the Fair Housing Act, and the requirements of Hawai'i Revised Statutes (HRS) Section 103-50. Parking for facilities will be designed to comply with Hawai'i Administrative Rules (HAR), Title 11, Chapter 219, Parking for Persons with Disabilities, Section 11-219-14. Buildings, facilities and sites will also incorporate the best design practices as recommended by the U.S. Department of Transportation for designing sidewalks and trails and the U.S. Access Board for designing outdoor developed areas, recreation areas, or other current documents providing for accessibility.

Elements of the project planned to be dedicated to the County or State of Hawai'i may be subject to a review process by the Disability and Communication Access Board.

Sea Mountain Five, LLC will refer to Title III of the ADA which covers privately owned places of public accommodation and commercial facilities for the proposed private infrastructure

systems and amenities for commercial and public use within Sea Mountain. This includes, but is not limited to, elements such as the 18-hole golf course, resort/hotel, commercial retail spaces, commercial residential spaces, and public walking surfaces. Guidelines provided by the Disability and Communication Access Board including the U.S. Architectural and Transportation Barriers Compliance Board documents will be reviewed.

Where parking is provided, Sea Mountain Five, LLC will comply with Hawai'i's Administrative Rules Title 11, Chapter 219, "Parking for Persons with Disabilities" which became effective January 23, 2003.

### **6.3 STATE OF HAWAII PLANS AND CONTROLS**

#### **6.3.1 State Land Use Law, Chapter 205, Hawai'i Revised Statutes**

While most of the project site is designated Urban pursuant to the State Land Use Law, which in general provides for the types of resort and residential land uses proposed by the Sea Mountain project, portions of the coastal area are designated Conservation as shown on the State Land Use District Boundary Map (*Figure 1-3*). No land uses are proposed that would require a Conservation Land Use Application.

When the Sea Mountain Master Plan was developed, it was based on the County zoning, which was later determined to not accurately reflect the State Land Use District boundaries in the coastal area near Punalu'u Cove and the small exclusion of private home parcels not owned by SM Investment Partners. Accordingly, the Master Plan will be amended to accurately depict that no land uses will occur within the Conservation District.

#### **6.3.2 Hawai'i State Plan**

An assessment of compliance of the requested actions to the applicable goals, objectives, and policies of the Hawai'i State Plan, Chapter 226, Hawai'i Revised Statutes, and applicable priority guidelines will be covered under this section.

Priority guidelines relating to the economy, housing, population growth, transportation, facility systems, and the physical environment (land based, shoreline, and marine resources; scenic, natural beauty, and historic resources; land, air, and water quality) will be discussed as they relate to the proposed Sea Mountain development.

Implicit within the State Plan's stated goals, objectives and policies is a clear statement of intent to support the visitor industry as a major element of steady growth in Hawai'i's economy, especially on the neighbor islands. Policies related to the development of the visitor industry emphasize the need for cooperation between the public and private sectors to assure a viable industry that is responsive to the economic, social, environmental and aesthetic values of the community as a whole. In general, the proposed Sea Mountain development would be consistent with the Plan. Objectives and policies of the State Plan that are particularly relevant to the Sea Mountain development are discussed below, while *Tables 6-1 and 6-2* contain tabular checklists indicating how the Sea Mountain project in general pertains to all the goals, objectives, policies, and priority guidelines of the State Plan.

#### **Section 226-5: Population**

*(b)(1) Guide population growth to be consistent with the achievement of physical, economic and social objectives.*

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

*(b)(2) Encourage an increase in economic activities and employment opportunities on the Neighbor Islands consistent with community needs and desires.*

*(b)(3) Promote increased opportunities for Hawai'i's people to pursue their socio-economic aspirations throughout the islands..*

**Discussion:** Buyers of homes in the proposed residential community who migrate from the mainland U.S. and foreign countries will directly increase the population of the area. Increased demand for labor caused by development of the project, and other development projects in the region, will indirectly contribute to local population growth as State of Hawai'i (as well as possibly some out-of-state) residents living outside of the county migrate to take advantage of increased employment opportunities. The mix of residential, golf course, commercial and resort land uses on the subject property will contribute long-term employment opportunities, government revenue generation, additional recreational resources, an increased housing stock, and a moderate population growth in the area. These increases in economic activity and employment opportunities are consistent with community needs and desires.

#### **Section 226-6: Economy in general**

*(a)(1) Increased and diversified employment opportunities to achieve full employment, increased income and job choices, and improved living standards for Hawai'i's people.*

*(b)(2) Promote Hawai'i as an attractive market for environmentally and socially sound investment activities that benefit Hawai'i's people.*

*(b)(8) Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.*

*(b)(10) Stimulate the development and expansion of economic activities that will benefit areas with substantial or expected employment problems.*

*(b)(13) Encourage businesses that have favorable financial multiplier effects within Hawai'i's economy.*

**Discussion:** When fully developed, the labor-intensive resort development will provide a full spectrum of employment and new business opportunities for the Ka'ū district.

#### **Section 226-8: Economy – visitor industry**

*(a) a visitor industry that constitutes a major component of steady growth for Hawai'i's economy.*

*(b)(2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawai'i's people.*

*(b)(3) Improve the quality of existing visitor destination areas.*

*(b)(4) Encourage cooperation between the public and private sectors in developing and maintaining well-designed adequately serviced visitor industry and related developments that are sensitive to neighboring communities and activities.*

*(b)(5) Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawai'i's people.*

*(b)(6) Provide opportunities for Hawai'i's people to obtain job training and education that will allow for upward mobility within the visitor industry.*

*(b)(8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawai'i's culture and values.*

**Discussion:** The Sea Mountain project would further the policy of providing opportunities for Hawai'i's people to obtain job training and would allow for upward mobility within the visitor industry. The proposed re-development of the existing visitor accommodations would offer new short-term and long-term employment to residents of the State and County of Hawai'i, and would contribute to sustaining the level of construction activity in the State.

State and County tax revenues generated by the development would contribute toward the cost of providing public services to new residents and visitors. Sea Mountain Resort is being carefully planned and located in a coastal area that has been designated by the County General Plan for resort development. The developers intend to maintain the high standards set by other resorts on the island.

**Section 226-11: Physical Environment – Land-based, Shoreline, and Marine Resources**

- (a)(1) *Prudent use of Hawai'i's land-based, shoreline and marine resources.*
- (a)(2) *Effective protection of Hawai'i's unique and fragile environmental resources.*
- (b)(1) *Exercise an overall conservation ethic in the use of Hawai'i's natural resources.*
- (b)(2) *Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.*
- (b)(3) *Take into account the physical attributes of areas when planning and designing activities.*
- (b)(4) *Manage natural resources and environs to encourage their beneficial and multiple uses without generating costly or irreparable environmental damage.*
- (b)(6) *Encourage the protection of rare or endangered plant and animal species and habitats native to Hawai'i.*
- (b)(8) *Pursue compatible relationships among activities, facilities, and natural resources.*
- (b)(9) *Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.*

**Discussion:** The major physical environmental features associated with the project site have been identified as the coastal ponds, Punalu'u Black Sand Beach, Punalu'u Bay, Ninole Cove, sea turtle nesting areas, significant historic sites, and the scenic backdrop of Mauna Loa. These important physical attributes of the site are planned to be preserved, or integrated into the resort project, or both.

The development will maintain, and potentially improve, the accessibility for public recreational, educational and scientific use of the shoreline fronting the project site. The project botanist surveyed the Sea Mountain project site, paying special attention to identifying and assessing the value of any relict native forest or shrub lands. With the exception of a narrow strip of predominantly native vegetation along the coast, the natural vegetation of the entire project site has been severely degraded and modified by centuries of human use. The project site does not comprise Critical Habitat for any federally listed threatened or endangered animal or plant species (US Federal Register, July 2003). In addition, no threatened or endangered plant species were detected, nor are any likely to be present due to the long history of human disturbance in the area. Recommendations were made to minimize direct and/or indirect impact to the coastal strand plant community, and to protect and improve native plant habitats.

The compatible mixture of uses and activities at the project site will provide ample opportunity for the residents and public to enjoy and learn about the natural resources of this area. One of

the purposes of the development is to offer golf, tennis, biking and other recreational activities that involve the natural environment. The compatible mixture of multiple uses and activities will provide ample opportunity for both the residents and public to learn about and enjoy the Punalu'u area.

**Section 226-12: Physical Environment – Scenic, Natural Beauty, and Historic Resources**

- (a) *Enhance Hawai'i's scenic assets, natural beauty, and multi-cultural/historical resources.*
- (b)(1) *Promote the preservation and restoration of significant natural and historical resources.*
- (b)(2) *Provide incentives to maintain and enhance historic, cultural, and scenic amenities.*
- (b)(3) *Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean scenic landscapes, and other natural features.*
- (b)(4) *Protect those special area, structures, and elements that are an integral and functional part of Hawai'i's ethnic and cultural heritage.*
- (b)(5) *Encourage the design of developments and activities that complement the natural beauty of the islands.*

**Discussion:** A total of 34 historic properties, comprised of over 125 archaeological features, were identified within the project area by the project archaeologist, Hallett H. Hammatt. Twenty-three (23) of the historic properties were previously identified and 11 were newly recorded as a part of the inventory survey investigation. Preservation is recommended for 27 sites, and no further work is recommended for 5 sites. The impact of the project on the remaining historic resources should be minimal with the implementation of a State Historic Preservation Division-approved preservation plan, burial treatment plan and monitoring program.

The natural beauty in the project area is precisely why this project is being proposed with an open space oriented development. Scenic views and open space will be maintained and enhanced for the benefit of visitors, homeowners and regional residents who will have access for passive and active recreation purposes.

**Section 226-13: Physical Environment – Land, Air and Water Quality**

- (a)(1) *Maintain and pursue an improved quality in Hawai'i's land, air, and water resources.*
- (a)(2) *Achieve greater public awareness and appreciation of Hawai'i's environmental resources.*
- (b)(1) *Foster educational activities that promote a better understanding of Hawai'i's limited environmental resources.*
- (b)(2) *Promote the proper management of Hawai'i's land and water resources.*
- (b)(3) *Promote effective measures to achieve desired quality in Hawai'i's surface, ground, and coastal waters.*
- (b)(8) *Foster recognition of the importance and value of the land, air and water resources to Hawai'i's people, their cultures and visitors.*

**Discussion:** The land and water resources of the project site will be properly managed. Numerous mitigation measures will be designed and implemented to assure that land, air, and water are not significantly impacted by the project. Stormwater run-off will be controlled through the use of infiltration areas. Wastewater will be handled through a renovation and expansion of the existing wastewater treatment plant that will use the treated effluent for golf course irrigation. All of these measures will be designed in consultation with and with the

approval of the State Department of Health. Mitigation will include use of Best Management Practices and appropriate monitoring to address non-point source pollution. Fertilizer and pesticide application at the golf course will be professionally managed by a certified Golf Course Superintendent. An Integrated Pest Management (IPM) program will be instituted to employ strict management and overall reduced pesticide usage. Adherence to professional standards and codes throughout the design and construction of the resort will assure protection from hazards that could affect this community.

**Section 226-23: Socio-Cultural Advancement – Leisure**

- (a) *Accommodate diverse cultural, artistic, and recreational needs for present and future generations.*
- (b)(1) *Provide a wide range of activities and facilities to fulfill the cultural, artistic, recreational needs of all diverse and special groups effectively and efficiently.*
- (b)(3) *Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.*
- (b)(4) *Promote the recreational and educational potential of natural resources having scenic, open space, cultural, historic, geological, or biological values while ensuring that their inherent values are preserved.*
- (b)(5) *Ensure opportunities for everyone to use and enjoy Hawai'i's recreational resources.*
- (b)(6) *Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.*
- (b)(10) *Assure adequate access to significant natural and cultural resources in public ownership.*

**Discussion:** The project is concerned with fulfilling this objective and policies for recreation. The recreational potential of this site is maximized through the re-development of the existing golf course to championship standards, and the development of a tennis complex, passive and active park spaces, and biking, jogging and walking paths. Further, the existing Punalu'u Beach Park will continue to be accessible for public use. Ocean and mountain views will be part of the recreational experience and development standards will preserve those views.

The users of the recreational facilities will be both the project's residents and the public as well. Native and endemic plant species will be reintroduced in golf course buffer areas along property boundaries and in some residential and mixed use areas.

The sites of cultural interest at Punalu'u are predominantly of Hawaiian origin, and the significant historic and archaeological resources will be preserved and/or restored, and integrated into the design of the project.

**Section 226-25: Socio-Cultural Advancement – Culture**

- (a) *Enhance the cultural identities, traditions, values, customs, and arts of Hawai'i's people.*
- (b)(1) *Foster increased knowledge and understanding of Hawai'i's ethnic and cultural heritages and the history of Hawai'i*
- (b)(2) *Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawai'i's people and which are sensitive and responsive to family and community needs.*
- (b)(3) *Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawai'i.*

**Discussion:** Archaeological and cultural resources will be protected throughout the development. Recommendations in the archaeological inventory survey and the cultural impact assessment will be followed to the maximum extent practicable. The site plan preserves the significant features identified in the studies. A Community Advisory Committee (CAC) consisting of local kūpuna and knowledgeable individuals has been formed and advises Sea Mountain Five, LLC, as it proceeds in planning for the development of the site. A cultural center wherein residents and visitors will be able to practice hula, arts and crafts has been included in the Sea Mountain Master Plan at the request of the CAC.

**Section 226-104: Population Growth and Land Resources Priority Guidelines**

- (a) *Priority guidelines to effect desired statewide growth and distribution.*
- (b) *Priority guidelines for regional growth distribution and land resource utilization:*
  - (b)(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.*
  - (b)(7) *Pursue rehabilitation of appropriate urban areas.*
  - (b)(9) *Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.*
  - (b)(10) *Identify critical environmental areas in Hawai'i 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..*
  - (b)(11) *Identify all areas where priority should be given to preserving rural character and lifestyle.*
  - (b)(12) *Utilize Hawai'i 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.*
  - (b)(13) *Protect and enhance Hawai'i's shoreline, open spaces and scenic resources.*

**Discussion:** The project area is currently designated Urban and Conservation for the State Land Use District, and zoned by the County for Residential, Resort, Commercial, and Open Space uses. The project density and projected growth are in accord with adopted State and County planning regulations. In this respect, growth in the project area has been planned for by the State and County and the project remains in compliance with these growth regulating policies. The development is conceptualized as a self-sufficient village modeled after the scale of existing towns like Na'alehu and Pahala in Ka'u. By providing more density in a smaller area, the project supports rural character through elimination of low-density sprawl. The project site is currently developed for residential and golf course uses with infrastructure systems such as wastewater and potable water. Some of the existing development is aged and in need of rehabilitation. Shoreline areas on the project site provide natural resources and scenic value. Development will be set back from the shoreline areas and the coastal area will be preserved and enhanced. Mitigation measures will be implemented to prevent impacts to

SEA MOUNTAIN AT PUNALU‘U

Draft Environmental Impact Statement

shoreline areas. We anticipate the project will meet the economic needs of the community while protecting the important resources the site offers.

<b>Table 6-1</b> <b>Hawai‘i Revised Statues – Hawai‘i State Planning Act – Chapter 226</b> <b>Part I. Overall Theme, Goals, Objectives and Policies</b>	Proposed Project		
	Supportive	Non-Supportive	Non-Applicable
<b>Section 226-1: Findings and Purpose</b>			
<b>Section 226-2: Definitions</b>			
<b>Section 226-4: Overall Theme</b>			
<b>Section 226-4: State Goals. 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:</b>			
(1) A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawai‘i’s present and future generations	✓		
(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.	✓		
(3) Physical, social and economic well-being, for individuals and families in Hawai‘i, that nourishes a sense of community responsibility, of caring, and of participation in community life.	✓		
<b>Section 226-5: Objective and policies for population</b>			
(a) 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;			
(b) To achieve the population objective, it shall be the policy of this State to:			
(1) Manage population growth statewide in a manner that provides increased opportunities for Hawai‘i’s people to pursue their physical, social and economic aspirations while recognizing the unique needs of each county.	✓		
(2) Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs-and desires.	✓		
(3) Promote increased opportunities for Hawai‘i’s people to pursue their socioeconomic aspirations throughout the islands.	✓		
(4) Encourage research activities and public awareness programs to foster and understanding of Hawai‘i’s limited capacity to accommodate population needs and to address concerns resulting from an increase in Hawai‘i’s population.			✓
(5) Encourage federal actions and coordination among major governmental agencies to promote a more balanced distribution of immigrants among states, provided that such actions do not prevent the reunion of immediate family members.			✓
(6) Pursue an increase in federal assistance for states with a greater proportion of foreign immigrants relative to their state’s population			✓
(7) 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	✓		

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

<b>Section 226-6: Objectives and policies for the economy in general.</b>			
(a) Planning for the State's economy in general shall be directed toward achievement of the following objectives:			
(1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawai'i's people.	✓		
(2) 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.	✓		
(b) To achieve the general economic objectives, it shall be the policy of this State to:			
(1) Expand Hawai'i'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.			✓
(2) Promote Hawai'i as an attractive market for environmentally and socially sound investment activities that benefit Hawai'i's people.	✓		
(3) Seek broader outlets for new or expanded Hawai'i business investments.			✓
(4) Expand existing markets and penetrate new markets for Hawai'i's products and services.			✓
(5) Assure that the basic economic needs of Hawai'i's people are maintained in the event of disruptions in overseas transportation.			✓
(6) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.	✓		
(7) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawai'i's small scale producers, manufacturers, and distributors.			✓
(8) Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.	✓		
(9) Foster greater cooperation and coordination between the government and private sectors in developing Hawai'i's employment and economic growth opportunities.			✓
(10) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.	✓		
(11) Maintain acceptable working conditions and standards for Hawai'i's workers.			✓
(12) Provide equal employment opportunities for all segments of Hawai'i's population through affirmative action and nondiscrimination measures.			✓
(13) Encourage businesses that have favorable financial multiplier effects within Hawai'i's economy.	✓		
(14) Promote and protect intangible resources in Hawai'i, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.			✓
(15) 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.			✓
(16) Foster a business climate in Hawai'i--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.			✓

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

<b>Section 226-7 Objectives and policies for the economy - agriculture.</b>			
(a) Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:			
(1) Viability of Hawai'i's sugar and pineapple industries.			✓
(2) Growth and development of diversified agriculture throughout the State.			✓
(3) An agriculture industry that continues to constitute a dynamic and essential component of Hawai'i's strategic, economic, and social well-being.			✓
(b) To achieve the agriculture objectives, it shall be the policy of this State to:			
(1) Establish a clear direction for Hawai'i's agriculture through stakeholder commitment and advocacy.			✓
(2) Encourage agriculture by making best use of natural resources.			✓
(3) Provide the governor and the legislature with information and options needed for prudent decision making for the development of agriculture.			✓
(4) Establish strong relationships between the agricultural and visitor industries for mutual marketing benefits.			✓
(5) Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawai'i's economy.			✓
(6) Seek the enactment and retention of federal and state legislation that benefits Hawai'i's agricultural industries.			✓
(7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawai'i's producers and consumer markets locally, on the continental United States, and internationally.			✓
(8) Support research and development activities that provide greater efficiency and economic productivity in agriculture.			✓
(9) Enhance agricultural growth by providing public incentives and encouraging private initiatives.			✓
(10) Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs.			✓
(11) Increase the attractiveness and opportunities for an agricultural education and livelihood.			✓
(12) Expand Hawai'i'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.			✓
(13) Promote economically competitive activities that increase Hawai'i's agricultural self-sufficiency.			✓
(14) Promote and assist in the establishment of sound financial programs for diversified agriculture.			✓
(15) Institute and support programs and activities to assist the entry of displaced agricultural workers into alternative agricultural or other employment.	✓		
(16) Facilitate the transition of agricultural lands in economically non-feasible agricultural production to economically viable agricultural uses.			✓
<b>Section 226-8 Objective and policies for the economy--visitor industry.</b>			
(a) 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 Hawai'i's economy.			
(b) To achieve the visitor industry objective, it shall be the policy of this State to:			
(1) Support and assist in the promotion of Hawai'i's visitor attractions and facilities.			✓

# SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

(2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawai'i's people.	✓		
(3) Improve the quality of existing visitor destination areas.	✓		
(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.	✓		
(5) Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawai'i's people.	✓		
(6) Provide opportunities for Hawai'i's people to obtain job training and education that will allow for upward mobility within the visitor industry.	✓		
(7) Foster a recognition of the contribution of the visitor industry to Hawai'i's economy and the need to perpetuate the aloha spirit.			✓
(8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawai'i's cultures and values.	✓		
<p><b>Section 226-9 Objective and policies for the economy--federal expenditures.</b></p> <p>(a) 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 Hawai'i's economy.</p> <p>(b) To achieve the federal expenditures objective, it shall be the policy of this State to:</p>			
(1) Encourage the sustained flow of federal expenditures in Hawai'i that generates long-term government civilian employment.			✓
(2) Promote Hawai'i's supportive role in national defense.			✓
(3) Promote the development of federally supported activities in Hawai'i that respect state-wide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawai'i's environment.			✓
(4) Increase opportunities for entry and advancement of Hawai'i's people into federal government service.			✓
(5) Promote federal use of local commodities, services, and facilities available in Hawai'i.			✓
(6) Strengthen federal-state-county communication and coordination in all federal activities that affect Hawai'i.			✓
(7) Pursue the return of federally controlled lands in Hawai'i 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.			✓
<p><b>Section 226-10 Objective and policies for the economy--potential growth activities.</b></p> <p>(a) 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 Hawai'i's economic base.</p> <p>(b) To achieve the potential growth activity objective, it shall be the policy of this State to:</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.			✓
(2) Expand Hawai'i's capacity to attract and service international programs and activities that generate employment for Hawai'i's people.			✓
(3) Enhance and promote Hawai'i's role as a center for international relations, trade, finance, services, technology, education, culture, and the arts.			✓

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

(4) Accelerate research and development of new energy- related industries based on wind, solar, ocean, and underground resources and solid waste.			✓
(5) Promote Hawai'i's geographic, environmental, social, and technological advantages to attract new economic activities into the State.			✓
(6) Provide public incentives and encourage private initiative to attract new industries that best support Hawai'i's social, economic, physical, and environmental objectives.			✓
(7) Increase research and the development of ocean-related economic activities such as mining, food production, and scientific research.			✓
(8) Develop, promote, and support research and educational and training programs that will enhance Hawai'i's ability to attract and develop economic activities of benefit to Hawai'i.			✓
(9) Foster a broader public recognition and understanding of the potential benefits of new, growth-oriented industry in Hawai'i.			✓
(10) Encourage the development and implementation of joint federal and state initiatives to attract federal programs and projects that will support Hawai'i's social, economic, physical, and environmental objectives.			✓
(11) Increase research and development of businesses and services in the telecommunications and information industries.			✓

**Section 226-10.5 Objectives and policies for the economy--information industry.**

(a) Planning for the State's economy with regard to the information industry shall be directed toward the achievement of the objective of positioning Hawai'i as the leading dealer in information businesses and services in the Pacific Rim.

(b) To achieve the information industry objective, it shall be the policy of this State to:

(1) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawai'i to accommodate future growth in the information industry;			✓
(2) Facilitate the development of new business and service ventures in the information industry which will provide employment opportunities for the people of Hawai'i;			✓
(3) Encourage greater cooperation between the public and private sectors in developing and maintaining a well- designed information industry;			✓
(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 Hawai'i's people;			✓
(5) Provide opportunities for Hawai'i's people to obtain job training and education that will allow for upward mobility within the information industry;			✓
(6) Foster a recognition of the contribution of the information industry to Hawai'i's economy; and			✓
(7) Assist in the promotion of Hawai'i as a broker, creator, and processor of information in the Pacific.			✓

**Section 226-11 Objectives and policies for the physical environment--land-based, shoreline, and marine resources.**

(a) Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:

(1) Prudent use of Hawai'i's land-based, shoreline, and marine resources.	✓		
(2) Effective protection of Hawai'i's unique and fragile environmental resources.	✓		

(b) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

(1) Exercise an overall conservation ethic in the use of Hawai'i's natural resources.	✓		
(2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.	✓		
(3) Take into account the physical attributes of areas when planning and designing activities and facilities.	✓		
(4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.	✓		
(5) Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.			✓
(6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawai'i.	✓		
(7) Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion.			✓
(8) Pursue compatible relationships among activities, facilities, and natural resources.	✓		
(9) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.	✓		
<p><b>Section 226-12 Objective and policies for the physical environment--scenic, natural beauty, and historic resources.</b></p> <p>(a) Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawai'i's scenic assets, natural beauty, and multi-cultural/historical resources.</p> <p>(b) To achieve the scenic, natural beauty, and historic resources objective, it shall be the policy of this State to:</p>			
(1) Promote the preservation and restoration of significant natural and historic resources.	✓		
(2) Provide incentives to maintain and enhance historic, cultural, and scenic amenities.	✓		
(3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.	✓		
(4) Protect those special areas, structures, and elements that are an integral and functional part of Hawai'i's ethnic and cultural heritage.	✓		
(5) Encourage the design of developments and activities that complement the natural beauty of the islands.	✓		
<p><b>Section 226-13 Objectives and policies for the physical environment--land, air, and water quality.</b></p> <p>(a) Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives:</p>			
(1) Maintenance and pursuit of improved quality in Hawai'i's land, air, and water resources.	✓		
(2) Greater public awareness and appreciation of Hawai'i's environmental resources.	✓		
<p>(b) To achieve the land, air, and water quality objectives, it shall be the policy of this State to:</p>			
(1) Foster educational activities that promote a better understanding of Hawai'i's limited environmental resources.	✓		
(2) Promote the proper management of Hawai'i's land and water resources.	✓		
(3) Promote effective measures to achieve desired quality in Hawai'i's surface, ground, and coastal waters.	✓		
(4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawai'i's people.			✓

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

(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.	✓		
(6) Encourage design and construction practices that enhance the physical qualities of Hawai'i's communities.	✓		
(7) Encourage urban developments in close proximity to existing services and facilities.	✓		
(8) Foster recognition of the importance and value of the land, air, and water resources to Hawai'i's people, their cultures and visitors.	✓		
<b>Section 226-14 Objective and policies for facility systems--in general.</b>			
(a) 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.			
(b) To achieve the general facility systems objective, it shall be the policy of this State to:			
(1) Accommodate the needs of Hawai'i's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.			✓
(2) Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.			✓
(3) Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.			✓
(4) Pursue alternative methods of financing programs and projects and cost-saving techniques in the planning, construction, and maintenance of facility systems.			✓
<b>Section 226-15 Objectives and policies for facility systems--solid and liquid wastes.</b>			
(a) Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:			
(1) Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.	✓		
(2) Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.	✓		
(a) To achieve solid and liquid waste objectives, it shall be the policy of this State to:			
(1) Encourage the adequate development of sewerage facilities that complement planned growth.	✓		
(2) Promote re-use and recycling to reduce solid and liquid wastes and employ a conservation ethic.	✓		
(3) Promote research to develop more efficient and economical treatment and disposal of solid and liquid wastes.			✓
<b>Section 226-16 Objective and policies for facility systems--water.</b>			
(a) 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.			
(b) To achieve the facility systems water objective, it shall be the policy of this State to:			

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

(1) Coordinate development of land use activities with existing and potential water supply.	✓		
(2) Support research and development of alternative methods to meet future water requirements well in advance of anticipated needs.			✓
(3) Reclaim and encourage the productive use of runoff water and wastewater discharges.	✓		
(4) Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.	✓		
(5) Support water supply services to areas experiencing critical water problems.			✓
(6) Promote water conservation programs and practices in government, private industry, and the general public to help ensure adequate water to meet long-term needs.	✓		
<b>Section 226-17 Objectives and policies for facility systems--transportation.</b>			
(a) Planning for the State's facility systems with regard to transportation shall be directed towards the achievement of the following objectives:			
(1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods.			✓
(2) A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.			✓
(b) To achieve the transportation objectives, it shall be the policy of this State to:			
(1) Design, program, and develop a multi-modal system in conformance with desired growth and physical development as stated in this chapter;			✓
(2) Coordinate state, county, federal, and private transportation activities and programs toward the achievement of statewide objectives;			✓
(3) Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties;			✓
(4) Provide for improved accessibility to shipping, docking, and storage facilities;			✓
(5) Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs;			✓
(6) Encourage transportation systems that serve to accommodate present and future development needs of communities;	✓		
(7) Encourage a variety of carriers to offer increased opportunities and advantages to inter-island movement of people and goods;			✓
(8) Increase the capacities of airport and harbor systems and support facilities to effectively accommodate transshipment and storage needs;			✓
(9) Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification;			✓
(10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawai'i's natural environment;	✓		
(11) Encourage safe and convenient use of low-cost, energy- efficient, non-polluting means of transportation;	✓		
(12) Coordinate inter-governmental land use and transportation planning activities to ensure the timely delivery of supporting transportation infrastructure in order to accommodate planned growth objectives; and			✓
(13) Encourage diversification of transportation modes and infrastructure to promote alternate fuels and energy efficiency.	✓		

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

<b>Section 226-18 Objectives and policies for facility systems--energy.</b>			
(a) 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;			✓
(2) Increased energy self-sufficiency where the ratio of indigenous to imported energy use is increased;			✓
(3) Greater energy security in the face of threats to Hawai'i's energy supplies and systems; and			✓
(4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use.			✓
(b) To achieve the energy objectives, it shall be the policy of this State to ensure the provision of adequate, reasonably priced, and dependable energy services to accommodate demand.			
(c) To further achieve the energy objectives, it shall be the policy of this State to:			
(1) Support research and development as well as promote the use of renewable energy sources;			✓
(2) Ensure that the combination of energy supplies and energy-saving systems is sufficient to support the demands of growth;			✓
(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;			✓
(4) Promote all cost-effective conservation of power and fuel supplies through measures including: (A) Development of cost-effective demand-side management programs; (B) Education; and (C) Adoption of energy-efficient practices and technologies;			✓
(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;			✓
(6) Support research, development, and demonstration of energy efficiency, load management, and other demand-side management programs, practices, and technologies;			✓
(7) Promote alternate fuels and energy efficiency by encouraging diversification of transportation modes and infrastructure;			✓
(8) Support actions that reduce, avoid, or sequester greenhouse gases in utility, transportation, and industrial sector applications; and			✓
(9) Support actions that reduce, avoid, or sequester Hawai'i's greenhouse gas emissions through agriculture and forestry initiatives.			✓
<b>Section 226-18.5 Objectives and policies for facility systems--telecommunications.</b>			
(a) 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.			
(b) To achieve the telecommunications objective, it shall be the policy of this State to ensure the provision of adequate, reasonably priced, and dependable telecommunications services to accommodate demand.			
(c) To further achieve the telecommunications objective, it shall be the policy of this State to:			
(1) Facilitate research and development of telecommunications systems and resources;			✓

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

(2) Encourage public and private sector efforts to develop means for adequate, ongoing telecommunications planning;			✓
(3) Promote efficient management and use of existing telecommunications systems and services; and			✓
(4) Facilitate the development of education and training of telecommunications personnel.			✓
<b>Section 226-19 Objectives and policies for socio-cultural advancement--housing.</b>			
(a) Planning for the State's socio-cultural advancement with regard to housing shall be directed toward the achievement of the following objectives:			
(1) Greater opportunities for Hawai'i'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 developers to ensure that more affordable housing is made available to very low-, low- and moderate-income segments of Hawai'i's population.	✓		
(2) The orderly development of residential areas sensitive to community needs and other land uses.	✓		
(3) The development and provision of affordable rental housing by the State to meet the housing needs of Hawai'i's people.	✓		
(b) To achieve the housing objectives, it shall be the policy of this State to:			
(1) Effectively accommodate the housing needs of Hawai'i's people.	✓		
(2) Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income, and gap-group households.	✓		
(3) Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.	✓		
(4) Promote appropriate improvement, rehabilitation, and maintenance of existing housing units and residential areas.	✓		
(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.	✓		
(6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.	✓		
(7) Foster a variety of lifestyles traditional to Hawai'i through the design and maintenance of neighborhoods that reflect the culture and values of the community.	✓		
(8) Promote research and development of methods to reduce the cost of housing construction in Hawai'i.			✓
<b>Section 226-20 Objectives and policies for socio-cultural advancement--health.</b>			
(a) Planning for the State's socio-cultural advancement with regard to health shall be directed towards achievement of the following objectives:			
(1) Fulfillment of basic individual health needs of the general public.			✓
(2) Maintenance of sanitary and environmentally healthful conditions in Hawai'i's communities.			✓
(b) To achieve the health objectives, it shall be the policy of this State to:			
(1) Provide adequate and accessible services and facilities for prevention and treatment of physical and mental health problems, including substance abuse.			✓

SEA MOUNTAIN AT PUNALU‘U

Draft Environmental Impact Statement

(2) 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.			✓
(3) Encourage public and private efforts to develop and promote statewide and local strategies to reduce health care and related insurance costs.			✓
(4) Foster an awareness of the need for personal health maintenance and preventive health care through education and other measures.			✓
(5) Provide programs, services, and activities that ensure environmentally healthful and sanitary conditions.			✓
(6) Improve the State's capabilities in preventing contamination by pesticides and other potentially hazardous substances through increased coordination, education, monitoring, and enforcement.	✓		

**Section 226-21 Objective and policies for socio-cultural advancement--education.**

(a) 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.

(b) To achieve the education objective, it shall be the policy of this State to:

(1) Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups.			✓
(2) Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.			✓
(3) Provide appropriate educational opportunities for groups with special needs.			✓
(4) Promote educational programs which enhance understanding of Hawai'i's cultural heritage.	✓		
(5) Provide higher educational opportunities that enable Hawai'i's people to adapt to changing employment demands.			✓
(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.			✓
(7) Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning.			✓
(8) Emphasize quality educational programs in Hawai'i's institutions to promote academic excellence.			✓
(9) Support research programs and activities that enhance the education programs of the State.			✓

**Section 226-22 Objective and policies for socio-cultural advancement--social services.**

(a) 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.

(b) To achieve the social service objective, it shall be the policy of the State to:

(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.			✓
(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.			✓
(3) Facilitate the adjustment of new residents, especially recently arrived immigrants, into Hawai'i's communities.			✓

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

(4) Promote alternatives to institutional care in the provision of long-term care for elder and disabled populations.			✓
(5) Support public and private efforts to prevent domestic abuse and child molestation, and assist victims of abuse and neglect.			✓
(6) Promote programs which assist people in need of family planning services to enable them to meet their needs.			✓

**Section 226-23 Objective and policies for socio-cultural advancement--leisure.**

- (a) 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.
- (b) To achieve the leisure objective, it shall be the policy of this State to:

(1) Foster and preserve Hawai'i's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.	✓		
(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.	✓		
(3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.	✓		
(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.	✓		
(5) Ensure opportunities for everyone to use and enjoy Hawai'i's recreational resources.	✓		
(6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.	✓		
(7) Provide adequate and accessible physical fitness programs to promote the physical and mental well-being of Hawai'i's people.			✓
(8) Increase opportunities for appreciation and participation in the creative arts, including the literary, theatrical, visual, musical, folk, and traditional art forms.	✓		
(9) Encourage the development of creative expression in the artistic disciplines to enable all segments of Hawai'i's population to participate in the creative arts.			✓
(10) Assure adequate access to significant natural and cultural resources in public ownership.	✓		

**Section 226-24 Objective and policies for socio-cultural advancement--individual rights and personal well-being.**

- (a) 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.
- (b) To achieve the individual rights and personal well- being objective, it shall be the policy of this State to:

(1) 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.			✓
(2) Uphold and protect the national and state constitutional rights of every individual.			✓
(3) Assure access to, and availability of, legal assistance, consumer protection, and other public services which strive to attain social justice.			✓
(4) Ensure equal opportunities for individual participation in society.			✓

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

<b>Section 226-25 Objective and policies for socio-cultural advancement--culture.</b>			
(a) 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 Hawai'i's people.			
(b) To achieve the culture objective, it shall be the policy of this State to:			
(1) Foster increased knowledge and understanding of Hawai'i's ethnic and cultural heritages and the history of Hawai'i.	✓		
(2) Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawai'i's people and which are sensitive and responsive to family and community needs.	✓		
(3) Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawai'i.	✓		
(4) Encourage the essence of the aloha spirit in people's daily activities to promote harmonious relationships among Hawai'i's people and visitors.	✓		
<b>Section 226-26 Objectives and policies for socio-cultural advancement--public safety.</b>			
(a) 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.			✓
(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.			✓
(3) Promotion of a sense of community responsibility for the welfare and safety of Hawai'i's people.			✓
(b) To achieve the public safety objectives, it shall be the policy of this State to:			
(1) Ensure that public safety programs are effective and responsive to community needs.			✓
(2) Encourage increased community awareness and participation in public safety programs.			✓
(c) To further achieve public safety objectives related to criminal justice, it shall be the policy of this State to:			
(1) Support criminal justice programs aimed at preventing and curtailing criminal activities.			✓
(2) Develop a coordinated, systematic approach to criminal justice administration among all criminal justice agencies.			✓
(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.			✓
(d) To further achieve public safety objectives related to emergency management, it shall be the policy of this State to:			
(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.			✓

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

(2) Enhance the coordination between emergency management programs throughout the State.			✓
<b>Section 226-27 Objectives and policies for socio-cultural advancement--government.</b>			
(a) 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.			✓
(2) Fiscal integrity, responsibility, and efficiency in the state government and county governments.			✓
(b) To achieve the government objectives, it shall be the policy of this State to:			
(1) Provide for necessary public goods and services not assumed by the private sector.			✓
(2) Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.			✓
(3) Minimize the size of government to that necessary to be effective.			✓
(4) Stimulate the responsibility in citizens to productively participate in government for a better Hawai'i.			✓
(5) Assure that government attitudes, actions, and services are sensitive to community needs and concerns.			✓
(6) Provide for a balanced fiscal budget.			✓
(7) Improve the fiscal budgeting and management system of the State.			✓
(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.			✓

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

<p><b>Table 6-2</b> <b>Hawai'i Revised Statutes – Hawai'i State Planning Act – Chapter 226</b> <b>Part III. Priority Guidelines</b></p>	Proposed Project		
	Supportive	Non-Supportive	Non-Applicable
<p><b>Section 226-101 Purpose. The purpose of this part is to establish overall priority guidelines to address areas of statewide concern.</b></p>			
<p><b>Section 226-102 Overall direction.</b></p> <p>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: economic development, population growth and land resource management, affordable housing, crime and criminal justice, and quality education.</p>			
<p><b>Section 226-103 Economic priority guidelines.</b></p> <p>(a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawai'i's people and achieve a stable and diversified economy:</p>			
<p>(1) Seek a variety of means to increase the availability of investment capital for new and expanding enterprises. (A) Encourage investments which:</p>			
(i) Reflect long term commitments to the State;	✓		
(ii) Rely on economic linkages within the local economy;	✓		
(iii) Diversify the economy;	✓		
(iv) Reinvest in the local economy;	✓		
(v) Are sensitive to community needs and priorities; and	✓		
(vi) Demonstrate a commitment to provide management opportunities to Hawai'i residents.	✓		
(2) Encourage the expansion of technological research to assist industry development and support the development and commercialization of technological advancements.			✓
(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.			✓
(4) Seek to ensure that state business tax and labor laws and administrative policies are equitable, rational, and predictable.			✓
(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.			✓
(6) Encourage the formation of cooperatives and other favorable marketing or distribution arrangements at the regional or local level to assist Hawai'i's small-scale producers, manufacturers, and distributors.			✓
(7) Continue to seek legislation to protect Hawai'i from transportation interruptions between Hawai'i and the continental United States.			✓
(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:	✓		

# SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

(A) An industry that can take advantage of Hawai'i's unique location and available physical and human resources.	✓		
(B) A clean industry that would have minimal adverse effects on Hawai'i's environment.	✓		
(C) An industry that is willing to hire and train Hawai'i's people to meet the industry's labor needs at all levels of employment.	✓		
(D) An industry that would provide reasonable income and steady employment.	✓		
(9) Support and encourage, through educational and technical assistance programs and other means, expanded opportunities for employee ownership and participation in Hawai'i business.			✓
(10) Enhance the quality of Hawai'i's labor force and develop and maintain career opportunities for Hawai'i's people through the following actions:	✓		
(A) Expand vocational training in diversified agriculture, aquaculture, information industry, and other areas where growth is desired and feasible.			✓
(B) Encourage more effective career counseling and guidance in high schools and post-secondary institutions to inform students of present and future career opportunities.			✓
(C) Allocate educational resources to career areas where high employment is expected and where growth of new industries is desired.			✓
(D) Promote career opportunities in all industries for Hawai'i's people by encouraging firms doing business in the State to hire residents.	✓		
(E) Promote greater public and private sector cooperation in determining industrial training needs and in developing relevant curricula and on- the-job training opportunities.			✓
(F) Provide retraining programs and other support services to assist entry of displaced workers into alternative employment.	✓		
b) Priority guidelines to promote the economic health and quality of the visitor industry:			
(1) Promote visitor satisfaction by fostering an environment which enhances the Aloha Spirit and minimizes inconveniences to Hawai'i's residents and visitors.	✓		
(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.	✓		
(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.	✓		
(4) Encourage visitor industry practices and activities which respect, preserve, and enhance Hawai'i's significant natural, scenic, historic, and cultural resources.	✓		
(5) Develop and maintain career opportunities in the visitor industry for Hawai'i's people, with emphasis on managerial positions.	✓		
(6) Support and coordinate tourism promotion abroad to enhance Hawai'i's share of existing and potential visitor markets.	✓		
(7) Maintain and encourage a more favorable resort investment climate consistent with the objectives of this chapter.	✓		
(8) Support law enforcement activities that provide a safer environment for both visitors and residents alike.			✓
(9) Coordinate visitor industry activities and promotions to business visitors through the state network of advanced data communication techniques.			✓
c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:			
(1) Provide adequate agricultural lands to support the economic viability of the sugar and pineapple industries.			✓

# SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

(2) Continue efforts to maintain federal support to provide stable sugar prices high enough to allow profitable operations in Hawai'i.			✓
(3) Support research and development, as appropriate, to improve the quality and production of sugar and pineapple crops.			✓
d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:			
(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.			✓
(2) Assist in providing adequate, reasonably priced water for agricultural activities.			✓
(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.			✓
(4) Assist in the formation and operation of production and marketing associations and cooperatives to reduce production and marketing costs.			✓
(5) Encourage and assist with the development of a waterborne and airborne freight and cargo system capable of meeting the needs of Hawai'i's agricultural community.			✓
(6) Seek favorable freight rates for Hawai'i's agricultural products from inter-island and overseas transportation operators.			✓
(7) Encourage the development and expansion of agricultural and aquacultural activities which offer long-term economic growth potential and employment opportunities.			✓
(8) Continue the development of agricultural parks and other programs to assist small independent farmers in securing agricultural lands and loans.			✓
(9) Require agricultural uses in agricultural subdivisions and closely monitor the uses in these subdivisions.			✓
(10) Support the continuation of land currently in use for diversified agriculture.			✓
e) Priority guidelines for water use and development:			
(1) Maintain and improve water conservation programs to reduce the overall water consumption rate.	✓		
(2) Encourage the improvement of irrigation technology and promote the use of non-potable water for agricultural and landscaping purposes.	✓		
(3) Increase the support for research and development of economically feasible alternative water sources.			✓
(4) Explore alternative funding sources and approaches to support future water development programs and water system improvements.	✓		
f) Priority guidelines for energy use and development:			
(1) Encourage the development, demonstration, and commercialization of renewable energy sources.			✓
(2) Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.	✓		
(3) Provide incentives to encourage the use of energy conserving technology in residential, industrial, and other buildings.	✓		
(4) Encourage the development and use of energy conserving and cost-efficient transportation systems.	✓		
g) Priority guidelines to promote the development of the information industry:			

# SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

(1) Establish an information network that will serve as the catalyst for establishing a viable information industry in Hawai'i.			✓
(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.			✓
(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.			✓
(4) Encourage the development or expansion of educational and training opportunities for residents in the information and telecommunications fields.			✓
(5) Encourage research activities, including legal research in the information and telecommunications fields.			✓
(6) Support promotional activities to market Hawai'i's information industry services.			✓
<p><b>Discussion:</b> The Sea Mountain project is consistent with the State's goals to provide economic vitality, stability and growth for present and future generations. Re-development of the resort at Punalu'u provides diversified and localized economic opportunities for the Ka'u region. Additionally, the project would provide a steady level of construction employment over a period of ten years, lead to the establishment of permanent full-time and part-time operational jobs, and stimulate employment growth in other sectors of Hawai'i's economy. It is estimated that many employees would be Hawai'i Island residents, and that most of the remaining employees would be from other parts of the State.</p> <p>The resort, although somewhat isolated from the neighboring communities of Pahala and Na'alehu, is planned at a scale and density that is sensitive to these communities and the rural character of the Ka'u District. With adequate shoreline setbacks and beach access, the resort development, guided by the Community Advisory Committee, will respect, preserve, and enhance the site's significant natural, scenic, historic and cultural resources.</p> <p>Local agricultural products, such as fish, meat, vegetables and fruits would be purchased for consumption at the resort, contributing to the maintenance and expansion of the agricultural base.</p>			
<p><b>Section 226-104 Population growth and land resources priority guidelines.</b></p> <p>(a) Priority guidelines to effect desired statewide growth and distribution:</p>			
(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 Hawai'i's people.	✓		
(2) Manage a growth rate for Hawai'i's economy that will parallel future employment needs for Hawai'i's people.			✓
(3) Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State.			✓
(4) Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.			✓
(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.			✓
(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.			✓
(7) Support the development of high technology parks on the neighbor islands.			✓
<p>(b) Priority guidelines for regional growth distribution and land resource utilization:</p>			

# SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

(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.	✓		
(2) Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.	✓		
(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.			✓
(4) Encourage restriction of new urban development in areas where water is insufficient from any source for both agricultural and domestic use.			✓
(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.	✓		
(6) Seek participation from the private sector for the cost of building infrastructure and utilities, and maintaining open spaces.	✓		
(7) Pursue rehabilitation of appropriate urban areas.	✓		
(8) Support the redevelopment of Kaka'ako into a viable residential, industrial, and commercial community.			✓
(9) Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.	✓		
(10) Identify critical environmental areas in Hawai'i 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.	✓		
(11) Identify all areas where priority should be given to preserving rural character and lifestyle.	✓		
(12) Utilize Hawai'i'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.	✓		
(13) Protect and enhance Hawai'i's shoreline, open spaces, and scenic resources.	✓		
<p><b>Discussion: The proposed project site has long been designated for urban/resort development. Infrastructure already in place to support the existing development include a wastewater treatment plant, and road, drainage, sewage and potable water distribution systems.</b></p> <p>Proposed development at the Sea Mountain Resort would conform to relevant State and County land use and environmental regulations, as well as other regulations and proposed mitigation measures to protect and preserve valuable environmental, social and cultural resources. As noted elsewhere, the planned resort will provide lateral and mauka-makai access to the shoreline areas. Location of resort facilities will comply with any required shoreline setbacks.</p> <p>All historic and archaeological resources determined to be significant pursuant to the final archaeological report would be preserved and/or restored and integrated into the design of the resort.</p>			
<p><b>Section 226-105 Crime and criminal justice. Priority guidelines in the area of crime and criminal justice:</b></p>			
(1) Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.			✓
(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.			✓

SEA MOUNTAIN AT PUNALU‘U

Draft Environmental Impact Statement

(3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.			✓
(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.			✓
(5) Provide a range of appropriate sanctions for juvenile offenders, including community-based programs and other alternative sanctions.			✓
(6) Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization.			✓

**Discussion:** While the developer supports the State’s policies related to crime and criminal justice, they are not directly applicable to the proposed project. The developer will support State and local authorities to provide safer environments for citizens and visitors of the area.

**Section 226-106 Affordable housing. Priority guidelines for the provision of affordable housing:**

(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.	✓		
(2) Encourage the use of alternative construction and development methods as a means of reducing production costs.	✓		
(3) Improve information and analysis relative to land availability and suitability for housing.	✓		
(4) Create incentives for development which would increase home ownership and rental opportunities for Hawai‘i’s low- and moderate-income households, gap-group households, and residents with special needs.			✓
(5) Encourage continued support for government or private housing programs that provide low interest mortgages to Hawai‘i’s people for the purchase of initial owner- occupied housing.			✓
(6) Encourage public and private sector cooperation in the development of rental housing alternatives.	✓		
(7) Encourage improved coordination between various agencies and levels of government to deal with housing policies and regulations.			✓
(8) Give higher priority to the provision of quality housing that is affordable for Hawai‘i’s residents and less priority to development of housing intended primarily for individuals outside of Hawai‘i.		✓	

**Discussion:** While it is well understood that the majority of housing units slated for construction will be marketed to out-of-State residents, the project developers are committed to meeting affordable housing requirements established by the County housing agency consistent with the policies of the County of Hawai‘i.

**Section 226-107 Quality education. Priority guidelines to promote quality education:**

(1) Pursue effective programs which reflect the varied district, school, and student needs to strengthen basic skills achievement;			✓
(2) Continue emphasis on general education "core" requirements to provide common background to students and essential support to other university programs;			✓
(3) Initiate efforts to improve the quality of education by improving the capabilities of the education work force;			✓
(4) Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision-making responsibilities;			✓
(5) Increase and improve the use of information technology in education by the availability of telecommunications equipment for:			✓

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

(A) The electronic exchange of information;			✓
(B) Statewide electronic mail; and			✓
(C) Access to the Internet.			✓
Encourage programs that increase the public's awareness and understanding of the impact of information technologies on our lives;			✓
(6) Pursue the establishment of Hawai'i's public and private universities and colleges as research and training centers of the Pacific;			✓
(7) Develop resources and programs for early childhood education;			✓
(8) Explore alternatives for funding and delivery of educational services to improve the overall quality of education; and			✓
(9) Strengthen and expand educational programs and services for students with special needs.			✓
<b>Discussion:</b> The policies for education are not directly applicable to the proposed project.			

**6.3.3 State of Hawai'i Functional Plans**

State Functional Plans are the primary guidance for implementing the Hawai'i State Plan. In contrast to the Hawai'i State Plan which establishes long-term objectives, the State Functional Plans serve as guidelines for shorter-term actions; they are not interpreted as law or statutory mandate. Following is an examination to determine the relationship between the relevant functional plans and the proposed Sea Mountain Development.

*6.3.3.1 State Conservation Lands Functional Plan*

*Objective IIC: Enhancement of natural resources*

*Policy IIC(2): Expand and enhance outdoor recreation opportunities and other resource uses.*

*Policy IID(3): Develop recreational and archaeological resources on the shoreline and mauka areas.*

*Action IID(3)a: Acquire and/or develop areas for historic preservation.*

*Action IID(3)b: Establish a State-wide trails and access system.*

**Discussion:** Significant archaeological resources will be preserved under a preservation plan to be approved by the State Historic Preservation Division. The tennis complex, parks, pathways and re-development of the golf course will enhance outdoor recreation in this area.

*6.3.3.2 State Recreation Functional Plan*

*Policy II-A(3): Proceed with planning, acquisition, and developments of trails.*

*Policy III-D(3): Effectively manage and maintain existing public access ways.*

*Policy V-C(3): Explore innovative ways to manage and maintain recreational resources.*

**Discussion:** Recreational resources for this project include the existing Punalu'u beach park that will be maintained, the golf course that will be renovated, other passive and active parks, tennis complex and trail system through the master plan area. These will enhance recreational opportunities for the public.

6.3.3.3 *State Historic Preservation Functional Plan*

*Objective C: Management and Treatment of Historic Properties.*

*Policy C.2.: Encourage the preservation and maintenance of historic properties through economic incentives and support.*

**Discussion:** Almost all of the policies and implementing actions in the State Historic Preservation Functional Plan are directed at state agencies, especially the Department of Land and Natural Resources (DLNR). An archaeological inventory survey of the project site has been completed. The project includes preservation areas for important natural features and significant archaeological sites. The impact of the project on the remaining historic resources should be minimal with the implementation of an State Historic Preservation Division-approved preservation plan, burial treatment plan and monitoring program.

6.3.3.4 *State Tourism Functional Plan*

*Policy II.A.7: Improve the quality of existing parks and recreational areas, and ensure that sufficient recreational areas—including scenic byways and corridors—are available for the future.*

*Objective III.A: Enhancement of respect and regard for the fragile resources which comprise Hawai'i's natural and cultural environment. Increased preservation and maintenance efforts.*

*Policy III.A.2: Assist in preserving, perpetuating, and interpreting cultural, historic and archaeological resources.*

**Discussion:** The development of the Sea Mountain resort would be sensitive to the community concerns of the Ka'ū district. In order to foster better relations with the community, the developer has engaged and will continue to enter into further discussions with members of the community in order to address their concerns or objections to the proposal.

**6.3.4 Hawai'i Coastal Zone Management, Chapter 205A, HRS**

Regulations regarding the use of coastal lands and resources are established in Chapter 205A, HRS, and are administered, in this case, by the County of Hawai'i Planning Department. The intent of Hawai'i's Coastal Zone Management (CZM) Program and appurtenant Special Management Area (SMA) regulatory scheme is to assure that proper attention is provided to coastal resources and that the potential adverse impacts from proposed developments are mitigated before damage occurs. Special controls on developments within the SMA are necessary to avoid permanent losses of valuable resources and the foreclosure of management options, and to assure that adequate access is provided to publicly-owned or used beaches. Preserving, protecting, and where possible, restoring natural resources of the coastal zone are State policies.

Since much of project (all of the approximately 324 acres makai of the Hawai'i Belt Highway) lies within the SMA established by the County of Hawai'i, and meets the definition of "development" pursuant to Chapter 205A, HRS, an SMA permit would be obtained as required prior to any project development within the SMA. Specific provisions of the SMA process are discussed below in Section 5.4.3.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

The Sea Mountain project would be consistent with the applicable objectives and policies of the CZM Program as noted below.

#### 6.3.4.1 Recreational Resources

*Objective:* Provide coastal recreational opportunities accessible to the public.

*Policy (A):* Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

(i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas; and

(iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value.

**Discussion:** Presently, the primary access to the Punalu'u shoreline is from the Hawai'i Belt Highway/Punalu'u Road intersection. The public would continue to be provided access to the coastal recreational opportunities via Punalu'u Road. Public access to the shoreline area and Punalu'u Beach Park will be maintained, and a walking path near the shoreline will link Kaieie Heiau to Punalu'u Nui Heiau. Public parking spaces will be reserved to provide support for public beach access.

#### 6.3.4.2 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.

*Policy (A):* Identify and analyze significant archaeological resources; and

*Policy (B):* Maximize information retention through preservation of remains and artifacts or salvage operations.

**Discussion:** An Archaeological Inventory Survey (Appendix A) has been completed for the project area and a total of 34 historic properties, comprised of over 125 archaeological features, were identified. Twenty-three (23) of the historic properties were previously identified and 11 were newly recorded as part of the current inventory survey investigation. The Sea Mountain project will protect, preserve, and support the restoration of significant historic and cultural resources where feasible.

The Punalu'u project area has undergone massive transformation with perhaps 90% of the land already mechanically cleared, or altered by floods and tsunamis. While much of the context of the remaining sites has been lost, these sites may be considered important as the last vestiges of a vibrant Hawaiian community.

Preservation is recommended for 27 sites. With the preparation, State Historic Preservation Division-review, and implementation of a preservation plan, burial treatment plan and monitoring plan, the impact of this project on remaining resources should be minimal.

6.3.4.3 *Scenic and Open Space Resources*

- Objective:* Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.
- Policy (B):* 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; and
- Policy (C):* Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources.
- Policy (D):* Encourage those developments that are not coastal dependent to locate in inland areas.

**Discussion:** Much of the Sea Mountain project will be comprised of a series of low-rise residential enclaves, surrounded by golf course fairways or other open space areas. The 300 hotel units to be provided on one or two hotel sites, will be of low-rise design to assimilate into the Punalu‘u coastal setting. Hotel(s) will be located in an areas designated “Resort” in the County Land Use Pattern Allocation Guide Map.

Design guidelines will ensure that buildings integrate well with the land and climate. Site planning will create setbacks and buffers to soften the impact of development on the landscape. Open space will be maintained, along with shoreline and other important views. All buildings will be designed with a low profile that is complimentary and compatible with the site’s rural setting. Roof colors and building materials will help tone down their visual impact. Landscaping will incorporate existing landforms, native plant species and other plant species that are compatible with the climate of the region.

6.3.4.4 *Coastal Ecosystems*

- Objective:* Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.
- Policy (A):* Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources; and
- Policy (C):* Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance.

**Discussion:** Based on the biological consultant reports, the proposed development is not expected to have significant adverse effects on the coastal ecosystem or pond complex. Stewardship practices will be instituted to preserve and manage the natural resources of the Punalu‘u coastal area.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

#### 6.3.4.5 Economic Uses

- Objective:* Provide public or private facilities and improvements important to the State's economy in suitable locations.
- Policy (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
- Policy (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:
- (i) Use of presently designated locations is not feasible;*
  - (ii) Adverse environmental effects are minimized; and*
  - (iii) The development is important to the State's economy.*

**Discussion:** Punalu'u has the desired geographic, scenic and climatic environment to support a resort development; as such, the planned visitor industry facility can be considered a "coastal related development." Through the County zoning process, the project site has been designated, and to some extent is presently being used, for such a development. Further, as designed, the Sea Mountain project would be located, designed and constructed to minimize adverse social, visual and environmental impacts.

#### 6.3.4.6 Coastal Hazards

- Objective:* Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.
- Policy (B):* Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards; and
- Policy (C):* Ensure that developments comply with requirements of the Federal Flood Insurance Program.

**Discussion:** The Sea Mountain Master Plan recognizes that the 433-acre site is situated at the foot of the flow areas of the Mauna Loa and Kilauea volcanoes. The site has been categorized in risk zone E, the second highest risk area on the Island of Hawai'i. The site is also located in USGS Seismic Zones 3 and of nine seismic zones corresponding to volcanic risk. In 1975, Punalu'u was hit by a tsunami. FEMA's Flood Insurance Rate Maps have categorized areas adjacent the shoreline as areas of coastal flooding. The likelihood exists that the project site would be impacted by one or more of these natural hazards. Appropriate mitigation measures will be implemented to the greatest extent feasible. This includes design and construction in conformance with provisions of the Uniform Building Code (UBC) and the County Building Code and site planning to minimize placement in a high risk or sensitive area.

6.3.4.7 *Beach Protection*

*Objective: Protect beaches for public use and recreation.*

*Policy (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.*

**Discussion:** No new structures will be located within the shoreline setback area. Punalu'u Beach Park will be maintained and enhanced for public use and recreation.

**6.3.5 Chapter 343, Hawai'i Revised Statutes**

*Section 343-5 HRS provides: 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...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..."*

**Discussion:** The project involves no direct EIS triggers, however, two project components could be indirect triggers. First of all, a proposed upgrade to the existing wastewater treatment facility would increase its capacity to serve over fifty additional residential units. Secondly, proposed roadway improvements may require linkage to the State Highway (Hawai'i Belt Highway) which could be considered a use of state lands under trigger number one in the OEQC handbook. For these reasons, this draft Environmental Impact Statement has been prepared pursuant to Chapter 343, Hawai'i Revised Statutes.

**6.4 COUNTY OF HAWAI'I PLANS AND CONTROLS**

**6.4.1 General Plan**

The County General Plan Land Use Pattern Allocation Guide (LUPAG) Map currently designates the project site as Medium Density Urban, Low Density Urban, Open Area and Resort (Minor); the Sea Mountain project has been designed with these designations in mind, so changes to the County of Hawai'i General Plan and LUPAG map are not needed.

The following discussion provides an assessment of how the proposed project conforms to and implements the pertinent objectives and policies of the County of Hawai'i General Plan.

6.4.1.1 *Economic Development*

*Allow new, expanded, or improved economic opportunities that are compatible with the County's cultural, natural and social environment.*

*Encourage the development of a visitor industry which is consistent with the social, physical, and economic goals of the residents of the County.*

**Discussion:** According to the County's General Plan, the existing Punalu'u Resort and Sea Mountain Golf Course complex is the center of tourism activity within the Ka'u District. The proposed expansion of the complex would result in an increased quantity and variety of job

opportunities for local residents resulting in higher employment, which in turn increases the opportunities to improve their quality of life. By using sensible planning principles, and developing facilities in an orderly manner, the proposed project is seeking to minimize the adverse effects on the physical and social environment of the area, and at the same time, is striving to expand the variety and quality of services available to the community.

The proposed improvements would create a successful resort development that would be a stable economic force within the County's economy. The resort development has been designed to minimize adverse social and physical impact, and also to create additional employment that would likely provide more economic stability in the region.

#### 6.4.1.2 Flood Control and Drainage

*It is the responsibility of both the government and the private sector to maintain and improve existing drainage systems and to construct new drainage facilities.*

*Consider natural hazards in all land use planning and permitting.*

**Discussion:** Sea Mountain Five, LLC will be responsible for constructing drainage improvements on-site through the use of culverts and infiltration areas. It is anticipated that there will be no effect on off-site drainage conditions as a result of this project.

The Sea Mountain Master Plan recognizes that the 433-acre site is situated at the foot of the flow areas of the Mauna Loa and Kilauea volcanoes. The site has been categorized in risk zone E, the second highest risk area on the Island of Hawai'i. The site is also located in USGS Seismic Zones 3 and of nine seismic zones corresponding to volcanic risk. In 1975, Punalu'u was hit by a tsunami. FEMA's Flood Insurance Rate Maps have categorized areas adjacent the shoreline as areas of coastal flooding. The likelihood exists that the project site would be impacted by one or more of these natural hazards. Appropriate mitigation measures will be implemented to the greatest extent feasible. This includes design and construction in conformance with provisions of the Uniform Building Code (UBC) and the County Building Code and site planning to minimize placement in a high risk or sensitive area.

#### 6.4.1.3 Historic Sites

*The County of Hawai'i shall require both public and private developers of land to provide a historical survey prior to the clearing or development of land when there are indications that the land under consideration has historical significance.*

**Discussion:** An Archaeological Inventory Survey (*Appendix A*) has been completed for the project area and a total of 34 historic properties, comprised of over 125 archaeological features, were identified. Twenty-three (23) of the historic properties were previously identified and 11 were newly recorded as part of the current inventory survey investigation. The Sea Mountain project will protect, preserve, and support the restoration of significant historic and cultural resources where feasible.

The Punalu'u project area has undergone massive transformation with perhaps 90% of the land already mechanically cleared, or altered by floods and tsunami. While much of the context of the remaining sites has been lost, these sites may be considered important as the last vestiges of a vibrant Hawaiian community.

Preservation is recommended for 27 sites. With the preparation, State Historic Preservation Division-review, and implementation of a preservation plan, burial treatment plan and monitoring plan, the impact of this project on remaining resources should be minimal.

6.4.1.4 *Natural Beauty*

*The County shall consider structural setback from major thoroughfares and highways and shall establish development and design guidelines to protect important view planes.*

*Protect the views of areas endowed with natural beauty by carefully considering the effects of proposed construction during all land use reviews.*

*Do not allow incompatible construction in areas of natural beauty.*

**Discussion:** Any setback area along the Hawai'i Belt Highway would remain as open space; additionally, appropriate landscaping would enhance such setback areas.

Much of the Sea Mountain project will be comprised of a series of low-rise residential enclaves, surrounded by golf course fairways or other open space areas. Design guidelines will ensure that buildings integrate well with the land and climate. Site planning will create setbacks and buffers to soften the impact of development on the landscape; shoreline open space will be maintained. All buildings will be designed with a low profile that is complimentary and compatible with the site's rural setting. Roof colors and building materials will help tone down their visual impact. Landscaping will incorporate existing landforms, native plant species and other plant species that are compatible with the climate of the region.

6.4.1.5 *Natural Resources and Shoreline*

*The County shall encourage the public and private agencies to manage the natural resources in a manner that avoids or minimizes adverse effects on the environment and depletion of energy and natural resources to the fullest extent.*

*Encourage the use of native plants for screening and landscaping.*

*Protect the shoreline from the encroachment of man-made improvements and structures.*

*Maintain the shoreline for recreational, cultural, educational, and/or scientific uses in a manner that is protective of resources and is of the maximum benefit to the general public.*

**Discussion:** The project's Master Plan and specific design plans attempt to minimize adverse environmental effects and depletion of resources caused by development through a variety of means. Measures to be implemented include large natural buffer areas, preserve zones, dual water systems, extensive landscaping with plants native to the area.

The existing public access to Punalu'u Beach Park will be maintained. A walking path near the shoreline will link Kaieie Heiau to Punalu'u Nui Heiau. Additionally, no new structures are proposed within the shoreline area.

6.4.1.6 *Housing*

*GOAL: Attain a diversity of socio-economic housing mix throughout the different parts of the County.*

*GOAL: Maintain a housing supply which allows a variety of choice.*

*The County shall encourage a volume of construction and rehabilitation of housing sufficient to meet growth needs and correct existing deficiencies.*

*The County shall work with, encourage, and support the private sector efforts in the provision of affordable housing.*

**Discussion:** At full build-out, the Sea Mountain project would provide a total of 1823 units of single-family and multi-family residential units, developed as series of low-rise residential enclaves that would fully conform to all the County's subdivision requirements. The majority of these will be high quality market-priced units with the recreational amenities consistent with a coastal resort. As required by State and County policies, Sea Mountain Five LLC, may also develop the construction of affordable units. Re-zoning of the mauka portion of the project would trigger the County's affordable housing requirement, and the developer intends to work with the County of Hawai'i to provide affordable housing opportunities for the residents of Ka'u, consistent with the requirements of the County's affordable housing policy. Additionally, employee housing will be developed as an element of the proposed resort facility.

6.4.1.7 *Public Utilities*

**Discussion:** In general, the existing infrastructure systems at the project site are becoming dated, and would be expanded by the developer to implement the proposed Sea Mountain master plan. The upgraded facilities would conform to governmental standards for efficiency and quality.

*Water: A systematic program by the County, State, and private interest shall identify sources of additional water supply to ensure the development of sufficient quantities of water for future needs of high growth areas.*

**Discussion:** A Master Plan for Potable Water, Recycled Water and Wastewater (*Appendix D*) was prepared to estimate the potable water, wastewater and recycled water requirements for the proposed Sea Mountain project, and to develop a basis for the related infrastructure required to serve the project. The design of these water systems will be based on applicable State and County standards. Because potable water will be used on a regular basis to supplement the recycled wastewater for golf course irrigation, potable water and recycled water (irrigation) were estimated and described in the report.

*Sewer: Private systems shall be installed by land developers for major resort and other developments along the shorelines and sensitive higher inland areas, except where connection to nearby treatment facilities is feasible and compatible with County's long range plans, and in conformance with State and County requirements.*

**Discussion:** Sea Mountain Five, LLC will renovate and expand the existing private wastewater treatment facility on the project site to meet the requirements of the proposed development.

6.4.1.8 *Transportation*

*Thoroughfares and Streets: The County shall investigate various methods of funding road improvements, including private sector participation, to meet the growing transportation needs of the Island.*

**Discussion:** Sea Mountain Five, LLC will fund the cost of any necessary improvements to the connection of Punalu'u Road intersection with Hawai'i Belt Highway, along with the cost of developing all internal circulation roads within the project site. Mitigation of traffic impacts from this project is discussed in the Traffic Impact Assessment Report (*Appendix K*).

6.4.1.9 *Land Use*

The Land Use Pattern Allocation Guide (LUPAG) Map currently designates the project site as Medium Density Urban, Low Density Urban, Open Area and Resort (Minor); the Sea Mountain project has been designed with these designations in mind, so changes to the County of Hawai'i General Plan and LUPAG map are not needed.

6.4.1.10 *Commercial*

*The development of commercial facilities should be designed to fit into the locale with minimal intrusion while providing the desired services. Appropriate infrastructure and design concerns shall be incorporated into the review of such developments.*

**Discussion:** The proposed Sea Mountain project includes a variety of commercial venues as part of its master plan, including the mainstay resort/hotel, retail, clubhouse retail, village commercial and community commercial facilities.

The developer met with community members during the course of project planning to integrate the project with regional resident needs. Sea Mountain Five, LLC will provide appropriate infrastructure and design elements for the proposed development components while being cognizant of the impact of the development.

**6.4.2 Zoning Districts**

The project area has a number of County zoning designations as depicted in *Figure 1-5*:

- Agricultural 20-acre (A-20a)-109 acres
- Village Commercial (CV-10) – 29 acres
- Open Area (OPEN)-159 acres
- Multi Family Residential (RM-2) – 16 acres
- Multi Family Residential (RM-2.5) – 48 acres
- Multi Family Residential (RM-3) – 25 acres
- Single Family Residential (RS-20) – 0 acres
- Resort-Hotel District (V-1.5) – 40 acres

Pursuant to Chapter 25, Hawai'i County Code relating to Zoning, the current A-20a zoning for the mauka portion of the project site (above the Hawai'i Belt Highway) does not allow the

single family and multi family (duplex) residential uses proposed for Areas 1 and 2. Therefore, rezoning of this section is required. A Change of Zone application (Rezoning) will be filed, with the specific zoning district designations that will be requested to be determined later in the planning process. No changes in zoning are necessary to support the proposed development in the makai area.

#### 6.4.3 Special Management Area Guidelines

The portion of the project area located within the Special Management Area (SMA) includes all lands makai of the Hawai'i Belt Highway. The proposed development within this area will require an SMA Use Permit from the Planning Commission of the County of Hawai'i, which as the "authority" will review the project according to the SMA guidelines established in Section 205A, HRS. The consistency of the proposed project with these guidelines is discussed below:

All development in the Special Management Area shall be subject to reasonable terms and conditions set by the authority in order to ensure that:

- (1) *Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with sound conservation principles.*
- (2) *Adequate and properly located public recreation areas and wildlife preserves are reserved.*
- (3) *Provisions are made for solid and liquid waste treatment, disposition, and management which will minimize adverse effects upon special management area resources;*
- (4) *Alterations to existing landforms and vegetation, except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation, or failure in the event of earthquake.*

**Discussion:** Public access to and along the entire shoreline area fronting the project site will be maintained and enhanced, and certain lands will be offered to the County for expansion of the existing Punalu'u Beach Park facilities. The access has been designed to be sensitive to the coastal environment, such as the breeding area for sea turtles and areas of historical or cultural significance. Conservation areas may be established to ensure the protection of important wildlife habitats, and would be managed using sound conservation principles.

As noted in Section 5 of this document, solid and liquid waste generated by the proposed resort development will be handled in such a manner as to minimize any potential adverse effects upon the coastal resources.

The proposed Sea Mountain resort has been planned to incorporate existing scenic and recreational amenities and any alterations to existing landforms and vegetation or construction of structures would be designed to minimize adverse effects upon these amenities or water resources. All new facilities and improvements will be constructed in a manner that avoids creating, either individually or cumulatively, dangers from floods, landslides, erosion, siltation or failure in the event of an earthquake. Such natural hazards that may affect the site have been, and will continue to be, given serious consideration in the planning, design and operation of the proposed resort.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

#### No development shall be approved unless the authority has first found that:

- (1) *The development will not have any substantial, adverse environmental or ecological effect except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health and safety, or compelling public interest. Such adverse effect shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect and the elimination of planning options;*
- (2) *That the development is consistent with the objectives, policies, and special management area guidelines of this chapter and any guidelines enacted by the legislature; and*
- (3) *That the development is consistent with the county general plan and zoning. Such a finding of consistency does not preclude concurrent processing where a general plan or zoning amendment may also be required.*

**Discussion:** This Environmental Impact Statement (EIS) has analyzed the potential social, economic, environmental and ecological effects of the proposed development, and has identified various mitigation measures that would be employed to minimize all substantial adverse effects. The developers believe that on balance, with the use of such mitigation measures, the positive benefits outweigh the adverse effects. The consistency of the proposed development with the objectives, policies and guidelines of Hawai'i's CZM Program and with the County of Hawai'i's General Plan and zoning codes has been analyzed and documented elsewhere in this section of the EIS.

#### The authority shall seek to minimize, where reasonable:

- (1) *Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon;*
- (2) *Any development which would reduce the size of any beach or other area usable for public recreation;*
- (3) *Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the special management area and the mean high tide line where there is no beach;*
- (4) *Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast; and*
- (5) *Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.*

**Discussion:** The only marine area that may possibly be altered as noted in (1) above would be Ninole Cove if an agreement were reached with the landowning State of Hawai'i to undertake efforts to restore this landform after 30+ years of in-filling caused by tsunami and flooding. If undertaken, the sheltered Ninole Cove could be restored as a valuable recreational resource along the otherwise exposed, and often harsh, Ka'u coastline.

The proposed enlargement of Punalu'u Beach Park would provide additional public recreational areas along the shoreline of the project area. While public access to the shoreline would generally be improved by the proposed project, some restrictions such as limited vehicular access may be imposed as management tools to protect and preserve important habitat and historic or cultural sites.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

The Hawai'i Belt Highway is almost one mile from the shoreline at an elevation of 190-300 feet above sea level, and thus the proposed low-rise development is not expected to substantially interfere with or detract from the line of sight towards the sea. Identified as an area of natural beauty in the County General Plan, Punalu'u is expected to remain as such since the proposed development will be setback from the shoreline, low-rise in design, and landscaped to blend into the open space nature of the setting.

Regarding the resources noted in (5) above, the quality of the marine and pond waters are not anticipated to be adversely impacted by the increased use and development of the project area. Further, the ponds, which could be considered to be "existing areas of open water free of visible structures," would not be adversely affected by the proposed development; nor would any fisheries or fishing grounds adjacent to the project area. Important wildlife habitats within the shoreline area, such as the turtle nesting areas and ponds are planned as conservation areas, subject to management actions to protect the valuable resources within.

There are no existing agricultural uses of the subject project area and the potential for such use is minimal do the shallow soils and high land values, among other factors.

**Section 7.0**  
Alternatives Considered

## 7.0 ALTERNATIVES CONSIDERED

In the process of designing the Sea Mountain master plan, various alternative designs and options were considered. Many factors were taken into account, such as market demand, the owner's concepts, and community preferences were evaluated to develop a feasible plan. The project team engaged the affected community early in the planning process through meetings and committees to gather comments on design. This section reviews the feasible options and alternatives to the proposed action that were considered throughout the planning process.

To weigh the benefits and impacts of alternative plans for the project, there is a need to provide a consistent set of evaluation guidelines by which each alternative can be uniformly compared. These guidelines or criteria should be structured around applicable regulatory requirements; sound planning, economics, engineering and business practices and procedures; environmental protection principles and professional judgment and experience; and those demonstrated elements that equate to a "successful resort." This includes the delivery of satisfaction to the visitor necessary to generate occupancy and spending, which in turn provides jobs and economic growth and stability to the community. Further, the analyses and evaluations should be comparative and include numerous variations of the proposed project (see *Chapter 2.0 Project Description*) previously identified.

The project objectives are to create a self-sufficient mixed-use village comprised of various residential options, commercial facilities, an 18-hole golf course and destination resort facilities. The resort facilities should capture the feel and character of "old Hawai'i" through an open friendly atmosphere where visitors are treated as kama'āina. Sustainability will be a guiding principle of this village through sustainable tourism practices, and possibly provision of an eco-friendly hotel. It should be a project that engages the local community and is one which highlights history and culture of the site and region. Another project objective is economic growth, not only in the sense of project profitability, but in a regional sense of bringing jobs and revenues to the locality.

The number of potential alternatives are a subjective number as there are a myriad of options. We have identified the major conceptually different options and evaluated them on this level.

### 7.1 ALTERNATIVE: NO-ACTION

The No-Action Alternative means the services, products, facilities and amenities associated with the proposed Sea Mountain project will not be realized. This includes foregoing the following benefits and positive effects:

- No residential construction would occur at the site. The planned 1,523 units of residential housing and 300 hotel units would not be built. Retail and commercial space would not be constructed. Recreation-related facilities and services planned for the project would not be realized.
- In terms of employment, 3,800 person years of construction and service-related jobs and 515 long-term, permanent jobs at buildout would be forgone.
- The anticipated cumulative surplus of government revenues to expenses -- in excess of \$24 million to the County of Hawai'i to build-out and \$17.6 million to the State of

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

Hawai'i to build-out -- would be forgone. The annual surpluses of \$3.6 million (after construction is finished) to the County of Hawai'i and \$0.7 million (after construction) to \$1.8 million (during construction) to the State of Hawai'i would not be realized. The expected nearly \$600 million in investment over a 10-year period would not occur and the indirect economic impacts of the construction expenditures for this project would not occur.

- Recreational amenities associated with the re-developed golf course, the new active and passive parks and the bicycle paths would not be realized, along with planned renovations and improvements to the Punalu'u Beach Park and shoreline facilities. The existing golf course has been operating at a loss for a number of years and without economic help it cannot be maintained. In fact, in the absence of expected economic benefits, the owners most likely would minimize operating losses by closing the golf course in a similar vein to the previous closure of the restaurant, golf clubhouse and Aspen Institute facilities.
- The roads and the landscaping are not properly maintained and will continue to deteriorate unless the property becomes financially viable.
- The cultural and historical sites will have no protection as the project goes into disrepair. The disappearance of the painting in the old cultural center is a prime example of what will happen.
- As the existing beach park is located on private land that is leased to the County, the month-to-month lease for the park could be terminated and there would be no park. The roads to the park are not public roads and could be closed or gated. This would cut off shoreline access, access to the beach, the boat ramp etc.
- Given the very marginal return of the land for conventional agriculture, and the lack of supporting infrastructure, there does not appear to be a strong prospect for ranching or any other active agricultural use of the property. Further, given the fact that most of the project area is zoned for urban land uses, utilizing such land for agricultural activities is unrealistic both from an economic perspective along with the potential for conflict with the existing urban-type land uses that are well established at the site.
- The proposed resource management actions for preservation, mitigation, management and stewardship of on-site natural and cultural resources would not take place, leading to the likely potential for increased deterioration of the coastal environment as use of the Punalu'u shoreline area increases over time even without the project. If the owner terminates public use of the shoreline area, then there will potentially be less human impacts to this area. Without human intervention to foster native habitat and retard erosion, it is likely that the area will be overrun by invasive species and that the shoreline will continue to erode.
- The water system already leaks. The wells aren't adequate to support the drinking water needs of the existing community and the golf course at one time. The benefits of additional wells and a new water system would be forgone in this alternative.
- The sewer system currently releases level R2 treated wastewater, which is not up to the current R1 standard. Extensive upgrades and repairs to the existing system, or replacement of the entire system would be required to treat water to the R1 standard and prevent further deterioration. Without the proposed project, the planned

renovation of the existing water supply system and WWTP to improve performance of the facilities would not occur, or if improvements were undertaken, the prorata costs for each of the relatively few existing users could be exorbitantly high. Lack of repairs would likely lead to more leakage and contamination.

- There is currently no financial incentive for the landowner to maintain this property. The combination of condo owners and single family home owners, and the landowners, is not a viable group to maintain the roads, golf course, water facilities, sewage treatment, etc. By not allowing the property to gain enough critical mass, the property and the current residents are headed for a financial disaster.

If the project attains a certain density, it will be able to support upgrades to facilities, provide ongoing facility maintenance, keep the golf course in operation, showcase local culture, and revive economic viability in the area.

The following summarizes the impact of the No-Action Alternative:

**Culture and Archaeology:** The Integrated Natural Cultural Resource Management Plan (INCRMP), proposed by the project developers to address preservation, mitigation, management and stewardship measures raised by the Ka'ū community would not be implemented. Cultural and archaeological resources will continue to deteriorate due to lack of management and maintenance.

**Visual:** The No-Action alternative would retain visual resources in the area. Open space would be retained. Golf course would be closed and landscaping would be stopped. Areas would become overgrown with weeds and invasive species.

**Soils, Topography and Drainage:** The No-Action Alternative would have little or no impacts to soils, topography or drainage. Slow, natural erosion would continue to occur. Drainage will continue in its present condition with no improvements.

**Water Resources/Water Quality:** Additional ground water resources, beyond what are presently being consumed would not be used. Water quality in the area would remain as is, although without the planned renovation of the aging WWTP, there is a possibility that inefficiencies or failures could lead to water quality control problems.

**Flora and Fauna:** Impact on flora and fauna would be neutral in that while the habitat would remain relatively undisturbed by project actions, trends in the current "natural" processes would result in the slow loss of habitat from alien species encroachment and grazing by introduced ungulates and predation from rats and feral animals. Conservation areas would not be created and managed because there will be no income from a development to pay for its management. These resources would slowly deteriorate from lack of management and protection.

**Roadways and Traffic:** Traffic trip generation from the site will not increase. This is a positive effect. However, traffic in the Ka'ū region will continue to increase from other developments and ambient increases due to population growth and development. To the extent that such growth occurs outside mixed use developments, the highway would have increased traffic between exclusively residential areas and supporting retail and commercial areas.

**Infrastructure/Power/Communications:** This alternative would not generate the need for public or private infrastructure. There will be no need for additional power or telecommunication services.

**Socio-Economic:** The anticipated \$600 million in investment and the ongoing economic activities and tax revenues that would have been generated would be foregone. There will be no increase in the need for public services.

**Population:** While the projected population increase from the project would not occur, the population of the region will continue to grow through in-migration and natural growth. The housing needed to accommodate the growth would not be provided by this project.

**Public Services:** Additional police, fire, medical services and similar services would not be needed. However the region will continue to be underserved due to a lack of critical mass (people) to sustain high levels of service.

**Education:** No new students will be generated from the project site and there will be no impacts on public schools.

## 7.2 ALTERNATIVE: PRIVATE ESTATES

Under this alternative, no resort would be developed; instead, top-end, private single-family residential lots would be created out of the existing legal parcels comprising the project site. Hawaii Revised Statutes Chapter 205A and Planning Commission Rule 9, construction of a single family residence that is not part of a larger development, and subdivision of a parcel of land into four or fewer parcels does not constitute “development” and therefore is not subject to a Special Management Area (SMA) permit. Each parcel would be sold to separate individuals to pursue their own development plans. If this scenario occurs, up to 50 such private estates could be developed per these guidelines. No zoning changes, SMA permits or any other regulatory approvals, other than standard building permits, would be necessary to undertake this alternative (although the Planning Director may require an SMA if significant impacts are anticipated). Existing facilities and sites, such as the uneconomic golf course, the Punalu'u Pond and former restaurant site, and some informal access routes, could be converted to private residential uses to the extent allowable by the current regulatory regime and desirable to create “trophy” building sites.

This alternative represents the lowest density development plan, and consequently would provide the fewest economic benefits to the community and very few additional jobs would be created. While such a low density development plan may appear to have low environmental impact, if no discretionary approvals are required, no regulatory control could be exerted over the development. No public process would be provided for input or comments.

This development would have the following unique impacts:

**Culture and Archaeology:** The Integrated Natural Cultural Resource Management Plan (INCRMP), proposed by the project developers to address preservation, mitigation, management and stewardship measures raised by the Ka'u community would not be implemented. Cultural and archaeological resources will continue to deteriorate due to lack of management.

**Visual:** The individual development of approximately 50 luxury estates by private contractors could have an adverse impact to scenic and visual resources in the area, since no coordinating theme would be guiding the build-out. Additionally, such luxury homes generally tend to be quite large, and are often designed by architects seeking to make “statements” with their

design. The proposed resort has been planned from the beginning with low-rise structures, setbacks, landscaping and buffers to soften the visual impacts of the development.

**Soils, Topography and Drainage:** The development of about 50 homes would entail less site work, leading to less of an impact to soils, topography and drainage than the proposed project.

**Water Resources/Water Quality:** Logic dictates that much less potable water would be necessary for the scaled-down development in this alternative; however, the luxury estates could be expected to have extensive landscaping, which unlike the proposed golf course that would be irrigated with treated wastewater effluent, would require significant amounts of potable water for irrigation.

**Flora and Fauna:** The conservation areas proposed under the resort alternatives would not be established, likely leading to resource degradation from lack of management and protection. As with the "No Action alternative," trends in the current "natural" processes would result in the loss of habitat from landscaping, alien species encroachment and predation from rats and feral animals

**Roadways and Traffic:** This alternative would produce only a minute fraction of the traffic expected to be generated by the full build-out of the proposed alternative.

**Infrastructure/Power/Communications:** Proposed improvements to the existing water supply and wastewater treatment infrastructure at the project site might not be undertaken, since the critical mass of users required to justify the need and expense of such upgrades may not exist. Private lot owners could choose to construct individual, private wells and septic systems, leaving the financial burden of upgrading the existing water and sewer systems to the owners of Colony I and Kalana I.

**Housing:** This alternative would not be subject to any triggers that would require the provision of affordable housing for the community.

**Socio-economic:** While the construction phase of 50 luxury estates would provide a short-term economic boost and a moderate amount of increased property tax revenue over the long-term, this alternative would not provide a significant amount of long-term employment, nor anywhere near as much construction employment or long-term property or general excise tax revenues as would the proposed resort development.

**Public Services:** The construction of approximately 50 additional homes in the Ka'ū district would not place any significant burden upon the public service agencies in the area.

**Recreation:** The golf course would likely be shut down as it would not sustain itself financially.

**Education:** As noted in *Section 5.2.14.1*, the proposed 1,523 unit development is estimated to generate a total of 37 students by the buildout year of 2015; accordingly, a 50-estate development would not be expected to generate more than handful of students, and thus would have an insignificant effect upon DOE resources. No fair share contributions would be triggered by this development alternative.

### 7.3 ALTERNATIVE: RESORT WITH CURRENT ZONING

This possible alternative eliminates the single family lots and the affordable housing units that would be developed if Areas 1 and 2, both mauka of the Belt Highway, were re-zoned. This 109-acre section of the project site, while designated as Medium Density Urban on the County's LUPAG Map (*Figure 1-4*), is currently zoned A-20a for Agricultural uses, and would require a

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

change of zoning to support the preferred plan for residential use (327 dwelling units) of this area. For the purposes of this discussion, it is assumed that 5 single-family "farm dwellings" would be developed on this Agricultural land, pursuant to current zoning provisions.

Under this alternative scenario, the portion of the resort located makai of the Belt Highway would remain as planned, as would the portion of the golf course located mauka of the highway. An SMA Use Permit would be the major discretionary land use approval necessary to undertake this alternative. While the overall project density would be lowered in this alternative by approximately 322 units (or 18% of the total), along with a likely consequent lowering of expected economic benefits, only a very moderate diminution of the overall environmental impact would be expected due to the fact that this mauka area contains relatively few sensitive environmental resources to be impacted. Additionally, eliminating the high-value single family residential lots from the mix of residential options to be provided within the Sea Mountain project would have some adverse effect upon the economic viability of the entire project.

Otherwise, this alternative generally has slightly reduced overall impacts compared to the proposed development, as noted below:

**Culture and Archaeology:** This area has previously been substantially altered by grazing and golf-course construction activities over many decades. Any cultural or archaeological resources remaining in this area would not be impacted by large-scale project-related development, but could be affected by the required agricultural activities to support the 5 farm dwellings.

**Visual:** The open space characteristics of the area mauka of the highway would be largely retained, since only 5 residences and some agricultural activities would be visible here; accordingly, the visual impact of this alternative would be substantially less when looking mauka, compared to that of the proposed project. Otherwise, the makai views would be impacted the same as in the proposed plan.

**Soils, Topography and Drainage:** Except for necessary improvements to the existing golf course to bring it up to championship standards, in general, the mauka area would not be subjected to large-scale project work; however, depending upon the type and extent of agricultural activities undertaken to support the 5 farm dwellings presumed under this alternative, some grubbing and grading work could alter the soil and drainage characteristics of this area.

**Water Resources/Water Quality:** Under this alternative, approximately 322 dwelling units would not be constructed, compared to the proposed plan. The majority of these would have been single-family and low-density residences with generally substantial landscaping requirements, the rest would have been fairly high-density affordable housing. Some agricultural use of the land would be required to support the 5 farm dwellings presumed under this alternative; accordingly, some water resources would need to be allocated towards this element. Overall, the impact of this alternative upon the demand for water resources is expected to be a considerable water savings in comparison to the planned development. This alternative is not expected to have a significantly different impact to water quality issues than the proposed project; see *Section 5* for a discussion of these issues.

**Flora and Fauna:** This mauka area has previously been substantially altered by grazing and golf-course construction activities over many decades. Any biological resources remaining in this area would not be impacted by large-scale project-related development, but could be affected by the required agricultural activities to support the 5 farm dwellings.

**Traffic and Transportation:** The elimination of the 322 proposed residences in the mauka area could lead to a consequential generalized reduction in expected traffic impact by about 18% compared to the proposed plan. However, since approximately 55 of those 322 undeveloped dwelling units would have been be affordable housing units, ostensibly occupied at a much higher percentage by working local residents than the remaining resort/golf course view low-density residences, the alternative of not building these residences would more likely lead to a somewhat larger reduction in expected traffic impact.

**Housing:** Since no change of zoning would be required to implement this alternative, it would not be subject to the standard trigger that would require the provision of affordable housing for the community.

**Socio-economic:** The alternative of not pursuing the development of the mauka portion of the project site would have adverse socio-economic impacts in that fewer construction jobs would be forthcoming, no affordable housing would become available to the community and further, property tax revenues from the numerous high value, single-family residential lots would be forgone.

#### 7.4 ALTERNATIVE: MODERATE DENSITY

This possible alternative proposes a total of 1,400 units including approximately 1,100 residential units and 300 hotel units. This alternative would include single and multi-family residential on both mauka and makai portions of the project site, however at a lower density than the proposed project. The golf course would remain as planned, although could potentially be realigned.

This alternative supports shoreline preservation policies as well as meets public concerns about scale and density. It represents a balance between high density and low density while maintaining economic feasibility. This alternative would also provide a range of housing options that the low density alternative would not be able to provide.

An SMA Use Permit and Rezoning would be the major discretionary land use approvals necessary to undertake this alternative. The overall project density would be lowered in this alternative by approximately 400 units (or 22% of the total). It represents an alternative density that is half of the potential maximum density of 2,800 units permissible under the zoning. Economic benefits would be proportionally lower. This alternative has slightly reduced overall impacts compared to the proposed development, as noted below:

**Culture and Archaeology:** The project area has been substantially altered by residential and golf-course construction activities over many decades. The lower density of this alternative may lead to less visitor traffic at cultural and archaeological sites, and result in an indirect reduction of impacts.

**Visual:** The open space characteristics of the makai area would be largely retained. Accordingly, the visual impact of this alternative would be slightly less when looking makai, compared to that of the proposed project. Otherwise, the mauka views would be impacted the same as in the proposed plan.

**Water Resources/Water Quality:** Under this alternative, approximately 400 dwelling units would not be constructed, compared to the proposed plan. The majority of these would have been multi-family residences with landscaping requirements. Overall, the impact of this

alternative upon the demand for water resources is expected to be a considerable water savings in comparison to the planned development. This alternative is not expected to have a significantly different impact to water quality issues than the proposed project; see *Section 5* for a discussion of these issues.

**Traffic and Transportation:** The reduction of the 400 proposed residences throughout the project area could lead to a consequential generalized reduction in expected traffic impact by about 22% compared to the proposed plan.

**Housing:** Approximately 1,100 residential units and 300 hotel units would be provided in this alternative scenario.

**Socio-economic:** The moderate density alternative would have adverse socio-economic impacts in that fewer construction jobs would be forthcoming, fewer residents would generate less commercial revenues, and property tax revenues from 400 residential lots would be forgone.

## 7.5 ALTERNATIVE: LOW DENSITY

The low density alternative would provide 300 lots of low-density single family estates and 200 hotel units for a total of 500 units. The precise balance between hotel and residential units may vary. The residential lots would be located primarily on the makai side of the property in planning areas three, five and six. Rezoning of the mauka portion would not be pursued, and consequently, no affordable housing units would be developed. Five farm dwellings would be anticipated for the mauka area zoned for agriculture. Workforce housing triggered by hotel development will generate a smaller number of affordable units. The golf course would be developed as proposed, but could potentially be realigned.

An SMA Use Permit would be the major discretionary land use approval necessary to undertake this alternative. While the overall project density would be lowered in this alternative by approximately 1,300 units (or 71% of the total), economic benefits will likewise be much lower.

The advantage of a lower density development would be cumulatively lower traffic and visual impacts. Cost of infrastructure improvements would only be marginally lower than the proposed project.

The disadvantages of the low-density scenario are economic in nature. Because land values on the project site are not as high as in places like Kona, home prices may not be able to carry infrastructure costs, which would call into question the economic feasibility of the project. Because of this, the range of housing and pricing options would be limited. Home prices would be inflated in order to float infrastructure costs, thus pushing lower income buyers out of the market. Commercial enterprises on the project site would probably not be viable, including the golf course, which would be closed. The low density scenario would not provide the critical mass to support commercial activities, thus eliminating this positive, job and revenue creating, self-sustaining element from the community.

Otherwise, this alternative generally has slightly reduced overall impacts compared to the proposed development, as noted below:

**Culture and Archaeology:** The project area has been substantially altered by residential and golf-course construction activities over many decades. As all construction activities for the proposed project would avoid cultural and archaeological resources. However, the lower

density of this alternative may lead to less visitor traffic at cultural and archaeological sites, and result in an indirect reduction of impacts.

**Visual:** The open space characteristics of the area mauka of the highway would be largely retained, since only 5 residences and some agricultural activities would be visible here; accordingly, the visual impact of this alternative would be substantially less when looking mauka, compared to that of the proposed project. The visual characteristics of the makai coastal area would include more open space due to the lower density. Accordingly, the visual impact of this alternative would be slightly less when looking makai, compared to that of the proposed project.

**Soils, Topography and Drainage:** Except for necessary improvements to the existing golf course to bring it up to championship standards, in general, the mauka area would not be subjected to large-scale project work; however, depending upon the type and extent of agricultural activities undertaken to support the 5 farm dwellings presumed under this alternative, some grubbing and grading work could alter the soil and drainage characteristics of this area.

**Water Resources/Water Quality:** Under this alternative, approximately 500 dwelling units would be constructed. This would result in less landscaping and irrigation requirements. Some agricultural use of the land would be required to support the 5 farm dwellings presumed under this alternative; accordingly, some water resources would need to be allocated towards this element. Overall, the impact of this alternative upon the demand for water resources is expected to be a considerable water savings in comparison to the planned development. This alternative is not expected to have a significantly different impact to water quality issues than the proposed project; see *Section 5* for a discussion of these issues.

**Flora and Fauna:** The project area has been substantially altered by grazing and golf-course construction activities over many decades. Biological resources would be less impacted by low density lot development as less grading would be required.

**Traffic and Transportation:** The elimination of the 1,300 proposed residences would lead to a sizable reduction in expected traffic impact compared to the proposed plan.

**Housing:** Since no change of zoning would be required to implement this alternative, it would not be subject to the standard trigger that would require the provision of affordable housing for the community. The range of housing options would be limited in this alternative. Only about 300 residences would be provided with this alternative, most likely high-end estate type residences.

**Socio-economic:** The low-density alternative would have adverse socio-economic impacts in that fewer construction jobs would be forthcoming, less affordable housing would become available to the community, commercial uses would be eliminated, hotel jobs would be fewer, and property tax revenues from 1,300 units would be forgone. This alternative scenario may be financially infeasible and may not generate any jobs.

## 7.6 ALTERNATE LOCATIONS

Alternate locations for the project were considered. However, the evaluation of alternative sites was severely limited by two factors. First, the consideration was limited to lands that were available to or owned by the developer. Second, the project had to be in an area that was suitably zoned and designated for this type of development. The availability of the existing Sea

Mountain facilities adjacent to an area long identified in the County's General Plan for Minor Resort and other urban development was a significant factor. Given these factors, Sea Mountain Five, LLC did not identify any alternate locations for this project. *Note: While the proposed project remains the project plan at this moment, there is flexibility built into the overall master plan and location changes and density changes remain under consideration.*

## 7.7 ALTERNATIVE: SETBACKS

Through the course of discussions in the community and with agency representatives there have been several suggestions to establish a setback from the shoreline to protect coastal resources and uses. The recommendations have ranged from keeping the setback consistent with the area that is in the coastal conservation district to moving development mauka of the Hawaii Belt Highway. Some recommendations have called for an arbitrary number such as 300 feet, 1,000 feet or one mile from the shoreline. Others have suggested the tsunami inundation line or a line that follows some topographic feature such as the bluff where the Hokuloa chapel is located. We have reviewed many potential alternate alignments and evaluated them. The following summarizes the different setback options and rationale behind them:

**All Development Mauka of the Highway:** This recommendation essentially takes the lands designated in the Hawaii Island General Plan and the existing zoning and calls for a change in both to move development almost a mile inland from the coastline. The stated purpose of this setback is to protect the coast and coastal resources. However, without a clearer listing or description of what is being protected it is not clear that this option would achieve the intent. The negative side of this position is that it essentially represents a taking of property and would probably cost the County and tax payers money equivalent to the fair market value of the property. There are already existing developments makai of the Highway and the site is not a pristine environment. The rationale for using the Hawaii Belt Highway as a coastal setback line at this site is not clear. The roadway's distance from the ocean varies along different parts of the island and the character and quality of the resources makai of the highway also vary significantly. Consequently impacts vary and the rationale for the line may be inappropriate or excessive in some places. Essentially, this option alters the existing County policy for resort/urban development on the site. If the County desires such a change, it should occur through the formal channels of General Plan and zoning amendments. This recommendation essentially eliminates the current project.

**1000 Foot Setback:** This number has been suggested in some circles. Other than it being a nice, simple round number that is easy to remember, there has been no rationale presented for this particular alternative or distance. For similar reasons that apply to the use of the Belt Highway as a demarcation line, the use of a 1000 foot setback seems arbitrary. However, it is possible to use such a number for planning purposes for convenience. Still a compelling rationale for using 1000 feet as a setback is lacking. There are potential property takings questions and issues to resolve as well.

**200-300 foot setback:** This number has also been suggested as a setback line. Again with the larger distances a uniform setback that does not consider the resources to be protected and the differences in local topography and resources would generally be arbitrary. The 200 foot setback would have some logic in that it would be consistent with the State of Hawaii conservation district line that is located along most of the frontage of the property except at the

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

two ends of Ninole Cove and Punalu'u Bay where the line moves inland following a previous plan.

**Storm Surge and Tsunami Inundation line:** Some have suggested moving all development mauka of the storm surge/tsunami inundation line. While this provides a clear rationale of safety as a motivating factor the line is not clear. The FEMA federal insurance rate maps used for flood purposes indicates a coastal VE line in one area. There is no established tsunami line though a map was established showing the extent of wave run-up from the 1975 tsunami generated from the Halape quake. While that line is clear, it is based on one event and is not predictive of future events. An appropriate line would require more studies and decisions on model hurricane and tsunami events that would be used for regulatory purposes. Such a line would vary with factors such as topography, magnitude of the potential storm or earthquake, friction of the land to wave surge and inundation due to other complicating factors such as tides, rainfall and mesoscale eddies. Also, while a setback line is one way to address the safety issue, storm surge and tsunami inundation concerns can be addressed through a combination of several methods such as elevating structures and constructing buildings with deeper piles and breakaway walls. It becomes a risk analysis decision. Setbacks, while useful for these purposes, remain only one of many tools to address this issue.

**Existing Golf Course Roadway and Cemetery Bluff:** It has been suggested that all development be moved mauka of the existing Golf Course Clubhouse Road and mauka of the Hokuloa Chapel bluff. This alternative has the advantage of being clearly understood by lay people and identifies setbacks from an area that is familiar to many residents. It covers most of the area currently used by local residents for various activities such as camping, fishing and picnicking. The rationale for this option is that it is clearly understood by locals and protects de facto uses that are currently occurring. It does not clearly establish a rationale for the area mauka of Punaluu Bay which includes several private residences, a small retail structure and the old Sea Mountain Restaurant and Cultural Center area. The use of the existing roadway does not have as strong a rationale as the bluff which is a clear demarcation. However, the concept is understood. This recommendation results in some loss of valuable multi-family and village commercial lands use for the developer. The loss of the economic value of these lands will require further evaluation regarding their impact on overall project feasibility.

**Golf Courses in the Setback Area:** There seems to be mixed feelings to the placement of Golf Courses in the setback area. Where they do not impact recreational uses, sensitive environmental resources or cultural sites, there generally seems to be an acceptance to their placement in setback areas. In the Kohanaiki project, the final plan that was approved included 63.59 acres of golf courses in the coastal setback area of 109 acres. From a technical, environmental and aesthetic standpoint, golf courses can clearly be integrated into coastal landscapes. The issue is one of public perception and integrating potentially conflicting recreational activities. The golf course use within the setback area is still being evaluated.

**Section 8.0**  
Summary of Unresolved Issues

## **8.0 SUMMARY OF UNRESOLVED ISSUES**

The consultation process for this project has yielded input from agencies, private interest groups, and individuals. However, there are several issues that remain unresolved at this time, pending further planning studies and design, and agency and community interaction.

### **8.1 AFFORDABLE, AND WORKFORCE HOUSING**

The proposed project does not currently have an inclusionary zoning affordable housing requirement. If the mauka portion of the project above the highway is rezoned for residential development, it will trigger the County of Hawai'i's Affordable Housing policy which requires a 20 percent contribution of total units to be affordable. It is unknown at this time whether Sea Mountain Five, LLC will pursue rezoning of the mauka portion, and it is therefore unknown whether the project will include an affordable housing component.

A condition of the original resort zoning on the project site requires the provision of workforce housing in proportion to the number of employees at the resort. The exact requirements of this condition are still being researched, however, Sea Mountain Five, LLC is committed to providing employee housing in accordance with this requirement. The requirement will be clarified when the hotel operation is selected and the number of hotel jobs generated by the project becomes clear.

### **8.2 SCHOOLS**

The project will generate additional students that will attend the Ka'ū school system. Although the project is not expected to cause overcrowding in the existing school system due to the existing available capacity of the schools relating to their design capacity, the additional students will add to the increased demand on the school system. As the proposed project has been zoned for many years, the proposed project is not anticipated to trigger regulatory requirements pertaining to fair share contributions for school facilities or programs. Nonetheless, ongoing discussion with the DOE will be pursued to assure compliance with all applicable requirements.

### **8.3 POLICE AND FIRE**

Development of the Sea Mountain site will generate the need for additional police and fire safety services in Ka'ū. It is possible that both the police and fire departments may require additional staff and possibly facilities to serve the proposed project. Discussions with the County Police and Fire departments will be ongoing in order to reach agreement concerning the increased need and any contributions necessary towards meeting the need for additional services.

### **8.4 MEDICAL SERVICES**

The project site is served by the Ka'ū Hospital and Rural Health Clinic in Pahala. This small facility is functioning with aged infrastructure and equipment. The project will likely increase the demand for additional medical services. Sea Mountain Five, LLC is exploring ways to assist in the improvement of medical services and further discussions with the hospital and community will occur.

## 8.5 ELECTRICAL SERVICES

Future electrical demand for the Sea Mountain site is currently unknown. Without this information, HELCO is unable to determine if facility upgrades will be necessary. As the project plans progress, Sea Mountain Five, LLC will keep HELCO informed when more detailed development plans are available, so they can plan to provide the appropriate level of infrastructure.

## 8.6 BEACH CROWDING

The proposed project would increase impact on existing recreational resources such as the Punalu'u black sand beach and existing County beach park. The residents of Sea Mountain will add to the total number of residents in the Ka'u area who will need access to recreational resources.

One way of offsetting the impacts on existing recreational facilities is to provide other on-site recreational opportunities. The proposed project is designed to increase and improve the recreational opportunities available to the residents of the Ka'u district as well as to the residents and visitors of the Sea Mountain resort.

The issue of carrying capacity was evaluated for the Punalu'u black sand beach (*Appendix L*). The main points in the analysis are shared here. Carrying capacity is defined as the maximum number of people that a tourist destination can accommodate without adverse impacts to the physical and socio-cultural environment and without a decrease in visitor enjoyment of the destination. When the carrying capacity of the black sand beach was examined in light of environmental, social, economic, and physical factors, many concerns were identified, such as concern for turtles, beach erosion, destructive tour bus traffic, access for local people. The intention of the Sea Mountain development is to balance what residents and visitors want while protecting the natural resources that make this location unique. Mitigation measures identified in the study are listed below.

### Environmental mitigation measures

1. Visitor education programs on erosion.
2. Wooden walkways for viewing beach.
3. Beach nourishment (depending on cost and further scientific studies).
4. Erosion-slowing plants.
5. Educational programs on turtles.
6. Educational signage about turtles.
7. Designated turtle viewing areas.
8. Educational program on delicate coastal resources.

### Social mitigation measures

1. Signage indicating the location of natural and historic resources and trails.
2. Buffers to separate visitors from sensitive resources.
3. Raised walkways to help direct desired traffic patterns.
4. Designated bus parking areas away from the beach.
5. Prohibition of bus and vehicle access to any beach areas.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

6. Education of bus drivers concerning the area.
7. Educational brochures.
8. Enforcement of warning signs regarding the rough ocean current and turtles.
9. Provide a variety of recreational options for residents in addition to the black sand beach area (pools, walking, hiking and biking trails, picnic areas).

#### Physical mitigation measures

1. Construction of raised walkways.
2. Restoration of Ninole Cove and coastal ponds.
3. New improved park area.
4. Existing and new parking areas clearly marked and maintained.
5. Include low-impact lighting and fixtures.

The science of beach crowding is sketchy and analysis is speculative. While we think our mitigation measures will help the situation, greater maintenance and ongoing monitoring may be necessary. Sea Mountain Five, LLC will work with the County Parks Department to help manage the situation in the future.

**Section 9.0**  
Required Approvals and Permits

## 9.0 REQUIRED APPROVALS AND PERMITS

This section includes a description of the required approvals and permits to implement the Sea Mountain Development. The necessary entitlements include approvals from several state, and county agencies and entities. All necessary ministerial permits such as grading and building will be obtained prior to construction.

Permit or Approval	Authority	Proposed Date of Filing
Acceptance of Draft and Final EIS	Hawaii County Planning Department and Planning Commission	As needed
Wastewater Treatment Facility and Irrigation with Treated Effluent	State of Hawai'i Department of Health	As needed
Highway entrance from Māmalahoa Highway	State Department of Transportation	As needed
Subdivision, Plan Approval, Grading and Building Permits	Hawai'i County Department of Public Works and Planning Department	As needed
Water Source and Distribution System	Hawaii County Department of Water Supply	As needed
Rezoning (mauka of Highway only)	Hawai'i County Planning Department, County Council and Mayor	Undecided
Special Management Area	Hawai'i County Planning Department	As needed
National Pollutant Discharge Elimination System (NPDES) permit	Hawai'i Department of Health	As needed
Brackish and Potable Wells Permit	State Commission on Water Resource Management	As needed
Stream Channel Alteration Permit	State Commission on Water Resource Management	As needed
Section 404 Permit	U.S. Army Corp of Engineers	As needed
Underground Injection & Control Permit (UIC)	Department of Health	As needed
ADA Title II HRS 103-50 Review	Disability and Communication Board	As needed

**Section 10.0**  
References

## 10.0 REFERENCES

- B. D. Neal & Associates (January 2006). *Air Quality Study*.
- Blankinship & Associates, Inc. (April 2006) *Sea Mountain Golf Course, Punalu'u, Integrated Golf Course Management Plan (IGCMP)*
- County of Hawai'i (November 1989). *The General Plan: Hawai'i County*.
- Cultural Surveys Hawaii, Inc. (February 2006) *Archaeological Inventory Survey of the Approximately 430-Acre Sea Mountain at Punalu'u Resort*.
- Federal Emergency Management Agency, Flood Insurance Rate Map, Community Panel No. 155166 1850C (September 16, 1988).
- Group 70 International, Inc. (October 1990). *Application for Special Management Area Use Permit for Punalu'u Sazale World Resort*.
- Hart, Patrick, Ph.D. (April 2006). *Biological Assessment, Sea Mountain at Punalu'u, District of Ka'u, Hawai'i*.
- Hawaii Tourism Authority. (December 2005) *2005 Survey of Resident Sentiments on Tourism in Hawai'i*.
- Hunsaker and Associates. (May 2006) *Preliminary Surface Water Quality Assessment*.
- Hunsaker and Associates. (June 2006) *Potable Water, Recycled Water and Wastewater Systems*.
- Hwang, Dennis J. (January 2005) *Hawai'i Coastal Hazard Mitigation Guidebook*.
- Knowledge Based Consulting Group (April 2006). *Fiscal Impact Analysis*.
- Ka'u Calendar, December 2005, January 2006 and May 2006 issues.
- M & E Pacific, Inc. (February 2006). *Sea Mountain at Punalu'u, Traffic Impact Analysis Report*.
- Orr, Maria E. Ka'imipono (February 2006). *Cultural Impact Study Punaluu Development Project, Ahupua'a of Punalu'u, Wailau and Nīnole, District of Ka'u, Island of Hawai'i, Hawai'i*.
- PBR (January 1988) *Punalu'u Resort Change of Zone Application – Makai Lands*.
- PBR (April 1988) *Punalu'u Resort Final Environmental Impact Statement, Volumes I and II*.

## SEA MOUNTAIN AT PUNALU'U

### Draft Environmental Impact Statement

---

Peck, Robert (July 2006). *Survey of Insects Listed as Endangered, Threatened, Candidate, and Species of Concern at Sea Mountain at Punalu'u.*

University of Hawai'i Department of Urban and Regional Planning, (Spring 1998)  
*Community Planning in the Ahupua'a of Kama'oa-Pu'u'ea and Punalu'u.*

USDA Soil Conservation Service. Soils Survey Map (1973).

Y. Ebisu & Associates (December 2005). *Acoustic Study for Sea Mountain at Punalu'u.*

### **PERSONS CONTACTED:**

Dworsky, Mike. Chief, Solid Waste Division, County of Hawaii Environmental Management Department.

Harris, Merylyn. Hospital Administrator, Ka'u Hospital and Rural Health Clinic

Hiyane, Tracy. Planner for Hawai'i County, Hawaiian Tel

Igarashi, Clyde. Decision Support Specialist, Office of Information Technology Services, IRM Branch, State of Hawai'i, Department of Education

Meeker, Heidi. Planner, Facilities Development Branch, State of Hawai'i, Department of Education

Moulds, James. Energy Services Department, Hawaiian Electric Light Company (HELCO)

Okutsu, Randal. Acting Captain, Pahala Fire Station.

Quinn, Dan. State Parks Administrator, State Parks Division, Hawai'i State Department of Land and Resources

Rivara, Rollin. Sergeant, Ka'u Police Station.

### **WEBSITES:**

[http://www.uhh.hawaii.edu/~nat\\_haz/volcanoes/USGS\\_Lava\\_Flow\\_Hazard\\_Zone\\_Maps.pdf](http://www.uhh.hawaii.edu/~nat_haz/volcanoes/USGS_Lava_Flow_Hazard_Zone_Maps.pdf)

<http://www.hawaiipolice.com>

<http://pubs.usgs.gov/gip/hazards/earthquakes.html>

<http://hvo.wr.usgs.gov/earthquakes/hazards/>

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

---

2004 State of Hawai'i Data Book <http://www.hawaii.gov/dbedt/info/economic/databook>

2004 County of Hawai'i Data Book

[http://www.hawaii-county.com/databook\\_current/dbooktoc.htm](http://www.hawaii-county.com/databook_current/dbooktoc.htm)

**Section 11.0**  
Agencies and Parties Consulted

## 11.0 AGENCIES AND PARTIES CONSULTED

The following agencies, organizations and individuals commented or were contacted during the preparation of the Environmental Impact Statement Preparation Notice (EISPN) and this Draft Environmental Impact Statement (DEIS) for the proposed Sea Mountain project. Copies of the written comment letters and responses are included in this report. In addition, comments and responses made on earlier EIS reports are included in this document.

<b>Respondents and Distribution</b>	Received December 2005 EISPN	Comments Received on EISPN	To Receive DEIS
-------------------------------------	------------------------------------	----------------------------------	--------------------

### A. Federal Agencies

U.S. Army Corps of Engineers – Pacific Ocean Division	x	x	x
U.S. Department of the Interior – Fish and Wildlife Service	x		x
U.S. EPS, Region 9 – Pacific Islands Contact Office	x		x
U.S. National Marine Fisheries Service			2 copies

### B. State Agencies

Department of Accounting and General Services (DAGS))			x
Department of Business, Economic Development & Tourism (DBEDT)	x		x
DBEDT - Energy, Resources, & Technology Division			x
DBEDT – Planning Office	x		x
Department of Hawaiian Home Lands (DHHL)	x	x	x
Department of Land and Natural Resources (DLNR)	5 copies		5 copies
DLNR - Division of State Parks		x	x
DLNR - Land Management Division Planning and Technical Services, Engineering Branch, Hawai'i District Land Office		x	3 copies
DLNR - Historic Preservation Division	x		x
Department of Agriculture (DOA)			x
Department of Defense (DOD)			x
Department of Education (DOE)			x
DOE - Department of Education – Ka'ū-Keaau-Pahoā Complex Area	x		x
Department of Health (DOH)	x		x
DOH – Clean Water Branch	x	x	x
DOH – Wastewater Branch and Environmental Planning Office		x	3 copies
Department of Transportation (DOT)	x		x
Office of Environmental Quality Control (OEQC)	4 copies	x	5 copies
Office of Hawaiian Affairs (OHA)	x	x	x
University of Hawai'i – Environmental Center	x		4 copies
University of Hawai'i – Urban Regional Planning			x
University of Hawai'i - Water Resources Research Center			x

SEA MOUNTAIN AT PUNALU'U

Draft Environmental Impact Statement

<b>Respondents and Distribution</b>	<b>Received December 2005 EISPN</b>	<b>Comments Received on EISPN</b>	<b>To Receive DEIS</b>
-------------------------------------	---------------------------------------------	-------------------------------------------	----------------------------

**C. County of Hawai'i**

Department of Parks and Recreation	x		x
Department of Public Works	x		x
Department of Water Supply	x		x
Fire Department			x
Office of Housing and Community Development	x		x
Planning Department	x	x	2 copies
Police Department			x

**D. Elected Officials**

Bob Herkes, State Representative, District 5			x
Cindy Evans, State Representative, District 7	x		x
Harry Kim, County Mayor, Hawaii County	x		x
Paul Whalen, State Senator, District 3	x		x
Bob Jacobson, Member, Hawaii County Council	x	x	x
Russell Kokubun, State Senator, District 2			x

**E. Media**

Hawai'i Tribune Herald			x
Honolulu Advertiser			x
Honolulu Star Bulletin			x
West Hawai'i Today			x

**F. Public Libraries**

DBEDT Library			x
Hawai'i State Library	x		2 copies
Hilo Regional Library			x
Kahului Regional Library			x
Kaimuki Regional Library			x
Kāne'ohe Regional Library			x
Legislative Reference Bureau			x
Library, Honolulu Department of Customer Services			x
Lihue Regional Library			x
Na'alehu Public Library	x		x
Pahala Public Library	x		x
Pearl City Regional Library			x
UH Hilo Library			2 copies
UH Mānoa Hamilton Library			2 copies

**G. Community Organizations, Non-Profit Special Interest Organizations & Individuals**

Big Island Ventures, LLC		x	x
Coalition for Environmental Quality Control		x	x
Equal Access		x	x

# SEA MOUNTAIN AT PUNALU'U

## Draft Environmental Impact Statement

<b>Respondents and Distribution</b>	Received December 2005 EISPN	Comments Received on EISPN	To Receive DEIS
Hawaiian Electric Light Co.			x
Hawai'i Volcanoes National Park			x
Kamehameha Schools (Kailua-Kona)			x
Ka'Ohana O Honu'apo			x
Ka'u Hawai'i Civic Clubs	x		x
Ka'u Preservation		x	x
Mac Farms of Hawai'i		x	x
Na'alehu Main Street	x		x
Ocean View Chamber of Commerce	x		x
Pacific Consulting Services		x	x
Pacific Islands Resource Management			x
Protect Keopuka 'Ohana		x	x
Protect Kohanaiki 'Ohana			x
Sierra Club, Hawai'i Chapter		x	x
South Kona - Ka'u Coastal Preservation Task Force			x
The Nature Conservancy	x		x
Alohyalyne Vierra			x
Anna Cariaga			x
Bill Smith		x	x
Dan and Willie Shuck			x
Darlyne Vierra			x
Denise Kocek		x	x
Dick Choy			x
George and Jean Shibuya			x
Guy Enriques			x
Jennifer Pang			x
Jessie Marques			x
Julia Neal			x
Lavanda Shea		x	x
Leilani Resureccion			x
Ms. Malia Panglao's Students of Kā'u High and Pāhala Elementary School		x	x
Maria Orr			x
Marvin Min			x
Paul Saviskas			x
Ruth Marie Bass		x	x
Sterling Robbins		x	x
Tammi Wright			x
Thomas Loudat		x	x

**Section 12.0**  
Preparers of the Draft EIS

## 12.0 PREPARERS OF THE DEIS

This environmental impact statement was prepared for the applicant, the Sea Mountain Five LLC, by Group 70 International, Inc. The following list identifies the individuals and organizations involved in the preparation of this report and their respective contributions.

### Group International, Inc.

George Atta, AICP	Principal in Charge
Rachel Shaak	Planner
Tom Eisen	Planner
Kirstin Hochart	GIS/Graphics Preparation
Stephen Yuen	Principal Architect
Ross Morishige	Architect
Joy Rabara	Graphics Preparation
Kristin Rocheleau	Document/Graphics Preparation
Tracy Furuya	Community Coordinator
Annie Yi	Administrative Coordinator

### Other Consultants

Hunsaker and Associates  
Patrick Hart  
Cultural Surveys Hawaii, Inc.  
Maria Orr  
Metcalf and Eddy Pacific  
Barry Neal  
Yoichi Ebisu  
Clive Jones, KBCG  
FORMA  
Carlsmith Ball, LLP  
Steve Dollar  
Control Point Surveying  
Robert Peck

### Technical Area

Civil Engineering  
Flora & Fauna  
Archaeology  
Cultural  
Traffic  
Air Quality  
Noise  
Economic  
Land Planning  
Legal  
Marine Biology  
Shoreline Certification  
Survey of Insects

**December 2005 EISPN  
Comment and Response Letters**



DEPARTMENT OF THE ARMY  
U. S. ARMY ENGINEER DISTRICT, HONOLULU  
FT. SHAFTER, HAWAII 96858-5440

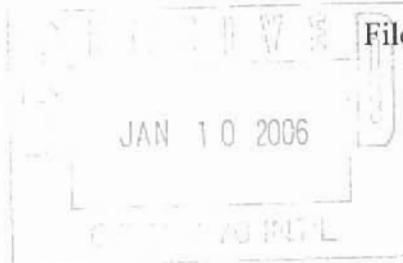
REPLY TO  
ATTENTION OF

January 4, 2006

Regulatory Branch

File No. **POH-2006-4**

Mr. George I. Atta  
Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813-4307



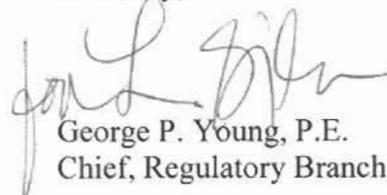
Dear Mr. Atta:

This responds to your request dated December 20, 2005 for comments on the "Sea Mountain at Punalu'u Environmental Impact Statement Preparation Notice (EISPN) for improvement and development of ±433 acres in Punalu'u, Ka'u District, Hawaii. We have reviewed the information you submitted with respect to the Corps' authority to issue Department of the Army (DA) permits pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344).

Based on the preliminary information provided in the EISPN, we are unable to reach a conclusive determination whether a DA permit would be required. Any project related activity that would involve any discharge of dredge or fill material into waters of the United States, including the Pacific Ocean and adjacent wetlands will require a DA permit. Therefore, it is advised that the forthcoming draft EIS should include all water resources (i.e. identifies intermittent and perennial streams, ditches, drainage ways, etc) and an evaluation of project impacts, if any, to these areas since this information is required to issue a final determination. Please send us a copy of the DEIS and design drawings for our review.

In order to ensure a timely response, please submit all future requests regarding the environmental review process to Mr. George Young, U.S. Army Engineer District, Honolulu, Regulatory Branch, Building 230, Ft. Shafter, HI 96858-5440. If you have any questions, please contact Ms. Lolly Silva by phone at 438-7023, by fax at 438-0460, or by electronic mail at [Laurene.L.Silva@usace.army.mil](mailto:Laurene.L.Silva@usace.army.mil) and reference the above file number regarding this project.

Sincerely,



George P. Young, P.E.  
Chief, Regulatory Branch



January 18, 2006

Mr. George P. Young, PE  
U.S. Army Engineer District, Honolulu  
Regulatory Branch, Building 230  
Fort Shafter, HI 96858-5440

**Subject:** Sea Mountain  
Environmental Impact Statement  
Notice of Preparation  
Comment Letter

Dear Mr. Young,

Thank you for your January 4, 2006 letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

Your letter stated that you are unable to determine whether the project would require a DA permit or not. Regarding DA permits, the project design is still being adjusted and we are unable to provide a final project design. We will keep you informed of regarding the project developments. If any actions require a permit, we will comply with all permit requirements.

Regarding your request for the EIS to evaluate project impacts to on-site water resources, we are committed to providing this information as part of our analysis.

Your comments and this response letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Francis S. Odo, Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overtori, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Csmi Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

LINDA LINGLE  
GOVERNOR  
STATE OF HAWAII



MICAH A. KANE  
CHAIRMAN  
HAWAIIAN HOMES COMMISSION

BEN HENDERSON  
DEPUTY TO THE CHAIRMAN

KAULANA H. PARK  
EXECUTIVE ASSISTANT

STATE OF HAWAII  
DEPARTMENT OF HAWAIIAN HOME LANDS

P.O. BOX 1879  
HONOLULU, HAWAII 96805

December 27, 2005

Mr. George I. Atta, AICP  
Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Thank you for the opportunity to review the environmental impact statement preparation notice for the Sea Mountain project in Punalu'u, Hawai'i. The Department of Hawaiian Home Lands has no comments to offer.

Should you have any questions, please call the Planning Office at (808) 586-3836.

Aloha and mahalo,

*for* *Daniel Yozvani*  
Micah A. Kane, Chairman  
Hawaiian Homes Commission



January 18, 2006

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pejo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tansonan  
Tom Young, AIA  
Ralph E. Portmore, AICP  
Of Counsel

Micah A. Kane, Chairman  
Department of Hawaiian Homelands  
P.O. Box 1879  
Honolulu, HI 96805

Subject: Sea Mountain  
Environmental Impact Statement  
Notice of Preparation  
Comment Letter

Dear Mr. Kane,

Thank you for your December 27, 2005 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

As you stated, DHHL has no comments to offer at this time. We will continue to keep your department informed as the project progresses.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

LINDA LINGLE  
GOVERNOR OF HAWAII



**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**

DIVISION OF STATE PARKS  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

January 19, 2006

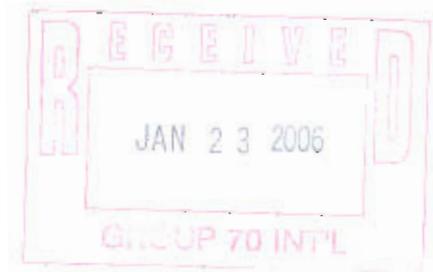
PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL  
RESOURCES  
COMMISSION ON WATER RESOURCE  
MANAGEMENT

ROBERT K. MASUDA  
DEPUTY DIRECTOR - LAND

DEAN NAKANO  
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE  
MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE  
COMMISSION  
LAND  
STATE PARKS

George Atta, AICP  
Group 70 International, Inc.  
925 Bethel St., 5<sup>th</sup> Floor  
Honolulu, Hawai'i 96813



Dear Mr. Atta:

We would like to be a consulted party for the draft environmental impact statement (EIS) that will be prepared for the Sea Mountain at Punalu'u project in Ka'u, Hawai'i.

Very truly yours,

Daniel S. Quinn  
State Parks Administrator



June 24, 2006

State of Hawai'i  
Department of Land and Natural Resources  
Division of State Parks  
Attn: Daniel Quinn  
State Parks Administrator  
P.O. Box 621  
Honolulu, HI 96809

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Dear Mr. Quinn,

Thank you for your comment letter concerning the Sea Mountain Environmental  
Impact Statement Notice of Preparation.

We will definitely keep the State of Hawaii Division of State Parks included on  
our list of consulted parties for our EIS.

Your comment letter will be included in the Draft EIS. We appreciate your  
participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA  
Ralph E. Portmore, AICP  
Of Counsel

LINDA LINGLE  
GOVERNOR OF HAWAII



PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
DEPUTY DIRECTOR

DEAN NAKANO  
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVICTIONS  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

January 30, 2006

LD-NAV  
SEAMOUNTAINGROUP70.RCM

Group 70 International, Inc.  
George Atta, AICP  
Chief Community Planner  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Subject: Environmental Impact Statement Preparation Notice  
Sea Mountain at Punalu'a  
Ka'u, Island of Hawaii, Hawaii  
Applicant: Sea Mountain Five, LLC  
Consultant: Group 70 International Inc.  
TMK: 3rd/9-5-019: Various

Thank you for the opportunity to review and comment on the subject Environmental Impact Statement Preparation Notice.

The Land Division distributed or made available a copy of the document covering the subject matter to the following Department of Land and Natural Resources' Divisions for their review and comment:

- Division of Forestry and Wildlife
- Division of State Parks
- Commission on Water Resource Management
- Engineering Division
- Office Conservation and Coastal Lands
- Land Division Hawaii District Land Office

Attached herewith is a copy of the Office of Conservation and Coastal Land, Division of State Parks and Engineering Division comments.

The Department of Land and Natural Resources has no other comment to offer on the subject matter this time. Please provide this office with three (3) copies of the Draft Environmental Impact Statement when the document becomes available for further review.

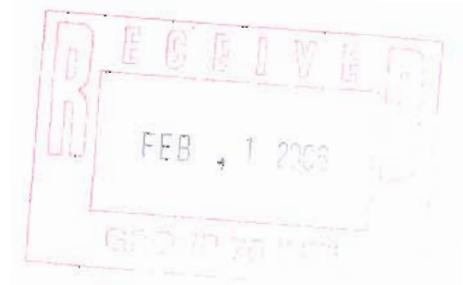
Should you have any questions, please feel free to contact Nicholas A. Vaccaro of the Land Division Support Services Branch at 1-808-587-0384.

Very truly yours,

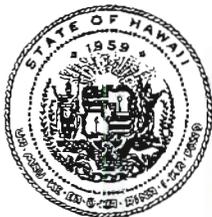
A handwritten signature in black ink, appearing to read "RUSSELL Y. TSUJI".

RUSSELL Y. TSUJI  
Administrator

C: HDLO



LINDA LINGLE  
GOVERNOR OF HAWAII



RECEIVED  
LAND DIVISION

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
DEPUTY DIRECTOR

DEAN NAKANO  
ACTING DEPUTY DIRECTOR - WATER

2006 JAN 23 A 10:25

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

January 12, 2006

LD/NAV  
SEAMOUNTAINGROUP70.CMT

Suspense Date: 1/26/06

MEMORANDUM:

TO:  XXX Division of Forestry and Wildlife  
 XXX Engineering Division  
 XXX Division Of State Parks  
 XXX Commission on Water Resource Management  
 XXX Office of Conservation and Coastal Lands  
 XXX Land-Hawaii District Land Office

FROM: Russell Y. Tsuji, Administrator  
Land Division

SUBJECT: Environmental Impact Statement Preparation Notice  
Project: Sea Mountain at Punalu'u  
Ka'u, Island of Hawaii, Hawaii  
Applicant: Sea Mountain Five, LLC  
Consultant: Group 70 International (523-5866 G. ATTA)  
TMK: (3) 9-5-19: Various

Please review the attached document pertaining to the subject matter and submit your comments (if any) back to us on Division letterhead signed and dated by the suspense date.

Should you need more time to review the subject matter, please contact Nicholas A. Vaccaro at 587-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

( ) We have no comments.

Comments attached.

Division: Engineering

Signed:

Date: 1/21/06

Name: ERIC T. HIRONO, CHIEF ENGINEER

2006 JAN 18 AM 10:57 ENGINEERING

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

LA/NAV

Ref.: SEAMOUNTAINGROUP70.CMT  
Hawaii.336

COMMENTS

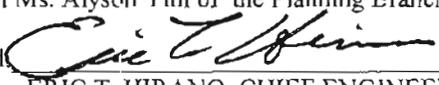
- ( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone \_\_\_\_.
- ( ) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone \_\_\_\_.
- (X) Please note that the correct Flood Zone Designations for the project site, according to FIRM Community Panel Number 155166 1695 C (September 16, 1988) are Flood Zones X, AE and VE. The National Flood Insurance Program does not have any regulations for developments within Zone X; however, it does regulate developments within Zones AE and VE as indicated in bold letters below.
- (X) 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) 587-0267.

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 Sumimoto at (808) 523-4254 or Mr. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.
  - (X) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.
  - ( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
  - ( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.
- ( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.
  - ( ) 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: \_\_\_\_\_  
\_\_\_\_\_
- ( ) Others: \_\_\_\_\_  
\_\_\_\_\_

Should you have any questions, please call Ms. Alyson Yim of the Planning Branch at 587-0229.

Signed:   
ERIC T. HIRANO, CHIEF ENGINEER

Date: 11/21/06

LINDA LINGLE  
GOVERNOR OF HAWAII



RECEIVED  
DIVISION

2006 JAN 30 A 10:16

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
DEPUTY DIRECTOR

DEAN A. NAKANO  
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

REF:OCCL:MC

FILE NO.: HA-06-160

MEMORANDUM:

JAN 27 2006

To: Nicholas Vaccaro

Through: Russell Tsuji, Administrator  
Land Division, DLNR

From: Samuel J. Lemmo, Administrator  
Office of Conservation and Coastal Lands

Subject: REQUEST FOR COMMENTS  
Environmental Impact Statement Preparation Notice  
Sea Mountain at Punalu'u

Applicant: Group 70 International, for Sea Mountain Five, LLC

TMKs: (3) 9-5-19:various, (3) 9-6-01:various, (3) 9-6-02:various

Location: Wailau & Punalu'u, Ka'u, Hawai'i

The Department of Land and Natural Resources (DLNR), Office of Conservation and Coastal Lands (OCCL) is responding to your January 12, 2006 memo regarding request commentary on the Environmental Impact Statement Preparation Notice for Sea Mountain at Punalu'u in Ka'u, Hawai'i.

The OCCL notes that the project encompasses Conservation District - Resource Subzone lands along the coast [see attached map]. It is unclear from the Notice whether any development or change of land use would occur within the Conservation District. The OCCL thus requests the following:

- That the applicant contact the State Land Use Commission to obtain the metes and bounds of the Conservation District lying within the project area.
- That, if this information is not available, the applicant conducts a ground survey of the Conservation District boundaries that lie within the project area.
- That, if any part of the project were to occur on Conservation District Lands, the applicant contacts the OCCL to determine if such uses are identified uses pursuant to Hawai'i Administrative Rules §13-5.
- That the EIS explicitly addresses the impact the proposed development will have on Conservation Lands at Wailau and Punalu'u.

Please contact Michael Cain at 587-0048, should you have any questions on this matter.





June 24, 2006

State of Hawai'i  
Department of Land and Natural Resources  
Land Division  
Attn: Russell Y. Tsuji  
Administrator  
P.O. Box 621  
Honolulu, HI 96809

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Dear Mr. Tsuji,

Thank you for your summary comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation. Regarding the comments from the various divisions we offer the following responses:

**Engineering:**

We appreciate the correction for the citation on the flood designations for the project. We will make the appropriate corrections.

We acknowledge the requirements for compliance with the National Flood Insurance Program (NFIP) presented in Title 44.

We will contact the Hawaii County Department of Public Works on NFIP issues.

**Office of Conservation and Coastal Lands (OCCL):**

We are aware of the conservation lands on our shoreline area. We discussed this issue of boundary delineations with the State Land Use Commission and the DLNR Land agent in Hilo. A boundary delineation clarification request has been made.

We are not proposing development in the conservation lands at this time. However, we are proposing some recreational amenity improvements and walking pathways along with enhanced landscaping with native plants. In the area behind the Black Sand Beach we are requesting clarification of the boundary and will review any plans we have in this area with the LUC and OCCL.

We will address the impact of our project on conservation lands.

**Division of State Parks:**

The Division of State Parks will be a consulted party in our EIS.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink that reads "George I. Atta". The signature is written in a cursive, flowing style.

George I. Atta, AICP  
Principal

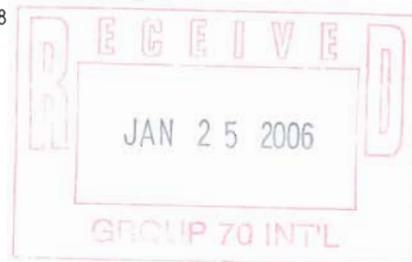


STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. BOX 3378  
HONOLULU, HAWAII 96801-3378

In reply, please refer to:  
EMD / CWB

01037PRM.06

January 17, 2006



Mr. George I. Atta  
Principal  
Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

**Subject: Environmental Impact Statement Preparation Notice  
Sea Mountain at Punaluu, Island of Hawaii**

The Department of Health (DOH), Clean Water Branch (CWB), has reviewed the subject document and offers the following comments:

1. The Army Corps of Engineers should be contacted at 438-9258 to identify whether a Federal license or permit (including a Department of Army permit) is required for this project. Pursuant to Section 401(a)(1) of the Federal Water Pollution Control Act (commonly known as the "Clean Water Act"), a Section 401 Water Quality Certification is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters..."
2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for the following activities:
  - a. Storm water associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(xi).
  - b. 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 commencement of the construction activities.**

- c. Discharges of treated effluent from leaking underground storage tank remedial activities.
- d. Discharges of once through cooling water less than one (1) million gallons per day.
- e. Discharges of hydrotesting water.
- f. Discharges of construction dewatering effluent.
- g. Discharges of treated effluent from petroleum bulk stations and terminals.
- h. Discharges of treated effluent from well drilling activities.
- i. Discharges of treated effluent from recycled water distribution systems.
- j. Discharges of storm water from a small municipal separate storm sewer system.
- k. Discharges of circulation water from decorative ponds or tanks.

The CWB requires that a Notice of Intent (NOI) to be covered by an NPDES general permit for any of the above activities be submitted at least 30 days before the commencement of the respective 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/index.html>

3. The applicant may be required to apply for an individual NPDES permit if there is any type of activity in which wastewater is discharged from the project into State waters and/or coverage of the discharge(s) under the NPDES general permit(s) is not permissible (i.e. NPDES general permits do not cover discharges into Class 1 or Class AA State waters). An application for the NPDES permit is to be submitted at least 180 days before the commencement of the respective activities. The NPDES application forms may also be picked up at our office or downloaded from our website at:  
<http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>
4. Hawaii Administrative Rules, Section 11-55-38, also requires the applicant to either submit a copy of the new NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD.

Mr. George I. Atta  
January 17, 2006  
Page 3

If you have any questions, please contact Mr. Reef Migita of the Engineering Section, CWB,  
at 586-4309.

Sincerely,

A handwritten signature in dark ink, appearing to read "Denis R. Lau". The signature is written in a cursive style and is positioned above the printed name.

DENIS R. LAU, P.E., CHIEF  
Clean Water Branch

RM:np



June 24, 2006

Mr. Dennis Lau, P.E., Chief  
DOH Environmental Management Division  
Clean Water Branch  
919 Ala Moana Blvd. Rm. 301  
Honolulu, HI 96814-4920

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Lau,

Thank you for your January 17, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation. Regarding your comments we offer the following responses:

1. The U. S. Army Corps of Engineers has been contacted. They provided a comment letter to the EISPN on a letter dated January 4, 2006.
2. Thank you for your listing of activities requiring a National Pollutant Discharge and Elimination System (NPDES) permit. We will apply for the permit prior to engaging in any of the regulated activities. The proper notice of intent (NOI) will be filed in a timely manner.
3. While we do not anticipate any individual NPDES permits at this time, should conditions require us to apply for one, we will file the necessary applications prior to the start of any activity requiring the individual permit.
4. We will submit the NOI or NPDES to the State Historic Preservation Division (SHPD) and provide the Department of Health with the verification of the review.

Thank you again for your comments.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

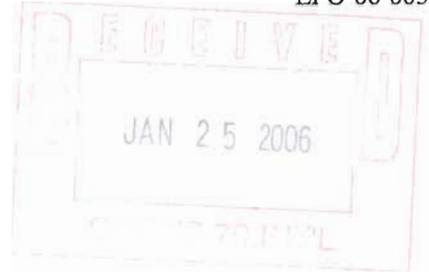
George I. Atta, AICP  
Principal



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. Box 3378  
HONOLULU, HAWAII 96801-3378

In reply, please refer to:  
EPO-06-003

January 20, 2006



Mr. George I. Atta, Principal  
Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

**SUBJECT:** Environmental Impact Statement Preparation Notice (EISPN) for Sea Mountain Development at Punaluu, Kau District, Island of Hawaii, Hawaii  
TMK: (3) 9-5-019: 001, 015, 026, 030, 031, 035  
TMK: (3) 9-6-001: 001, 002, 003, 006, 011, 012, 013  
TMK: (3) 9-6-002: 008, 037, 038, 041, 045

Thank you for allowing us to review and comment on the subject document. The document was routed to the various branches of the Environmental Health Administration. We have the following Wastewater Branch and Environmental Planning Office comments.

Wastewater Branch

We have reviewed the subject notice which requests comments to the proposed Sea Mountain development. The proposed action consists of additional residential units, mixed uses, a world-class destination resort/hotel. A championship 18-hole golf course, cultural/ marine center, upgraded wastewater treatment facility (WWTF), water reservoir and other supporting infrastructure to be added to the partially developed Sea Mountain resort.

The majority of the subject project is located in a Critical Wastewater Disposal Area (CWDA) where no new cesspools will be allowed and partially in the non-Critical Wastewater Disposal Area as determined by the Hawaii County Wastewater Advisory Committee. We concur with the project provided that all new facilities be connected to the existing wastewater treatment plant which is to be renovated and expanded. The Branch also recommends that treated wastewater effluent continue to be used for golf course irrigation and that higher treatment levels be provided such that wastewater reclamation restrictions are minimized.

All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater System." We do reserve the right to review the detailed wastewater plans for conformance to applicable rules. Should you have any

Mr. Atta  
January 20, 2006  
Page 2

questions, please contact the Planning & Design Section of the Wastewater Branch at (808) 586-4294.

### Environmental Planning Office

Please note that some of the following issues may not apply to your particular proposed project or requested action. Should you have any questions about the applicability of the listed concerns or the particular environmental programs administered by our office, please feel free to contact us.

To facilitate TMDL development and implementation, and to assist with our assessment of the potential impact of proposed actions upon water quality, pollutant loading, and biological resources in receiving waters, we suggest that environmental review documents, permit applications, and related submittals include the following standard information and analyses.

Please note that these comments are also listed on our website:

[www.state.hi.us/health/environmental/env-planning/landuse/landuse.html](http://www.state.hi.us/health/environmental/env-planning/landuse/landuse.html). We suggest that you also review other Standard Comments on this website.

### **Waterbody type and class**

1. Identify the waterbody type and class, as defined in Hawaii Administrative Rules Chapter 11-54 (<http://www.state.hi.us/health/about/rules/11-54.pdf>), of all potentially affected water bodies. Potentially affected water bodies means those in which proposed project activities would take place and any others that could receive water discharged by the proposed project activity or water flowing down from the proposed site. These waterbodies can be presented as a chain of receiving waters whose top link is the project site upslope and whose bottom link is in Pacific Ocean "oceanic waters," with all receiving waters named according to conventions established by Chapter 11-54 and the *List of Impaired Waters in Hawaii Prepared under Clean Water Act § 303(d)*. For example, a recent project proposed for Nuhelewai Stream, Oahu (a tributary of Kapalama Canal) might potentially affect Nuhelewai Stream, Kapalama Canal, Honolulu Harbor and Shore Areas, and the Pacific Ocean.

### **Existing water quality management actions**

2. Identify any existing National Pollutant Discharge Elimination System (NPDES) permits and related connection permits (issued by permittees) that will govern the management of water that runs off or is discharged from the proposed project site or facility. Please include NPDES and other permit numbers; names of permittees, permitted facilities, and receiving waters (including waterbody type and class as in 1. above); diagrams showing

drainage/discharge pathways and outfall locations; and note any permit conditions that may specifically apply to the proposed project.

3. Identify any planning documents, groups, and projects that include specific prescriptions for water quality management at the proposed project site and in the potentially affected waterbodies. Please note those prescriptions that may specifically apply to the proposed project.

### **Pending water quality management actions**

4. Identify all potentially affected water bodies that appear on the current *List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d)* including the listed waterbody, geographic scope of listing, and pollutant(s) (See Table 5 at <http://www.hawaii.gov/health/environmental/env-planning/wqm/303dpcfinal.pdf>).
5. If the proposed project involves potentially affected water bodies that appear on the current *List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d)*, identify and quantify expected changes in the following site and watershed conditions and characteristics
  - surface permeability
  - hydrologic response of surface (timing, magnitude, and pathways)
  - receiving water hydrology
  - runoff and discharge constituents
  - pollutant concentrations and loads in receiving waters
  - aquatic habitat quality and the integrity of aquatic biota

Where TMDLs are already established they include pollutant load allocations for the surrounding lands and point source discharges. In these cases, we suggest that the submittal specify how the proposed project would contribute to achieving the applicable load reductions.

Where TMDLs are yet to be established and implemented, a first step in achieving TMDL objectives is to prevent any project-related increases in pollutant loads. This is generally accomplished through the proper application of suitable best management practices in all phases of the project and adherence to any applicable ordinances, standards, and permit conditions. In these cases we suggest that the submittal specify how the proposed project would contribute to reducing the polluted discharge and runoff entering the receiving waters, including plans for additional pollutant load reduction practices in future management of the surrounding lands and drainage/discharge systems.

Mr. Atta  
January 20, 2006  
Page 4

### **Proposed Action and Alternatives Considered**

We suggest that each submittal identify and analyze potential project impacts at a watershed scale by considering the potential contribution of the proposed project to cumulative, multi-project watershed effects on hydrology, water quality, and aquatic and riparian ecosystems.

We also suggest that each submittal broadly evaluate project alternatives by identifying more than one engineering solution for proposed projects. In particular, we suggest the consideration of "alternative," "soft," and "green" engineering solutions for channel modifications that would provide a more environmentally friendly and aesthetically pleasing channel environment and minimize the destruction of natural landscapes.

If there are any questions about these comments please contact Jiakai Liu with the Environmental Planning Office at 586-4346.

Sincerely,

A handwritten signature in black ink, appearing to read "Harold Lao", written over a light gray rectangular background.

HAROLD LAO, ACTING MANAGER  
Environmental Planning Office

c: EPO  
WWB



June 24, 2006

State of Hawai'i  
DOH, Wastewater Branch and Environmental Planning Office  
Attn: Harold Lao  
Acting Manager  
P.O. Box 3378  
Honolulu, HI 96801-3378

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Lao,

Thank you for your January 20, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation. Regarding your comments we offer the following responses:

We appreciate your agreement with our plans to upgrade and expand the existing treatment plant and put all new development on to the system. We also acknowledge and appreciate your comments about the acceptability of using higher treated effluent for irrigation purposes.

Our plans will conform to DOH Administrative Rules, Chapter 11-62. We look forward to working with your department in the development of our project.

Waterbody types will be described in the DEIS. A discussion of potential impacts to these bodies will also be included.

Existing National Pollutant and Discharge Elimination System (NPDES) permits and their conditions of discharge that apply to the property will be disclosed along with diagrams of outfalls and drainage pathways.

We will include a listing of applicable planning document related to water quality management.

The list of impaired waterbodies will be reviewed for its applicability to the project. If such waterbodies appear, we will identify and quantify the expected changes to surface permeability, hydrologic response of the surface, hydrology of the receiving water, runoff and discharge constituents, pollutant concentrations and loads in the receiving waters and impacts to aquatic biota and habitat. TMDLs will also be discussed

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

We will be looking at the watershed but do not feel our impacts relate to areas mauka though other developments mauka could affect our project. At this time we are unaware of any other significant projects in the watershed that may impact our development. In the past there is general agreement that agricultural activity in mauka areas contributed to the filling of Ninole Cove and the loss of that recreational and cultural resource.

We are not proposing any channelization of stream channels or drainageways. We are trying to preserve the natural quality of the site to the maximum extent possible.

Thank you for your comments. We look forward to working with the Department on these issues in the future.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

LINDA LINGLE  
GOVERNOR OF HAWAII



GENEVIEVE SALMONSON  
DIRECTOR

**STATE OF HAWAII**  
**OFFICE OF ENVIRONMENTAL QUALITY CONTROL**

235 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
TELEPHONE: (808) 586-4185  
FACSIMILE (808) 586-4186  
E-mail: oeqc@health.state.hi.us

January 19, 2006



Mr. Christopher Yuen, Director  
Planning Department, County of Hawaii  
101 Pauahi Street, Suite 3  
Hilo, Hawaii 96720

Dear Mr. Yuen:

Subject: EISPN Sea Mountain at Punalu'u, Hawai'i

Thank you for the opportunity to review the environmental assessment. We have the following comments.

1. Please describe how seismic and volcanic activities would affect this project.
2. Please discuss how this master plan will impact public access to the shoreline.
3. Pursuant to HRS 342G-44 please print the EIS double-sided.

If you have any questions please call Jeyan Thirugnanam at 586-4185.

Sincerely,

A handwritten signature in cursive script that reads "Genevieve Salmonson".  
Genevieve Salmonson  
Director

c: Sea Mountain  
Group 70



June 24, 2006

State of Hawaii  
Office of Environmental Quality  
Control

Ms. Genevieve Salmonson, Director  
235 S. Beretania Street, Suite 702  
Honolulu, HI 96822

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Dear Ms. Salmonson,

Thank you for your January 19, 2006 comment letter concerning the Sea Mountain  
Environmental Impact Statement Notice of Preparation.

Regarding your comments we offer the following responses:

1. The EIS will describe seismic and volcanic activities and their potential hazards to our project.
2. The impact of our plan on public access will be discussed in the EIS.
3. We will print the EIS in a double-sided fashion.

Thank you again for your interest in our project. Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink that reads "George I. Atta".

George I. Atta, AICP  
Principal

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel



**STATE OF HAWAII**  
**OFFICE OF HAWAIIAN AFFAIRS**  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

HRD05/2188

July 12, 2005

George I. Atta, AICP  
Group 7- International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, HI 96813-4307

**RE: Environmental Impact Statement Preparation Notice for the Proposed Sea Mountain Development, Punalu'u, Hawai'i Island, TMK 9-5-19:11, 15, 26, 30, 31, 33, 35; 9-6-01:01, 02, 03, 06, 11, 12, 13; 9-6-02:08, 37, 38, 41, 45 por.**

Dear Mr. Atta,

The Office of Hawaiian Affairs (OHA) is in receipt of your December 20, 2005 request for comment on the above listed proposed project, TMK 9-5-19:11, 15, 26, 30, 31, 33, 35; 9-6-01:01, 02, 03, 06, 11, 12, 13; 9-6-02:08, 37, 38, 41, 45 por. OHA offers the following comments:

The areas of Punalu'u and Nīnole are historically and culturally significant, and are home to precious natural resources. An 1868 earthquake and tsunami impacted Nīnole and Punalu'u, therefore many surface indicators of cultural and historical sites may have been destroyed. Nevertheless, sub-surface sites such as burials may still exist there and should be protected.

An Archaeological Inventory Survey has recently been completed on the property. It is our understanding that several probable burial sites as well as other significant historic properties were encountered and documented during the recent study. Our office expects that historic preservation standards will be met and exceeded in this case as Punalu'u and Nīnole were once, and to some, still are, a locus of significant religious and cultural occurrences and practices.

Furthermore, the impacts of an increased populace may have untoward effects on turtle breeding grounds, integrity of trails and archaeological sites, cultural sites and natural features. It is imperative that a cultural impact study be done with integrity and in a comprehensive fashion. The Environmental Council has good guidelines for conducting cultural assessments which would be a sturdy foundation for your endeavors.

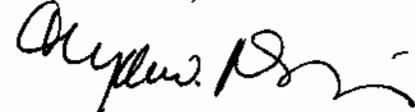
George I. Atta  
July 12, 2005  
Page 2

The State of Hawai'i Constitution provides an obligation of the State of Hawai'i to protect native Hawaiian traditional and customary practices. There are also State of Hawai'i Supreme Court decisions which outline the expectations of the court regarding the fulfillment and exercise of these Constitutionally mandated duties of protecting cultural, natural and historical resources.

OHA recommends that you contact Ms. Pele Hanoa and Ms. Keolalani Hanoa and obtain input and mana'o from them, as well as obtain the names of other individuals who should be contacted to provide input.

We look forward to further communications in your progress and will provide guidance and assistance as appropriate. Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse Yorck at (808) 594-0239 or [jessey@oha.org](mailto:jessey@oha.org).

'O wau iho nō,



Clyde W. Nāmu'o  
Administrator

CC: Ruby McDonald  
OHA Community Affairs Coordinator (Kailua-Kona)  
75-5706 Hanama Pl., Suite 107  
Kailua-Kona, HI 96740

Lukela Ruddle  
OHA Community Affairs Coordinator (Hilo)  
162 A Baker Avenue  
Hilo, HI 96720-4869



June 24, 2006

State of Hawai'i  
Office of Hawaiian Affairs  
Attn: Clyde Nāmu'ō, Administrator  
711 Kapiolani Boulevard, Suite 1250  
Honolulu, HI 96813

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Dear Mr. Nāmu'ō,

Thank you for your July 12, 2005 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation. We offer the following comments to your concerns:

We understand your concern about sub-surface cultural and historic sites and will exercise caution in our project development to protect such resources should we encounter them.

Regarding the recent inventory study and the documentation of burials and other significant sites we will preserve all significant features and sites. Burials will be treated with special care. We are not clear what you mean by standards been exceeded but will treat these features with extra sensitivity and care. We are aware that Punalu'u and Ninole are highly significant from a religious and cultural perspective. We will work closely with the State Historic Preservation office on this issue.

We are also concerned about the impact of increased numbers of people to sensitive environmental and cultural resources. These are among the many features that define Punalu'u and give it its special character and significance. A cultural impact assessment has also been conducted for the project based on the requirements of Act 50 and the OEQC guidelines for cultural impact assessments.

As required by law we will protect known native Hawaiian traditional and customary practices that are practiced on the property. We feel our plans accommodate these requirements and have been working with a local community advisory committee that includes area kupuna and many native Hawaiian. They have continued to give us advice on this issue.

As you are probably aware Ms. Keola Hanoa has passed away. She and her organization, Ka'u Preservation members attended some of our elderly community meetings. Ka'u Preservation is a consulted party in our EIS. Kupuna

Pele Hanoa was interviewed by our cultural impact assessment specialist Maria Orr and her interview is included in the assessment. We will contact kupuna Hanoa again in the future as our project progresses.

Thank you for your interest in our project. We look forward to continued interaction with OHA and foresee some possibilities for partnership with OHA in some of our planned program. Please contact me if you have further questions or comments.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Harry Kim  
Mayor



Christopher J. Yuen  
Director

Roy R. Takemoto  
Deputy Director

## County of Hawaii

### PLANNING DEPARTMENT

Aupuni Center • 101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720  
Phone (808) 961-8288 • Fax (808) 961-8742

JAN 18 2006

January 11, 2006

Mr. George I. Atta, AICP  
Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, HI 96813-4307

Dear Mr. Atta:

**SUBJECT:** Environmental Impact Statement Preparation Notice (EISPN)  
Sea Mountain TMKs: 9-5-19:11, 15, 26, 30, 31, 33, 35; 9-6-01:01,  
02, 03, 06, 11, 12, 13; 9-6-02:08, 37, 38, 41, 45 por.  
Punalu`u, Ka`u District, Island of Hawai`i

The multiple County zoning and General Plan Land Use Pattern Allocation designations for the above-mentioned parcels and the lack of specific information on the development objectives for each parcel, make it difficult to comment on the permitting requirements that might be triggered by the proposed project which consists of 433 acres of partially developed land. The permit history of the subject parcels goes back several decades, and needless to say, certain land use regulations and policies that are currently in effect differ from those that were in effect when initial permits were granted. We will be able to comment more specifically with the additional information anticipated in the Draft Environmental Impact Statement (DEIS).

In addition to specific development objectives per Tax Map Key (TMK) parcel, we recommend that the DEIS also address:

1. The anticipated impacts to the Punalu`u Beach Park of increased residences, commercial activity, and traffic resulting from the proposed development. This would include impacts to the park's wastewater system and other facilities.
2. How will the current lateral and mauka-makai shoreline public access (including traditional and cultural uses) be affected by the proposed project? A "Government Beach Trail" is shown on TMKs: 9-5 and 9-5-19. What is the ownership status of this government beach trail? Are there any other historic trails in the subject properties?

Mr. George I. Atta, AICP  
Group 70 International, Inc  
Page 2  
January 11, 2006

Thank you for the opportunity to review the EISPN. Feel free to contact Deborah Chang of our office at (808)961-8288, Extension 254, should you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Chris Yuen". The signature is written in a cursive, flowing style.

CHRISTOPHER J. YUEN  
Planning Director

DLC:cd

P:\public\WPWIN60\Deborah\Letters\EIS\SeaMountainEISPN.doc



GROUP 70  
INTERNATIONAL

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

June 23, 2006

County of Hawaii  
Planning Department  
Attn: Christopher Yuen, Director  
25 Aupuni Street, Room 109  
Hilo, HI 96720

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement  
Preparation Notice

Dear Mr. Yuen,

Thank you for your January 11, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

The Draft EIS will have more details on each of the parcels. Our general approach will be, with the possible exception of the area mauka of the highway, to remain consistent with the existing zoning of each parcel with the hope that we will obtain a special management area permit for the project as a whole.

Regarding traffic, there will certainly be an increase to area traffic. Our traffic study will include projections for these increases. Regarding the park wastewater system we will be upgrading our treatment plant and could hook up the parks wastewater system to our system as we understand the potential capacity limits to the present park system

Regarding the government beach trail it is not continuous through the property but we will be developing a continuous public, pedestrian trail system along our frontage. The area of the old government road (road parcel) that fronts the middle portion of our site was purchased from the County of Hawaii over 10 years ago. Historic records show that an earlier government trail existed makai of the old government road alignment but much of that road disappeared with the earthquakes and tsunamis of 1868 and 1975.

We have been in contact with Ms. Deborah Chang and look forward to continuing discussions on our project. She has been very helpful with the comments your department has received directly.

Your letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

*BOB JACOBSON*  
*Council Member*



Phone No.: (808) 961-8263  
Fax No.: (808) 961-8912  
E-Mail: jacobson@hgea.org

## HAWAII COUNTY COUNCIL

*County of Hawai'i*  
*Hawai'i County Building*  
*25 Aupuni Street, Suite 209*  
*Hilo, Hawai'i 96720*

January 23, 2006

Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, HI 96813-4307  
Attn: **George I. Atta**, AICP

This is a written submission in response to the Sea Mountain at Punalu'u-Environmental Impact Statement Preparation Notice (EISP/N).

In proceeding with planning, as well as environmental and cultural assessment, the impact on Punalu'u Beach and the other landowners in that community must be given careful and sensitive consideration.

Punalu'u Beach and approximately 3.8 acres belonging to four individuals and/or families are surrounded by the proposed development of 433 acres. The impact of a project of the scale proposed by Sea Mountain Five, LLC, will be substantial on both the Beach and these other landowners. These certain and critical impacts are not mentioned in the EISP/N.

The Beach, the Beach Park, and the four private properties have been accessed either by a County-maintained road at the beach or by a section of Nīnole Loop Road, on land owned by SMI, mauka of the beach area. The private road has for several years been more used as a public thoroughfare than the Beach Road, which the County has recently closed to all roadwork, motor vehicles, and machinery.

Punalu'u Beach is a nesting area for critically endangered Hawksbill marine turtles and a feeding and resting area for threatened Green marine turtles; and it is the only easily accessible swimming beach in all of Ka'u District. There can be no compromise in the protection of the turtles and their habitat, nor doubt about public access to a safe and clean beach.

An August 2005 "Boundary Stakeout", by the Hawai'i County Department of Public Works, shows two parcels totaling approximately 0.82 acres, to be almost entirely below the "high water mark", which extends right up to the edge of the Beach Road.

County of Hawai'i Department of Public Works staff responsible for the "Boundary Stakeout" have indicated they believe that "a Certified Shoreline location would be farther inland than the high water mark shown" on the DPW survey worksheet.

Punalu'u Beach Road is at least at the edge of the "high water mark" already identified by the Department of Public Works, and likely within a Certified Shoreline – making this site unsuitable for maintaining a public road.

Particular resource management issues at the Beach to note are:

1. A shoreline certification is urgently needed.
2. The shoreline requires stabilization to overcome negative impacts on the beach and the ponds of the former road, and the negative impacts of the coconut palms planted on the beach that are inhibiting natural beach formation.
3. The ponds mauka of the beach are open space and a public resource..

Outcomes that I continue to work with the Kā'u community to achieve at Punalu'u are:

1. Fair and just treatment of the entire community, including unimpeded egress and ingress for the other four (non-SMI) landowners at Punalu'u Beach.
2. Enhancement and betterment of all environmental resources.
3. Permanent protection of marine turtle nesting, feeding, and resting areas.
4. Prohibition of all motor vehicles and machinery from the Beach.
5. Transfer of fee simple ownership and maintenance responsibility to Hawai'i County for 2.4 acres, constituting a section of Nīnole Loop Road mauka of the beach (TMK 9-6-002:041).
6. Contiguous public open space of approximately 16 acres for public recreation and environmental education, by transfer of ownership on a fee simple basis the 6.2 acres at Punalu'u Beach Park (TMK's 9-6-001:006, 9-6-001:011, and 9-6-001:012), and 9.8 acres on which are located abandoned resort and associated facilities (TMK's 9-6-001:002, 9-6-001:003, 9-6-001:013, and 9-6-002:037).

It is not possible for me to overstate the importance of environmental responsibility and accountability for the proposed Sea Mountain project at Punalu'u. As environmental and cultural assessment proceeds, I would encourage, in the strongest terms, that Sea Mountain Five, LLC, adapt a mindset of, and focus the task on, maximizing the use of sustainable design criteria and using best-practice stewardship of the precious resources in this very special place.

In the "Findings and Determination" section of the EISPN there are several unspecified assurances given as to how the project will protect resources, use sustainable design practices, and mitigate impacts. I would look forward to learning more about the details of these noteworthy commitments.

for 

Bob Jacobson  
Hawai'i County Council Member



June 23, 2006

The Honorable Robert Jacobson  
Hawai'i County Council  
25 Aupuni Street, Room 209  
Hilo, HI 96720

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Dear Council Member Jacobson,

Thank you for your January 23, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation. My apologies for the delay in our response but we have been involved in many discussions in the community and making revisions that affect our responses to your comments. Regarding your comments we offer the following responses:

**Impact on Punalu'u Beach and adjacent landowners:** Except for improvements to the existing Beach Park that we will discuss with the County Parks Department we will not be developing any structures along the Punalu'u Black Sand shoreline. We do not anticipate any impact on the beach since we are not planning anything along the beach. Grading and runoff concerns will be mitigated by the distance of any development from the beach and best management practices during construction.

Regarding adjacent landowners we invited them to early meetings for our project and have also conducted public meetings where they were welcome to raise concerns they may have. We will include them in future notices that we will hold. kupuna Pele Hanoa and Jeannette Howard were interviewed for our cultural impact assessment.

The issues of impacts to the Beach and the Park will be described in the Draft Environmental Impact Statement (DEIS).

**Access to Private Parcels:** We are not proposing any changes to the access conditions for the private parcels. We do not own or control the Beach Road in front of the parcels and have made no plans for them. While we have suggested realignment of the loop road to go a little more mauka and above the bluff, it will still be open to the public.

**Hawksbill and Green Sea Turtles:** We completely concur about the protection of the turtles. Consequently we will engage in an education program for our guests and staff which will educate them on the proper behaviors and governmental

regulations related to turtles. Our security and maintenance staff will also be instructed and educated so that they can function as de facto rangers educating the public and visitors about the proper responses to turtles. We will work with the U.S. Fish and Wildlife Service on protection plans for endangered species.

**Public Access to the Beach and Park:** There will be no change to the accessibility of the Beach or Park. We recognize that Punalu'u is the only readily accessible swimming beach in the district. We hope to improve this situation by restoring Ninole Cove back to a swimming area if the appropriate State and County approvals can be obtained. A continuous beach path between Kaieie heiau and Punaluu Nui heiau will be created that should also provide improved shoreline access. We will also designate four parking areas that will also maintain and improve public access to the shoreline.

**Beach Issues:** With regard to your comments about the beach, we are currently in the process of certifying the shoreline. A draft delineation has been submitted and we are responding to comments from the State Surveyor's office. The initial survey was not accepted as a short wall along the Beach Park's edge toward the sandy beach was viewed as an encroachment. We are currently researching the history of that structure to address this issue.

Regarding the impacts of the existing beach road and coconut palms on beach processes we do not have control over the road. Also, it is our understanding that at the present time the road has been closed by the County. Regarding the coconut trees, we have heard conflicting comments about the impact of the palms. Some say they have been instrumental in holding the dune and the beach in place. Others say they impact the movement of the turtles. Sea Mountain will comply with directions provided by the County, State or Federal government in this regard.

While we understand your comment that the ponds mauka of the beach is open space and a public resource we would like to also note that they are privately owned.

Regarding the outcomes that you listed in your letter we offer the following responses:

1. We too believe in fair and just treatment of the entire community. Additionally, we will not impede the egress or ingress of the other four landowners.
2. We feel our project will enhance and better environmental resources in the area; many of which are degraded by lack of maintenance and increases in alien species. Our conservation areas, active use of native species and improved maintenance should be beneficial to the environmental resources in the areas.

3. We completely agree with the permanent protection of the turtles. We will work with the County Parks Department, National Park Service, U.S. Fish and Wildlife Service and the Department of Land and Natural Resources to develop a turtle protection plan.
4. We have no problem with a prohibition of all motor vehicles and machinery from the beach but note that service and emergency vehicles and machinery may need access the beach for improved safety and resource stewardship under certain circumstances.
5. Transfer of certain sections of the Loop Road and Beach Road are issues that need further discussions, as your letter does not specify which segments. As noted previously we do not own the Beach Road and that will require concurrence from other parties.
6. We understand your comments about fee transfer of the park and some of the adjacent lands including the abandoned resort facilities. While we would consider a fee transfer of the Beach Park at this time we respectfully disagree with the transfer of the abandoned resort facilities to the County. We have our own plans for the site.

We understand and agree with the need for environmental responsibility and the importance of sustainable design criteria and best practices stewardship of the site. We will do our very best to develop a project that is environmentally friendly, beautiful and sustainable. These issues will be described more fully in the DEIS.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



George I. Atta, AICP  
Principal

## Tracy Furuya

---

**From:** Chris Manfredi [cmanfredi@bigisleventures.com]

**Sent:** Monday, January 30, 2006 7:35 AM

**To:** Tracy Furuya

**Subject:** Punaluu SeaMountain project

Aloha:

I am interested in your Sea Mountain project, and I've spoken with Mr. Kerry/ Carey about it. I also attended your public meeting in Pahala. My company owns significant acreage in Ka'u. I would like to be a consulted party to this project. Please forward me appropriate documentation. My contact information is below.

Many thanks,

Christopher A. Manfredi  
COO/ Project Manager  
Big Isle Ventures, LLC  
95-4968 Mamalahoa Hwy.  
PO Box 1109  
Na'alehu, Hawaii, 96772  
[cmanfredi@BigIsleVentures.com](mailto:cmanfredi@BigIsleVentures.com)  
Phone: 808-929-9550  
Fax: 808-929-9555  
Cell: 516-526-5010



March 15, 2006

Big Isle Ventures, LLC  
Attn: Christopher A. Manfredi  
COO/Project Manager  
P.O. Box 1109  
Na'alehu, HI 96772

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Dear Mr. Manfredi,

Thank you for your January 30, 2006 comment letter concerning the Sea Mountain  
Environmental Impact Statement Notice of Preparation.

Your interest in our project is much appreciated and the appropriate  
documentation for our project will be forwarded to you when we have completed  
its preparation.

Your comment letter will be included in the Draft EIS. We appreciate your  
participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

# Coalition for Environmental Quality Control

P.O. Box 690  
Naalehu, HI 96772

JAN 12 2006

George Atta  
Group 70  
925 Bethel Street, Fifth Floor  
Honolulu, HI 96813

January 9, 2006

To whom it concerns:

Our coalition of Ka`u community members want to be a consulted party for the Environmental Impact Statement for the Sea Mountain development at Punalu`u on the Island of Hawaii. Please send us a copy of the Conceptual Master Plan for the development project, **as well as** a copy of the Draft Environmental Impact Statement.

We want the following questions and comments to be addressed in the Draft Environmental Impact Statement:

1. What is the source of potable water for the development? How will it be used? Will alternative sources of potable water be taken from mauka (upland) sources? How many gallons of fresh potable water will be needed on a daily basis?
2. What chemical fertilizers and pesticides will be used on the golf course and the in the landscaping? How much of the chemical will be used an annual basis? Where will the chemicals go in our ecosystem? What will be the impacts of these chemicals on the ocean and its delicate system?
3. Will the pumping of the under ground water significantly impact the fish ponds at Punalu`u and Ninole?
4. Will the public sector be included in a shoreline certification as was passed by the 1999 Legislature? The shoreline at Punalu`u was planted with coconuts thirty years ago, though the waves wash into the ponds. Will the public domain include the area above the ponds where there is a free exchange of ocean water?
5. Will the existing County Park continue to be leased by the County? How will the petroglyphs and other historical sites existing on the property be preserved?
6. How will the lights, effluent run-off, increased population, and buildings affect the endangered species such as the Hawaiian sea turtle, the Hawaiian petrel, and the Hawaiian monk seals?
7. What are the other endangered species in the surrounding development area?
8. What are the endangered species located in the reefs off the coast of the project?
9. Will the project have any gates restricting access to the local population?
10. Will the public continue to enjoy access to Punalu`u beach 24-hours a day and will camping continue to be allowed?
11. What will be the emotional impact on residents who will suffer from the surge in population of this rural community? How will those emotional impacts be mitigated?

Thank you,  
R. Bass



GROUP 70  
INTERNATIONAL

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

June 23, 2006

Coalition for Environmental  
Quality Control

Attn: R. Bass  
P.O. Box 690  
Na'alehu, HI 96772

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement  
Preparation Notice

Dear Ms. Bass,

Thank you for your January 9, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Regarding your comments we provide the following responses:

Potable water: There are two existing potable water wells on the site that provide drinking water for the Colony I condos and the beach park. The reservoir for this water is located mauka of the highway. As our project develops we propose to drill two to four more wells near the reservoir. Previous hydrological studies have indicated that the groundwater aquifer has sufficient source capacity to accommodate our project. The projected potable water demand at full build out is estimated at 1.28 million gallons per day.

Golf Course chemical use: The details of our golf course herbicide, pesticide and fertilizer usage will be included in our draft EIS. To summarize, we will be using the latest methodology to minimize usage and avoid any contamination of groundwater or adjacent surface water features such as Ninole Stream or the coastal ponds. We do not anticipate any significant impact on the ocean and the near shore environment. These best management practices and design features are included in our golf course turf management plan which is included in the DEIS.

Coastal ponds: We do not anticipate any impact on the coastal ponds from the increased use of groundwater. As mentioned above, previous analysis of source capacity indicates a large groundwater source. Well pumpage will also be monitored to ensure that the aquifer remains intact and coastal ponds are not affected.

Shoreline: An application for a shoreline certification has been presented to the State Surveyor. The public domain will be determined when the State Surveyor completes his review and approval with any modifications he may determine. At this point it is not clear if the area by the coconut trees will be above of below the final certified shoreline.

County Park/ petroglyphs: We are in discussions with the County Parks Department. The park remains a county park in our long range plans. All significant archaeological sites will be preserved. The method of preservation will be finalized with consultation and approval of the mitigation plan by the State Historic Preservation Office. We have also been discussing this issue with kupuna and other members of the community. Regarding 24-hour access and camping the County Parks Department will continue to control the use of the park and it is our understanding that current uses will continue.

Endangered Species: We will address the specific measures for protection of endangered species in the DEIS. Other endangered species we have identified include the native fan palm (*Pritchardia affinis*), the koloa and the native coot, pueo and the Hawaiian bat. The protection plans to accommodate these species will be included in the DEIS. There are no specific populations of endangered species off the reef that we are aware of other than some whales and porpoises that do not have a specific home off Punalu'u but migrate and forage in the deep coastal waters. We do not think our project will have any impact on these species.

Gated community: This project is not a gated community. Access to the coastal resources should be enhanced with additional parking areas and improved roads to those areas.

Increased population: The impact of increased population and potential crowding effects is unknown. . While some local residents may be uncomfortable, others will be OK with the situation. We do not know when the number of people will be too much and what can be done about it. The perception of crowding will vary from person to person.

We propose to improve recreational resources along the coast by improving existing park areas and expanding the improved beach areas by restoring Ninole Cove (subject to other State and Federal governmental approvals). We will improve coastal shoreline access for the entire frontage with a series of improved trails, enhanced landscaping and new designated parking areas. While we will try to minimize the potential crowding impact of our project, this remains one of the unresolved issues of the development.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



George I. Atta, AICP  
Principal

To: George Atta, Group 70 Int. Inc.  
925 Bethel St, 5th floor  
Honolulu, HI 96813

(Jan 23, 2006)

Re: Sea Mt at Punaluu

Dear Sir,

At the Jan 7, Kahu H.S. meeting, we heard a <sup>2.1.2</sup> description of a Village concept & on the EIS Prep. Notice<sup>Y</sup> page 10 we find "... Punaluu development design will encourage residents to reduce the amount of vehicular traffic impacting the regional highways by providing supporting retail, commercial & recreational uses w/ Sea Mountain at Punaluu project site."

1. Where are the planned offices for dentists, G.P.'s, optometrists, specialists, etc?
2. Where are the offices for lawyers, financial advisors (CPA's) & banks?
3. How tall will the office complexes be?
4. Will the developers include a shuttle bus for residents between, perhaps, Naalehu (theatre) & Pahala or Volcano Village a few times each week? See HRS 344-4 State Environmental Policy 6. Transportation (A), (B) & (C) and also 8. Community life & housing (B)+(C)
5. Will the affordable housing units conform to the federal Fair Housing Act for barrier-free design & construction? (Both apartments & condos).

→ over

6. Have the developers planned to donate funds toward off-site improvements such as local schools, library or new hospital wing?

7. As found in the EIS prep notice, page 10 for Residential Component, will the developers guarantee to limit the total residential units to 2,000? (excluding affordable housing).

Thank you for your time.

Lois Lebbins, EQUAL ACCESS  
PO Box 1028, Rahala HI 96777

P.S. Federal law mandates use of a microphone for large meetings with the general public, (especially those meetings held next to a loud basketball game!) Kindly call ahead for a microphone, next time or perhaps supply your own mic & speakers.

Thanks again



June 24, 2006

Lois Lebbing  
Equal Access  
P.O. Box 1028  
Pahala, HI 96777

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Dear Ms. Lebbing,

Thank you for your January 24, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation. Regarding the questions and comments in your letter we offer the following responses:

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

1. You ask a question about planned medical offices. We have designated commercial uses in the area adjacent to the hotel and the old restaurant area. Medical offices could locate there if the demand exists.
2. You also ask about banks and professional services as well. The underlying zoning and our plan allows all commercial uses to fall into these zones and there is no specific location within these zones that are specifically designated for a specific type of profession.
3. The commercial buildings have not been designed but they can be a maximum of 30 feet in height; approximately 2-3 stories depending on the roof design.
4. The idea of a shuttle bus to Na'alehu, Volcano or Pahala is intriguing. However, we are not transportation service providers and do not know the feasibility of such an operation. However, we can consider this idea further and maybe a service provider can be found.
5. Regarding affordable housing and the fair housing act for barrier free construction we will comply with all applicable laws. Unless we pursue rezoning of the mauka parcel we do not have an inclusionary affordable housing requirement. However, we do have a workforce housing requirement with the opening of the hotel and will provide those units at the appropriate time.
6. We are developing a community benefits package that will be geared to providing funding for a number of community needs. They include recipients such as area schools and the Ka'u Hospital.
7. We will keep our total unit count at or below the 1823 that is mentioned in the EIS. We are considering some lower densities at this time and will finalize our project count when we file for a Special Management Area Permit.

Ralph E. Portmore, AICP  
Of Counsel

Thank you for your personal comment at the end of your letter. We will have a microphone in future large meetings. For your information the large informational meeting we held in Pahala was not an official meeting related to any public permit but an early attempt to engage with the community. We will be involved in formal public meetings in the future as we go through the land use entitlement proceedings and clearly will have microphones then.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

**KA`U PRESERVATION**

PO Box 472  
Na`alehu, HI 96772  
808-928-1018  
www.kaupreservation.org

January 19, 2006

Pat Blew  
Sea Mountain Five, LLC  
433 North Camden Ave., Ste. 1070,  
Beverly Hills, CA 90210

George Atta  
Group 70 International, Inc.  
925 Bethel St., 5th Flr.  
Honolulu, HI 96813

Chris Yuen, Director  
County of Hawai'i, Planning Department  
101 Pauahi St., Ste. 3  
Hilo, HI 96720

Genevieve Salmonson  
OEQC  
235 S. Beretania St. #702  
Honolulu, HI 96813

RE: COMMENTS ON EISPN FOR SEA MOUNTAIN AT PUNALU`U

KA`U Preservation desires to be a consulted party pursuant to HRS chapter 343.

In order to fully inform decisionmakers regarding the impacts of this project, the DEIS and FEIS must discuss the following issues in detail:

**OWNERSHIP OF PROPERTY**

The ownership of the property is unclear. First, the applicant does not own the subject property. And it is unclear to when and if the applicant will ever own the property. Second, the applicant claims that the property in question includes the beach area and other coastal lands of Punalu`u, when in fact the state of Hawai`i claims ownership of the same lands via its statutory authority. Therefore, this consulting party requests that a stay of application be

ordered until such time that the applicant owns such property and that the ownership title is legally cleared.

## **ENVIRONMENTAL AND CUMULATIVE IMPACTS**

Hawai'i Administration Rules 11-200-2 defines cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions." HAR 11-200-17 requires that an EIS discuss "significant beneficial and adverse impacts (including cumulative impacts and secondary impacts)."

The existing Sea Mountain development has had a significant and negative impact on the the entire shoreline area surrounding Punalu`u bay. The DEIS should fully discuss the results of water quality, pollution and to the degree to which runoff from the existing golf course has affected the water quality of adjacent estuaries and the extent to which this proposed development will further affect water quality and nesting habitats of endangered species, as well as residents private wells.

Is the EIS going to address the impact of asbestos in the buidlings, land and waters?

## **ENDANGERED SPECIES AND THIER HABITATS**

How does the developer plan to address endangered plant and animal species and their habitats?

Will the developer do an inventory survey of endangered species that inhabit and nest in the development area and demonstrate that there will be no negative impact on these species?

How will the developer rectify existing environmental impacts made by the current owner and previous developments?

What steps will the developer take to provide continuous protection of endangered species and their surrounding environment?

## **SHORELINE IMPACT**

What evidence can be provided by developers to prove their ownership of Punalu`u Bay and shoreline areas?

Developer must show clear title to entire development, including black sand beach, ancient Hawaiian fishponds and estuaries.

Developer must provide accurate shoreline certification of the high water mark.

What is the actual setback of any construction along the shoreline?

How will lighting, traffic and increased use impact endangered species along the shoreline?

What procedures will the developer take to minimize the impact of increased human activity along the shoreline?

## **WATER QUALITY**

The EIS should provide adequate data to determine the short term and long term impact on water quality.

Developer must include a hydrologist report addressing how water flows through the project and effects natural watersheds.

The EIS should discuss the highly permeable nature of the soils and lava.

The EIS should address current problems regarding runoff and drainage into shoreline waters.

The EIS should reveal all of the impacts of alternative biocides and sewage affluent that will be a result of this project.

The EIS must address the sediment of runoff during construction and other pollutants associated with this project and the effects on the health of coral reef and coastal water quality.

All problems concerning pollution should be addressed in the EIS.

## **IMPACT CULTURAL AND HISTORICAL PROPERTIES**

KA'U Preservation demands that a complete archeological survey be completed and be included in the EIS and must include cultural assessment of historical and cultural properties in project area. And a study must be completed on the functions of and impact on this traditional Ahu' puaa.

Cultural monitors must be present during inventory survey and data recovery.

A study must be made to determine the impact of this development on the traditional practices and belief systems of native hawaiians, including but not limited to native gathering and fishing rights from the mountains to the sea.

## **CARRYING CAPACITY OF SHORELINE AREA**

Developer must include in EIS demographics of impact caused by increased human activity that will adversely effect the quality of life for the local community and the quality of life unique to the area.

## **GENERAL CONSULTATION**

KA'U Preservation demands to be consulted on each aspect listed in the applicant's EISPN, or as amended, as follows:

- 2.0 PROJECT DESCRIPTION
  - 2.1 Sea Mountain Master Plan
    - 2.1.1 Residential Component
    - 2.1.2 Retail-Commercial Component
    - 2.1.3 Recreational Amenities
    - 2.1.4 Resource Management
    - 2.1.5 Infrastructure
    - 2.1.6 Schools and Other Public Services
    - 2.1.7 Sustainable Development
  - 2.2 Development Schedule and Process
- 3.0 PROJECT SETTING
  - 3.1 Overview
  - 3.2 Terrestrial Conditions
  - 3.3 Human Environment
  - 3.4 Infrastructure
  - 3.5 Socio-Economic Conditions
  - 3.6 Cultural Impact Assessment
  - 3.7 Land Use Plans, Policies and Conditions
- 4.0 PROBABLE IMPACTS AND MITIGATIVE MEASURES
  - 4.1 Short-Term Impacts
  - 4.2 Long-Term Impacts
- 5.0 ALTERNATIVES TO THE PROPOSED PROJECT
- 6.0 FINDINGS AND DETERMINATION
  - 6.1 Findings per Significance Criteria

## 6.2 Determination

### SCENIC IMPACT

The EIS should use both of the two most useful methodologies of Visual Impact Analysis:

- 1) Given a structure at point x, where will it be seen from; and
- 2) From point y, what can you see of the development?

Where will lights be seen from? What will be the impact of these lights on seabirds and threatened and endangered turtles? (Please note that simply saying that the project will comply with all laws does not answer these questions.)

### MITIGATION MEASURES

Please fully discuss how the public can be assured that any proposed mitigation measures will be performed and will be effective. Please describe the county and state government's monitoring and enforcement programs so that we can be assured that promises made will be kept. How much staff do the State Health Department, County Public Works Department and County Planning Department have to ensure that promises are kept? How often can they be expected to visit the site? Please do not argue that it is beyond your ability to answer these questions. Please ask the departments themselves. Please report how short-handed they report that they are.

The applicant should identify all proposed mitigation measures in a consolidated list. These measures should be written in plain language that is easily enforceable when incorporated into a permit. It is unacceptable, for example, to list as a mitigation measure that "apply pesticides only when and where necessary" since such language is open to far too much interpretation and completely unenforceable.

How does the applicant propose to mitigate and cleanup existing problems of chemical and biological pollution?

The EIS should specifically note these provisions in the law:

- "Provide coastal recreational opportunities accessible to the public." Hawaii Revised Statutes § 205A-2(b)(1)(A)
- "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." HRS § 205A-2(b)(2)(A)
- "Protect, preserve, and, where desirable, restore or improve the quality of coastal

scenic and open space resources." HRS § 205A-2(b)(3)(A)

- "Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems." HRS § 205A-2(b)(4)(A)
- "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" HRS § 205A-2(c)(3)(B)
- "Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources." HRS § 205A-2(c)(3)(C)
- "Encourage those developments which are not coastal dependent to locate in inland areas." HRS § 205A-2(c)(3)(D)
- "No development shall be approved unless the authority has first found: that the development will not have any substantial adverse environmental or ecological effect, except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health, safety, or compelling public interests." HRS § 205A-26(2)

#### HAWAII STATE PLAN

The EIS should mention many key provisions in the Hawaii State Plan:

§226-6(b) To achieve the general economic objectives, it shall be the policy of this State to:  
(14) Promote and protect intangible resources in Hawaii, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.

226-11 (b) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:

- (1) Exercise an overall conservation ethic in the use of Hawaii's natural resources.
- (2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.

## 6.2 Determination

### **SCENIC IMPACT**

The EIS should use both of the two most useful methodologies of Visual Impact Analysis:

- 1) Given a structure at point x, where will it be seen from; and
- 2) From point y, what can you see of the development?

Where will lights be seen from? What will be the impact of these lights on seabirds and threatened and endangered turtles? (Please note that simply saying that the project will comply with all laws does not answer these questions.)

### **MITIGATION MEASURES**

Please fully discuss how the public can be assured that any proposed mitigation measures will be performed and will be effective. Please describe the county and state government's monitoring and enforcement programs so that we can be assured that promises made will be kept. How much staff do the State Health Department, County Public Works Department and County Planning Department have to ensure that promises are kept? How often can they be expected to visit the site? Please do not argue that it is beyond your ability to answer these questions. Please ask the departments themselves. Please report how short-handed they report that they are.

The applicant should identify all proposed mitigation measures in a consolidated list. These measures should be written in plain language that is easily enforceable when incorporated into a permit. It is unacceptable, for example, to list as a mitigation measure that "apply pesticides only when and where necessary" since such language is open to far too much interpretation and completely unenforceable.

How does the applicant propose to mitigate and cleanup existing problems of chemical and biological pollution?

### **HRS CHAPTER 205A**

KA`U Preservation reserves comment on the project's compliance with 205A until it comes up for an SMA hearing. In the mean time, please fully explain how this project increases public access to and along the shoreline? Remember that the comparison has to be with the status quo.

226-12 (b) To achieve the scenic, natural beauty, and historic resources objective, it shall be the policy of this State to:

- (1) Promote the preservation and restoration of significant natural and historic resources.
- (3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.
- (4) Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.

226-104 (b) Priority guidelines for regional growth distribution and land resource utilization: (13) Protect and enhance Hawaii's shoreline, open spaces, and scenic resources.

**Fresh Water.** The EIS should fully disclose where the potable water to support this development would come from.

**Affordable Housing.** The DEIS should fully disclose how much affordable housing is proposed within this development – and not merely declare that affordable housing requirements will be met. Such a statement hardly constitutes full disclosure allowing decisionmakers to weigh the merits of the project.

**Single family homes.** To whom are the houses going to be marketed? What will the price range of the houses be?

**Hotel.** According to the Hawaii Tourism Authority's own survey, 72% of residents oppose more hotel construction. The EIS should disclose this fact. The EIS should also disclose the current occupancy rate on Hawai'i Island – and compare the vacancy rate here with other counties.

**Tsunami Risk.** Are there any records of tsunamis hitting the area? If so, how high did they reach? What is the tsunami risk?

**Fire Hazard.** The EIS should address the risk of fire hazards associated with the Punalu'u area.

**Earthquake and Volcanic Action.** What are the risks associated with earthquakes and volcanic activities. A study should include these risks and complete description of the risk.

**Impact on National Park and State Conservation Lands.** EIS should address the impact on the Volcanoes National Park and adjacent environmentally sensitive areas.

**Carrying Capacity of Beach.** How many people can Punalu'u beach handle without exceeding community carrying capacity standards? If this development goes forward, how many more people can we expect to be using the beach on weekends?

**Benefits.** Other than satisfying "market demand" (from wealthy off-island interests), in this full-employment construction economy, what public benefits does this project present?

**Disclosure.** The DEIS and FEIS should use color photos and maps rather than poorly copied black and white maps. It should include maps that clearly disclose which parcels are slated to be rezoned; where the SMA line is; where the certified shoreline is; and where the wastewater treatment plant is.

KA`U Preservation requests that EIS drafts be sent to our office and copies be sent to our affiliates who join us as consulted parties:

**Protect Kohanaiki Ohana**

PO Box 4753 Kailua-Kona, HI 96745

**Ka `Ohana O Honu`apo**

PO Box 1152 Na`alehu, HI 96772

**South Kona-Ka`u Coastal Preservation Task Force**

Attn: Lauren Tanaka

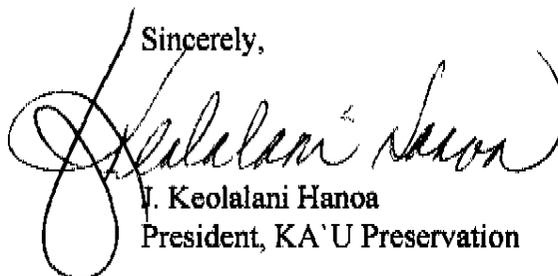
Kalanimoku Building, 1151 Punchbowl St., Honolulu, HI 96813

**University of Hawai`i at Manoa**

Dr. Luciano Miniberi, Urban Regional Planning

Saunders Hall, 2424 Maile Way, Room 107 Honolulu, Hawaii 96822

Sincerely,



J. Keolalani Hanoa  
President, KA`U Preservation

cc:

Bruce McClure, Director  
County of Hawaii, Public Works  
101 Pauahi St.,  
Hilo, HI 96720

Harry Kim, Mayor  
Hawai`i County Council  
21 Aupuni St.  
Hilo, HI 96720

(More:)

**Congressman Ed Case**  
Attn: Ann Stewart  
115 Cannon HOB,  
Washington D.C. 20515

**Senator Daniel K. Inouye**  
722 Hart Building  
Washington, D.C. 20510-1102

**Senator Daniel Akaka**  
141 Hart Senate Office Building  
Washington, D.C. 20510

**Honorable Governor Linda Lingle**  
Executive Chambers  
State Capitol  
Honolulu, Hawai'i  
96813

**Sen. Russell S. Kokubun**  
Hawaii State Capitol, Room 213  
415 South Beretania Street  
Honolulu, HI 96813

**Robert N. Herkes**  
Hawaii State Capitol, Room 320  
415 South Beretania Street  
Honolulu, HI 96813



June 26, 2006

Ka'u Preservation  
Attn: Pele Hanoa  
President  
P.O. Box 472  
Na'alehu, HI 96772

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement  
Preparation Notice

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Dear Ms. Hanoa,

We are addressing this letter to you due to the unfortunate and untimely passing of Ms. Keolalani Hanoa the past president of Ka'u Preservation. We thank your organization's interest regarding the Sea Mountain Environmental Impact Statement Preparation Notice and provide the following responses to Ms. Hanoa's letter dated January 19, 2006.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

#### **Ownership of the Property**

The property under consideration in the EIS is owned by SM Investment Partners. The applicant has a contract to purchase the property upon completion of certain actions. This situation does not prevent the publication of an EIS for the property. The present owners are aware of the action and have given their permission. It is unclear what you mean by the beach area. We are aware that the State of Hawaii has regulatory authority below the certified shoreline.

Finally, we have not filed any application for any land use permit at this time and do not think your request of a stay of application is appropriate at this time.

#### **Environmental and Cumulative Impacts:**

Cumulative and secondary impacts will be addressed in the Draft Environmental Impact Statement (DEIS)

Regarding your comment about asbestos and its impact on the buildings, land and coastal waters. We will be testing the buildings, land and pond prior to demolition and removal of the debris from the abandoned buildings when we start construction.

#### **Endangered Species and Habitat:**

We have conducted several studies on flora and fauna. Mitigation actions and recommendations will be discussed in the DEIS. Our faunal survey includes recommendations related nesting seasons and locations and ways to mitigate potential impacts. These will be discussed in the DEIS.

Ralph E. Portmore, AICP  
Of Counsel

We are not clear about what specific impacts by the present owner that you are referring to and would require further clarification before we can respond to this question.

Continuous protection of endangered species will be part of our management plans and employee and visitor education programs. Additionally, we will work with the appropriate public agencies such as the U.S. Fish and Wildlife Service, the Department of Land and Natural Resources and the National Park Service as well as non-profit agencies and community groups interested in their protection. We will participate in signage and educational programs that will assist in their protection. We think our educated personnel will function as de facto rangers on the property to protect these species.

**Shoreline Impact:**

SM Investment is not claiming ownership of Punalu'u Bay, only the parcels that include the mauka lands above the bay. They have also never claimed ownership of the private parcels on the southwestern side of the bay. With regard to the parcels listed for the project in the EIS, title records in the government real property files show SM Investment as the owners of the property. All lands included in the EIS project boundary maps show this ownership.

We are currently involved in a shoreline certification. We hope to receive a certified shoreline in the coming months.

There is no specific construction setback line along the shore. The normal State standard requirement is 40 feet from the certified shoreline.

Regarding lighting, traffic and increased use impact endangered species along the shoreline we would like to note that along most of the shoreline we are not planning any development. Also, we are not creating any new roads closer to the shore that would increase traffic. If anything we are realigning Ninole Loop Road more mauka and this may reduce traffic close to the coastline. We do not own and do not have any plans regarding the existing Beach Road. Regarding increased use of the shoreline area, we are aware of the potential of this impact from our project. We are preparing various mitigating actions to address this concern. These will be described in the DEIS.

**Water Quality:**

We appreciate all your concerns about long term and short term impacts to water quality and the need for more detailed information about water flow, soil conditions, existing and future runoff and drainage impacts, potential biocide and wastewater discharges, other pollution, siltation and sediment loads to the coastal environment. These issues will be addressed in the DEIS.

**Cultural and Historical Properties:**

A new inventory study and cultural impact assessment to meet the requirements of Act 50 have been conducted. The results and recommendations will be included in the DEIS. Functions and impacts will be described.

Your comment that cultural monitors must be present during inventory surveys is not possible since the study has been completed. Conditions for data recovery will be discussed with the State Historic Preservation Office.

The cultural impact study reviews the impact to native gathering and fishing rights in the ahupua'a. This discussion will be included in the DEIS.

**Carrying Capacity of the Shoreline:**

A discussion of this issue will be included in the DEIS. However, you should be aware that there are no established standards for measuring these impacts. We have reviewed an extensive literature on these issues and understand that physical and social carrying capacities vary from place to place and under different conditions.

**General Consultation:**

Ka'u Preservation will be included in the general consultation on the items listed in your letter.

**Scenic Impact:**

A view study has been conducted for the project. These will be presented in the DEIS.

**Mitigation Measures;**

We will discuss mitigation measures and compliance along with staff levels with the appropriate Departments. We will summarize the mitigation measures in a clear and consolidated fashion before proceeding with any permit applications for entitlements.

**HRS Chapter 205A**

The EIS will include a discussion of public access and will compare it to existing conditions. We will include the relevant policy statements in Chapter 205A into the EIS.

**Hawaii State Plan:**

Important and appropriate sections of the Hawaii State Plan will be included in the EIS.

**Fresh Water**

The source of potable water for the development will be discussed in the EIS.

**Affordable Housing:**

The inclusionary zoning affordable housing requirement may become applicable if the developers pursue a rezoning of the mauka portion of the project site. If not there is no trigger for inclusionary zoning since the project site has existing zoning.

There is a condition for work force housing when the hotel is developed. The number of units required depends on the number of jobs generated. At the present time we are looking at a number around 65 units due to a projection of about 300 hotel jobs generated. We have not determined where these units will be built but we are looking at a number of alternatives. This will be discussed in the EIS.

**Single Family Homes.**

While final prices for homes have not be set we are working with assumptions for prices that fall in the \$245,000 range for the affordable units to market housing that goes up to \$770,000. Single-family home lots will range from \$260,000 to \$600,000 for 1/2 acre view lots.

**Hotel**

We will discuss the viability of hotel operations and the Hawaii Tourism Authority's survey results regarding public attitudes and the tourism industry and hotel construction. Hotel occupancy rates will also be discussed.

**Tsunami Risk**

A tsunami inundation line from the 1975 Halape quake is included in our figures. The inundation line is a factor in our site plan locations.

**Fire Hazard:**

The EIS will address the issue o Fire hazard in the Punalu'u area.

**Earthquake and Volcanic Action:**

The EIS will include a discussion of earthquake and volcanic hazards.

**Impact on National Park and State Conservation Lands;**

We do not anticipate any negative impacts on the national park or State conservation lands. We are a small part of Ka'u and not close to the boundaries of the Hawaii Volcanoes National Park. Increased use of the park from our project is a very tiny portion of the total number of visitors to the park. The coastal areas of Punalu'u are in the State conservation district. We are not planning to develop in these areas except for enhanced landscaping and pedestrian pathways and park recreational uses.

**Beach Carrying Capacity:**

We have evaluated the beach carrying capacity based on studies conducted on the mainland and elsewhere. Community carrying capacity has not been determined as there are no guidelines or standards that define this. We understand this concern and note that it has been mentioned several times in the discussions that we have had. We have developed several plan features that we hope will mitigate this potential impact and concern. They include restoration of Ninole Cove (with the necessary government approvals), improved access along the entire coastline, recreation facilities at the hotel and the residential enclaves that will minimize guest and local resident use of the beach and other recreational features that would basically distribute impacts by creating other beach recreational opportunities.

**Benefits:**

We are developing a community benefits package that would provide funding for various public needs such as the schools and hospital. We will also, assist with our fair share of necessary support for increased public services such as police and fire.

**Disclosure:**

We agree that information should be clear. Where color is necessary to present the information clearly we will use color.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



George I. Atta, AICP  
Principal



16 January 2006

SeaMountain Five LLC  
C/o Cabear Corp.  
433 North Camden Ave., Suite 1070  
Beverly Hills, CA 90210

RE: 433 acre development – Ka'u

Gentlemen/Madam:

We were unable to attend your presentation on Saturday, January 7 at the Ka'u High School Cafeteria. However, we would like to get more information on your project.

We would appreciate it very much if you would provide us with more information, including brochures and maps. We look forward to hearing from you.

Best wishes for the New Year.

Aloha,

A handwritten signature in black ink, appearing to read "Brenda Lynn Domondon", with a long horizontal line extending to the right.

Brenda Lynn Domondon  
Adm. Coordinator



June 22, 2006

Mac Farms of Hawaii  
Attn: BrendaLynn Domondon  
Adm. Coordinator  
89-406 Mamalahoa Highway  
Captain Cook, Hawai'i 96704

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. Domondon,

Thank you for your January 16, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I am sorry to hear you missed the public meeting in Pahala. We would be happy to send you a CD of the DEIS when it is published. This will provide the maps and background information on the project.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel



December 23, 2005

Sea Mountain Five, LLC  
433 North Camden Avenue  
Suite 1070  
Beverly Hills, CA 90210

Reference: Ka`u Hawaii Planned Development

We read with interest in today's Honolulu Advertiser of your plans for the development in the Ka`u area of Hawaii Island. This letter is written to introduce our firm and to request your consideration of using our services, should the need arise.

Pacific Consulting Services, Inc. (PCSI) is an established, local, archaeological consulting firm. We have been working extensively on the Big Island in the past three years, most notably on behalf of the Hokulia Development and the Office of Mauna Kea Management. Our staff includes Dr. Patrick McCoy, the former Hawaii Island Archaeologist for the State Historic Preservation Office, Dr. Sara Collins, the former Division Director of the State Historic Preservation Office, as well as several archaeologists with decades of experience assisting clients in complying with Hawaii's cultural resource protection requirements.

We would appreciate the opportunity to present our qualifications to you and to provide bids for any current or future archaeology projects that you may have.

Regards,

A handwritten signature in blue ink, appearing to read 'Douglas Hazelwood', is written over a light blue rectangular background.

Douglas Hazelwood  
President

A handwritten note in blue ink, reading 'Hand MAILED TO Ken Carey', is written on a light blue rectangular background.

Hand  
MAILED TO  
Ken Carey



January 30, 2006

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, A.A., CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, A.A.  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Douglas Hazelwood, President  
Pacific Consulting Services, Inc.  
720 Iwilei Road, Suite 424  
Honolulu, HI 96817

Subject: Sea Mountain  
Environmental Impact Statement  
Notice of Preparation  
Comment Letter

Dear Mr. Hazelwood,

Thank you for your December 23, 2005 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

Thank you for your interest in providing services for the project. We are already contracted with another firm for the archaeological work, but will keep your firm in mind for future projects.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink that reads "George I. Atta". The signature is written in a cursive, flowing style.

George I. Atta, AICP  
Principal

Paul P. Chomey, AIA  
Philip T. Cuccia  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Dorina D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA  
  
Ralph E. Portmore, AICP  
Of Counsel

**Protect Keopuka Ohana**  
P.O. Box 917  
Captain Cook, Hawaii 96704  
[konajack1@verizon.net](mailto:konajack1@verizon.net)  
808-328-8442



January 19, 2005

Pat Blew  
Sea Mountain Five, LLC  
433 North Camden Ave., Ste. 1070.  
Beverly Hills, CA 90210

George Atta  
Group 70 International, Inc.  
925 Bethel St., 5th Flr.  
Honolulu, HI 96813

Chris Yuen  
County of Hawai'i, Planning Department  
101 Pauahi St., Ste. 3  
Hilo, HI 96720

Genevieve Salmonson  
OEQC  
235 S. Beretania St. #702  
Honolulu, HI 96813

RE: COMMENTS ON EISPN FOR SEA MOUNTAIN AT PUNALU'U

Protect Keopuka Ohana desires to be a consulted party pursuant to HRS chapter 343.

In order to fully inform decisionmakers regarding the impacts of this project, the DEIS and FEIS must discuss the following issues in detail:

### **IMPACTS TO BURIALS AND HAWAIIAN CULTURAL SITES**

Given the extreme sensitivity of this area in regards to ancient Hawaiian burials, cultural and historic sites the DEIS and FEIS must completely and thoroughly examine impact the project may have on native Hawaiian burials as well as cultural and historical sites. It is Protect Keopuka Ohana's position that new, updated archeology surveys conducted in consultation with known descendants in the area must be performed to adequately insure that no impact on these resources occurs when and if this project is ever developed.

## **CUMULATIVE IMPACTS**

Hawaii Administration Rules 11-200-2 defines cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions." HAR 11-200-17 requires that an EIS discuss "significant beneficial and adverse impacts (including cumulative impacts and secondary impacts)."

The existing Sea Mountain development has had a significant and negative impact on the pond just mauka of Punalu`u beach (on the north side). The DEIS should fully discuss the results of water quality tests of this pond, the degree to which runoff from the existing golf course has affected the water quality of the pond, and the extent to which this proposed development will further affect water quality.

## **THE SHORELINE AREA**

What precisely does the developer plan to do near the shoreline?

How far back from the shoreline will any construction activity take place?

How will the developer's lighting impact green sea and hawksbill turtles?

## **WATER QUALITY**

The EIS should include sufficient baseline data for meaningful analysis.

Results from Waikoloa studies show gradients of inorganic nutrients that do not fall to low oceanic levels until 100 meters of the shoreline. Imposed on this area are apparent anthropogenic inputs related to golf course, resort and residential development. To what extent has the existing golf course at Punalu`u affected water quality of the pond and nearshore waters?

The EIS should include a report by a hydrologist discussing how water flows through the project area into nearshore waters.

Any water quality plan should spell out in detail any mitigation plan rather than leaving the term ambiguous.

The EIS should discuss the highly permeable nature of the soils and lava.

The EIS should include any calculations or models used to support any conclusion regarding runoff and drainage into nearshore waters.

A complete EIS will reveal the cumulative impact of all runoff and leaching on coastal waters. This includes pesticides/biocides (including the impact of the alternative biocides that are lower in toxicity), fertilizers, sedimentation, heavy metals, grease, other urban runoff, and the increase in sewage effluent. To understand the full cumulative impact, the EIS should examine the impact of runoff traditionally associated with coastal development, including sediment runoff during construction, waste oil and other rubbish associated with urban uses. It should study the amount of nonpoint source water pollution associated with similar developments and discuss the degradation of coral reefs and coastal water quality caused by similar projects. A complete EIS would not glibly assume that mitigation measures would take care of all nonpoint source water pollution problems.

How much contaminated water (by nutrients, pesticides, or other contaminants) can be expected to leach through soil and make its way into the coastal waters (i.e., not surface runoff, but percolation)? What specific studies of similar areas on the Big Island does the EIS rely on to support its conclusions?

The EIS must consider the impact of termite treatment on coastal water quality. Houses in Hawai'i receive frequent termite treatments and that the impacts on waterbodies (such as the Ala Wai Canal) are well documented. It is imperative that the EIS fully disclose the impacts of pesticide runoff from frequent termite treatments.

The EIS should also consider the impact on water quality and marine life from drugs (antidepressants, hormones, aspirin, ibuprofen etc.) in the wastewater. The issue of complex medications in Europe's waterways has become an important public issue there.

Similarly, the EIS should consider the issue of household hazardous waste. Will it be disposed of, as it is currently through out the state: down the drain, off the driveway, on the lawn? Or is the developer planning to include a guaranteed program that will collect all household hazardous waste?

Please discuss whether the public -- not just county engineers -- will have a real opportunity to comment on any erosion and sedimentation plan before it is approved.

What will be the cumulative impact of nitrates from wastewater -- together with percolation and runoff?

The EIS should describe the statistical power of any monitoring program to detect change to corals, the various fish species, and invertebrates.

Where will swimming pools be drained? How do we know that they will not simply be drained on the ground, to percolate into the ground and out into the coastal waters?

What are the current levels of all the pollutants identified in Hawaii Administrative Rules 11-54-04 measured at the shoreline of this project? How will each of these levels change in front of this project if it is fully built-out?

What kind of wastewater treatment facility will be used? To what extent will the sewage be treated -- primary, secondary or tertiary? Where will it be discharged? If the applicant proposes to discharge it through an underground injection well, please disclose how long it takes such effluent to reach the coastal waters and the level of contamination.

## **SCENIC IMPACT**

The EIS should use both of the two most useful methodologies of Visual Impact Analysis:

- 1) Given a structure at point x, where will it be seen from; and
- 2) From point y, what can you see of the development?

Where will lights be seen from? What will be the impact of these lights on seabirds and threatened and endangered turtles? (Please note that simply saying that the project will comply with all laws does not answer these questions.)

## **MITIGATION MEASURES**

Please fully discuss how the public can be assured that any proposed mitigation measures will be performed and will be effective. Please describe the county and state government's monitoring and enforcement programs so that we can be assured that promises made will be kept. How much staff do the State Health Department, County Public Works Department and County Planning Department have to ensure that promises are kept? How often can they be expected to visit the site? Please do not argue that it is beyond your ability to answer these questions. Please ask the departments themselves. Please report how short-handed they report that they are.

The applicant should identify all proposed mitigation measures in a consolidated list. These measures should be written in plain language that is easily enforceable when incorporated into a permit. It is unacceptable, for example, to list as a mitigation measure that "apply pesticides only when and where necessary" since such language is open to far too much interpretation and completely unenforceable.

## **HRS CHAPTER 205A**

The Sierra Club reserves comment on the project's compliance with 205A until it comes up for an SMA hearing. In the mean time, please fully explain how this project increases public access to and along the shoreline? Remember that the comparison has to be with the status quo.

The EIS should specifically note these provisions in the law:

- "Provide coastal recreational opportunities accessible to the public." Hawaii Revised Statutes § 205A-2(b)(1)(A)

- "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." HRS § 205A-2(b)(2)(A)
- "Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources." HRS § 205A-2(b)(3)(A)
- "Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems." HRS § 205A-2(b)(4)(A)
- "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" HRS § 205A-2(c)(3)(B)
- "Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources." HRS § 205A-2(c)(3)(C)
- "Encourage those developments which are not coastal dependent to locate in inland areas." HRS § 205A-2(c)(3)(D)
- "No development shall be approved unless the authority has first found: that the development will not have any substantial adverse environmental or ecological effect, except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health, safety, or compelling public interests." HRS § 205A-26(2)

## **HAWAII STATE PLAN**

The EIS should mention many key provisions in the Hawaii State Plan:

§226-6(b) To achieve the general economic objectives, it shall be the policy of this State to: (14) Promote and protect intangible resources in Hawaii, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.

226-11 (b) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:

- (1) Exercise an overall conservation ethic in the use of Hawaii's natural resources.
- (2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.

226-12 (b) To achieve the scenic, natural beauty, and historic resources objective, it shall be the policy of this State to:

- (1) Promote the preservation and restoration of significant natural and historic resources.
- (3) Promote the preservation of views and vistas to enhance the visual and aesthetic

enjoyment of mountains, ocean, scenic landscapes, and other natural features.  
(4) Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.

226-104 (b) Priority guidelines for regional growth distribution and land resource utilization: (13) Protect and enhance Hawaii's shoreline, open spaces, and scenic resources.

**Fresh Water.** The EIS should fully disclose where the potable water to support this development would come from.

**Affordable Housing.** The DEIS should fully disclose how much affordable housing is proposed within this development – and not merely declare that affordable housing requirements will be met. Such a statement hardly constitutes full disclosure allowing decisionmakers to weigh the merits of the project.

**Single family homes.** To whom are the houses going to be marketed? What will the price range of the houses be?

**Hotel.** According to the Hawaii Tourism Authority's own survey, 72% of residents oppose more hotel construction. The EIS should disclose this fact. The EIS should also disclose the current occupancy rate on Hawai'i Island – and compare the vacancy rate here with other counties.

**Tsunami Risk.** Are there any records of tsunamis hitting the area? If so, how high did they reach? What is the tsunami risk?

**Carrying Capacity of Beach.** How many people can Punalu`u beach handle without exceeding community carrying capacity standards? If this development goes forward, how many more people can we expect to be using the beach on weekends?

**Benefits.** Other than satisfying “market demand” (from wealthy off-island interests), in this full-employment construction economy, what public benefits does this project present?

**Disclosure.** The DEIS and FEIS should use color photos and maps rather than poorly copied black and white maps. It should include maps that clearly disclose which parcels are slated to be rezoned; where the SMA line is; where the certified shoreline is; and where the wastewater treatment plant is.

Sincerely,



Jack Kelly  
Vice-President  
Protect Keopuka Ohana



June 24, 2006

Protect Keopuka Ohana  
Attn: Jack Kelly  
P.O. Box 917  
Captain Cook, Hawai'i 96704

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Dear Mr. Kelly,

Thank you for your January 19, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation. Regarding your comments we offer the following responses:

**Impacts to Burials and Hawaiian Cultural Sites:**

We have prepared an updated inventory level archaeological survey which covers burials and other important cultural sites. Our plan is to preserve all known burials in place.

**Cumulative Impacts:**

The draft environmental impact statement (DEIS) will discuss the cumulative impact of the development. Water quality testing has been conducted as well as evaluation of golf course chemical use and potential impacts to water quality.

**Shoreline Area:**

Our plan calls for preservation of the coastal area. On average most of our structures are more than 200- 300 feet away from the shoreline.

Except for possibly a golf course fairway, some coastal pedestrian pathways and improvements to the present County Beach Park most of our development will be 300 or more feet from the shoreline.

Our lighting should not impact the hawksbill or green sea turtle. As mentioned earlier most of our development will be set back well beyond the coastal nesting or resting areas for both species of turtles. The only exception is the area behind the pond at Punalu'u Bay. In this area we will design our lighting so that there will be hooded jackets around the light and low intensity down lighting that will not scatter the light. We feel there will be no impact on turtles from our lighting plans.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

**Water Quality:**

The EIS will include information on water quality. Water quality samples have been taken in both the coastal ponds and the offshore area. These results will be included in the DEIS. The data will include potential inputs from anthropogenic sources though sometimes it may be difficult to separate offsite mauka impacts from impacts from our project site.

The project hydrologist will prepare an analysis of how water flows through the project site and into near shore waters. These will include discussions of soil characteristics and analysis of flows.

Your comment about cumulative impacts of all runoff is well taken. We will work on addressing a comprehensive evaluation of impacts. Your many detailed comments about various specific potential pollutants are understandable. However, some of the comments seem to assume an urban setting or higher densities than our project location. Punalu'u is in a rural district with little urban development. Many of the items you mention such as medical wastes and termite treatments may be a problem in higher concentrations but are generally not at detectable levels in a place like Punalu'u. While we understand the desire to test for a complete and exhaustive list such as you suggest the task would be prohibitive and we feel, in our context, unnecessary. We will follow water quality testing guidelines from the Department of Health in our EIS.

Erosion and sedimentation plans will be prepared for the County of Hawaii and the State Department of Health. Within that process we feel the public has the opportunity to provide comments as needed.

Our project proposes to upgrade the present treatment plant which is over 30 years old. The new plant will treat water to R1 levels and be used for golf course and landscape irrigation. Because of the level of treatment we feel there should be an improvement in overall water quality as it will be significantly cleaner than the stream or pond water in the project site.

The water quality test results for nitrogen will be included in the EIS.

We are not able to provide an answer to your comment of statistical power and coastal impacts. Our current study and a series of prior studies that we have reviewed indicate that the great mixing environment of the coastal environment off Punalu'u dissipates most inputs very quickly such that they are not detectable in normal tests. Prior biological studies have also shown that the marine biota has generally not been impacted by pollutants.

Regarding swimming pools they will drain into the wastewater system and be treated appropriately.

A discussion of current standards and levels of pollutants for costal waters will be included in the EIS. Assessments of impacts at build out will also be included.

The wastewater system will treat wastewater to R1 levels. The treated effluent will be stored in lined ponds for use in golf course and landscape irrigation. If underground injection wells are used and analysis of the retention times and migration of the effluent will be calculated.

**Scenic Impact:**

A visual impact assessment will be included in the EIS. The Punalu'u site is located in a little depressional valley created by Ninole Stream and some of the smaller drainage channels that run through the site. As such it is largely hidden from many distant locations like the Honuapo Lookout. The amount of street frontage along Mamalahoa highway is narrow and the project will be buffered by landscaping. Small bluffs and gullies hide large portions of the resort from the Beach Park. We think scenic impact will be low.

**Lighting:**

Most of our project is set back from the coastal areas will not impact turtle habitat. The only place where it approaches the turtle habitat is by the lagoon pond behind Punalu'u Beach. Here, lush landscaping will minimize much of the potential impact of artificial lights.

In addition, our lighting plan will include shades and hoods that focus light downward and minimize horizontal scatter. Also, exterior lights will be of low density and placed strategically for mainly functional safety reasons in areas that may potentially impact turtles. This same lighting plan also addresses the potential impact seabirds.

**Mitigation Measures;**

We will discuss mitigation measures and compliance along with staff levels with the appropriate Departments. We will summarize the mitigation measures in a clear and consolidated fashion before proceeding with any permit applications for entitlements.

**HRS Chapter 205A**

The EIS will include a discussion of public access and will compare it to existing conditions. We will include the relevant policy statements in Chapter 205A into the EIS.

**Hawaii State Plan:**

Important and appropriate sections of the Hawaii State Plan will be included in the EIS.

**Fresh Water**

The source of potable water for the development will be discussed in the EIS.

**Affordable Housing:**

The inclusionary zoning affordable housing requirement may become applicable if the developers pursue a rezoning of the mauka portion of the project site. If not, there is no trigger for inclusionary zoning since the project site has existing zoning.

There is a condition for work force housing when the hotel is developed. The number of units required depends on the number of jobs generated. At the present time we are looking at a number around 65 units due to a projection of about 300 hotel jobs generated. We have not determined where these units will be built but we are looking at a number of alternatives. This will be discussed in the EIS.

**Single Family Homes.**

While final prices for homes have not be set we are working with assumptions for prices that fall in the \$245,000 range for the affordable units to market housing that goes up to \$770,000. Single-family home lots will range from \$260,000 to \$600,000 for ½acre view lots.

**Hotel**

We will discuss the viability of hotel operations and the Hawaii Tourism Authority's survey results regarding public attitudes and the tourism industry and hotel construction. Hotel occupancy rates will also be discussed.

**Tsunami Risk**

A tsunami inundation line from the 1975 Halape quake is included in our figures. The inundation line is a factor in our site plan locations.

**Beach Carrying Capacity:**

We have evaluated the beach carrying capacity based on studies conducted on the mainland and elsewhere. Community carrying capacity has not been determined as there are no guidelines or standards that define this. We understand this concern and note that it has been mentioned several times in the discussions that we have had. We have developed several plan features that we hope will mitigate this potential impact and concern. They include restoration of Ninole Cove (with the necessary government approvals), improved access along the entire coastline, recreation facilities at the hotel and the residential enclaves that will minimize guest and local resident use of the beach and other recreational features that would basically distribute impacts by creating other beach recreational opportunities.

**Benefits:**

We are developing a community benefits package that would provide funding for various public needs such as the schools and hospital. We will also, assist with our fair share of necessary support for increased public services such as police and fire.

**Disclosure:**

We agree that information should be clear. Where color is necessary to present the information clearly we will use color.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

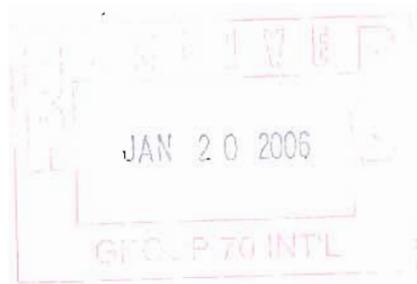
A handwritten signature in black ink that reads "George I. Atta". The signature is written in a cursive style with a large initial "G".

George I. Atta, AICP  
Principal



# SIERRA CLUB HAWAII CHAPTER

P.O. Box 2577, Honolulu, HI 96803  
808.538.6616 / hawaii.chapter@sierraclub.org



January 19, 2005

Pat Blew  
Sea Mountain Five, LLC  
433 North Camden Ave., Ste. 1070,  
Beverly Hills, CA 90210

Chris Yuen  
County of Hawaii, Planning Department  
101 Pauahi St., Ste. 3  
Hilo, HI 96720

George Atta  
Group 70 International, Inc.  
925 Bethel St., 5th Flr.  
Honolulu, HI 96813

Genevieve Salmonson  
OEQC  
235 S. Beretania St. #702  
Honolulu, HI 96813

RE: COMMENTS ON EISPN FOR SEA MOUNTAIN AT PUNALU`U

The Sierra Club desires to be a consulted party pursuant to HRS chapter 343.

In order to fully inform decision makers regarding the impacts of this project, the DEIS and FEIS must discuss the following issues in detail:

## CUMULATIVE IMPACTS

Hawaii Administration Rules 11-200-2 defines cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions." HAR 11-200-17 requires that an EIS discuss "significant beneficial and adverse impacts (including cumulative impacts and secondary impacts)."

The existing Sea Mountain development has had a significant and negative impact on the pond just mauka of Punalu`u beach (on the north side). The DEIS should fully discuss the results of water quality tests of this pond, the degree to which runoff from the existing golf course has affected the water quality of the pond, and the extent to which this proposed development will further affect water quality.

## THE SHORELINE AREA

What precisely does the developer plan to do near the shoreline?

How far back from the shoreline will any construction activity take place?

How will the developer's lighting impact green sea and hawksbill turtles?

## WATER QUALITY

The EIS should include sufficient baseline data for meaningful analysis.

Results from Waikoloa studies show gradients of inorganic nutrients that do not fall to low oceanic levels until 100 meters of the shoreline. Imposed on this area are apparent anthropogenic inputs related to golf course, resort and residential development. To what extent has the existing golf course at Punaluu affected water quality of the pond and nearshore waters?

The EIS should include a report by a hydrologist discussing how water flows through the project area into nearshore waters.

Any water quality plan should spell out in detail any mitigation plan rather than leaving the term ambiguous.

The EIS should discuss the highly permeable nature of the soils and lava.

The EIS should include any calculations or models used to support any conclusion regarding runoff and drainage into nearshore waters.

A complete EIS will reveal the cumulative impact of all runoff and leaching on coastal waters. This includes pesticides/biocides (including the impact of the alternative biocides that are lower in toxicity), fertilizers, sedimentation, heavy metals, grease, other urban runoff, and the increase in sewage effluent. To understand the full cumulative impact, the EIS should examine the impact of runoff traditionally associated with coastal development, including sediment runoff during construction, waste oil and other rubbish associated with urban uses. It should study the amount of nonpoint source water pollution associated with similar developments and discuss the degradation of coral reefs and coastal water quality caused by similar projects. A complete EIS would not glibly assume that mitigation measures would take care of all nonpoint source water pollution problems.

How much contaminated water (by nutrients, pesticides, or other contaminants) can be expected to leach through soil and make its way into the coastal waters (i.e., not surface runoff, but percolation)? What specific studies of similar areas on the Big Island does the EIS rely on to support its conclusions?

The EIS must consider the impact of termite treatment on coastal water quality. Houses in Hawaii receive frequent termite treatments and that the impacts on waterbodies (such as the Ala Wai Canal) are well documented. It is imperative that the EIS fully disclose the impacts of pesticide runoff from frequent termite treatments.

The EIS should also consider the impact on water quality and marine life from drugs (antidepressants, hormones, aspirin, ibuprofen etc.) in the wastewater. The issue of complex medications in Europe's waterways has become an important public issue there.

Similarly, the EIS should consider the issue of household hazardous waste. Will it be disposed of, as it is currently through out the state: down the drain, off the driveway, on the lawn? Or is the developer planning to include a guaranteed program that will collect all household hazardous waste?

Please discuss whether the public -- not just county engineers -- will have a real opportunity to comment on any erosion and sedimentation plan before it is approved.

What will be the cumulative impact of nitrates from wastewater -- together with percolation and runoff?

The EIS should describe the statistical power of any monitoring program to detect change to corals, the various fish species, and invertebrates.

Where will swimming pools be drained? How do we know that they will not simply be drained on the ground, to percolate into the ground and out into the coastal waters?

What are the current levels of all the pollutants identified in Hawaii Administrative Rules 11-54-04 measured at the shoreline of this project? How will each of these levels change in front of this project if it is fully built-out?

What kind of wastewater treatment facility will be used? To what extent will the sewage be treated -- primary, secondary or tertiary? Where will it be discharged? If the applicant proposes to discharge it through an underground injection well, please disclose how long it takes such effluent to reach the coastal waters and the level of contamination.

## **SCENIC IMPACT**

The EIS should use both of the two most useful methodologies of Visual Impact Analysis:

- 1) Given a structure at point x, where will it be seen from; and
- 2) From point y, what can you see of the development?

Where will lights be seen from? What will be the impact of these lights on seabirds and threatened and endangered turtles? (Please note that simply saying that the project will comply with all laws does not answer these questions.)

## **MITIGATION MEASURES**

Please fully discuss how the public can be assured that any proposed mitigation measures will be performed and will be effective. Please describe the county and state government's monitoring and enforcement programs so that we can be assured that promises made will be kept. How much staff do the State Health Department, County Public Works Department and County Planning Department have to ensure that promises are kept? How often can they be expected to visit the site? Please do not argue that it is beyond your ability to answer these questions. Please ask the departments themselves. Please report how short-handed they report that they are.

The applicant should identify all proposed mitigation measures in a consolidated list. These measures should be written in plain language that is easily enforceable when incorporated into a permit. It is unacceptable, for example, to list as a mitigation measure that "apply pesticides only when and where necessary" since such language is open to far too much interpretation and completely unenforceable.

## HRS CHAPTER 205A

The Sierra Club reserves comment on the project's compliance with 205A until it comes up for an SMA hearing. In the mean time, please fully explain how this project increases public access to and along the shoreline? Remember that the comparison has to be with the status quo.

The EIS should specifically note these provisions in the law:

- "Provide coastal recreational opportunities accessible to the public." Hawaii Revised Statutes § 205A-2(b)(1)(A)
- "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." HRS § 205A-2(b)(2)(A)
- "Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources." HRS § 205A-2(b)(3)(A)
- "Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems." HRS § 205A-2(b)(4)(A)
- "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" HRS § 205A-2(c)(3)(B)
- "Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources." HRS § 205A-2(c)(3)(C)
- "Encourage those developments which are not coastal dependent to locate in inland areas." HRS § 205A-2(c)(3)(D)
- "No development shall be approved unless the authority has first found:  
that the development will not have any substantial adverse environmental or ecological effect, except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health, safety, or compelling public interests." HRS § 205A-26(2)

## HAWAII STATE PLAN

The EIS should mention many key provisions in the Hawaii State Plan:

- §226-6(b) To achieve the general economic objectives, it shall be the policy of this State to: (14) Promote and protect intangible resources in Hawaii, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.
- §226-11 (b) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:

- (1) Exercise an overall conservation ethic in the use of Hawaii's natural resources.
  - (2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.
- §226-12 (b) To achieve the scenic, natural beauty, and historic resources objective, it shall be the policy of this State to:
    1. Promote the preservation and restoration of significant natural and historic resources.
    2. Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.
    4. Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.
  - 226-104 (b) Priority guidelines for regional growth distribution and land resource utilization: (13) Protect and enhance Hawaii's shoreline, open spaces, and scenic resources.

### **Fresh Water**

The EIS should fully disclose where the potable water to support this development would come from.

### **Affordable Housing**

The DEIS should fully disclose how much affordable housing is proposed within this development – and not merely declare that affordable housing requirements will be met. Such a statement hardly constitutes full disclosure allowing decision makers to weigh the merits of the project.

### **Single family homes**

To whom are the houses going to be marketed? What will the price range of the houses be?

### **Hotel**

According to the Hawaii Tourism Authority's own survey, 72% of residents oppose more hotel construction. The EIS should disclose this fact. The EIS should also disclose the current occupancy rate on Hawaii Island – and compare the vacancy rate here with other counties.

### **Tsunami Risk**

Are there any records of tsunamis hitting the area? If so, how high did they reach? What is the tsunami risk?

### **Carrying Capacity of Beach**

How many people can Punaluu beach handle without exceeding community carrying capacity standards? If this development goes forward, how many more people can we expect to be using the beach on weekends?

### **Benefits**

Other than satisfying "market demand" (from wealthy off-island interests), in this full-employment construction economy, what public benefits does this project present?

**Disclosure**

The DEIS and FEIS should use color photos and maps rather than poorly copied black and white maps. It should include maps that clearly disclose which parcels are slated to be rezoned; where the SMA line is; where the certified shoreline is; and where the wastewater treatment plant is.

Thank you for this opportunity to provide comments on the EISPN. We look forward to your response.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jeff Mikulina". The signature is stylized and written in a cursive-like font.

Jeff Mikulina  
Director, Sierra Club, Hawai'i Chapter



June 24, 2006

Jeff Mikulina  
Director  
Sierra Club, Hawaii Chapter  
P.O. Box 2577  
Honolulu, Hawaii 96803

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Mikulina,

Thank you for your January 20, 2005 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation. Regarding your comments we offer the following responses:

**Cumulative Impacts:**

We are aware of the need to address cumulative impacts and our EIS will address cumulative and secondary impacts.

Regarding water quality and the pond mauka of Punalu'u Beach we have taken water quality samples in the coastal ponds and evaluated existing conditions and potential impacts. These will be addressed in the DEIS.

**Shoreline area:**

The shoreline area will not be developed. With the exception of the abandoned restaurant and cultural center area which we will renovate and revive most of the coastline (averaging between 200 -300 feet or more in most areas) will be preserved as a coastal open space and preserve area. We will be enhancing landscaping in the coastal areas with new native species replanting. We will be creating a pedestrian pathway along the entire frontage of our project from Kaie'ie heau to Punalu'u nui heau to make the shoreline more accessible. The existing County Park will remain and the fee title will be transferred to the County upon project approval.

Again, with the exception of the old restaurant area we are not developing within the shoreline area where turtles might be impacted. As a general design policy we are aware of the potential of lights to affect turtles and seabirds such as the Uau and the Newell shearwater. Our lighting designs will follow county codes and have added features such as hoods, lower intensity and downward facing lights to minimize possible impacts to these species. Landscaping will also further shield unnecessary light scatter. We do not think we will have a significant impact on these species.

**Water Quality:**

The EIS will include information on water quality. Water quality samples have been taken in both the coastal ponds and the offshore area. These results will be included in the DEIS. The data will include potential inputs from anthropogenic sources though sometimes it may be difficult to separate offsite mauka impacts from impacts from our project site.

The project hydrologist will prepare an analysis of how water flows through the project site and into near shore waters. These will include discussions of soil characteristics and analysis of flows.

Your comment about cumulative impacts of all runoff is well taken. We will work on addressing a comprehensive evaluation of impacts. Your many detailed comments about various specific potential pollutants are understandable. However, some of the comments seem to assume an urban setting or higher densities than our project location. Punalu'u is in a rural district with little urban development. Many of the items you mention such as medical wastes and termite treatments may be a problem in higher concentrations but are generally not at detectable levels in a place like Punalu'u. While we understand the desire to test for a complete and exhaustive list such as you suggest would be prohibitive and we feel, in our context, unnecessary. We will follow water quality testing guidelines from the Department of Health in our EIS.

Erosion and sedimentation plans will be prepared for the County of Hawaii and the State Department of Health. Within that process we feel the public has the opportunity to provide comments as needed.

Our project proposes to upgrade the present treatment plant which is over 30 years old. The new plant will treat water to R1 levels and be used for golf course and landscape irrigation. Because of the level of treatment we feel there should be an improvement in overall water quality as it will be significantly cleaner than the stream or pond water that currently exists.

The water quality test results for nitrogen will be included in the EIS.

We are not able to provide and answer to your comment of statistical power and coastal impacts. Our current study and a series of prior studies that we have reviewed indicate that the great mixing environment of the coastal environment off Punalu'u dissipates most inputs very quickly such that they are not detectable in normal tests. Prior biological studies have also shown that the marine biota has generally not been impacted by pollutants.

Regarding swimming pools they will drain into the wastewater system and be treated appropriately.

A discussion of current standards and levels of pollutants will be included in the EIS. Assessments of impacts at build out will also be included.

The wastewater system will treat wastewater to tertiary levels. The treated effluent will be stored in lined ponds for use in golf course and landscape irrigation. If underground injection wells are used and analysis of the retention times and migration of the effluent will be calculated.

**Scenic Impact:**

A visual impact assessment will be included in the EIS. The Punalu'u site is located in a small valley created by Ninole Stream and some of the smaller drainage channels that run through the site. As such it is largely hidden from many distant locations like the Honuapo Lookout. The amount of street frontage along Mamalahoa highway is narrow and the project will be buffered by landscaping. Small bluffs and gullies hide large portions of the resort from the Beach Park. We think scenic impact will be minor. Our overall concept for the project is to develop it as a cluster closer to the existing plantation towns of Pahala and Naalehu. We hope our site plan and architecture will blend into the history and culture of Ka'u and will seem like it belongs to the district.

**Lighting:**

Most of our project is set back from the coastal areas will not impact turtle habitat. The only place where it approaches the turtle habitat is by the lagoon pond behind Punalu'u Beach. Here, lush landscaping will minimize much of the potential impact of artificial lights.

In addition, as mentioned earlier, our lighting plan will include shades and hoods that focus light downward and minimize horizontal scatter. Our, exterior lights will be of low density and placed strategically for mainly functional safety reasons in areas that may potentially impact turtles. This same lighting criteria and plan also addresses the potential impact seabirds.

**Mitigation Measures;**

We will discuss mitigation measures and compliance along with staff levels with the appropriate Departments. We will summarize the mitigation measures in a clear and consolidated fashion before proceeding with any permit applications for entitlements.

**HRS Chapter 205A**

The EIS will include a discussion of public access and will compare it to existing conditions. We will include the relevant policy statements in Chapter 205A into the EIS.

**Hawaii State Plan:**

Important and appropriate sections of the Hawaii State Plan will be included in the EIS.

**Fresh Water**

The source of potable water for the development will be discussed in the EIS.

**Affordable Housing:**

The inclusionary zoning affordable housing requirement may become applicable if the developers pursue a rezoning of the mauka portion of the project site. If not there is no trigger for inclusionary zoning since the project site has existing zoning.

There is a condition for work force housing when the hotel is developed. The number of units required depends on the number of jobs generated. At the present time we are looking at a number around 65 units due to a projection of about 300 hotel jobs generated. We have not determined where these units will be built but we are looking at a number of alternatives. This will be discussed in the EIS.

**Single Family Homes.**

While final prices for homes have not been set we are working with assumptions for prices that fall in the \$245,000 range for the affordable units to market housing that goes up to \$770,000. Single-family home lots will range from \$260,000 to \$600,000 for ½-acre view lots.

**Hotel**

We will discuss the viability of hotel operations and the Hawaii Tourism Authority's survey results regarding public attitudes and the tourism industry and hotel construction. Hotel occupancy rates will also be discussed.

**Tsunami Risk**

A tsunami inundation line from the 1975 Halape quake is included in our figures. The inundation line is a factor in our site plan locations.

**Beach Carrying Capacity:**

We have evaluated the beach carrying capacity based on studies conducted on the mainland and elsewhere. Community carrying capacity has not been determined as there are no guidelines or standards that define this. We understand this concern and note that it has been mentioned several times in the discussions that we have had. We have developed several plan features that we hope will mitigate this potential impact and concern. They include restoration of Ninole Cove (with the necessary government approvals), improved access along the entire coastline, recreation facilities at the hotel and the residential enclaves that will minimize guest and local resident use of the beach and other recreational features that

would basically distribute impacts by creating other beach recreational opportunities.

**Benefits:**

We are developing a community benefits package that would provide funding for various public needs such as the schools and hospital. We will also, assist with our fair share of necessary support for increased public services such as police and fire.

**Disclosure:**

We agree that information should be clear. Where color is necessary to present the information clearly we will use color.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

January 8, 2006

Sea Mountain Five LLC  
c/o Cabear Corp.  
433 North Camden Ave., Suite 1070  
Beverly Hills, CA 90210

George Atta, President  
Group 70 International  
925 Bethel Street, 5<sup>th</sup> floor  
Honolulu, HI 96813

Aloha:

I wish to be a consulted party regarding the Sea Mountain Resort project.

Mahalo,



Bill Smith  
P.O. Box 11332  
Hilo, HI 96721-6332

---

Sea Mountain Five LLC  
c/o Cabear Corp.  
433 North Camden Ave., Suite 1070  
Beverly Hills, CA 90210



January 18, 2006

Francis S. Ooa, Arch. D., FAIA, AICP  
Norman G. Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA  
  
Ralph E. Portmore, AICP  
Of Counsel

Bill Smith  
P.O. Box 11332  
Honolulu, HI 96721-6332

Subject: Sea Mountain  
Environmental Impact Statement  
Notice of Preparation  
Comment Letter

Dear Mr. Smith,

Thank you for your January 8, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

As you stated, you wish to be a consulted party for the project. We will place you on the EIS distribution list to receive a CD with the EIS file.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

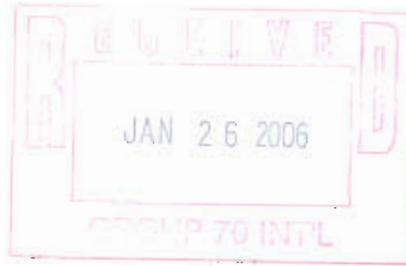
GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink that reads "George I. Atta".

George I. Atta, AICP  
Principal

To: George Atta  
Group 70 International  
925 Bethel St. 5<sup>th</sup> Flr.  
Honolulu, HI 96813

1/24-06



From: Denise Kocek  
P.O. Box 726  
Pahala, HI 96777

Dear George Atta:

After attending the meeting conducted by your Group 70 at the cafeteria in Pahala on January 7<sup>th</sup> of this year regarding your intended plans for development of the Punalu'u area, I have decided after much thought that I would very much like to be a consulted party in this matter.

I would very much appreciate any and all information you might have pertaining to this.

Thank you for your time and consideration.

Sincerely,  
*Denise Kocek*  
Denise Kocek

cc Chris Yuen  
Hawai'i County, Planning Department



June 23, 2006

Denise Kocek  
P.O. Box 726  
Pahala, HI 96777

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Dear Ms. Kocek,

Thank you for your January 24, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

We will add you to the list of consulted parties. As a consulted party, you will receive a CD of the Draft Environmental Impact Study when it is published. This will contain all the information and maps concerning the proposed development.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

*MAIL TO  
KEW COLONY*

December 27, 2005

Sea Mountain Five LLC  
433 North Camden Ave., Suite 1070  
Beverly Hills, Ca. 90210

Subject: Resort project in Ka'u

Dear Madam or Sir:

As a former resident of Na'alehu, I am very aware of and concerned about "projects" to the area. Although I now reside in Racine, Wisconsin I have never lost touch with what happens in and around Na'alehu and Pahala.

I was born and raised in Na'alehu and spent a vast majority of my time at Punalu'u Beach. My brothers and I along with our friends and everyone that lived in Na'alehu and Pahala were always taught the importance of the Hawaiian History, Heritage and Lore of the Island.

I am writing to you not because of fond memories of a teenager, but of a deep respect for the land, a way of life that has existed for many, many years, and the importance of keeping the environment and nature the way it is. Many times when developers come in they destroy what drew them to that area in the first place.

Ka'u has stayed untouched for years because people in the area wanted it that way and enjoyed the serene peacefulness and beauty of the area. But as in many places the time for change will ultimately come in kicking and screaming.

I know the land from Wai'ohinu to Pahala very well. The beauty, the naturalness and the history. In developing the Punalu'u area, how much of the beauty, environment and history will be destroyed? How will the local people be part of the development before, during, and after? Or will they be treated as outsiders after all is said and done?

I do agree that something needs to be done in the Ka'u area. Since the Sugar Plantations closed, there is nothing in that area for the local people and absolutely nothing for the younger generation growing up now.

Plans for that area since 1972 has come to nothing. It seems that every plan that was planned by a new owner never materialized. The facilities that were there and abandoned due to disrepair, no interest, no customers had no success because of the lack of customers that would have kept it going if the hotels were built in 1972. The 75 unit Colony One condo complex is not enough to keep the golf course, restaurant, gift shop

cultural center, and clubhouse profitable. Where are the vacationers and tourist supposed to stay?

In order to have the local people agree with the development plans for that area, you must first assure them that it will not be turned into another Waikiki, but will retain the beauty, the naturalness of that area and will encourage vacationers, and visitors who want to experience the beauty and will respect the Hawaiian History and its way of life.

Also not mentioned is Honoapu Bay. How will the development affect that area? Also how do you propose to protect the turtles at Punalu'u?

Ultimately when and if a developer firmly decides to do something in that area, my one hope is that they will take into consideration the people of the big island, the land, the history, the heritage, and respect the people of Ka'u.

Mahalo,  
*Lavanda Shea*  
Lavanda Shea  
3247 Newman Rd.  
Racine, Wi 53406



GROUP 70  
INTERNATIONAL

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotolo, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Phillip T. Cuccia  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutani  
Scott Tangonan  
Tom Young, AIA  
  
Ralph E. Portmore, AICP  
Of Counsel

January 18, 2006

Lavanda Shea  
3247 Newman Road  
Racine, Wisconsin 53406

Subject: Sea Mountain  
Environmental Impact Statement  
Notice of Preparation  
Comment Letter

Dear Ms. Shea,

Thank you for your heartfelt letter dated December 27, 2005 concerning the Sea Mountain project at Punaluu on the Big Island.

The concerns you have expressed are some of the very same concerns we have heard echoed by members of the community at several community meetings that have already been held. Community input has been an important aspect of this project. Many share your exact same sentiments, and we have the utmost respect for those concerns and are seeking to address them in meaningful ways throughout the design of this project. The following paragraphs will address the issues you raised in your letter.

1. You mentioned the importance of keeping the environment the way it is, and that developers often come in and destroy the natural beauty that drew them there initially. This is often true. Much of the natural beauty of the site is along the shoreline. The developers have chosen not to build along most of the shoreline and coastal pond areas to protect this natural beauty.
2. Regarding the desire to keep Ka'u rural and new pressures for change and development. It is inevitable that development pressure will continue to grow in the region and will be pursued on this site because it is already zoned for residential and resort development. Our approach to designing the living communities on the site is through a clustering concept that limits development to a smaller area and preserves surrounding open spaces. Na'alehu is a typical small cluster development town, with a higher density residential area surrounding a small commercial center. Ocean View is an example of a sprawling residential subdivision. It eats up lots of land and open space. We want to emulate this type of cluster development at Sea Mountain. Within this community we hope to preserve the rural lifestyle and image.
3. You expressed concern about the degree to which the natural beauty, environment and history will be destroyed. There will always be some degree of loss when a development is constructed, however, our philosophy is to preserve and protect the unique resources this site has to offer. A full archaeological study has been undertaken which will map out all sensitive archaeological areas on the

February 1, 2006

Sea Mountain Five LLC  
433 North Camden Ave. Suite 1070  
Beverly Hills, CA 90210

Dear Sir or Madam:

My name is Malia Panglao and I am a science teacher at Ka'u High School. In my Plants & Animals in Hawaii class, we have been talking about all of the upcoming development that will be occurring in our district soon and your project has been one of the main points of our discussion. As a class assignment, each of my students wrote a letter expressing their thoughts about the upcoming development. As you will realize from reading these letters, many students are excited as to what opportunities development here will hold for them. However, many hold reservations about change in the place where they grew up, many are just unsure what the development will entail, what it will do to the environment, and what it will all mean for them and their families; many of whom have lived in this place for several generations.

I know that you are business people and your time is valuable, but whatever response you can give to my students would mean a lot. It would show them that their concerns are valid and that they can be heard in giving input in planning for their community in the future. I also invite any representative from your organization into my class to speak to my students. Correspondence can be mailed to the address above, to me, Malia Panglao, at Ka'u High School. I thank you in advance for your time.

Sincerely,



Malia Panglao  
Ka'u High School Science Teacher



June 23, 2006

Ka'u High and Pahala Elementary School  
Attention: Ms. Malia Panglao  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Dear Ms. Panglao,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation. My apologies for the tardiness of our responses as your semester is already over but we have made a serious attempt to answer the questions and our project has evolved as a result of comments from the community; including your students.

We appreciate your providing us the opportunity to hear the thoughts and concerns of your students. This was truly valuable for gaining an understanding of what the younger generation values in their existing environment, as well as what they look forward to in the future. I hope our response letters provide useful information to the students' personal questions, and will serve as an educational tool to provide insight into the State's environmental review process, empowering each student to know that their voice matters and can be used to make a difference in the world.

Thank you again for this opportunity,

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED  
  
Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA  
  
Ralph E. Portmore, AICP  
Of Counsel

Mrs Panglao  
Science class  
P.O. Box 100  
Punaluu HI 9677  
January, 17, 2006

Alfred Benjamin  
Sea Mountain Five, LLC  
433 North Camden Ave  
Suite 1070 Beverly Hills CA 90210

Ref: Punaluu development project

Dear sir / madam

Hi or Hello, the reason that I'm writing this letter to you because I have some question to ask you, about the development.

- 1 how you going to built Hotel at punalu'u when it's so small?
- 2 Are you going to safe the turtle at the ocean, and keep the ocean clean?
- 3 Is punalu'u going to be safe when you built Hotel?
- 4 Is there going to be room for school Bus at the road when you built the Hotels?

Sincerely: Alfred Benjamin



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Alfred Benjamin  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Benjamin,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I would like to address your concerns about building a hotel, keeping the turtles safe, keeping the ocean clean, keeping the community safe and about bus access to the project. These are all very important issues for the community and I hope that I can help by sharing more about the Sea Mountain planning process.

Your first question asked how we are going to build a hotel at Punalu'u because it is small. The whole project site is actually very large and is over 400 acres. A hotel would only take up a small portion of the project site. There will be room for hotels, houses, a golf course, a beach park and more. Most of our facilities, including the hotel, will be built more than 300 feet from the ocean and will not directly impact the ocean.

You also asked how we would keep the turtles safe. The turtles are part of what makes Sea Mountain a special place and new residents and visitors to Sea Mountain will want to see them. Your concern about this is very valid because visitors may not know how to respect the turtles and their habitat.

You may already know that we are preparing an Environmental Impact Statement (EIS) that evaluates how the new development may affect the environment positively and negatively. If any negative changes are anticipated, we recommend mitigation measures in the EIS, or, ways to prevent those negative changes from happening.

In the EIS we looked seriously at the need to protect the turtles. Another issue that comes into play is the desire to maintain access to the shoreline areas for local people and visitors to enjoy. Ideally, to protect the turtles, it would be best to prohibit humans from getting too close by fencing off the areas where the turtles go, but this would prevent access. What we felt would be the best way to address

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

both turtle protection and shoreline access, is to have a strong educational system regarding the turtles. This would include an educational program at the hotel where visitors would learn about respecting turtles, plus signs on the beach that give directions such as do not touch or feed the turtles. This way, although more people would visit the beach area, they would hopefully be “smart” visitors that are aware of the special needs of the turtles and want to help preserve them.

With regard to keeping the ocean clean, we are trying to address the issue of ocean water quality and cleanliness very thoroughly in the EIS. To evaluate ocean water quality properly a marine environment report was prepared by a marine biologist and a surface water quality assessment was prepared by an engineering firm. These studies evaluated the different ways that pollutants could reach the ocean, such as through golf course fertilization or construction runoff. The project will follow the mitigation measures recommended in these studies to prevent pollutants from reaching the ocean.

The new community will have its own security program to protect residents, visitors and guests to the community. We hope it will be a very safe and welcoming place for everyone.

The project has also been designed to include road improvements so there will be plenty of room for school busses and trucks on the roads and new intersections within the development and on the highway.

I’m very glad to hear of your concern for the project and how it will impact your community. It is because of the concern that community members like yourself have for the Sea Mountain area and your willingness to share your values and thoughts with us in letters, that we are better able to create a project that meets the expectations of the community and preserves Punaluu’s unique environmental resources.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



George I. Atta, AICP  
Principal

Mrs. Pauline J  
Science Class  
PO Box 100  
Hahala, HI 96777

Dear: Madam

01-17-06

Sea Mountain Five, LLC  
433 North Comedian Ave  
Suite 1070 Beverly Hills CA  
90210

hello, my name is Born David,  
I came from Marshall Island, I write  
because I will tell you some question,  
Why your company like to build hotel  
in here, I think is good to build the  
hotel in Punaluu's, and ocean view. Because  
the house can sleep over and which  
the ocean, so I can work at the hotel.

Sincerely : Born David  
Kauai high student.



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Born David  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Dear Mr. David,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain  
Environmental Impact Statement Notice of Preparation.

Thank you for your positive words regarding the proposed Sea Mountain project  
including the construction of the hotel(s) in a place where visitors can appreciate  
the beauty of Punalu'u. Part of the benefit of this project is that hotel jobs would  
be brought to Ka'u. I hope that the Sea Mountain project will be able to provide  
the opportunities you are looking for. Thank you again for your letter and taking  
the time to share your thoughts with us.

Your comment letter will be included in the Draft EIS. We appreciate your  
participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Dear Sir/Madam

I am Bree-Ani Velez I am a science student at Kau high, Hawaii. In class we have been talking about the upcoming development of the punalu'u site. We also talked about what we thought about the development. So I have some questions I was hoping you could answer.

- 1) Are you going to protect and preserve burial sites and heiau also known as shrines?
- 2) Will you donate land and money to make our schools better for the upcoming students?
- 3) Will the condos or homes be affordable for the residents that already live in Ka'u?
- 4) What are you going to do about the sewage?

I hope you can answer these questions for me.

sincerely Kau High

Bree-Ani Velez



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Bree-Ani Velez  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. Velez,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your concern for Punalu'u and the impacts that may be caused by development there. In your letter, you asked about protecting cultural sites, bettering the school system, affordable housing and sewage. I will do my best to try and respond to your concerns.

As you said in your letter, there are many cultural and archaeological resources on the site including burials and heiau. It is the intention of the developers to preserve and protect these resources. The natural and cultural resources are the things that make Sea Mountain special, and a place that people want to visit. The proposed project would preserve the important cultural sites and coastal areas so these resources will be available for generations to come.

Regarding the school system, there are currently no legal requirements for the developers to contribute fair share contributions to the school system. However, the developers want to help the school system and are currently developing a benefits package that includes the school as potential beneficiaries of a community trust. The details and amounts are currently being discussed and detailed.

On the subject of affordable housing, the County of Hawai'i has an adopted affordable housing policy that all new rezonings and hotel uses are subject to (per Section 11-4 Ordinance No. 0523 amending Chapter 11 Hawai'i County Code). There are two different affordable housing issues that relate to the two areas of the project site, one above the highway (mauka) and one below the highway (makai).

In the mauka portion of the site, the issue is zoning. According to Hawaii County, if an area is rezoned, then the project must provide 20% of the total homes on the rezoned portion at an affordable price. In order to build houses above the highway, the developer would need to apply to the County for a Rezoning from

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Agriculture (A-20a) to Residential uses. If the rezoning is accepted, then the developer would provide affordable housing there (or at an acceptable off-site location). If the developer pursues rezoning, they may provide up to 55 affordable units. If the developer decides not to rezone the mauka portion, then there would be no affordable housing requirement.

Below the highway the Sea Mountain project site is already zoned for residential and resort uses, and would not require rezoning. This area would be subject to a different section of the Hawaii County affordable housing policy that requires hotel uses generating more than 100 employees to provide one affordable housing unit for every four jobs created. If the hotels generate 300 full-time jobs, then 75 affordable housing units must be provided on-site, or at an acceptable off-site location. All affordable housing provisions will be carefully negotiated with Hawaii County.

Finally, pertaining to sewage disposal, there is currently a wastewater treatment plant and disposal system on the site serving the Colony I and Kalana I residents. This system is very old. The proposed project would actually improve the sewage situation by providing a brand new wastewater treatment system to serve all the existing and future homes. The new system would provide cleaner water and would be maintained to prevent leaking. With this in mind, the new development would actually help protect the coastal environment, including the fish and turtles.

Thank you for taking the time to share your questions with us. We are really trying to listen to the community, and through the planning process we are trying to protect the cultural and natural resources that make Punalu'u special. We hope to create a project that balances the wishes of the community and expectations of the developer while honoring the place of Punalu'u and the region of Ka'u.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



George I. Atta, AICP  
Principal

Student of ka'u High

Mrs. Panglao  
Science class  
Cameron Silva  
P.O. Box 100  
Pahala, Hi  
96777

Date /1/17/06

Sea Mountain Five, LLC  
433 North Camden Ave  
Suite 1070 Beverly Hills CA  
90210

Ref: Punalu'u development project  
Dear Sir/madam

I am a science student at ka'u High. We have been talking about the upcoming development of the Punalu'u site. The questions that I have about this project are:

- ①. Why do you want to build on Punalu'u?
- ②. Why do outsiders have to change Hawaii so much?

The reason why I am concerned is because, Punalu'u is changing every year.

Sincerely, Cameron Silva



GROUP 70  
INTERNATIONAL

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Date

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Cameron Silva  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Dear Mr. Silva,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain  
Environmental Impact Statement Notice of Preparation.

Your questions regarding the Sea Mountain development are very good ones. You asked why the developers want to build at Punalu'u and why outsiders want to change Hawai'i. Regarding the first question, people cannot build homes and hotels just anywhere. The land first needs to be "zoned" for building homes and hotels, meaning, the County of Hawaii's zoning maps must specify that residential and resort buildings can be built in the area. Punalu'u is zoned for residential and resort uses, and it is the only place in Ka'u that is zoned for these buildings. Another factor that makes the Sea Mountain site a preferred site for this, is that it has already has a golf course, condominiums, a sewer system, wells and single-family homes built on it. Pristine land would not be used to construct this project, but land that has already been changed by development.

With regard to your question about outsiders changing Hawai'i, there are no easy answers, but a variety of factors. Many people all over the world love Hawaii and want to live here. Some see economic opportunities in buying land or building homes, and some see ways to provide more homes and jobs for communities that need them. We hope that the Sea Mountain project would help to improve this unique areaby providing jobs, homes and opportunities for the people of Ka'u.

Thank you again for taking the time to share your questions with us in your letter. Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Mrs. Panglaos Science Class  
Cecily Sanchez  
PO Box 100  
Pahala, HI 96777

1/19/06

Sea Mountain Five, LLC  
433 N. Camden Ave.  
Ste 1070 Beverly Hills CA  
90210

ref: Punalu'u Development project

~~Dear~~ Sir/Madam

I am a science student at Kau  
Hight. We have been talking about  
the upcoming development of the  
Punalu'u site. The questions that  
I have about this project is  
Why do you want the land  
and why do you want to make your  
land look like that.

Cecily Sanchez

Kau Student



GROUP 70  
INTERNATIONAL

June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Cecily Sanchez  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement  
Preparation Notice

Dear Ms. Sanchez,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your heartfelt concern for Punalu'u and the impacts that may be caused by development there. In your letter, you asked why the developers want to develop this particular land and why we want to make it look bad.

In an attempt to explain why this particular land is proposed for development, I will share a few major factors why Punalu'u is a logical place for developers to pursue. First of all, developers cannot build homes and hotels just anywhere. The land first needs to be "zoned" for building homes and hotels by the County, meaning, the County of Hawaii's zoning maps must specify that residential and resort buildings can be built in the area. Hawaii County designated the lands at Punalu'u for residential, commercial and resort uses, and it is the only place in Ka'u that is zoned for this type of development. Another factor that makes the Sea Mountain site a preferred site, is that it has already been "developed." It has a golf course, condominiums, a sewer system, wells and single-family homes built on it. Pristine land would not be used to construct this project, but land that has already been changed by development. This answer is not intended to change your perspective, but I at least wanted to explain "why."

Thank you for taking the time to share with us. We do not think we are making the land look bad. We will protect the natural look of the coast and hope to build a beautiful community in the mauka areas. We are really trying to listen to the community, and through the planning process we are trying to protect the cultural and natural resources that make Punalu'u special. We hope to create a project that balances the wishes of the community and expectations of the developer while honoring the place of Punalu'u and the region of Ka'u.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

11/19/06  
Science class Room  
Chelsea Domingo  
P.O. Box 100 Palmdale HI 96777

Sea Mountain Fivette  
433 North Camden  
Ave Suite 1070  
Beverly Hills CA  
90210

I am a science student at Karu High. We have been talking about the upcoming development of the Punauiy site. The questions that I have about this project are:  
Why cant they leave our beach the way it is?  
Aint there another place they could make better?

Sincerely,  
Chelsea Domingo



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Chelsea Domingo  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. Domingo,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your heartfelt concern for Punalu'u and the impacts that may be caused by development there. In your letter, you asked why can't the beach stay the way it is, and why the developers want to develop this particular land.

As you know, there is a wild natural beauty that is unique to Punalu'u. It is the intention of the developers to preserve and protect the beauty of Punalu'u. The natural and cultural resources are the things that make Sea Mountain special, and a place that people want to visit. The proposed project would preserve the coastal areas and important cultural sites so these resources will be available for generations to come. No construction would occur in the coastal area and special care would be taken to re-introduce native plants, protect the turtles and prevent beach erosion.

In an attempt to explain why this particular land is proposed for development, I will share a few major factors why Punalu'u is a logical place for developers to pursue. First of all, developers cannot build homes and hotels just anywhere. The land first needs to be "zoned" for building homes and hotels by the County, meaning, the County of Hawaii's zoning maps must specify that residential and resort buildings can be built in the area. Hawaii County designated the lands at Punalu'u for residential, commercial and resort uses, and it is the only place in Ka'u that is zoned for this type of development. Another factor that makes the Sea Mountain site a preferred site, is that it has already been "developed." It has a golf course, condominiums, a sewer system, wells and single-family homes built on it. Pristine land would not be used to construct this project, but land that has already been changed by development. This answer is not intended to change your perspective, but I at least wanted to explain "why."

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Thank you for taking the time to share with us. We are really trying to listen to the community, and through the planning process we are trying to protect the cultural and natural resources that make Punalu'u special. We hope to create a project that balances the wishes of the community and expectations of the developer while honoring the place of Punalu'u and the region of Ka'u.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Mrs. Pangos Scienc class  
Cotton TAVARES  
PO Box  
Pahoa HI  
96777

January 19, 2006

Sea Mountain Five, LLC  
433 North Camden Ave  
Suite 1070 Beverly Hills CA  
90210

Dear sir/madam

I am a student from KAU high school,  
and we been talking about the upcoming  
development of the Punaluu site. The  
question I have for you are,

1. If you are going to build a hotel on the  
beach how would you keep the turtles away  
because the lights would make the turtles  
nest there and then all poor.
2. Another is if you are having houses  
where is the sub pip going if you put it  
in the water it would kill all the fish and  
pollute the fish that we eat
3. One last question is are you guys going  
to improve the hospital. I'm asking this because the



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Colton Tavares  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Tavares,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your concern for Punalu'u and the impacts that may be caused by development there. In your letter, you asked three questions concerning the turtles, sewage disposal and the hospital. These are excellent questions.

You may already know that we are preparing an Environmental Impact Statement (EIS) that evaluates how the new development may affect the environment positively and negatively. If any negative changes are anticipated, we recommend mitigation measures in the EIS, or, ways to prevent those negative changes from happening.

Regarding the turtles, it is true that excess lighting can cause turtles to crawl toward the light and not toward the ocean. The planned hotels and homes would be set back away from the beach area and will include downward casting, low-intensity lighting so as not to throw light toward the sensitive coastal area. Protecting the turtles will be a top priority as the project is designed.

We looked seriously at the need to protect the turtles in the EIS. Ideally, to protect the turtles, it would be best to prohibit humans from getting too close by fencing off the areas where the turtles go, but this would prevent public access to those areas. We want to maintain access to the shoreline areas for local people and visitors to enjoy. What we felt would be the best way to address both turtle protection and shoreline access, is to have a strong educational system regarding the turtles. This would include an educational program at the hotel where visitors would learn about respecting turtles, plus signs on the beach that give directions such as do not touch or feed the turtles. This way, although more people would visit the beach area, they would hopefully be "smart" visitors that are aware of the special needs of the turtles and want to help preserve them.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA  
Ralph E. Portmore, AICP  
Of Counsel

Pertaining to sewage disposal, there is currently a wastewater treatment plant and disposal system on the site serving the Colony I and Kalana I residents. This system is very old. The proposed project would actually improve the sewage situation by providing a brand new wastewater treatment system to serve all the existing and future homes. The new system would provide cleaner water and would be maintained to prevent leaking. With this in mind, the new development would actually help protect the coastal environment, including the fish and turtles.

You also mentioned a question regarding the hospital. The developers are currently exploring ways to assist in the improvement of the hospital. They will continue to discuss this issue with the hospital and the community until an appropriate compensation is decided upon.

Thank you again for taking the time to share with us. It is because of the concern that community members like yourself have for the Sea Mountain area and your willingness to share your values and thoughts with us in letters, that we are better able to create a project that meets the expectations of the community and preserves Punalu'u's unique environmental resources.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Mrs. Panglao's Science class  
Malia Hooper  
Po box 100 Pahala HI 96777

Jan. 19, 06

Sea Mountain Five, LLC  
443 North Camden Ave  
Suite 1070 Beverly Hills  
CA 90210.

Ref. Punalu'u development project.

Dear Sr/Madam  
I am a student at Ka'u High. We have been talking about the upcoming development, of the Punalu'u site. I have some questions that I would like to ask. Where are you going to get the water from? We already have problems with our water situation and you guys want to bring more people it will only make it harder for us. I grew up here and I don't want to see Ka'u turn into another Kona or Hilo. Keep Ka'u Country! There's not many places you can go and it's still country. Why do

from us. My Family Grew up there where you guys are planning on building. My Family is the Hanoa's. you take this from us Build houses and expect people not to be Mad. You building on this land is like us building over your Family Cemetarys. My Great grandparents are buried up there. And many More Family Members. It would Hurt alot of people to see a beautiful Mountain side turn into a town where only they see a view. You will No longer be able to drive past and see the ocean and the side of a beautiful mountain. There will be more drugs. We dont Need this. it Make problems you are bringing.

Sincerely  
Malia Hooper



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Gabrielle Malia Hooper ('Malia Hooper')  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. Hooper,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your heartfelt concern for Punalu'u and the impacts that may be caused by development there. In your letter, you asked a question about water and expressed your desire to preserve the rural character of the Ka'u area.

First I would like to address your question regarding the use of additional water by the new residents. Currently, residents at Punalu'u get drinking water from on-site wells that tap the groundwater. The EIS will include technical engineering studies that evaluate the existing water source, how much water will be needed by the new development, whether there is enough water to serve the project and what the new water infrastructure system will include (wells, reservoirs, water lines). Your question about water is one that is addressed early in the planning process, prior to building, so that it will not adversely affect existing water resources.

I am sure it is very difficult to imagine houses and hotels on a place that holds so much family history for you. In an attempt to explain why this particular land is proposed for development, I will share a few major factors why Punalu'u is a logical place for developers to pursue. First of all, developers cannot build homes and hotels just anywhere. The land first needs to be "zoned" for building homes and hotels by the County, meaning, the County of Hawaii's zoning maps must specify that residential and resort buildings can be built in the area. Hawaii County designated the lands at Punalu'u for residential, commercial and resort uses a long time ago, and it is the only place in Ka'u that is zoned for this type of development. Another factor that makes the Sea Mountain site a preferred site, is that it has already been "developed." It has a golf course, condominiums, a sewer system, wells and single-family homes built on it. Pristine land would not be used to construct this project, but land that has already been changed by development.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

This answer is not intended to change your perspective, but I at least wanted to explain "why."

Additionally, we will not be building over any graves as all known burial sites and sensitive archaeological areas will be preserved. I would also like to clarify that we are not building any land owned by the Hanoas.

Thank you again for taking the time to share with us. We are really trying to listen to the community, and through the planning process we are trying to protect the cultural and natural resources that make Punalu'u special. We hope to create a project that balances the wishes of the community and expectations of the developer while honoring the place of Punalu'u and the region of Ka'u.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Mrs. Pangloss's Science class

James

Box 100

Pahala HI, 96772

Sea Mountain Five LLC 4133 North Camden Ave  
Suite 1070 Beverly Hill CA 90210.

Re: Punaluu development project.

Dear Sir (or madam)

I am a science student at Kala High. We have been talking about the upcoming development of the Punaluu site. The questions that I have about this project are:

- 1) Will there be affordable houses for the people of Kala?
- 2) Will there be more jobs for the people of Kala?

Sincerely

James

Student



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Grant Oyama ('James')  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Oyama ('James'),

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I would like to address your questions concerning affordable housing and jobs for the people of Ka'u. These are very important issues for the community.

Regarding affordable housing, the County of Hawai'i has an adopted affordable housing policy that all new rezonings and hotel uses are subject to (per Section 11-4 Ordinance No. 0523 amending Chapter 11 Hawai'i County Code). There are two different affordable housing issues that relate to the two areas of the project site, one above the highway (mauka) and one below the highway (makai).

In the mauka portion of the site, the issue is zoning. According to Hawaii County, if an area is rezoned, then the project must provide 20% of the total homes on the rezoned portion at an affordable price. In order to build houses above the highway, the developer would need to apply to the County for a Rezoning from Agriculture (A-20a) to Residential uses. If the rezoning is accepted, then the developer would provide affordable housing there (or at an acceptable off-site location). If the developer pursues rezoning, they may provide up to 55 affordable units. If the developer decides not to rezone the mauka portion, then there would be no affordable housing requirement.

Below the highway the Sea Mountain project site is already zoned for residential and resort uses, and would not require rezoning. This area would be subject to a different section of the Hawaii County affordable housing policy that requires hotel uses generating more than 100 employees to provide one affordable housing unit for every four jobs created. If the hotels generate 300 full-time jobs, then 75 affordable housing units must be provided on-site, or at an acceptable off-site location.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

All affordable housing provision will be carefully negotiated with Hawaii County.

In terms of jobs, the project would bring many job opportunities to Ka'u. A technical study on economic impacts to the Ka'u region indicates that construction activities on the site will generate on-going construction jobs for a period of ten years, while, once the project is constructed, 517 permanent jobs will be created in association with hotel and commercial activities.

Thank you for taking the time to write to us. Your concern for the economic well-being of the community is appreciated.

I hope this helped address your questions. Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink that reads "George I. Atta". The signature is written in a cursive, flowing style.

George I. Atta, AICP  
Principal

Hi'ilani Ka'awa  
P.o. Box 478  
Na'alehu HI,  
96772

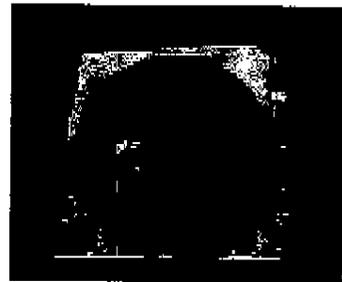
Sea Mountain Five, LLC  
433 North Camden Ave.  
Suite 1070 Beverly Hills CA.  
90210

This is a letter that concerns the development at Sea Mountain at Punalu'u .

Dear Sea Mountain Five LLC,

My name is Hi'ilani Ka'awa and I am a senior of Ka'u High School. I know that you probably don't care about what I think when it comes to the development that you are doing down at Sea Mountain at Punalu'u, but, I feel that you are stealing the land out from right under us. Legally, yes, it is your land, but, have you no sympathy to the turtles? Did you know that there are less then 100 female Hawaiian Hawksbill turtles left in the world! If you build across the street from Punalu'u, chances are those turtles that are born down at Punalu'u will become road kill. What I am trying to say is if they see your lights before they see the moonlight, they will go towards your lights instead of going to the moonlight. If they are not protected, they will become extinct. On the other hand, there is still the Green Sea Turtles that are not endangered, but, are threatened. This is just one out of the many concerns about your development happening above the Punalu'u Black Sand Beach. I hope that you re-consider building your resorts and homes on our land, which is rightfully yours. Thank you for your time. Take care and God Bless you dearly

Sincerely,  
Hi'ilani Ka'awa





June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Hi'ilani Lipe Ka'awa ('Hi'ilani Ka'awa)  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. Ka'awa,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your commitment and passion for Punalu'u and the impacts that may be caused by development there. In your letter, you expressed concern for the Hawksbill and Green Sea turtles that nest at Punalu'u beach.

You may already know that we are preparing an Environmental Impact Statement (EIS) that evaluates how the new development may affect the environment positively and negatively. If any negative changes are anticipated, we recommend mitigation measures in the EIS, or, ways to prevent those negative changes from happening.

While Hawksbills are more endangered, your numbers are inaccurate. You should check your numbers with the U.S. Fish and Wildlife Service and understand the range and members. Our project should have no impact on these turtles.

We looked seriously at the need to protect the turtles in the EIS. Ideally, to protect the turtles, it would be best to prohibit humans from getting too close by fencing off the areas where the turtles go, but this would prevent public access to those areas. We want to maintain access to the shoreline areas for local people and visitors to enjoy. What we felt would be the best way to address both turtle protection and shoreline access, is to have a strong educational system regarding the turtles. This would include an educational program at the hotel where visitors would learn about respecting turtles, plus signs on the beach that give directions such as do not touch or feed the turtles. This way, although more people would visit the beach area, they would hopefully be "smart" visitors that are aware of the special needs of the turtles and want to help preserve them.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

It is true that excess lighting can cause turtles to crawl toward the light and not toward the ocean. However, the planned hotels and residences would be set back away from the beach area and will include downward casting, low-intensity lighting so as not to throw light toward the sensitive coastal area. Roadways are also not planned for the coastal vicinity. We hope to set them back farther from where the existing roads are now.

I respect your opinion that Punalu'u should not be developed. If it is, we anticipate it will bring a myriad of benefits to the community that will help to solve problems, not make them worse. We are trying to create a project that balances the expectations of the developer and the wishes of the community, while honoring the place of Punalu'u and the region of Ka'u.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Mrs. Panglao's Science Class

John M. Pimentel

P.O. Box 100

Pahala HI, 96777

January 17, 2006

Sea Mountain Five, LLC

North Camden Ave

Suite 1070 Beverly Hills CA, 90210

Ref: Punaluu Development Project

Dear Sir/Madam,

I am a student at Kau High. We have been talking about the upcoming development of the Punaluu site. The questions that I have about this project are:

1. Will there be more jobs for the resident of Kau?
2. Is there affordable houses to buy in Kau?

The reason I am concerned are that there are not very many jobs or affordable houses in Kau and I hope that the development will solve some of these problems.

Sincerely,

John M. Pimentel

(Kau High Science Student)



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: John M. Pimentel  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Pimentel,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

I appreciate your concern for the lack of jobs and affordable houses in Ka'u. We are hoping that this project would provide the homes and jobs that are needed in Ka'u right now.

To answer your questions, yes, the project would bring many job opportunities to Ka'u associated with construction activities, hotel and commercial activities. A technical study on economic impacts to the Ka'u region indicates that construction activities on the site will generate on-going construction jobs for a period of ten years, while, once the project is constructed, 517 permanent jobs will be created in association with hotel and commercial activities.

Regarding affordable housing, the County of Hawai'i has an adopted affordable housing policy that all new rezonings and hotel uses are subject to (per Section 11-4 Ordinance No. 0523 amending Chapter 11 Hawai'i County Code). There are two different affordable housing issues that relate to the two areas of the project site, one above the highway (mauka) and one below the highway (makai).

In the mauka portion of the site, the issue is zoning. According to Hawaii County, if an area is rezoned, then the project must provide 20% of the total homes on the rezoned portion at an affordable price. In order to build houses above the highway, the developer would need to apply to the County for a Rezoning from Agriculture (A-20a) to Residential uses. If the rezoning is accepted, then the developer would provide affordable housing there (or at an acceptable off-site location). If the developer pursues rezoning, they may provide up to 55 affordable units. If the developer decides not to rezone the mauka portion, then there would be no affordable housing requirement.

Ralph E. Portmore, AICP  
Of Counsel

Below the highway the Sea Mountain project site is already zoned for residential and resort uses, and would not require rezoning. This area would be subject to a different section of the Hawaii County affordable housing policy that requires hotel uses generating more than 100 employees to provide one affordable housing unit for every four jobs created. If the hotels generate 300 full-time jobs, then 75 affordable housing units must be provided on-site, or at an acceptable off-site location.

All affordable housing provision will be carefully negotiated with Hawaii County.

We hope that this project will be a response to community members like yourself that are concerned about the economic future of Ka'u. Thank you for taking the time to share your thoughts with us.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Jaylind David  
Mrs. Panglaus Science class.  
P.O. Box 100  
Pahala, HI 96777.  
Jan, 17, 2006

Sea Mountain Five, LLC  
433 North Camden Ave  
Suite 1070 Beverly Hills CA 90210

Ref: Punaluu development project.

Dear Sir/Madam:

I am a science student at Kau High.  
Our class been talking about your  
proposed ideas for developing the  
land at Punaluu. I have some  
questions:

- 1) What would you do to give the  
ocean clean?
- 2) What would you do to make the  
road safe?
- 3) How would you find the water  
~~can~~ for your hotel, homes,  
and golf course?



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Joylina David  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. David,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your concerns for a clean ocean, safe roads and enough water for the project. These are all very good questions and important issues for a healthy and safe community.

You may already know that we are preparing an Environmental Impact Statement (EIS) that evaluates how the new development may affect the environment positively and negatively. If any negative changes are anticipated, we recommend mitigation measures in the EIS, or, ways to prevent those negative changes from happening.

In the EIS we are trying to address the issue of ocean water quality and cleanliness very thoroughly. To evaluate ocean water quality properly a marine environment report was prepared by a marine biologist and a surface water quality assessment was prepared by an engineering firm. These studies evaluated the different ways that pollutants could reach the ocean, such as through golf course fertilization or construction runoff. Good golf course management practices will reduce the use of chemicals. The project will also follow the mitigation measures recommended in these studies to prevent pollutants from reaching the ocean.

Regarding the safety of roads, there will be additional traffic created by new residents in the project area. The potential traffic impacts were evaluated in a traffic report written by a traffic engineer. Because there is very little traffic in the project area, the additional traffic will not create unsafe traffic conditions. The traffic report recommends mitigation measures such as adding turning lanes for safer turning movements. The project will follow the recommendations of the traffic study to make sure the traffic can move safely about in the project area. We are hoping that with the provision of up to 517 permanent jobs on the project site,

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA  
Ralph E. Portmore, AICP  
Of Counsel

less people in Ka'u will have to drive the long and dangerous to commute to Hilo and Kona to work. This would definitely improve traffic safety.

You also questioned where the additional water would come from for the hotel, homes and golf course. Water for the project site would be obtained from underground water sources through wells. The EIS will include technical engineering studies that evaluate where the water will come from, how much water will be needed by the new development, whether there is enough water to serve the project and what the new water infrastructure system will include (wells, reservoirs, water lines). Your question about water is one that is addressed early in the planning process, prior to building, so that it will not adversely affect existing water resources.

Thank you for your concern regarding these important issues and for taking the time to write us a letter. It is because of your input like yours that we are better able to understand the concerns of the community and hopefully meet your expectations.

I hope I have been able to answer your questions. Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Mrs. Panglao's  
Science Class  
Ka'eo Pascubillo  
P.O. Box 100  
Pahala HI 96777

January 19, 2004

Sea Mountain Five, LLC  
433 North Camden Ave  
Suite 1070 Beverly Hills, CA  
90210

Dear Sir/Madam

I'm a student of Ka'u High school. We have been talking about the upcoming development of Punaluu site. The questions that I have about this project are:

Where are you going to build the houses at Punaluu, and would it cause any trouble to the sea turtles.

Where would the sewage pipes be built, would the sewage waste be flushed into the water.

Could the street lights affect the turtles or the new birth turtles.



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Ka'eo Pascubillo  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Pascubillo,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your concern for Punalu'u and the impacts that may be caused by development there. In your letter, you asked three questions concerning the turtles, sewage disposal and the hospital. These are excellent questions.

You may already know that we are preparing an Environmental Impact Statement (EIS) that evaluates how the new development may affect the environment positively or negatively. If any negative changes are anticipated, we recommend mitigation measures in the EIS, or, ways to prevent those negative changes from happening.

We looked seriously at the need to protect the turtles in the EIS. Ideally, to protect the turtles, it would be best to prohibit humans from getting too close by fencing off the areas where the turtles go, but this would prevent public access to those areas. We want to maintain access to the shoreline areas for local people and visitors to enjoy. What we felt would be the best way to address both turtle protection and shoreline access, is to have a strong educational system regarding the turtles. This would include an educational program at the hotel where visitors would learn about respecting turtles, plus signs on the beach that give directions such as do not touch or feed the turtles. This way, although more people would visit the beach area, they would hopefully be "smart" visitors that are aware of the special needs of the turtles and want to help preserve them. It is true that excess lighting can cause turtles to crawl toward the light and not toward the ocean. The planned hotels and residences would be set back away from the beach area and will include downward casting, low-intensity lighting so as not to throw light toward the sensitive coastal area.

Pertaining to sewage disposal, there is currently a wastewater treatment plant and disposal system on the site serving the Colony I and Kalana I residents. This

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

system is very old. The system does not discharge directly into the ocean. However, the system leaks and we are not sure where the leaks are or if any leakage reaches the ocean. The proposed project would actually improve the sewage situation by providing a brand new wastewater treatment system to serve all the existing and future homes. The new system would provide cleaner treated water and would be maintained to prevent leaking. The treated water would then be applied to the golf course for irrigation. With this in mind, the new development would actually help protect the coastal environment and the turtles.

Thank you again for taking the time to share with us. It is because of the concern that community members like yourself have for the Sea Mountain area and your willingness to share your values and thoughts with us in letters, that we are better able to create a project that meets the expectations of the community and preserves Punalu'u's unique environmental resources.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Kapuahiilani Lapera  
P.O. Box 100  
Pahala, HI. 96777

Mrs. Kinglao's  
Science Class

January 19, 2006

Sea Mountain Five, LLC  
433 North Camden Ave.  
Suite 1070 Beverly Hills CA 90210

Re: Punaluu Development Project.

Dear Sir/Madam,

I am a science student at Kau High. We have been talking about the upcoming development of the Punaluu site. The questions that I have about this project are:  
What would happen to our turtles? How would the natural beauty be affected? How would the infrastructure benefit the community? If we were to have stage development, where would you get the water? Would development better the economy? Would it help the drug problems in the area? How would it better the schools?

The reasons I am concerned are, many people don't want to have development, including me. I've lived here since I was two years old, and I've always loved the natural beauty of Kau. Every time we had to talk about the development in Kau, I had doubts about why we should develop Kau. I had a hard time because that's going against what I believe in, and I don't see much benefit towards the community and environment.



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Kapuahi'ilani Lapera  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

**Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice**

Dear Ms. Lapera,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

I appreciate your heartfelt concern for Punalu'u and the impacts that may be caused by development there. In your letter, you asked about turtles, natural beauty, infrastructure and community benefits, sewage, water, drug problems and schools. I will do my best to try and respond to your concerns.

Regarding the turtles, we looked seriously at the need to protect the turtles in the Environmental Impact Statement (EIS). Ideally, to protect the turtles, it would be best to prohibit humans from getting too close by fencing off the areas where the turtles go, but this would prevent public access to those areas. We want to maintain access to the shoreline areas for local people and visitors to enjoy. What we felt would be the best way to address both turtle protection and shoreline access, is to have a strong educational system regarding the turtles. This would include an educational program at the hotel where visitors would learn about respecting turtles, plus signs on the beach that give directions such as do not touch or feed the turtles. This way, although more people would visit the beach area, they would hopefully be "smart" visitors that are aware of the special needs of the turtles and want to help preserve them. Our hotel security and maintenance people will also be trained to help protect the turtles.

As you said in your letter, there is a wild natural beauty that is unique to Punalu'u, along with many cultural resources on the site. It is not the intention of the developers to ruin the beauty of Punalu'u. The natural and cultural resources are the things that make Sea Mountain special, and a place that people want to visit. The proposed project would preserve the coastal areas and important cultural sites so these resources will be available for generations to come.

New infrastructure would be necessary for the new development. The existing sewage and potable (drinking) water systems are in need of repair. The

Ralph E. Portmore, AICP  
Of Counsel

construction of the project would benefit the existing homeowners at Sea Mountain by providing the improved infrastructure system. Otherwise, the high cost of improving the water and sewer systems would fall to a handful of owners.

Pertaining to sewage disposal, there is currently a wastewater treatment plant and disposal system on the site serving the Colony I and Kalana I residents. This system is very old. The proposed project would actually improve the sewage situation by providing a brand new wastewater treatment system to serve all the existing and future homes. The new system would provide cleaner water and would be maintained to prevent leaking. With this in mind, the new development would actually help protect the coastal environment, including the fish and turtles.

Drinking water at Sea Mountain currently comes from on-site wells that tap the groundwater. The EIS will include technical engineering studies that evaluate the existing water source, how much water will be needed by the new development, whether there is enough water to serve the project and what the new water infrastructure system will include (wells, reservoirs, water lines). Water issues are addressed early in the planning process, prior to building, so that it will not adversely affect existing water resources.

We anticipate that the project would have a positive impact on the economy. The project would bring many job opportunities to Ka'u associated with construction activities, hotel and commercial activities. A technical study on economic impacts to the Ka'u region indicates that construction activities on the site will generate on-going construction jobs for a period of ten years, while, once the project is constructed, 517 permanent jobs will be created in association with hotel and commercial activities.

It is true that development will bring more people to the area. We cannot say for sure that it would help the problem with drugs, but we are hoping that the additional jobs and opportunities the project would bring would help in decreasing it.

Regarding the school system, there are currently no legal requirements for the developers to make fair share contributions to the school system. The developers want to help the school system and are currently developing a benefits package that includes the school as potential beneficiaries of a community trust. The details and amounts are currently being discussed and detailed.

I respect your opinion that Punalu'u should not be developed. We plan to preserve the coastal area and develop the rest of the area in a beautiful and sensitive way. If it is, we anticipate it will bring a myriad of benefits to the community that will help to solve problems, not make them worse. We are trying to create a project that balances the expectations of the developer and the wishes of the community, while honoring the place of Punalu'u and the region of Ka'u.

Thank you very much for taking the time to share your thoughts with us. It was a pleasure to learn about your values and perspectives on the development in a well-crafted, thoughtful letter.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in black ink that reads "George I. Atta". The signature is written in a cursive, flowing style.

George I. Atta, AICP  
Principal

Student of Kau high  
ms. Panglao's  
science class  
Kawika Karrahi

P.O Box 100  
Pahala HI  
96777

01/17/06

Sea Mountain five, LLC  
435 North Camden ave.  
Suite 1070 Beverly Hills CA.  
90210

Re: Punaluu development project

↑

Dear sir/madame

Why do you want to develop our Island  
and make it look like the mainland?

Why can't you just leave us alone? ~~we~~ ~~are~~ ~~not~~ ~~going~~ ~~to~~ ~~be~~ ~~developed~~?

I don't think you will want to move here  
because we'll fight you and hate you. (Trust me)

Sincerely Kawika Karrahi  
Student of Kau high.



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Kawika Karratti  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

**Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice**

Dear Mr. Karratti,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I respect your feelings that Ka'u should not be developed. Despite this I would like to try to respond to your questions. In your letter, you questioned why the developers are there. Their hope is that the Sea Mountain project would help to improve this unique place that has been neglected and provide jobs, homes and opportunities for the people of Ka'u.

I appreciate you taking the time to share your feelings with us in your letter. We are trying to listen to concerned community members like yourself and create a project that meets the expectations of the community and preserve the resources that are unique to Ka'u. We assure you that Punalu'u will not look like the mainland. We hope it will look like a newer version of Pahala or Na'alehu.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Kalii

4/17

Keliana Mark-Lewis

Mrs Paulao

Science class

P.O. Box 100

Pahala HI

96777

Date 4/17/06

Company's Name  
& Address

Sea Mountain Five LLC

433 North Camden Ave

Suite 1070 Beverly Hills CA

90210

Dear Sir/Madam

I am a science student at Kailua High

Senior 18 y old My name is Keliana

Mark-Lewis, I think it is really a

good idea for buildings to become

active at penatua but not too much.

We have a small amount already at

penatua, us people don't want penatua

to have a big population about 40%

more would be enough, but I think

your company is doing a good job

on putting amount of people at penatua.

More attractions would occur at

penatua. But problems can occur with

increasing this

*Keliana Mark-Lewis*



GROUP 70  
INTERNATIONAL

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Keli'imana Mark-Lewis  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Dear Mr. Mark-Lewis,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain  
Environmental Impact Statement Notice of Preparation.

Thank you for your positive words concerning development at Punalu'u. You  
wrote that you are concerned about the population at Sea Mountain getting too  
large. It is true that Sea Mountain may end up becoming a whole new village  
within Ka'u, approximately the same size as Pahala. If this does happen, there will  
be components that make it self-sustaining, such as restaurants, stores and a market.

You may already know that we are preparing an Environmental Impact Statement  
(EIS) that evaluates how the new development may affect the environment  
positively and negatively. If any negative changes are anticipated, we recommend  
mitigation measures in the EIS, or, ways to prevent those negative changes from  
happening.

Part of the EIS process is to look at the impact of bringing new residents into an  
area. With more people come more cars on the road, more children in schools,  
more need for police patrol, and many more impacts. We will do our best to make  
sure that the addition of more residents in Ka'u does not create problems for the  
community or the environment.

Thank you very much for taking the time to share your thoughts with us. Your  
comment letter will be included in the Draft EIS. We appreciate your participation  
in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Mrs. Panglady Science class  
Maria Madeira  
P.O. Box 100

Pahala HI, 96777

January 16, 2006

Dear, Sea Mountain Five II-C  
443 North Camden Ave,  
Suite 1070 Beverly Hill CA 90210

Dear, Mr. Beverly Hills,

I am a science student at KAU High school.

We have been talking about the up coming  
development of the Pahala site. The questions

that I have about this project are,

- #1 How are you going to protect our turtles from  
your visitors at your Hotel and pollution to the  
water.... Another question I have is if you care  
about your home, so if you come to our home  
and destroy it, how would you feel if you were  
in my position: The reasons I am concerned are  
that I have lived on this island all my life and  
watched more and more development. It will  
just be hard to see the last untouched place,  
go from country and peace ful, to traffic  
and tourists.

Sincerely, Maria Madeira  
Kau High School,



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Malia Maderia  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. Maderia,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your heartfelt concern for the peaceful place that is your home. In your letter I hear how difficult it has been to see so many places on the island being developed and to fear that the same thing may happen where you live. There are no simple answers for those concerns. Development will continue as long as more people are born. The idea is to create good development, not try to stop it completely because then other negative things will happen, such as crowding. I would like to try and answer your questions about turtles and water pollution.

You asked how we would keep the turtles safe. The turtles are part of what makes Sea Mountain a special place and new residents and visitors to Sea Mountain will want to see them. Your concern about this is very valid because visitors may not know how to respect the turtles and their habitat.

You may already know that we are in the process of preparing an Environmental Impact Statement (EIS) that evaluates how the new development may affect the environment positively and negatively. If any negative changes are anticipated, we recommend mitigation measures in the EIS, or, ways to prevent those negative changes from happening.

In the EIS we looked seriously at the need to protect the turtles. Another issue that comes into play is the desire to maintain access to the shoreline areas for local people and visitors to enjoy. Ideally, to protect the turtles, it would be best to prohibit humans from getting too close by fencing off the areas where the turtles go, but this would prevent access. What we felt would be the best way to address both turtle protection and shoreline access, is to have a strong educational system regarding the turtles. This would include an educational program at the hotel where visitors would learn about respecting turtles, plus signs on the beach that

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

give directions such as do not touch or feed the turtles. This way, although more people would visit the beach area, they would hopefully be “smart” visitors that are aware of the special needs of the turtles and want to help preserve them.

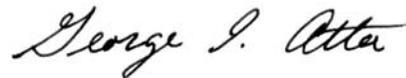
With regard to keeping the ocean clean, we are trying to address the issue of ocean water quality and cleanliness very thoroughly in the EIS. To evaluate ocean water quality properly a marine environment report was prepared by a marine biologist and a surface water quality assessment was prepared by an engineering firm. These studies looked the different ways pollutants reach the ocean, such as through golf course fertilization or construction runoff. The project will follow the mitigation measures recommended in these studies to prevent pollutants from reaching the ocean.

Thank you again for taking the time to share with us. It is through letters like yours that we gain a greater understanding of important issues concerning the project. Your input makes a difference as we try to create a project that meets the expectations of the community and preserve the resources that are unique to Ka’u.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Mrs. Pangolao's

Science class.

Martin Gamboa

P.O. Box 100, Paltan, HI, 96777

01/19/06

Sea Mountain Fine, LLC

433 North Camden Ave.

Suite 1070 Beverly Hills, CA 90210

Re: Punaju development project

Dear Sir & Madam,

I am a science student at Ka'u High school. We have been talking about the upcoming development of the Punaju site. The questions that I have about this project are what will happen to the beach area? What good other than money is this development going to do for the Ka'u area? The reason why I am concerned is because people in this area love it how it is, but if you can convince them that development will benefit them and not just you guys, then we are all ears. Thank you for your time..

Sincerely,

Martin Gamboa

Student in Ka'u High



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Marlyn Gamboa  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. Gamboa,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I really appreciate your letter. It is clear that you are deeply concerned for your community and you have concisely articulated some very difficult questions. Your first question is about the future of the beach area. Our top priority is to preserve the natural beauty of the black sand beach, beach park, ponds and shoreline areas. These areas will be preserved, protected, and beautified with more native plants. No buildings will be constructed in this coastal preserve zone.

Your second question about what social benefits the development will bring besides money, is more complex. The answer I can offer is that we foresee a myriad of social benefits. Yes, Ka'u will change somewhat in that there will be new people, homes, stores, and traffic, but this will bring with it opportunities and jobs in Ka'u. These changes will be clustered around Punalu'u. The sister benefit to economic gain in Ka'u is that the money will provide physical resources for the region such as infrastructure (water and sewer systems), homes, a cultural center where local history and tradition are cherished and shared with interested visitors. Resources will come back to the community, providing opportunities for education, preservation of cultural resources and sharing of important local histories with the greater world community. We envision that the people, culture, land and resources of Ka'u will thrive and be celebrated within the new Sea Mountain community.

Thank you again for taking the time to share your thoughts with us. Your letter helps us gain a greater understanding of what is important to the community. We hope to provide a project that meets the expectations of the community and preserves Punalu'u's unique environmental resources.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

sciences class  
matthew tailon  
P.O. Box 100 Pāhala, HI  
96777

Sea Mountain Five LLC  
433 North Camden  
Ave Suite 1070  
Beverly Hills CA  
90210

Matthew J.  
1/11/2006  
p. 3

I am a sciences student at Kan High School. We have been talking about the upcoming development of the Punalu'u site. The questions that I have about this project are.

① Why are you buying the Punalu'u coast line.

② Why are you harming the Hawaiian culture.

Sincerely  
Matthew Tailon



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Matthew Tailon  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Tailon,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your heartfelt concern for Punalu'u and the impacts that may be caused by development there. In your letter, you asked why the developers are purchasing this particular land and why they are harming Hawaiian culture.

In an attempt to explain why this particular land is proposed for development, I will share a few major factors why Punalu'u is a viable place for developers to pursue. First, it is for sale. Second, developers cannot build homes and hotels just anywhere. The land first needs to be "zoned" for building homes and hotels by the County, meaning, the County of Hawaii's zoning maps must specify that residential and resort buildings can be built in the area. Hawaii County designated the lands at Punalu'u for residential, commercial and resort uses, and it is the only place in Ka'u that is zoned for this type of development. Another factor that makes the Sea Mountain site a preferred site, is that it has already been "developed." It has a golf course, condominiums, a sewer system, wells and single-family homes built on it. Pristine land would not be used to construct this project, but land that has already been changed by development. This answer is not intended to change your perspective, but I at least wanted to explain "why."

We understand that there is a perception that the project will be harming Hawaiian culture. However, that is not the intention of the Sea Mountain project. The natural and cultural resources are the things that make Sea Mountain special, and a place that people want to visit. It is the intention of the developers to preserve and protect the beauty of Punalu'u. The proposed project would preserve the coastal areas and important cultural sites so these resources will be available for generations to come. No construction would occur in the coastal area and special care would be taken to re-introduce native plants, protect the turtles and prevent beach erosion. A cultural center is proposed as a place where Hawaiian culture can flourish and be shared through education, programs, hula,

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

crafts and food. We anticipate Hawaiian culture will be celebrated within the new development.

Thank you for taking the time to share with us. We are really trying to listen to the community, and through the planning process we are trying to protect the cultural and natural resources that make Punalu'u special. We hope to create a project that balances the wishes of the community and expectations of the developer while honoring the place of Punalu'u and the region of Ka'u.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Mrs. Pangloss  
Science Class  
Melissa Graham  
P.O. Box 100 Pahala,  
Hi. 96777

Jan. 19, 06

Sea Mountain Five, LLC  
433 North Camden Ave  
Suite 1070 Beverly Hills CA 90210

Ref. Punalu'u development Project

Dear Sir/Madam,  
I am a Hawaiian student  
attending Ka'u High School. In  
my science class we have been  
talking about the upcoming development  
of the Punalu'u site. The questions  
that I have about this project  
are:

1. How will you get the  
water system.

2. How will the turtles  
be protected with a beach  
full of people. There are  
signs at Punalu'u beach which  
say, stay 15 feet away from the  
turtles. People who come to visit  
don't respect that sign. If you  
develop it's only going to  
cause more people to harm  
our native turtles and their  
nesting grounds.

The reasons I am concerned are

that I am a Hawaiian  
and feel that building  
on land where our ancestors  
are buried is not respecting  
us Hawaiians. I think that  
asking permission to build  
on Hawaiian lands to our  
ancestors would be respectful.

Sincerely,  
Melissa  
Ka'u High student



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Melissa Graham  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. Graham,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your heartfelt concern for Punalu'u and the impacts that may be caused by development there. In your letter, you asked a question about the water system and expressed your concern for the turtles.

First, I would like to address your question on the water system. Currently, residents at Punalu'u get drinking water from on-site wells that tap the groundwater. The EIS will include technical engineering studies that evaluate the existing water source, how much water will be needed by the new development, whether there is enough water to serve the project and what the new water infrastructure system will include (wells, reservoirs, water lines). Water issues are addressed early in the planning process, prior to building, so that the project will not adversely affect the existing water supply.

It is disheartening to hear how people disregard the signs intended to protect the turtles. We will look seriously at the need to protect the turtles in the Environmental Impact Statement (EIS). Ideally, to protect the turtles, it would be best to prohibit humans from getting too close by fencing off the areas where the turtles go, but this would prevent public access to those areas. We want to maintain access to the shoreline areas for local people and visitors to enjoy. What we felt would be the best way to address both turtle protection and shoreline access, is to have a strong educational system regarding the turtles. This would include an educational program at the hotel where visitors would learn about respecting turtles, plus improved signs on the beach, possibly in multiple languages, to reinforce respectful behavior. This way, although more people would visit the beach area, they would hopefully be "smart" visitors that are aware of the special needs of the turtles and want to help preserve them. This, of course, may not solve all the problems. One security and hotel maintenance personnel will also be educated and help in the protection of turtles. If you have

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

any other suggestions on how to protect the turtles, we would be very interested in hearing from you in a subsequent letter.

Thank you for sharing your concern regarding the disrespect of Hawaiian burials. An archaeological inventory report was conducted for the EIS. This report identifies the location of all known burials on the site and gives instructions on how to properly avoid them. The report also gives special protocol on how to handle 'iwi that may accidentally be uncovered during the construction process. We intend to grant all 'iwi full respect through the construction process.

Thank you again for taking the time to share with us. We are really trying to listen to the community, and through the planning process we are trying to protect the cultural and natural resources that make Punalu'u special. We hope to create a project that balances the wishes of the community and expectations of the developer while honoring the place of Punalu'u and the region of Ka'u.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Mrs. Panglao's  
science class  
Joy Bilog  
P.O. Box 100

Fahala Hi  
96777

Sea Mountain Ave, LLC  
433 North Camden Ave  
Suite 1070 Beverly Hills CA  
90210

Dear Sir/Madam

01-17-06

I am a science student at Kau  
high. We have been talking about  
the upcoming development of the  
Punaluu site. The questions  
that I have about this project are

1. Why do we need this? It's already good the  
way it is people love the site  
of Punaluu.
2. What will happen to the turtles if  
the ocean is going to be the  
surge?

Sincerely

Joy Bilog  
Kau cheerleader



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Mhardy Joi Bilog ('Joi Bilog')  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. Bilog,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your heartfelt concern for Punalu'u and the impacts that may be caused by development there. In your letter, you asked why the development is necessary, and about potential sewage impacts on the turtles.

There are many reasons why we anticipate this development being beneficial for the community. We anticipate that the project would have a positive impact on the economy. The project would bring many job opportunities to Ka'u associated with construction activities, hotel and commercial activities. A technical study on economic impacts to the Ka'u region indicates that construction activities on the site will generate on-going construction jobs for a period of ten years, while, once the project is constructed, 517 permanent jobs will be created in association with hotel and commercial activities.

As you said in your letter, people like Punalu'u the way it is. Therefore, it is the intention of the developers to preserve the natural beauty of Punalu'u. The natural and cultural resources are the things that make Sea Mountain special, and a place that people want to visit. The proposed project would preserve the coastal areas and important cultural sites so these resources will be available for generations to come. This is another positive impact of the development.

In addition, there are major problems with the site the way it is now. The old restaurant, cultural center and golf clubhouse are abandoned, the sewage system and water systems are old and in need of repair, and, if no new funding the golf course is found, the golf course would likely be shut down. The new development would make sure all of these things were improved and maintained.

Pertaining to sewage disposal, there is currently a wastewater treatment plant and disposal system on the site serving the Colony I and Kalana I residents. This

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

system is very old. The proposed project would actually improve the sewage situation by providing a brand new wastewater treatment system to serve all the existing and future homes. The new system would provide cleaner water and would be maintained to prevent leaking. With this in mind, the new development would actually help protect the coastal environment, including the fish and turtles.

Thank you very much for taking the time to share your thoughts with us. We are really trying to listen to the community, and through the planning process we are trying to protect the cultural and natural resources that make Punalu'u special. We hope to create a project that balances the wishes of the community and expectations of the developer while honoring the place of Punalu'u and the region of Ka'u.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Natasha Rein

Mrs. Panglao's  
Science Class  
P.O. Box 100  
Pahala, HI.  
96777

Sea Mountain Five, LLC  
433 North Camden Ave.  
Suite 1070 Beverly Hills CA

1-19-06

Dear Sir/Madam

I'm very excited that you are finding new ways to develop Kau and transform it into a better community for the future, but I do have some concerns for instance the turtles with a larger population there will be more people on the beaches leaving less room for the turtles. What will you do about this situation? and what about the water, bringing in more people would mean that the water level will decrease. How will you get more water for us and the new cameras? Thank you for taking your time to read my letter. I hope you take these questions into concern.

Sincerely,

Natasha Rein

Concerned Student of Kau High



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Natasha Rein  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. Rein,

Thank you for your comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation and your general support for good development.

I appreciate your heartfelt concern for how new development would impact the turtle population. The turtles are part of what makes Sea Mountain a special place and new residents and visitors to Sea Mountain will want to see them. Your concern about this is very valid because not everyone will know how to respect the turtles and their habitat.

You may already know that we are preparing an Environmental Impact Statement (EIS) that evaluates how the new development may affect the environment. If any negative changes are anticipated, we recommend mitigation measures in the EIS, or, ways to prevent those negative changes from happening.

In the EIS we looked seriously at the need to protect the turtles. Another issue that comes into play is the desire to maintain access to the shoreline areas for local people and visitors to enjoy. Ideally, to protect the turtles, it would be best to prohibit humans from getting too close by fencing off the areas where the turtles go, but this would prevent access. What we felt would be the best way to address both turtle protection and shoreline access, is to have a strong educational system regarding the turtles. This would include an educational program at the hotel where visitors would learn about respecting turtles, plus signs on the beach that give directions such as do not touch or feed the turtles. This way, although more people would visit the beach area, they would hopefully be "smart" visitors that are aware of the special needs of the turtles and want to help preserve them.

You also mentioned concern regarding the use of additional water by the new residents. This is also a very good question. The EIS will include technical engineering studies that evaluate what the water source is, how much water will be needed by the new development, whether there is enough water to serve the

project and what the new water infrastructure system will include (wells, reservoirs, water lines). Your question about water is one that is addressed early in the planning process, prior to building, so that it will not adversely affect existing water resources.

It is because of the concern that community members like yourself have for the Sea Mountain area and your willingness to share your values and thoughts with us in letters, that we are better able to create a project that meets the expectations of the community and preserves Punaluu's unique environmental resources. Thank you again for taking the time to share with us.

I hope this has helped to address your concerns. Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

1-16-05

Student of Kau High  
Mrs. Panglao  
Science class  
Oliver Rafael  
P.O. Box 100  
Pahala #1, 96777  
January 17, 2006

Sea Mountain Fire, LLC  
433 North Condemns Avenue  
Suite 1070 Beverly Hills  
California 90210

Dear Sir/Madame,

I am a science student at Kau High. We have been talking about the upcoming development of pumalu, & what the hell is the world are you guys doing, are you guys damn? I think not, but why? You guys is just going to hurt our feelings & low in the island. So I am telling you guys I hope you guys are going to change your mind.

Sincerely Yours,  
Oliver Rafael



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Paul Jeremy Ramones ('Oliver Rafael')  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Ramones ('Oliver Rafael'),

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I understand from your letter that you have a deep respect for the place that is your home. It also may be difficult to imagine how the place where you live will change if Punalu'u is developed. You may have many concerns and wonder if development will be done right, and who will be living there. There are no simple answers for those concerns; however, I can only assure you that we are listening. You are the voice of the community, and we are trying to listen and create a project that meets the expectations of your community and preserve the resources that are unique to Ka'u. Thank you again for taking the time to share with us.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

Mrs. Pangla's science class  
Pohakawaimani Lipe  
P.O. Box 100  
Pahala, Hi 96777  
1/19/06

Sea Mountain Five, LLC  
433 North Camden Ave  
Suite 1070 Beverly Hills CA  
90210

Ref: Punalu'u development project

Dear Sir/Madam,  
I am a science student at Ka'u High school,  
and a big fan of Punalu'u. I just have  
a couple of questions I would like to ask  
you, and forgive me if I'm rude, but  
what do you get out of ruining our beauty,  
to make money? Why I ask? You live in  
Beverly Hills, why do you need more money.  
Our community is fine just the way  
it is. Another question I have is, have  
you ever seen Alii Drive? If you have  
not seen this place, it once looked  
like Kau's Coast. Now, there's hotels,  
houses, apartments, little shops, restaurants,  
etc..... along with these houses, came  
more people. It was a nice place at  
first, now there's bums, druggies, etc....  
there's teenagers that use drugs and be-

much drug use, as there is now. I feel, because of all the drug use that we have now, if our place turns out looking like Alii Drive then there will be more drug use. My mother, father, and three brothers are locked up because of this drug. If that area ends up looking like Alii Drive then there is a big chance it will turn out to be like Alii Drive. I have one last question. Do you know how it feels, to have that one place you go to, to get away from your problems? I'm sure you do, anyways. Punaluu is where I like to go, to get away. It's peaceful, I can jump in the ocean, then jump in the freshwater pond. Kick back on the sand, and just relax. If more people move into town, it won't be a peaceful place. I guess having some buildings down there won't be too bad since your quarantied going to build, but if you make it look like Alii Drive, it would suck. I know you probably don't care about this letter, but put yourself/yourself in our position. How would you feel?

Sincerely  
John Manani Jr



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Pohawainani Lipe Ka'awa ('Pohawainani Lipe')  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

**Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice**

Dear Ms. Ka'awa ('Pohawainani Lipe'),

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

Your letter was very moving. I could really feel the passion you have for the welfare of your community and the connection you have with Punalu'u. I will do my best to try and respond to your concerns.

As you know, there is a wild natural beauty that is unique to Punalu'u, along with many cultural resources on the site. It is not the intention of the developers to ruin the beauty of Punalu'u. The natural and cultural resources are the things that make Sea Mountain special, and a place that people want to visit. The proposed project would preserve the coastal areas and important cultural sites so these resources will be available for generations to come.

It is true that development will bring more people to the area. Part of the Environmental Impact Statement (EIS) process is to look at the impact of bringing new residents into an area. More people will bring more cars on the road; more children in schools, more need for police patrol, and many more impacts. No matter how many new people live in the new Sea Mountain development, we will do our best in the EIS to make sure that the addition of more residents in Ka'u does not create problems for the community or the environment. We do not want Sea Mountain to be another Ali'i Drive.

Access will be maintained for locals to the black sand beach, beach park, ponds and shoreline areas. There will be improved parking areas and walking trails. Everyone will be welcome and, if the project is constructed, I hope this can continue to be a place of retreat and rejuvenation for you.

I respect your opinion that Punalu'u should not be developed. If it is, we anticipate it will bring a myriad of benefits to the community that will help to solve problems, not make them worse. We are trying to create a project that

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

balances the expectations of the developer and the wishes of the community, while honoring the place of Punalu'u and the region of Ka'u.

We know that drugs are a problem in Ka'u with or without our project. We will try to help improve the drug situation by bringing jobs so that people will not have to sell drugs to make a living. Also, we will help the hospital and health care system that treats people with drug problems. We think our project will improve the situation by providing opportunities and increasing hope so that people do not feel the need to use drugs.

Thank you very much for taking the time to share your thoughts with us. It was a pleasure to learn about your experiences in Punalu'u and perspective on the development in a well-crafted, thoughtful letter.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Randy Oleyte, Mrs. Panglad's class

P.O. Box 100

Pahala, HI 96777

~~1/17/00~~

1/17/00

Sea Mountain Five, LLC

493 North Camden Ave

Suite 1070 Beverly Hills CA 90210

Ref. Punaluu development project

Dear, Sr /Madam

I am a science student at Ka'u High.  
We have been talking about the upcoming  
development of the Punaluu site. The questions  
that I have about this project are:

- ① Go for it you'll make History
- ② ARE you going make Resturants,  
Hotels, affordable Houses, and more  
cool stuffs?
- ③ Will there be more jobs for people  
around Ka'u?

The reasons I am concern are there aren't  
many jobs & house for the people in Ka'u  
right now and I hope that the development  
will change that.

Sincerely,



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Randy Kaimana Oleyte ('Randy Oleyte')  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Oleyte,

Thank you for your encouraging words in your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

In your letter you mentioned concern about the lack of jobs and housing in Ka'u. We are hoping that this project would provide the homes and jobs that are needed in Ka'u right now. To answer your questions, yes, there will be restaurants and affordable or workforce homes associated with the project. We also hope to provide an upgraded beach park, one or two hotels, a turtle education program, a cultural center that showcases the history and culture of Ka'u, and a retail shopping area. There will be many more jobs for local people associated with construction activities, hotel and commercial activities.

We hope that this project will be a response to community members like yourself that are concerned about the economic future of Ka'u. Thank you for taking the time to share your thoughts with us.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Ralph E. Portmore, AICP  
Of Counsel

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Ricky Robinson  
Kau High  
P.O. box 100  
Pahala HI 96777  
Jan 14, 06

Sea Mountain Five, LLC  
433 North Camden Ave  
Suite 1070 Beverly Hills CA  
90210

Ref: Punalu'u development project

Dear Sir/Madam

I am a Science student at  
Kau High. We have been talking  
about the upcoming development  
of the Punalu'u site. The questions  
that I have about this project  
are

1. If you build, how will  
you keep our beaches from  
being crowded?
2. Where will you get the  
water and put the sewage
3. I grew up in Kau and  
so did many of my friends and  
family. All of them don't want  
to see Kau change, why do you?

Sincerely Ricky



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Ricardo Robinson ('Ricky Robinson')  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Robinson,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your heartfelt concern for Punalu'u and the impacts that may be caused by development there. In your letter, you asked about beach crowding, water and sewer systems, and expressed your desire to for Ka'u not to change.

Your first question asked how we would prevent the beaches from being crowded. It is true that new development in Punalu'u will bring more visitors to the beach area, however, with the planned improvements to the beach park and creation of other recreational areas within the Sea Mountain development, we anticipate there will be room for everybody. We want to improve access to beach areas and make sure that local people feel comfortable enough to continue to enjoy this special place.

Regarding the water systems, more water will be needed to provide water for the new residents. Currently, residents at Punalu'u get drinking water from on-site wells that tap the groundwater. The Environmental Impact Statement (EIS) will include technical engineering studies that evaluate the existing water source, how much water will be needed by the new development, whether there is enough water to serve the project and what the new water infrastructure system will include (wells, reservoirs, water lines). Your question about water is one that is addressed early in the planning process, prior to building, so that it will not adversely affect existing water resources.

Pertaining to sewage disposal, there is currently a wastewater treatment plant and disposal system on the site serving the Colony I and Kalana I residents. This system is very old. The system does not discharge directly into the ocean. The proposed project would actually improve the sewage situation by providing a brand new wastewater treatment system to serve all the existing and future homes. The new system would provide cleaner treated water and would be

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

maintained to prevent leaking. The treated water would then be applied to the golf course for irrigation.

I respect your feelings that Ka'u should not change. However, you should be aware that change will occur no matter what happens. This is a fact of life. The question is what kind of change will occur? Will it be good or bad? In an attempt to explain why this particular land is proposed for development, I will share a few major factors why Punalu'u is a logical place for developers to pursue. First of all, developers cannot build homes and hotels just anywhere. The land first needs to be "zoned" for building homes and hotels by the County, meaning, the County of Hawaii's zoning maps must specify that residential and resort buildings can be built in the area. Hawaii County designated the lands at Punalu'u for residential, commercial and resort uses, and it is the only place in Ka'u that is zoned for this type of development. Another factor that makes the Sea Mountain site a preferred site, is that it has already been "developed." It has a golf course, condominiums, a sewer system, wells and single-family homes built on it. Pristine land would not be used to construct this project, but land that has already been changed by development. This answer is not intended to change your perspective, but I at least wanted to explain "why."

Thank you again for taking the time to share with us. We are really trying to listen to the community, and through the planning process we are trying to protect the cultural and natural resources that make Punalu'u special. We hope to create a project that balances the wishes of the community and expectations of the developer while honoring the place of Punalu'u and the region of Ka'u.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



George I. Atta, AICP  
Principal

Mrs. Panglao's  
science class  
Rolland Alcoran  
Po Box 100  
Pohala, HI 96777

January 19, 2006

Sea Mountain Five,  
LLC 433 North Camden  
Ave Suite 1070 Beverly  
Hills CA 90210

Dear Sir/madam

I am a student at Kau High. We have been talking about the upcoming development of the Punaluu site. The questions that I have about are:

• Where are you guys going to put the sewage when you build houses by Punaluu. If you make it go to the ocean the turtles will die because all the pollution

• Where are you going to get the water for the houses because if from the mountains and it doesn't rain no more water. It will be a drought. It's going to be dry in summer.

The reason I am concern is that I hope Kau dont change. We like it the way it



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Rolland Alcoran  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Alcoran,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

I appreciate your concern for Punalu'u and the impacts that may be caused by development. Specifically you asked about the proposed sewage system, potential impacts to ocean water quality and the turtle population, and drinking water (potable water) for the development. These are excellent questions.

You may already know that we are preparing an Environmental Impact Statement (EIS) that evaluates how the new development may affect the environment positively and negatively. If any negative changes are anticipated, we recommend mitigation measures in the EIS, or, ways to prevent those negative changes from happening.

Pertaining to sewage disposal, there is currently a wastewater treatment plant and disposal system on the site serving the Colony I and Kalana I residents. This system is over 30 years old. The proposed project would actually improve the sewage situation by providing a brand new wastewater treatment system to serve all the existing and future homes. The new system would provide cleaner water and would be maintained to prevent leaking. With this in mind, the new development would actually help protect the coastal environment and the turtles.

Regarding the turtles, we looked seriously at the need to protect the turtles in the EIS. Ideally, to protect the turtles, it would be best to prohibit humans from getting too close by fencing off the areas where the turtles go, but this would prevent public access to those areas. We want to maintain access to the shoreline areas for local people and visitors to enjoy. What we felt would be the best way to address both turtle protection and shoreline access, is to have a strong educational system regarding the turtles. This would include an educational program at the hotel where visitors would learn about respecting turtles, plus signs on the beach that give directions such as do not touch or feed the turtles. This way, although

Ralph E. Portmore, AICP  
Of Counsel

more people would visit the beach area, they would hopefully be “smart” visitors that are aware of the special needs of the turtles and want to help preserve them.

You also mentioned concern regarding the use of additional water by the new residents. Currently, residents at Punalu‘u get drinking water from on-site wells that tap the groundwater. The EIS will include technical engineering studies that evaluate the existing water source, how much water will be needed by the new development, whether there is enough water to serve the project and what the new water infrastructure system will include (wells, reservoirs, water lines). Your question about water is one that is addressed early in the planning process, prior to building, so that it will not adversely affect existing water resources. Preliminary analysis indicates large underground aquifers with more than enough water to supply the development. This water source is generally stable even when rainfall is low. We will also reduce the demand by using recycled water for most of the landscaping and golf course so there is less use of the underground aquifer.

Thank you again for taking the time to share with us. It is because of the concern that community members like yourself have for the Sea Mountain area and your willingness to share your values and thoughts with us in letters, that we are better able to create a project that meets the expectations of the community and preserves Punalu‘u’s unique environmental resources.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Student of Kaiu High

Romnick Veloso  
PO Box 100  
Pahala HI  
96777

1/17/06

Re: Punalu'u Development Project

Sea Mountain Ave, Liliu  
#33 North Camden Ave  
Suite 1070 Beverly Hills CA  
90210

Dear Sir/Madam

I am a science student at Kaiu High. We have been talking about the upcoming development of the Punalu'u site. The questions that I have about this project are:

- ① How we going have access to the beach?
- ② Will the houses be ~~isolate~~?

The reasons I am concerned are will the access to the beach.

Sincerely,  
Romnick Veloso  
Student of Kaiu High



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Romnick Velano  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Mr. Velano,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

I appreciate your concerns and would like to address your questions regarding access to the beach and affordable housing.

Access is an important issue for the entire Ka'u community. Yes, access will be maintained to the black sand beach, beach park, ponds and shoreline areas. There will be parking areas and walking trails and educational signs to help protect the turtles. Everyone will be welcome.

Regarding your question on affordable housing, the County of Hawai'i has an adopted affordable housing policy that all new rezonings and hotel uses are subject to (per Section 11-4 Ordinance No. 0523 amending Chapter 11 Hawai'i County Code). There are two different affordable housing issues that relate to the two areas of the project site, one above the highway (mauka) and one below the highway (makai).

In the mauka portion of the site, the issue is zoning. According to Hawaii County, if an area is rezoned, then the project must provide 20% of the total homes on the rezoned portion at an affordable price. In order to build houses above the highway, the developer would need to apply to the County for a Rezoning from Agriculture (A-20a) to Residential uses. If the rezoning is accepted, then the developer would provide affordable housing there (or at an acceptable off-site location). If the developer pursues rezoning, they may provide up to 55 affordable units. If the developer decides not to rezone the mauka portion, then there would be no affordable housing requirement.

Below the highway the Sea Mountain project site is already zoned for residential and resort uses, and would not require rezoning. This area would be subject to a different section of the Hawaii County affordable housing policy that requires

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

hotel uses generating more than 100 employees to provide one affordable housing unit for every four jobs created. If the hotels generate 300 full-time jobs, then 75 affordable housing units must be provided on-site, or at an acceptable off-site location.

All affordable housing provisions will be carefully negotiated with Hawai'i County.

It is because of the concern that community members like yourself have for the Sea Mountain area and your willingness to share your values and thoughts with us in letters, that we are better able to create a project that meets the expectations of the community and preserves Punalu'u's unique environmental resources. Thank you again for taking the time to share with us.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Mrs. Panalao's (Science) class.  
Stacy Lopez  
Po. Box 100  
Panaha, HI.  
96717

January 17, 2006

Sea Mountain Five, LLC  
1433 North Camden Ave.  
Suite 1070 Beverly Hills CA  
90210

Re: Punalu'u development project.

Dear Sir/Madam,

I am a science student at Kau High. We have been talking about the upcoming development of the Punalu'u site. The questions that I have about this project are:

1. Will the nature of Kau stay the same if there is development in Kau.
2. Will all the accesses to Punalu'u stay open for the residence of Kau?
3. Will the houses that the developers build will be affordable for the residence of Kau to pay?
4. Will there be more jobs for the people of Kau?



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Stacyn Lopez  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. Lopez,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

I appreciate your concerns and would like to address your questions. Your first question regarding whether the nature of Ka'u will change if there is development is an excellent question and a difficult one to answer. This question is not only of concern to you, but may also be the biggest concern for the entire Ka'u community. Although I don't have an easy answer to the question, the answer I can offer is both yes, and no. Yes, Ka'u will change somewhat in that there will be new people, homes, stores, opportunities and jobs in Ka'u. However, I also feel that no, it will not change, in the sense that the people, culture, land and resources of Ka'u will still live on and be celebrated within the new Sea Mountain community and in the historic communities of Pahala and Na'alehu. Also by creating a new village in a cluster, most of Ka'u can remain open and rural which is the main character of Ka'u.

Your question on access is also an important issue. Yes, access will be maintained to the black sand beach, beach park, ponds and shoreline areas. There will be parking areas and walking trails and educational signs to help protect the turtles. Everyone will be welcome. More areas will be officially open to the shore as the project will make the entire shoreline up to 200-300 feet open and accessible.

Regarding your question on affordable housing, the County of Hawai'i has an adopted affordable housing policy that all new rezonings and hotel uses are subject to (per Section 11-4 Ordinance No. 0523 amending Chapter 11 Hawai'i County Code). There are two different affordable housing issues that relate to the two areas of the project site, one above the highway (mauka) and one below the highway (makai).

In the mauka portion of the site, the issue is zoning. According to Hawaii County, if an area is rezoned, then the project must provide 20% of the total homes on the

Ralph E. Portmore, AICP  
Of Counsel

rezoned portion at an affordable price. In order to build houses above the highway, the developer would need to apply to the County for a Rezoning from Agriculture (A-20a) to Residential uses. If the rezoning is accepted, then the developer would provide affordable housing there (or at an acceptable off-site location). If the developer pursues rezoning, they may provide up to 55 affordable units. If the developer decides not to rezone the mauka portion, then there would be no affordable housing requirement.

Below the highway the Sea Mountain project site is already zoned for residential and resort uses, and would not require rezoning. This area would be subject to a different section of the Hawaii County affordable housing policy that requires hotel uses generating more than 100 employees to provide one affordable housing unit for every four jobs created. If the hotels generate 300 full-time jobs, then 75 affordable housing units must be provided on-site, or at an acceptable off-site location.

All affordable housing provisions will be carefully negotiated with Hawaii County.

In terms of jobs, the project would bring many job opportunities to Ka'u. A technical study on economic impacts to the Ka'u region indicates that construction activities on the site will generate on-going construction jobs for a period of ten years, while, once the project is constructed, 517 permanent jobs will be created in association with hotel and commercial activities.

It is because of the concern that community members like yourself have for the Sea Mountain area and your willingness to share your values and thoughts with us in letters, that we are better able to create a project that meets the expectations of the community and preserves Punalu'u's unique environmental resources. Thank you again for taking the time to share with us.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



George I. Atta, AICP  
Principal

Mrs. Panglao's science class

Paka

P.O. box 100

Pahala Hi, 96722

sea mountain live, LLC 433 North Camden Ave  
suite 1020 Beverly Hill Ca 90210.

Ref. Punaluu Achievement Project

Dear Sir or madam

I am a science student at Kau High. We have been talking about the upcoming development of the Punaluu site. The questions that I have about this project are,

- ① There will be no more rooms for the Kau kids?
- ② Will the beaches still look the same no?

Sincerely  
Paka.

Kau High student.



GROUP 70  
INTERNATIONAL

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Wayne Paka Kamaka ('Paka')  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Dear Mr. Kamaka ('Paka'),

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain  
Environmental Impact Statement Notice of Preparation.

I appreciate your sincere concern for Punalu'u and would like to address your  
questions. Your first question regarding whether there will still be room for the  
Ka'u kids is an excellent question. It is true that new development in Punalu'u  
will bring more visitors to the beach area, however, with the planned  
improvements to the beach park and creation of other recreational areas within  
the Sea Mountain development, we anticipate there will be room for everybody.  
We want to improve access to beach areas and make sure that local people feel  
comfortable enough to continue to enjoy this special place.

Your next question is regarding whether the beach will still look the same. Yes,  
the black sand beach, beach park, ponds and shoreline areas will all look  
essentially the same, with some improvements. These areas will be preserved,  
protected, and beautified with more native plants. No buildings will be  
constructed in this coastal preserve zone.

Thank you again for your sharing your thoughts with us. We will strive to  
preserve the natural beauty of Punalu'u and provide a place where all people feel  
welcome.

Your comment letter will be included in the Draft EIS. We appreciate your  
participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Yomien Jamode

Mrs. Panglao's  
Science class

P.O. Box 1000

Puhala HI: 96777

January, 17, 2006

Sea Mountain Five LLC  
433 North Comden Ave  
Suite 1070 Beverly Hills CA  
90210

Ref: Puhala development project.

Dear sir/madam.

Hi or Hello there.

I am a science student at Kau High.

My class and I have talk about your  
company and I think that is so perfect,

because my future is to work at hotel,

I want to be a hotel manager. Here's.

Some question for you.

What will be the hotel name?

When are you gonna build the hotel?

Are you gonna keep the hotel perfect  
and nice?

What will be the color of your hotel?

Thank you.

Sincerely your,

Yomien Jamode



June 23, 2006

Ka'u High and Pahala Elementary School  
C/o Ms. Malia Panglao  
Attn: Yomien Jamodre  
Ka'u High School Science Teacher  
P.O. Box 100  
Pahala, Hawai'i 96777

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact Statement Preparation Notice

Dear Ms. Jamodre,

Thank you for your February 1, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

I appreciate your enthusiasm for the proposed Sea Mountain project including the construction of the hotel(s). Part of the benefit of this project is that jobs like hotel management would be brought to Ka'u.

To answer your questions, we cannot predict exactly when the hotel would be built, but if the Environmental Impact Statement and Special Management Area Permit are approved, the hotel(s) may be built within the next five years. Landscaping and maintenance will be part of the hotel upkeep to make sure it stays in good condition. Regarding the name and the color of the hotel, it is too early in the planning process to know those details. In the future, the hotel operator (company that runs the hotel) will probably be involved in those decisions.

Thank you again for your letter. It is refreshing to hear your perspective and we hope that the Sea Mountain project will be able to provide the opportunities you are looking for.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal

Ralph E. Portmore, AICP  
Of Counsel

2/7/06

TO: Mr. George Atta  
FROM: Paul Saviskas  
RE: Stainless Steel Sculpture



Dear Mr. Atta,

May I introduce myself, my name is Paul Saviskas, and I am a sculptor on the Big Island. The medium I use is stainless steel. I have various pieces on Oahu in Waikiki, Chinatown and Hanauma Bay.

Enclosed please find a short narrative describing a recently completed stainless steel sculpture of the endangered Hawaiian green sea turtle.

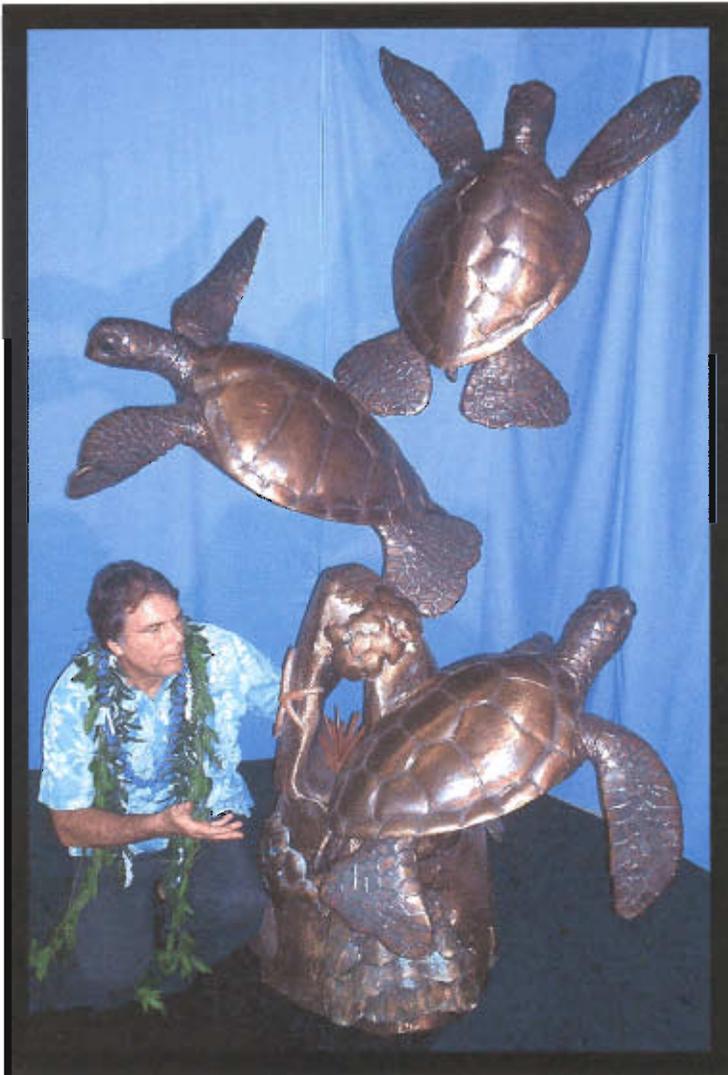
If this sparks any interest for upcoming projects, for property upgrades, lobby art, etc. I would be delighted to hear from you.

Mahalo for your time,

Sincerely,

---

Paul Saviskas



## **"Na Honu Ekolu"**

*Stainless Steel*

*Artist: Paul J. Saviskas  
Big Island*

### **Available for Purchase**

**Phone/Fax:** 808-968-8073

**E-mail:** [saviskasart@aol.com](mailto:saviskasart@aol.com)

**Online Gallery:** [www.saviskasart.com](http://www.saviskasart.com)

Please visit us online to view additional sculptures in Waikiki, Chinatown and Hanauma Bay.

"Na Honu Ekolu", a life-sized sculpture, was inspired by years of snorkeling and swimming alongside the green sea turtles at Punalu'u black sand beach, Ka'u District of the Big Island. Three graceful honu are captured in their natural marine habitat circling a reef encrusted with coral colonies. Common sea stars and a red slate pencil sea urchin, find their home in the sea arch.

*-Paul J. Saviskas*

**SPECIFICS:** Sculpted from flat sheets of stainless steel ranging from 14 gauge to ½ inch in thickness. The internal structure is uniquely engineered to balance and to considerably exceed the weight of each honu. This is a free-standing sculpture. Height: 8 ft. Weight: approximately 1,300 pounds.



June 22, 2006

Paul Saviskas  
P.O. Box 685  
Mountain View, HI 96771-0685

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Dear Mr. Saviskas,

Thank you for your January 24, 2006 comment letter concerning the Sea Mountain  
Environmental Impact Statement Notice of Preparation.

Thank you for your interest in providing services for the project. We will keep  
your work in mind.

Your comment letter will be included in the Draft EIS. We appreciate your  
participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

P.O. Box 690  
Naalehu, HI 96772  
January 10, 2006

Sea Mountain Five, LLC  
C/o Cabear  
433 North Camden Ave. Suite 1070  
Beverly Hills, CA 90210

CC: George Atta of Group 70, Senator Russell Kokubun, Representative Robert Herkes, Councilpersons Bob Jacobson and Virginia Isbell

To whom it concerns:

Please include me as a **consulted party** for the Draft Environmental Impact Statement for Sea Mountain development at Punalu'u on the island of Hawaii. I am submitting the following comments and questions to be address in the Draft EIS. Please send me a copy of the new Conceptual Master Plan as well as a copy of the Draft EIS.

**Comment:** I am neither for nor against the proposed development. I am for a thorough and complete Environmental Impact Statement with developer funded mitigation of all negative impacts. The proposed development will bring in a population equivalent to the populations of Naalehu and Pahala combined, without any community services such as emergency health care facilities, Pre-K through 12 public schools, fire station, library, police station, electrical generation facility, waste disposal and recycling centers. And due to the new residential population, the development may have to restrict public beach access as well as public boat ramp access.

Please add the following questions to the Draft EIS:

1. What **Impact Fees** will be necessary to adequately meet the human services needs of the Ka'u district beginning immediately at the construction of the development project?
2. What are the estimated annual future water demands of the project? How will the increased water demands be met? Will the County or State have to pay for the costs of water supply in the event the groundwater is restricted by drought? **Will the developer have any commitment to the project once construction and sales are completed?**
3. How many tons of sewage will be treated annually at the new proposed plant? How many tons of effluent will be annually dispersed on the golf course? What will be the effects of the leeching of the effluent into the ground water, the fishponds, and on the reefs?
4. The proposed development plans to add and remove roads to the project significantly impacting our current highway traffic. What is the projected annual increase in traffic expected for this area? What **Impact Fees** will be necessary to mitigate the immediate problems associated with construction traffic?
5. Will there be any gates on the proposed development? Will public beach access parking be near the beach (e.g., 100 yards or less)? Will the public have access to the beach 24-hours a day?
6. Are there any plans for a private marina? If so, what will be the ecological and economic impacts on the present commercial fishing industry?

7. What are the endangered and threatened species in the surrounding area? How will the Hawaiian sea turtle, the Dark-rumped petrel, the Band-rumped Storm petrel, the Hawaiian Hawk, the Hawaiian Crow, the Hawaiian Duck, the Black-necked Stilt, the American Coot, Newell's Shearwater, the Hawaiian monk seal, and the Hawaiian Hoary bat, be impacted by the proposed development?
8. How many affordable homes will the developer provide? What will be the average price of an affordable home? Will the average full-time employee be able to afford one of the affordable homes?
9. How will the construction waste and post development waste be handled? Will the County have to find a new landfill, pay for a transfer station, and fund these costs indefinitely?
10. Will the property tax/ hotel room tax base be able to cover the State and County services that the proposed development will demand, or will other taxpayers have to pick up the costs, thereby increasing the local families property taxes and state taxes?
11. At project completion what will be the expected revenues to the County and to the State? Will the revenues exceed the government expenditures?
12. How many people will be employed by the proposed resort, per unit, by class of hotel? What will be the average annual wages of the employees by class of hotel?
13. Will the resort management restrict employee access to the hotel, except during hours of employment?
14. Will the resort management hire from the local population and train personnel for upper level positions? Or will management teams arrive from the mainland and offer back-room jobs to the local population?
15. What percentage of the resort employees will be full-time, part-time and seasonal?
16. What is the highest estimate of increased public school student population this project could generate? **If the developer doesn't provide the additional needed classrooms at the time of construction of this project, how many years will the students have to attend in over-crowded, under-staffed classrooms?**
17. If the projected population is aging and without children, what is the estimated increase in emergency healthcare needs that will be generated by this project? **If the developer doesn't provide an expanded health care facility at the time of construction, will the State be liable for the inadequacies and malpractices due to an insufficient Ka'u Hospital?**
18. The increased population brings with it a huge demand in police and fire protection, even **if the developer provided new stations at time of construction of the project, will the development immediately generate revenues to hire the new County personnel?**

Thank you,

*Ruth Marie Bass*  
Ruth Marie Bass



GROUP 70  
INTERNATIONAL

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel

June 24, 2006

Ruth Marie Bass  
P.O. Box 690  
Naalehu, HI. 96772

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Dear Ms. Bass,

Thank you for your January 10, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation. We offer the following responses to your comments.

1. The calculation of impact fees is based on some understanding of the project impacts and the nexus in which it is evaluated. Impact fees are also based on some state or county ordinance that authorizes them with criteria, policies and guidelines. At the present time though there are impact formula for some items the County of Hawaii does not have a comprehensive impact fee system in place. Consequently we are unable to answer your question as implies assumptions of impact without identifying specifics that can be evaluated or estimated.
2. The estimated potable water demand for the project is 1.28 million gallons per day. All costs for development of the water system and its delivery will be borne by the developers. In the event of a drought there would be public policy restrictions and emergency procedures for distributions that apply to everyone not just Punalu'u. Who bears the cost of emergency procedures will depend on what the policies are. With regard to your comment about developer commitment at the end of this question, we wish to inform you that commitments will be tied to the approvals and run with the land. Therefore nothing can happen to the property without fulfillment of the conditions and commitments made regardless of who owns the property.
3. It is estimated that at full build out 626,000 gallons per day of wastewater will be generated. This water will be treated to R-1 levels and 90% of it is expected to be captured for golf course irrigation. We do not anticipate any negative effects from the use of effluent for irrigation. The treatment to R1 levels will result in clean water source. Second, the irrigation will be managed to respond to weather conditions with the intent that it will saturate only the root zone of the turf and not leech into the groundwater. Irrigation will be controlled and applied to address the need of the turf and we do not anticipate over-watering that may lead to leeching. Thirdly, the newly renovated course will have a new soil and turf profile that will efficiently minimize leeching with a thick enough

layer to hold the water for the turf. Golf course management techniques have gone through tremendous improvements in the last two decades and the State and Federal health guidelines have become so strict that negative impacts are minimized to avoid negative impacts.

4. We are not removing any public roadways. We will realign Ninole Loop Road to take it more mauka to the front of the planned hotel. We will make all roadway improvements required by the State Department of Transportation and the County Public Works Department. Regarding impact fees, we will pay our fair share as determined in consultation with the County.
5. There will be no gated communities in the Sea Mountain Project. Public access to the shoreline will continue to be available and we think improved from our plan. There will continue to be parking within 100 yards of the beach. The Beaches are public and Sea Mountain Five will not control the hours of use. In the County Beach Park area, the County Parks Department determines policies regarding park hours.
6. There is no plan for a private marina.
7. You mention a long list of endangered species. Many of the species you mention are broad ranging species that use a large area for foraging, including Punalu'u. This issue will be addressed in the draft EIS.
8. The amount of affordable homes developed based on inclusionary zoning policies will only be triggered if we rezone the mauka portion of the site. This has not yet been decided though we have analyzed our project with that potential in mind. If we proceed in that manner we will construct about 55 affordable homes. There is an existing requirement for work force housing that is dependent on the number of jobs generated by the hotel. We are anticipating about 60 homes for this requirement.
9. There will be a solid waste management plan for the construction phase of the development. The plan will seek to minimize the amount of construction waste. Recycling and reuse of material will be encouraged. Most of the waste will be green waste and these will be transported to an appropriate green waste facility. While some waste will go to the County landfill the amount is not expected to be a significant portion of landfill capacity. Your question about new landfills, transfer stations and ongoing operational costs are valid but this is a larger societal issue beyond the development of Sea Mountain LLC to address. The County is well aware of this situation and has been addressing the problem for many years.

10. A financial analysis of the project has been made. After costs are subtracted it is estimated that the project will resulting a net economic benefit to the County and the community of \$33.4 million to the County over the construction phase of the project and a net increase in revenues to the State of \$26.5 million over the same period.
11. The response above addresses this question.
12. It is anticipated that the resort will generate a total of 517 jobs. It is not clear what the wage scales will be but it is anticipated that they will be comparable to resort positions in Kona area hotels. This issue will be clarified when a hotel operator is selected.
13. While we cannot speak for the operational policies of a potential hotel operator, your question about hotel access for hotel employees indicates an assumption of restriction that I think is not valid. Most hotels that we are aware of do not have strict policies on after work access. Also, given the lifestyle in Ka'u it would be very unlikely for that to happen.
14. Again, we cannot speak for a potential hotel owner but such issues will be discussed at the SMA level and legally appropriate policies regarding this issue will be finalized before permit approval.
15. The percent of full time, seasonal and part time employees is not known since the operator has not been selected.
16. We have been in conversation with the State Department of Education and they have indicated that based on their analysis of demographic trends and their formulas they anticipate our project to generate an additional 37 students at full build out. The comment about students and how many years they will continue to be taught in poor facilities is a general comment not specifically related to Sea Mountain. Sea Mountain Five will develop a community benefits package and we recognize education as one of the important needs in the community that must be addressed.
17. Many of the residents of the proposed development will likely be older. With that assumption we agree that health care is an important issue in Ka'u today and will continue to be important as our project is developed. We cannot answer precisely the question of the degree of additional care needed but have had several discussions on the issue with community groups and with hospital staff. The issue of insufficient care and potential malpractice suits will exist regardless of the development of our projects and needs to be addressed as a general community concern. Sea Mountain is eager to be a contributing member in this discussion and possible efforts to improve healthcare in Ka'u.

18. The need for new fire and police will not come immediately. Demand will come with increasing build out. As noted earlier, the estimated net economic benefits of the project will more than cover the costs associated with increased government services.

Thank you again for your interest in our project. Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

A handwritten signature in cursive script that reads "George I. Atta".

George I. Atta, AICP  
Principal



Sterling Robbins  
P.O. Box 1087  
Maalehu, HI 96772  
(808) 929-8299

George Atta  
Group 70  
925 Bethel St, Fifth Floor  
Honolulu, HI 96813

I would like to be a consulted party to the Sea Mountain Project ("the project") at Punaluu, Hawaii. I would like to see the following questions addressed in the Environmental Impact Statement(EIS):

1. What are the anticipated number of construction workers needed for the project?
2. What percentage of construction workers will be union workers?
3. What percentage of construction workers will have resided in Ka'u prior to their employment at the project?
4. What is the average vacancy rate for single family and multifamily units in Ka'u?
5. How many new rental units will have to be made available to accommodate the construction workers who did not live in Ka'u prior to their employment at the project and how will these units be provided?
6. What impact will the influx of construction workers who did not live in Ka'u prior to their employment at the project have on the cost of single family houses and rental units in Ka'u?
7. What will be the range of prices expected for single family houses and multifamily units at Sea Mountain once the project is completed?
8. What impact will the unit prices at Sea Mountain have on the price of single family houses in Ka'u?
9. What impact will the influx of construction workers who did not live in Ka'u prior to their employment on the project have on businesses in Ka'u? This includes but is not limited to:
  - a. what will be the average hourly income of construction workers on the project?
  - b. what will be the median hourly income of construction workers on the project.
  - c. what are the projected man hours of construction work for the project?
10. What will be done with the trash generated during construction?

(11) If the county has to handle some or all of the construction waste, how will the increased cost to the county be met?

12. Once the project is completed, what percentage of the goods and services needed by residents of the project will be provided by businesses located within the project and what percentage will be provided by other businesses in Ka'u?

13. What is the mix of units and price ranges which would generate the maximum number of workers at the project once the project construction is completed?

14. What would be the maximum number of workers employed at the project?

15. Given the maximum number of workers, what would be their average hourly wage and what would be their median hourly wage?

16. Given the maximum number of workers, what percentage will have lived in Ka'u prior to their employment at the project?

17. Given the maximum number of workers at the project, what impact will the hiring of workers who did not live in Ka'u prior to their employment at the project have on the cost of purchasing single family houses in Ka'u and on the cost of rental units in Ka'u?

18. Given the maximum number of workers and residents at the project, what will be the expected cost to the county and state of the necessary increases in the following services: water, highway maintenance, trash disposal, schools, health services, police, and fire?

19. What percentage of the anticipated cost of increasing the services listed in Question number 18 will be provided by increased tax revenues to the county and State from the projects (a) businesses (b) employees (c) residents?

20. How much tax revenue will the county get from the residents at the project?

21. How much tax revenue will the county get from the businesses at the project?

22. How much tax revenue will the county get from the employees at the project?

23. How much tax revenue will the state get from the residents at the project?

24. How much tax revenue will the state get from the businesses at the project?

25. How much tax revenue will the state get from the employees at the project?

26. What impact will the project (both construction and completed) have on endangered species?

27. What will be done to mitigate any negative impacts of the project(both construction and completed) on endangered species?
28. What will be done to aid the recovery of any endangered species in the Punaluu area?
29. What impact will the project(both construction and completed) have on threatened species?
30. What will be done to mitigate any negative impacts of the project(both construction and completed) on threatened species?
31. What will be done to aid the recovery of threatened species in the Punaluu area?
32. What will be the effects on the flora and fauna on the Punaluu area coast and reef of the activities necessary to maintain the Sea Mountain golf course(.e.g. watering, fertilizing, herbicides, pesticides, etc. )?
33. Will public access to Punaluu beach involve walking more than 50 yards?
34. Will Punaluu beach be open to the public 24 hours a day?
35. Are there conditions under which the project will restrict or prohibit access to Punaluu beach?
36. Will overnight camping be allowed at the Punaluu beach area?
37. A spokesperson for the project as said water for the project will be provided by wells drilled on the project property. Given the maximum number of residents and employees at the project, ~~will providing~~ will providing water for the residents, businesses, employees and the golf course decrease the flow of fresh water into the ocean?
38. If the flow of fresh water into the ocean is decreased how will this effect the flora and fauna in the Punaluu area?
39. Will the Sea Mountain golf course be open to the public?
40. Will a person have membership in some organization in order to play golf at the Sea Mountain golf course? If so, how much will membership cost?
41. Not including membership, how much will it cost to play a round of golf at the Sea Mountain golf course?

Please contact me at the address or  
phone number on the letterhead  
cc: Sea Mountain Five  
Jacobson

Respectfully,  
Stacy Rubin  
Sterling Robbins



June 23, 2006

Sterling Robbins  
P.O. Box 1087  
Na'alehu, Hawai'i 96772

Subject: Comment Letter on the Sea Mountain Environmental Impact  
Statement Preparation Notice

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Kaneshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Dear Mr. Robbins,

Thank you for your January 12, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation. Regarding your comments we provide the following responses in the order of items presented in your letter:

Paul P. Chorney, AIA  
Philip T. Cuccia, CSI, CDT  
Kimberly Evans  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kāwika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

1. The anticipated construction jobs related to the project build out is projected at 3,800 person years or an average of 353 jobs per year for the life of the project.
2. We have made no calculation of union versus non-union jobs at this time.
3. The percent of construction workers residing in Ka'u prior to their employment on the project is unknown at this time. The Project is optimistically anticipated to start in 2-3 years and we do not have projections of available workforce at that time.
4. We have not investigated the current average vacancy rates for single family and multi-family units in
5. Based on experience with other Big Island projects we have experience with we are projecting that 10-15 % of the workforce will want to find rental housing in Kau during their employment. We are considering developing approximately 60 construction worker accommodations. Their location has not been finalized yet but we anticipate constructing most of them on the project site or nearby to reduce commuting.
6. We do not expect a significant impact as we will provide units for those who wish to live in the area. Those who commute should not have any impact on prices in the region.
7. The range of prices have not been finalized but we are currently working with assumptions ranging from \$245,000 for affordable homes to \$770,000 for ocean view units. Single family lots will range from 240,000 to \$600,000 for 1.2 acre lots.
8. Price impacts from new development is difficult to predict. There has been a rise in process without our project and clearly the impact of rising prices is regional more than project specific. Values will rise for the adjacent 21 lot Kalana I subdivision mauka of the highway and the existing 76 unit Colony I condominiums. The 5 private beach lots by the County Park will probably

Ralph E. Portmore, AICP  
Of Counsel

also increase in value. These areas have already seen a \_\_\_\_% increase in value within the last \_\_\_ years. These increases may give some sense of the potential impact of our project but recent trends seem to indicate a slight cooling of the market and future increases will probably not be as dramatic.

9. The anticipated impact of construction workers on businesses in Kau is anticipated to be positive as these workers will increase the flow of discretionary income in the Kau economy. The consolidated impacts will be described in the DEIS.
10. There will be a solid waste delivery plan finalized before construction begins. Except for demolition debris from the abandoned structures on the site most of the solid waste is anticipated to be green waste from the grubbing of brush and small trees. A green waste reduction program will be developed. The remainder of solid waste will be sent to the Puu Anahulu landfill.
11. The County will not handle any of the construction waste. The contractor will pay the standard tipping fee for material sent to the landfill or green waste sites.
12. The percentages of services provided by onsite vendors as opposed to offsite vendors has not been broken down. The project will include commercial spaces to allow vendors to service both the resort and the residences in the overall project. However, as you know business viability is based on the size of the existing market and some may not locate on site till a certain critical mass of development is reached. The developer will provide land for these services but does not control the actual start of business service.
13. The range of prices was previously stated.
14. We anticipate 517 permanent jobs generated by the resort development.
15. We do not know the specific range of wages since an operator has not been selected but we anticipate that they will be comparable to resort wages in Kona.
16. This question was asked earlier and the figure is unknown at this time.
17. While there may be an indirect relationship between rental costs and housing prices we do not anticipate a significant impact. As we stated earlier we will provide worker housing for those that wish to live in the district during employment and we do not feel these people will go out into the marketplace and raise demand and prices.
18. The impacts to public services such as schools, fire and police will be included in the DEIS.
19. An evaluation of the total tax impacts and costs for government services will be included in the DEIS.
- 20-25: All of these questions on tax impact will be summarized in the DEIS.
26. We do not think there will be any significant impact on endangered species from the construction. We are not developing along the shoreline areas and will therefore avoid most of the critical and sensitive habitats for endangered species. Most of the project site is highly degraded but introduced alien species such as haole koa, kiawe and Guinea grass. Introduced ornamentals

also dot the landscape from previous development. The impacts will be fully discussed in the DEIS.

27. Significant negative impacts are not anticipated as this is not a pristine site and we are not developing along the coast. The DEIS will detail specific measures for the Hawaiian Hoary Bat and possible for impacts to shearwaters. Lighting will be designed with shields and downward facing to reduce potential impacts to birds and turtles. Tree clearing will be coordinated with trained personal and nesting seasons to minimize impacts. These will be described more fully in the DEIS.
28. Since we do not anticipate negative impacts there is no specific recovery program. Should the Fish & Wildlife Service of DLNR feel otherwise we will develop a mitigation and recovery plan to address the situation.
29. Again we do not feel that we will have any significant negative impact on threatened species. This will be discussed in the DEIS.
30. Again, we do not anticipate negative impacts to threatened species but will follow the recommendations of our project biologist to address these issues which will be described more fully in the DEIS.
31. We feel our coastal conservation area, use of native species in the landscaping, protection of most of the large trees and the Ninole Stream buffer area will actually enhance habitat for various endangered and threatened species.
32. We understand your concerns about golf course management activities such as fertilizers and pesticides upon coastal resources. Modern golf course practices have virtually eliminated the potential negative impacts in these areas. Also, the Department of Health requires high standards in the use of recycled wastewater in golf course irrigation. Ground conditions will be monitored to make sure groundwater and subsequent coastal resources are not negatively impacted by golf course operations. These processes will be described in the DEIS.
33. There will be no change to pedestrian access to Punalu'u beach an access from the Beach Park and the beach concession area will remain less than 50 yards.
34. The Beach is a public space. Sea Mountain does not control the hours of operation.
35. The main accesses to the beach are public and not controlled by Sea Mountain Five. There should be no change in access.
36. Overnight camping is managed by the County at the Beach Park and DLNR in conservation areas such as the Beach. Sea Mountain will not be involved in any camping policies in these areas.
37. The anticipated potable water demand for the site at full build out is 1.28 million gallons per day. While the capacity of the aquifer below the property is under investigation and sustainable yield calculations have not been determined, it is the general professional opinion that there are huge quantities of flow in the aquifer; more than enough to sustain this development. Sustainable yields will be calculated and these will consider

any potential impacts to groundwater quality and basal flow and leakage that may impact the flow of fresh water to the ocean.

38. We feel the likelihood of a decrease in the basal flow is extremely low. However, should this occur, the salinity of the coastal ponds may be affected and this may in turn stress the pond and coastal vegetation. As long as well pumpage is monitored this scenario is extremely unlikely.
39. Present plans are for the golf course to remain open to the public.
40. As noted above, the course will remain open to the public. Restrictive play based on club membership is not currently being planned.
41. Golf rates for the renovated course have not been set. New rates will be set after the course has been redeveloped.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



George I. Atta, AICP  
Principal

FAX & MAIL 10

LEW CAHEY

Thomas A. Loudat, Ph.D.  
Economist

46-281 Auna St.  
Kaneohe, Hawaii

January 5, 2006

ATTN: Sea Mountain Five, LLC

RE: Wishing to be consulted request

Dear Sirs/LAdies:

I reviewed the article about the possible Sea Mountain resort in Ka'u in the 12/23/05 Advertiser. The article indicated that "people or agencies wishing to be consulted about the project" contact you. I would like to be on this list. Mahalo! Aloha!

Sincerely,



Thomas A. Loudat, Ph.D.  
(808) 235-0578  
(808) 235-5161 (FAX)  
Email: tomloud@earthlink.net



January 31, 2006

Thomas Loudat, Ph.D.  
46-281 Auna St.  
Kaneohe, HI 96744

Subject: Sea Mountain  
Environmental Impact Statement  
Notice of Preparation  
Comment Letter

Dear Dr. Loudat,

Thank you for your January 5, 2006 comment letter concerning the Sea Mountain Environmental Impact Statement Notice of Preparation.

As you stated, you wish to be a consulted party for the project. We will keep you informed of when and where the EIS is available for review.

Your comment letter will be included in the Draft EIS. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP  
Principal

Francis S. Oda,  
Arch. D., FAIA, AICP  
Norman G.Y. Hong, AIA  
Shery B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA  
George I. Atta, AICP  
Charles Y. Karieshiro, AIA, LEED  
Jeffrey H. Overton, AICP  
Christine Mendes Ruotola, AICP  
James L. Stone, AIA, LEED

Paul B. Chorney, AIA  
Philip T. Cuccia  
Kimberly Evaris  
Pete C. Galvez, AIA  
Sutobin Halim  
Roy A. Inouye, AIA, CSI  
Stephen H. Kelly, AICP  
Cami Kloster  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kawika McKeague  
Kathryn A. Nam  
Hiram C. Pajo  
Donna D. Pennington  
Kimberly Polkinhorn, AIA, LEED  
Alvin Sakutori  
Scott Tangonan  
Tom Young, AIA

Ralph E. Portmore, AICP  
Of Counsel