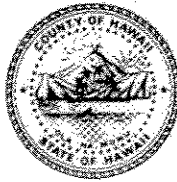


Harry Kim
Mayor



Barbara Bell
Director

Nelson Ho
Deputy Director

County of Hawaii

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

25 Aupuni Street, Room 210 • Hilo, Hawaii 96720-4252

(808) 961-8083 • Fax (808) 961-8086

email: cehdem@co.hawaii.hi.us

September 12, 2006

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Finding of No Significant Impact (FONSI) for Honokaa Large Capacity Cesspool Conversion Project in Honokaa, Hawaii.

- TMK: (3)-4-5-001; 011, 012, 018,
- TMK: (3)-4-5-002; 018, 061, 063, 068, 069, 070, 071, 072, 074, 075, 076,
- TMK: (3)-4-5-003; 018, 020,
- TMK: (3)-4-5-005; 002, 006, 012,
- TMK: (3)-4-5-006; 003, 005, 006, 007, 011, 013, 071,
- TMK: (3)-4-5-007; 010,
- TMK: (3)-4-5-008; 016,
- TMK: (3)-4-5-010; 076, 078, 087,
- TMK: (3)-4-5-012; 021, 025,
- TMK: (3)-4-5-016; 003, 011, 012, 018,
- TMK: (3)-4-5-017; 009,
- TMK: (3)-4-5-018; 005, 031, 032,
- TMK: (3)-4-5-021; 001,
- TMK: (3)-4-5-023; 063, 064, 065, 066, 067, 068, 069, 070

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

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The Department of Environmental Management has reviewed the comments received during the 30-day public comment period that began on June 8, 2006. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the September 23, 2006 OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form and four copies of the final EA. Please call Bert Saito at (808)933-2864 if you have any questions.

Sincerely,


Nelson Ho
Deputy Director

2006-09-23-HA-FEA-HONOKAA LARGE CAPACITY
CESSPOOL CONVERSION.

SEP 23 2006

ENVIRONMENTAL ASSESSMENT

HONOKA'A LARGE CAPACITY CESSPOOL CONVERSION PROJECT

Honoka'a, Big Island, Hawai'i

TMK: (3)-4-5-001; 011, 012, 018,
TMK: (3)-4-5-002; 018, 061, 063, 068, 069, 070, 071, 072, 074, 075, 076,
TMK: (3)-4-5-003; 018, 020,
TMK: (3)-4-5-005; 002, 006, 012,
TMK: (3)-4-5-006; 003, 005, 006, 007, 011, 013, 071,
TMK: (3)-4-5-007; 010,
TMK: (3)-4-5-008; 016,
TMK: (3)-4-5-010; 076, 078, 087, 088,
TMK: (3)-4-5-012; 021, 025,
TMK: (3)-4-5-016; 003, 011, 012, 018,
TMK: (3)-4-5-017; 009,
TMK: (3)-4-5-018; 005, 031, 032,
TMK: (3)-4-5-021; 001,
TMK: (3)-4-5-023; 063, 064, 065, 066, 067, 068, 069, 070

SEPTEMBER 2006

Prepared for:

DEPT. OF ENVIRONMENTAL MANAGEMENT
COUNTY OF HAWAI'I
25 AUPUNI STREET RM. 210
HILO, HI 96720

Prepared by:

M&E Pacific, Inc.

METCALF & EDDY | AECOM

Davies Pacific Center, 841 Bishop Street
Suite 1900, Honolulu, Hawai'i 96813

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ACRONYMS AND ABBREVIATIONS

ADWF	Average Dry Weather Flow
APE	Area of Potential Effects
BMP	Best Management Practice(s)
CFR	Code of Federal Regulations
CDP	Census Designated Place
CWA	Clean Water Act
CWB	Clean Water Branch
CWRM	State Commission on Water Resource Management
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act
DAGS	State Department of Accounting and General Services
DBEDT	State Department of Business, Economic Development and Tourism
DEM	State Department of Environmental Management
DLNR	State Department of Land and Natural Resources
DOH	State Department of Health
EA	Environmental Assessment
EIS	Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
HAR	Hawaii Administration Rules
HINHP	Hawaii Natural Heritage Program
HRS	Hawaii Revised Statutes
IWS	Individual Wastewater System(s)
LCC	Large Capacity Cesspool(s)
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Protection Act
NGPC	Notice of General Permit Coverage
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
NWP	Nationwide Permit
OEQC	State Office of Environmental Quality Control
OHA	State Office of Hawaiian Affairs
OSHA	Occupational Safety and Health Act
PER	Preliminary Engineering Report
PM	Particulate matter
PPB	Parts per billion
PPM	Parts per million
PVC	Poly-vinyl Chloride pipe
PWWF	Peak Wet Weather Flow
SAAQS	State Ambient Air Quality Standards

SBR	Sequencing Batch Reactor
SCS	Soil Conservation Service
SHPD	State Historic Preservation Division
SRF	State Revolving Fund
TMK	Tax Map Key
UBC	Uniform Building Code
UIC	Underground Injection Control
USC	U.S. Code
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VCP	Vitrified Clay Pipe
WWTP	Wastewater Treatment Plant

CHAPTER 1 - INTRODUCTION

1.1 PROJECT INFORMATION SUMMARY

Project Name: Honoka'a Large Capacity Cesspool Conversion

Applicant: Department of Environmental Management
County of Hawai'i
25 Aupuni Street, Room 210
Hilo, HI 96720

Contact Person: Dora Beck, P.E. Technical Services Section Chief
Phone: (808) 961-8028 Fax: (808) 961-8086

Approving Agency: Department of Environmental Management
County of Hawai'i
25 Aupuni Street, Room 210
Hilo, HI 96720

Location: Hamakua District

Confirmed large capacity cesspools (LCC) are listed on the right; more than one LCC may exist on a parcel.

Parcel (45-350 Ohelo Street, 4.43 ac)
Owner: Hawai'i Housing Authority.
Tax Map Key:
3rd Tax Div., 4-5-001: parcel 011
SLU District: Agricultural
County Zoning: A-1A (Agriculture, 1 acre)

Parcel (Honoka'a, 11.12 ac)
Owner: State of Hawai'i
Tax Map Key:
3rd Tax Div., 4-5-001: parcel 012
SLU District: Agricultural
County Zoning: A-1A (Agriculture, 1 acre)

Parcel (45-370 Ohelo Street, 1.25 ac)
Owner: State of Hawai'i (Brantley Center)
Tax Map Key:
3rd Tax Div., 4-5-001: parcel 018
SLU District: Agricultural
County Zoning: A-1A (Agriculture, 1 acre)

Parcel (45-505 Pakalana Street, 4.31 ac)
Owner: County of Hawai'i (Honoka'a Swimming Pool)
Tax Map Key:
3rd Tax Div., 4-5-003: parcel 020
SLU District: Urban
County Zoning: RS-10 (Single Family, 10,000 SF)

Parcel (45-534 Pakalana Street, 4.31 ac)
Owner: State of Hawai'i (Honoka'a Middle School)
Tax Map Key:
3rd Tax Div., 4-5-003: parcel 020
SLU District: Urban
County Zoning: RS-7.5 (Single Family, 7500 SF)

Parcel (45-534 Pakalana Street, 3.36 ac)

Owner: State of Hawai'i (Honoka'a High School / Elementary School)

Tax Map Key:

3rd Tax Div., 4-5-005: parcel 002

SLU District: Urban

County Zoning: RS-10 (Single Family, 10,000 SF)

Parcel (45-3525 Mamane Street, 1.26 ac)

Owner: United Methodist Church Honoka'a

Tax Map Key:

3rd Tax Div., 4-5-005: parcel 006

SLU District: Urban

County Zoning: CV-10 (Village Commercial, 10,000 SF)

Parcel (Mamane Street, 1.07 ac)

Owner: The Salvation Army

Tax Map Key:

3rd Tax Div., 4-5-005: parcel 012

SLU District: Urban

County Zoning: RS-10 and CV-10 (Single Family, 10,000 SF and Village Commercial, 10,000 SF)

Parcel (45-3380 Mamane Street, 2.39 ac)

Owner: County of Hawai'i (Honoka'a Fire Station)

Tax Map Key:

3rd Tax Div., 4-5-006: parcel 003

SLU District: Urban

County Zoning: RS-7.5 (Single Family, 7500 SF)

Parcel (45-3384 Mamane Street, 2.39 ac)

Owner: County of Hawai'i (Hamakua Police Station)

Tax Map Key:

3rd Tax Div., 4-5-006: parcel 003

SLU District: Urban

County Zoning: RS-7.5 (Single Family, 7500 SF)

Parcel (45-3386 Mamane Street, 2.39 ac)

Owner: County of Hawai'i (County Garage (Base yard))

Tax Map Key:

3rd Tax Div., 4-5-006: parcel 003

SLU District: Urban

County Zoning: RS-7.5 (Single Family, 7500 SF)

Parcel (45-3396 Mamane Street, 0.32 ac)

Owner: Toshio & Hideko Nakashima

Tax Map Key:

3rd Tax Div., 4-5-006: parcel 005

SLU District: Urban

County Zoning: RS-7.5 (Single Family, 7500 SF)

Parcel (45-3400 Mamane Street, 0.43 ac)

Owner: Harue Okada

Tax Map Key:

3rd Tax Div., 4-5-006: parcel 006

SLU District: Urban

County Zoning: RS-7.5 (Single Family, 7500 SF)

Parcel (45-497 Ilima Street, 045 ac)

Owner: Edmund Wah On Akioka

Tax Map Key:

3rd Tax Div., 4-5-006: parcel 007

SLU District: Urban

County Zoning: CV-10 (Village Commercial, 10,000 SF)

Parcel (45-3468 Mamane Street, 0.23 ac)

Owner: George R. & Eleanor A. Garcia

Tax Map Key:

3rd Tax Div., 4-5-006: parcel 011

SLU District: Urban

County Zoning: CV-10 (Village Commercial, 10,000 SF)

Parcel (45-3480 Mamane Street, 0.53 ac)

Owner: Hotel Honoka'a Club, Inc.

Tax Map Key:

3rd Tax Div., 4-5-006: parcel 013

SLU District: Urban

County Zoning: RS-7.5 and CV-10 (Single Family, 7500 SF and Village Commercial, 10,000 SF)

Parcel (45-3382 Mamane Street, 0.48 ac)

Owner: State of Hawai'i (Storage & Maintenance Yard)

Tax Map Key:

3rd Tax Div., 4-5-006: parcel 071

SLU District: Urban

County Zoning: RS-7.5 (Single Family, 7500 SF)

Parcel (45-3611 Mamane Street, 0.29 ac)

Owner: Rose C. Rice

Tax Map Keys:

3rd Tax Div., 4-5-007: parcel 010

SLU District: Urban

County Zoning: CV-10 (Village Commercial, 10,000 SF)

Parcel (Mamane Street, 0.16 ac)

Owner: Kahale O Na Keiki Preschool

Tax Map Keys:

3rd Tax Div., 4-5-008: parcel 016

SLU District: Urban

County Zoning: CV-10 (Village Commercial, 10,000 SF)

Parcel (45-534 Pakalana Street, 11.21 ac)

Owner: State of Hawai'i (Honoka'a Elementary)

Tax Map Key:

3rd Tax Div., 4-5-010: parcel 076

SLU District: Urban

County Zoning: A-5A (Agriculture, 5 acre)

Parcel (45-527 Pakalana Street, 11.21 ac)

Owner: County of Hawai'i (Honoka'a High School)

Tax Map Key:

3rd Tax Div., 4-5-010: parcel 076

SLU District: Urban

County Zoning: A-5A (Agriculture, 5 acre)

Parcel (45-520 Koniaka Place, 2.42 ac)

Owner: Hawai'i Housing Authority

Tax Map Key:

3rd Tax Div., 4-5-010: parcel 078

SLU District: Urban

County Zoning: A-1A (Agriculture, 1 acre)

Parcel (45-541 Lehua Street, 23.91 ac)

Owner: County of Hawai'i (Honoka'a Park/Gym)

Tax Map Key:

3rd Tax Div., 4-5-010: parcel 088

SLU District: Urban

County Zoning: A-5A (Agriculture, 5 acre)

Parcel (45-541 Lehua Street, 23.91 ac)

Owner: County of Hawai'i (Honoka'a Track Field)

Tax Map Key:

3rd Tax Div., 4-5-010: parcel 088

SLU District: Urban

County Zoning: A-5A (Agriculture, 5 acre)

Parcel (45-541 Lehua Street, 23.91 ac)

Owner: County of Hawai'i (Honoka'a Ball Field)

Tax Map Key:

3rd Tax Div., 4-5-010: parcel 088

SLU District: Urban

County Zoning: A-5A (Agriculture, 5 acre)

Parcel (45-527 Pakalana Street, 0.59 ac)

Owner: State of Hawai'i (Honoka'a High School Gym)

Tax Map Key:

3rd Tax Div., 4-5-012: parcel 021

SLU District: Urban

County Zoning: RS-10 (Single Family, 10,000 SF)

Parcel (Honoka'a, 0.55 ac)

Owner: State of Hawai'i (Honoka'a High & Elementary School)

Tax Map Key:

3rd Tax Div., 4-5-012: parcel 025

SLU District: Urban

County Zoning: RS-10 (Single Family, 10,000 SF)

Parcel (Mamane Street, 0.19 ac)

Owner: Blake J. & Brent T. Cousins

Tax Map Key:

3rd Tax Div., 4-5-016: parcel 003

SLU District: Urban

County Zoning: CV-10 (Village Commercial, 10,000 SF)

Parcel (45-3574 Mamane Street, 0.32 ac)

Owner: Tawn I. Keeney

Tax Map Key:

3rd Tax Div., 4-5-016: parcel 011

SLU District: Urban

County Zoning: CV-10 (Village Commercial, 10,000 SF)

Parcel (45-3580 Mamane Street, 0.17 ac)

Owner: Evelyn E. Tsukamoto

Tax Map Key:

3rd Tax Div., 4-5-016: parcel 012

SLU District: Urban

County Zoning: CV-10 (Village Commercial, 10,000 SF)

Parcel (45-3610 Mamane Street, 0.29 ac)

Owner: Island Land & Trading Co., LLC

Tax Map Key:

3rd Tax Div., 4-5-016: parcel 018

SLU District: Urban

County Zoning: CV-10 (Village Commercial, 10,000 SF)

Parcel (45-3327 Kou Street, 0.54 ac)

Owner: Baptist Church Honoka'a

Tax Map Key:

3rd Tax Div., 4-5-017: parcel 009

SLU District: Urban

County Zoning: RS-10 (Single Family, 10,000 SF)

Parcel (45-5002 Lehua Street, 0.59 ac)

Owner: T. Kaneshiro Store, Inc.

Tax Map Key:

3rd Tax Div., 4-5-018: parcel 005

SLU District: Urban

County Zoning: CV-10 (Village Commercial, 10,000 SF)

Parcel (Honoka'a, 0.25 ac)

Owner: Shingon Shu Kyodan Hamakua.

Tax Map Key:

3rd Tax Div., 4-5-018: parcel 031

SLU District: Urban

County Zoning: CV-10 and A-1A (Village Commercial, 10,000 SF and Agriculture, 1 acre)

Parcel (Honoka'a, 0.22 ac)

Owner: Shingon Shu Kyodan Hamakua.

Tax Map Key:

3rd Tax Div., 4-5-018: parcel 032

SLU District: Urban

County Zoning: A-1A (Agriculture, 1 acre)

Parcel (Honoka'a, 0.67 ac)
 Owner: State DOT Baseyard
 Tax Map Key:
 3rd Tax Div., 4-5-021: parcel 001
 SLU District: Urban
 County Zoning: A-1A (Agriculture, 1 acre)

Parcel (45-3257 Hawaii Belt Rd., 8.00 ac)
 This parcel will not be connected to new gravity sewer system: a new IWS is proposed for this parcel.
 Owner: County of Hawai'i (Honoka'a Rodeo Arena)
 Tax Map Key:
 3rd Tax Div., 4-5-003: parcel 018
 SLU District: Urban
 County Zoning: RS-10 (Single Family, 10,000 SF)

Possible WWTP sites are listed on the right.

Parcel (119.70 ac)
 Owner: Rabo Ag Services Inc.
 Tax Map Key:
 3rd Tax Div., 4-5-002: parcel 018
 SLU District: Agricultural and Urban
 County Zoning: A-40A and RS-15(Agriculture, 40 acre and Single Family, 15,000 SF)

Parcel (28.43 ac)
 Owner: Hamakua Land Partnership LLP
 Tax Map Key:
 3rd Tax Div., 4-5-002: parcel 061
 SLU District: Agricultural and Urban
 County Zoning: A-40A (Agriculture, 40 acre)

Parcel (8.88 ac)
 Owner: Hamakua Land Partnership LLP
 Tax Map Key:
 3rd Tax Div., 4-5-002: parcel 063
 SLU District: Urban
 County Zoning: RS-15, MG-1A, and A-40A (Single Family, 15,000 SF, General Industrial, 1 acre, and Agriculture, 40 acre)

Parcel (2.46 ac)
 Owner: Rabo Ag Services Inc.
 Tax Map Key:
 3rd Tax Div., 4-5-002: parcel 068
 SLU District: Urban
 County Zoning: RS-15 (Single Family 15,000 SF)

Parcel (3.63 ac)

Owner: Hamakua Land Partnership LLP

Tax Map Key:

3rd Tax Div., 4-5-002: parcel 069

SLU District: Urban

County Zoning: RS-15 (Single Family 15,000 SF)

Parcel (3.70 ac)

Owner: Hamakua Land Partnership LLP

Tax Map Key:

3rd Tax Div., 4-5-002: parcel 070

SLU District: Urban

County Zoning: RS-15 and MG-1A (Single Family 15,000 SF and General Industrial, 1 acre)

Parcel (2.03ac)

Owner: Hamakua Land Partnership LLP

Tax Map Key:

3rd Tax Div., 4-5-002: parcel 071

SLU District: Urban

County Zoning: MG-1A and A-40A (General Industrial, 1 Acre and Agriculture, 40 acre)

Parcel (5.42 ac)

Owner: Hamakua Land Partnership LLP

Tax Map Key:

3rd Tax Div., 4-5-002: parcel 072

SLU District: Urban

County Zoning: RS-15, MG-1A, and A-40A (Single Family, 15,000 SF, General Industrial, 1 acre, and Agriculture, 40 acre)

Parcel (0.66 ac)

Owner: Private

Tax Map Key:

3rd Tax Div., 4-5-002: parcel 074

SLU District: Urban

County Zoning: MG-1A (General Industrial, 1 acre)

Parcel (0.42 ac)

Owner: Private

Tax Map Key:

3rd Tax Div., 4-5-002: parcel 075

SLU District: Urban

County Zoning: RS-15 and MG-1A (Single Family 15,000 SF and General Industrial, 2 acre)

Parcel (0.37 ac)

Owner: Hamakua Land Partnership LLP

Tax Map Key:

3rd Tax Div., 4-5-002: parcel 076

SLU District: Urban

County Zoning: MG-1A (General Industrial, 1 Acre)

Parcel (0.80 ac)
Owner: Private
Tax Map Key:
3rd Tax Div., 4-5-023: parcel 063
SLU District: Urban
County Zoning: RS-15 (Single Family 15,000 SF)

Parcel (0.59 ac)
Owner: Hauanio, Victor
Tax Map Key:
3rd Tax Div., 4-5-023: parcel 064
SLU District: Urban
County Zoning: RS-15 (Single Family 15,000 SF)

Parcel (0.89 ac)
Owner: Hamakua Housing Corp
Tax Map Key:
3rd Tax Div., 4-5-023: parcel 065
SLU District: Urban
County Zoning: RS-15 (Single Family 15,000 SF)

Parcel (0.69 ac)
Owner: Private
Tax Map Key:
3rd Tax Div., 4-5-023: parcel 066
SLU District: Urban
County Zoning: RS-15 (Single Family 15,000 SF)

Parcel (0.32 ac)
Owner: Private
Tax Map Key:
3rd Tax Div., 4-5-023: parcel 067
SLU District: Urban
County Zoning: RS-15 (Single Family 15,000 SF)

Parcel (0.20 ac)
Owner: Private
Tax Map Key:
3rd Tax Div., 4-5-023: parcel 068
SLU District: Urban
County Zoning: RS-15 (Single Family 15,000 SF)

Parcel (0.28 ac)
Owner: Private
Tax Map Key:
3rd Tax Div., 4-5-023: parcel 069
SLU District: Urban
County Zoning: RS-15 (Single Family 15,000 SF)

Parcel (0.27 ac)
Owner: Private
Tax Map Key:
3rd Tax Div., 4-5-023: parcel 070
SLU District: Urban
County Zoning: RS-15 (Single Family 15,000 SF)

Applicant Agent:

M & E Pacific, Inc.
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
Contact: Bruce Wade, P.E.
Phone: (808) 521-3051, Fax: (808) 524-0246

Proposed Action:

The proposed action involves installing a gravity sewer system, constructing a new wastewater treatment plant, and abandoning large capacity cesspools.

Anticipated Determination:

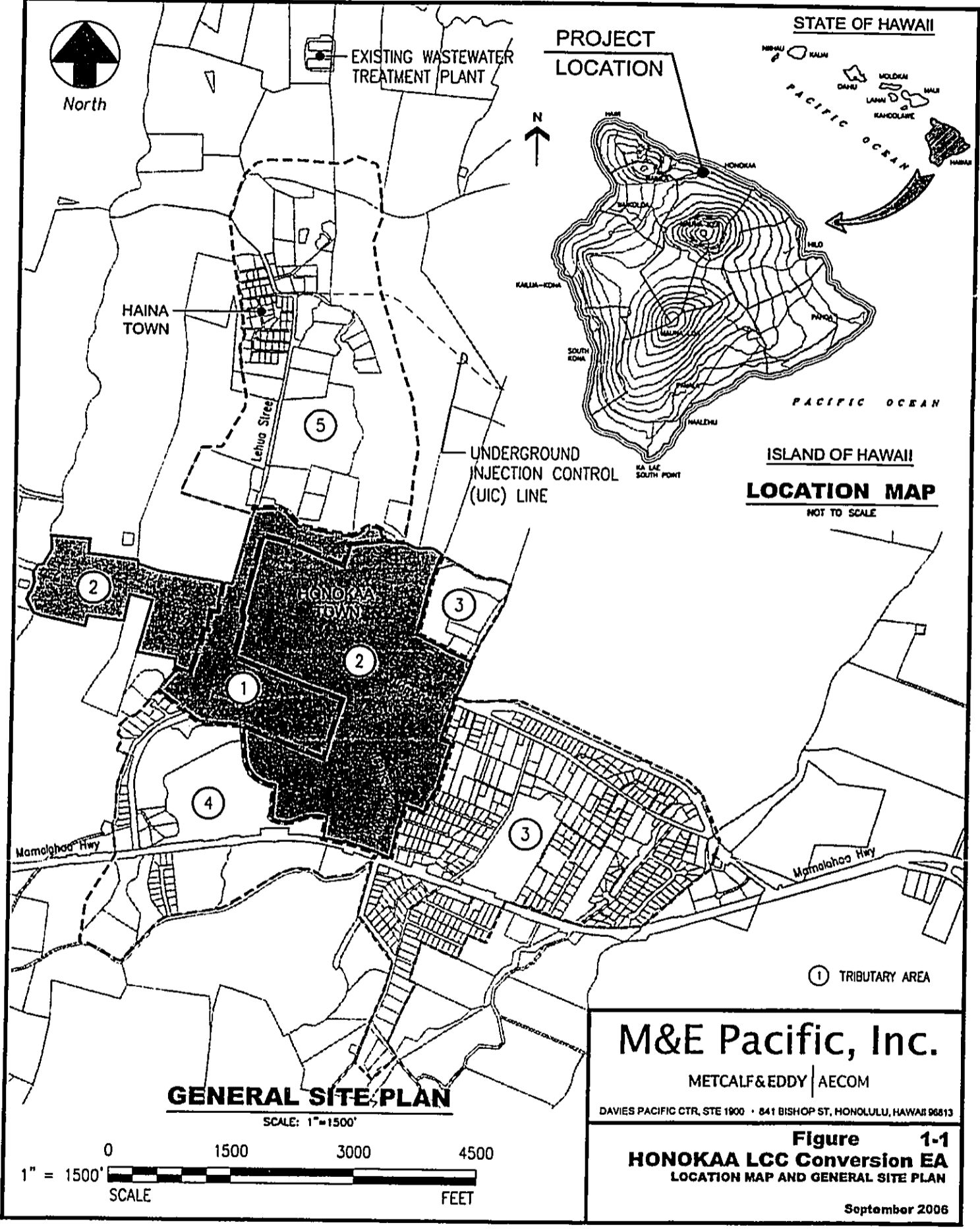
Finding of No Significant Impact (FONSI)

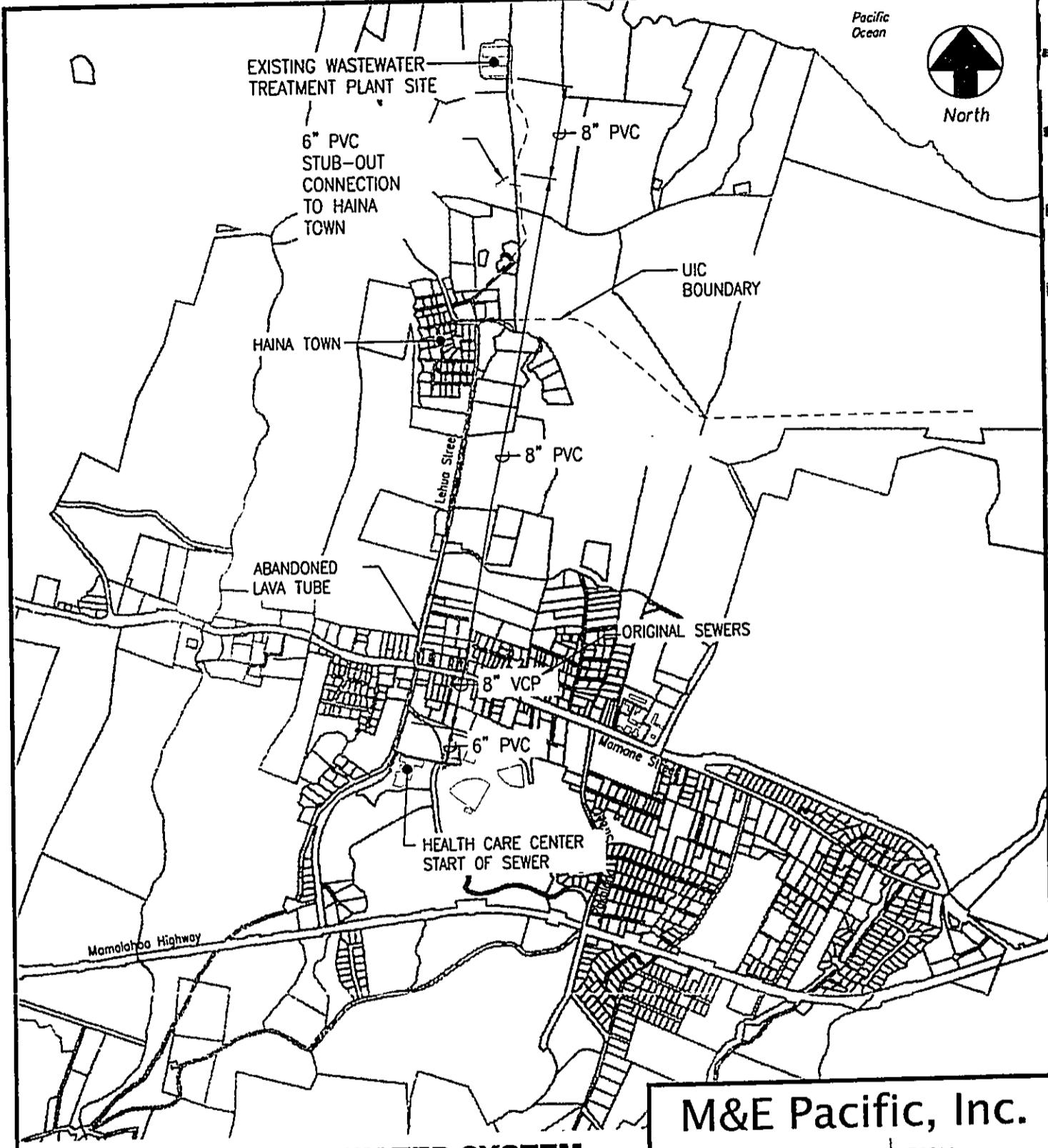
1.2 OVERVIEW OF PROPOSED PROJECT

In accordance with the U.S. Environmental Protection Agency (USEPA) ban on large capacity cesspools (LCC), the County of Hawai'i entered into a consent agreement with the USEPA which extends the ban deadline when fines could be levied based on a conversion schedule submitted by the County. This agreement requires the County to complete the conversion of regulated LCC to USEPA approved alternative sewer disposal by September 2010. As part of this agreement, the County proposes the Honoka'a Large Capacity Cesspool Conversion project to improve the existing sewerage systems in the town of Honoka'a. See Figure 1-1 for a location map of Honoka'a town and the Project Area. See Figure 1-2 for the existing sewer collection system and wastewater treatment plant (WWTP).

The County will be expanding the existing gravity sewer collection system to connect the majority of the LCC users to the sewer and building a new WWTP. This project may be funded by Federal Funds through the State of Hawaii's Clean Water State Revolving Fund (SRF) Program, which constitute a federal action, and will require the project to meet all NEPA and Hawaii SRF program requirements.

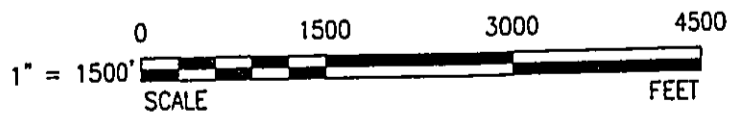
The ban on LCC is to mitigate the possibility of contamination of the water aquifer from raw wastewater seepage. The extension of an existing gravity sewer system and upgrade of the WWTP will cause short-term negative impacts to the environment. These short-term negative impacts are all construction related and are to be mitigated. The upgrade of the WWTP will require daily monitoring of the plant operations in order to ensure that proper treatment of the raw wastewater is continuing and to prevent odor problems. The long-term positive impact of safeguarding drinking water quality out weighs these short-term negative impacts and the long-term cost to the converted LCC users of monthly sewer fees.





EXISTING WASTEWATER SYSTEM

SCALE: 1" = 1500'



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Figure 1-2
HONOKAA LCC Conversion EA
 EXISTING WASTEWATER SYSTEM

September 2006

1.3 REQUIRED PERMITS AND CLEARANCES

Various County of Hawai'i and State of Hawai'i permits, approvals and clearances are required for the proposed project. These items include the following types:

- Plan Approval
- NPDES Stormwater, Construction Dewatering, Hydrotesting Permits
- Underground Injection Control (UIC) Permit
- Building Permits
- Grading Permit
- Excavation Permit
- Pressure Vessel and Boiler Permit
- Fuel Storage Tank Permit
- Wastewater Management Permit

1.4 PURPOSE OF THE ENVIRONMENTAL ASSESSMENT

This Environmental Assessment (EA) is prepared pursuant to Chapter 343 of the HRS and DOH, HAR Title 11-200, *Environmental Impact Statement Rules*. This document will serve as a written evaluation of the potential physical and social effects on the environment by the proposed project, as well as, mitigative measures wherever necessary.

CHAPTER 2 - PROJECT DESCRIPTION AND ALTERNATIVES CONSIDERED

2.1 PROJECT DESCRIPTION AND BACKGROUND

In accordance with U.S. Environmental Protection Agency (USEPA) regulations, 40 CFR 144-145, all large capacity cesspools (LCC) must be eliminated by April 2005. The County of Hawai'i has approximately 97 facilities that utilize 110 LCC Island wide. A current project is underway addressing the majority of these facilities with conversion to individual wastewater systems (IWS). These consist of septic tanks and leach fields. Where feasible, the County facilities that are within or adjacent to County sewers will be evaluated for possible connection to the existing system in lieu of conversion to IWS. The owner of the LCC is responsible to close the LCC in compliance with the Underground Injection Control (UIC) injection-well cesspool backfilling and abandonment requirements.

The County has entered into a consent agreement with the USEPA to schedule systematic conversion from LCC to acceptable wastewater treatment and disposal systems. During this period, the USEPA ban deadline is extended to preclude the possibility of fines levied by the USEPA. For LCCs in Honoka'a Town, the agreed upon schedule requires the County to complete construction of an USEPA approved sewage collection system by September 2010.

The County of Hawai'i, Department of Environmental Management (DEM), has contracted M&E Pacific to prepare a PER and EA that will recommend solutions for satisfying the USEPA regulation. The recommendations of the PER and EA will result in the design and construction of the selected alternative.

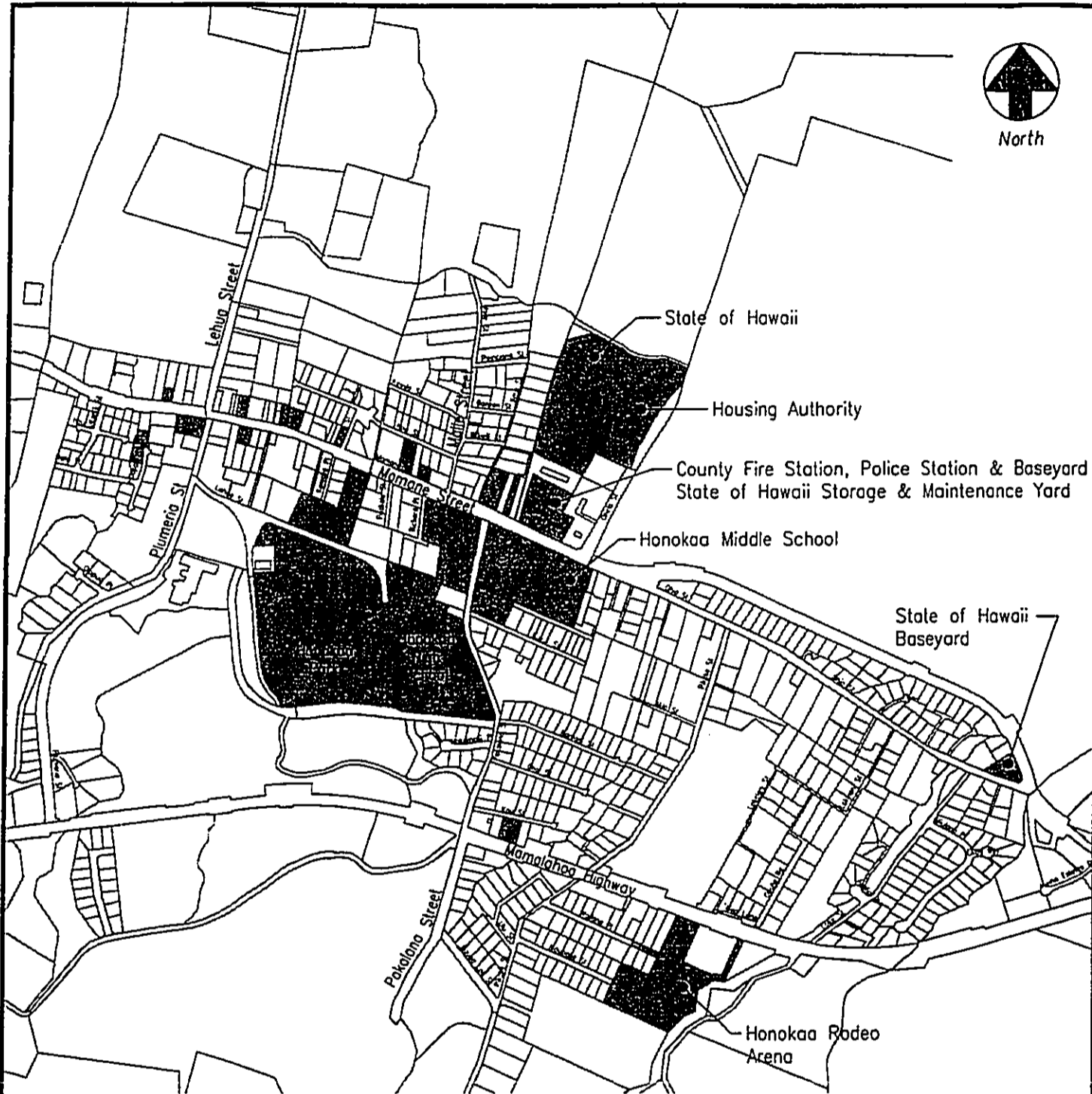
Honoka'a Town is approximately 40 miles north of Hilo and 20 miles southwest of Waimea in the Hamakua District. The existing State-owned wastewater system is shown in Figure 1-2. Existing 6-in and 8-in PVC sewer lines run from the Health Care Center on Lehua Street north approximately 8,000 linear feet down-gradient to the existing WWTP. The current system services the Hale Ho'ola Hamakua Health Care Center, two churches on lower Plumeria Street, and a few unknown properties downstream of the Health Care Center.

In the early 1950's the 6-in PVC sewer ran from the Health Care Center approximately 1100 linear feet to a lava tube adjacent to Lehua Street and approximately 380 feet makai of the Mamane Street and Lehua Street intersection. The lava tube was approximately 1000 feet upstream of a water well system serving the former plantation town of Haina, just north of Honoka'a. In 1995, construction of the current collection system eliminated the use of the lava tube for disposal of raw wastewater due to public health concerns.

Through a County outreach program, all the commercial and non-profit entities in Honoka'a were contacted with the purpose of determining the existence of LCC. There are 37 confirmed properties with LCC within Honoka'a town and up to approximately 60 to 70 unconfirmed properties with LCC. See Figure 2-1 showing the confirmed properties with LCC. There are areas in Honoka'a Town where lack of suitable land for conversion of LCC to septic tank and leach field make these areas good candidates for sewerage.

The existing WWTP built in 1995 rests on a parcel zoned "Agricultural" by the County and State

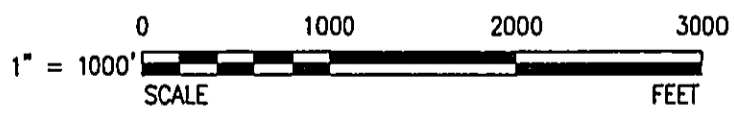
zoned "Conservation" for a portion of the parcel lying within the 300-foot shoreline setback area. See Figure 2-2 for the WWTP Site Plan. The existing WWTP will be abandoned and a new WWTP will be constructed. The new WWTP will not be constructed on conservation land; therefore, no State Conservation District Use Permit is required.



LOCATION OF KNOWN LCCs

SCALE: 1"=1000'

PARCEL WITH EXISTING LCC



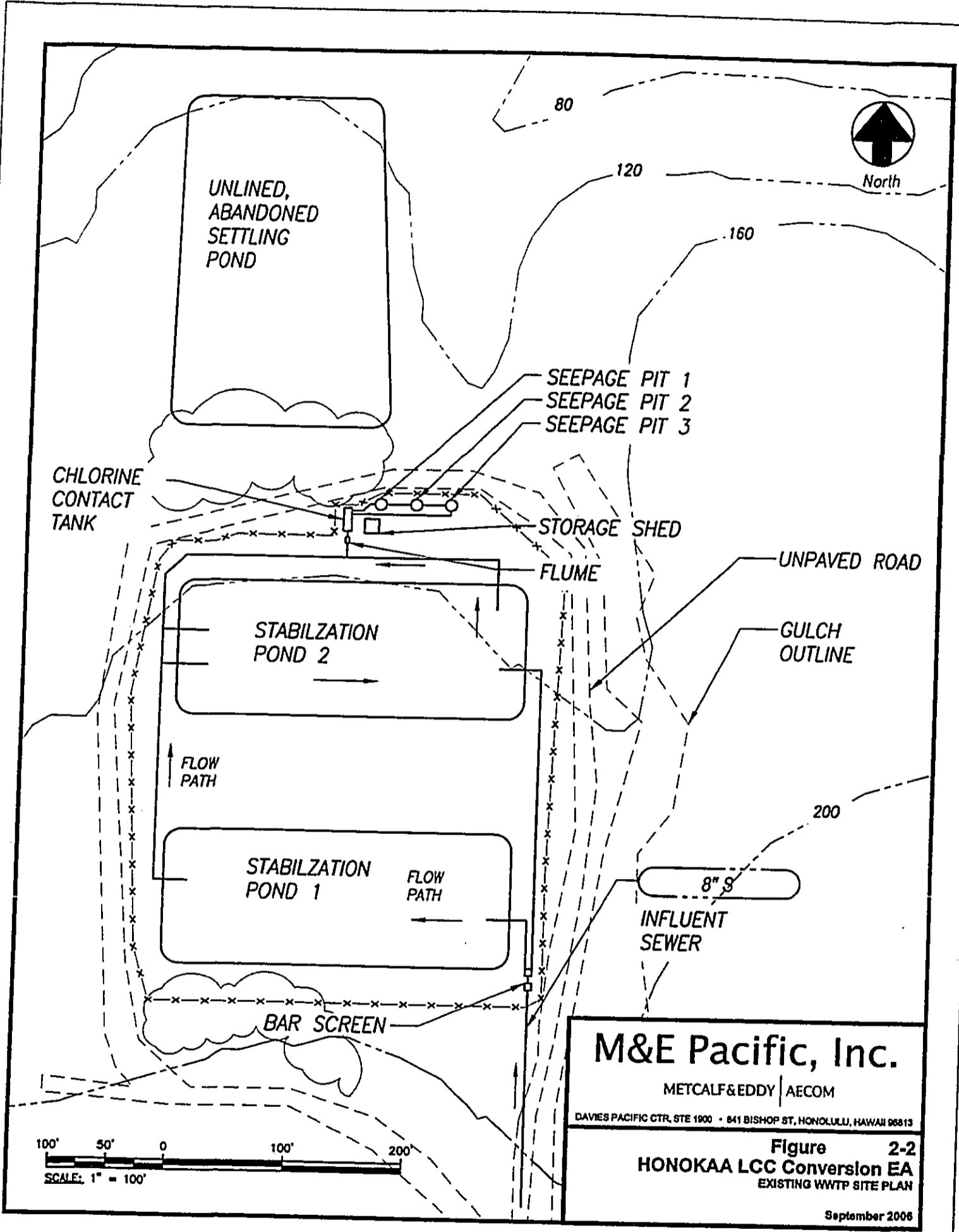
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**Figure 2-1
HONOKAA LCC Conversion EA
CONFIRMED PROPERTIES WITH LCCs**

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Figure 2-2
HONOKAA LCC Conversion EA
 EXISTING WWTP SITE PLAN

September 2008

2.2 PROJECT TECHNICAL DESCRIPTION

This project is divided into two terms, short-term and long-term. Short-term covers the next five (5) years and long-term covers five (5) to fifty (50) years from now. The short-term recommendation is work that must be done immediately to satisfy the agreement that the County has with USEPA (as described in Section 2.2.1). Long-term work is the expansion of the wastewater treatment system to include the entire Towns of Honoka'a and Haina (see Section 2.2.2).

2.2.1 SHORT TERM-5 YEARS

The County is proposing the following improvements:

1. Design and Construct Proposed Collection System
 - a. Perform flow monitoring and TV inspections of the existing collection system and WWTP. This task should be performed as part of a Due Diligence evaluation prior to transferring ownership of the existing State wastewater system to the County.
 - b. Design and construct Mamane Street trunk sewer line from Ohelo Street to Lehua Street. Connect to existing sewer manhole in the intersection of Mamane Street and Lehua Street.
 - c. Design and construct Pakalana Street sewers from Kamani Street to the proposed Mamane Street sewer.
 - d. Design and construct interim pump station for the County and State properties, which include the police and fire stations.
 - e. Design and construct sewer line connecting the County park facilities with the proposed Mamane trunk sewer.
 - f. Replace 40 linear feet of the existing 8-inch Lehua interceptor to remove the hydraulic bottleneck within the system.
 - g. Obtain necessary easements.
 - h. Transfer ownership of the existing State owned wastewater system to the County at no extra cost to the County.
 - i. Landowners along the proposed sewer routes must connect to the County sewer system and must pay a monthly sewer usage fee.
2. Design and Construct Proposed WWTP
 - a. Design and construct a new 200,000 gpd mechanized secondary treatment plant.
 - b. The existing wastewater treatment plant will not be incorporated into this project.
 - c. New WWTP site and property will be required.
 - i. The old sugar mill properties and the adjacent pasturelands are among the potential site for the new WWTP. The County is expected to purchase the necessary property for the WWTP.
 - ii. Approximately 5-8 acres is required. The amount of land will depend on the existing structures that will be difficult to demolish, accessibility for road and utilities, and the slope of the terrain. Additional 2-3 acres may be required if Alternative 3 option is implemented.

- iii. These potential sites already provide paved road access, potable water supply, and utility electrical supply.
- iv. Consolidation and/or resubdivision may be required depending on the chosen WWTP site.
- d. New seepage pits/injection wells are required.
- e. Disinfection though not required will be included.
- f. Stabilized and dewatered waste sludge will be hauled to and disposed at a West Hawaii municipal landfill.

The following 25 properties with confirmed LCCs will be connected to the County sewer line by expanding the Mamane trunk sewer tributary area:

1. Seven (7) County owned properties;
2. Eight (8) State owned properties on Mamane Street (6 school properties, 1 housing property, and 1 Army National Guard site); and
3. Ten (10) privately owned properties along Mamane Street.

After the expansion, the estimated reserve capacity in the Lehua Interceptor will be as follows:

1. Sewer Capacity 806,100 gpd;
2. Estimated PWWF Generated 578,400 gpd; and
3. Reserve Capacity 227,700 gpd.

After implementation, approximately 98 properties will be served by 8,700 linear feet of sewer lines. The expected cost of construction for the expanded wastewater collection system is \$3.6 million. The expected annual revenue is \$194,000.

The cost to each property owner may range between \$1,000 and \$20,000 per connection depending on the terrain, obstructions (landscaping, walls, etc), depth of cesspool and distance from the County's lateral. The total cost to each property owner is not included in the estimated construction cost for the County to implement the proposed collection system. The cost to connect to the County sewer would vary depending on the location of their cesspool (in front vs. in back of the lot) and the type of subsurface conditions (rock or dirt).

The advantages and disadvantages of this proposal are:

1. 25 out of 37 properties with known LCCs will be sewerred;
2. Major reduction of raw wastewater being discharged into the ground;
3. Property owners must install lateral connections from their cesspools to the property line fronting the County's sewer line; and
4. Property owners must pay the County's sewer user fee.

The increase in wastewater collection would necessitate a new WWTP. The WWTP currently handles a flow of 56,800 gpd and the proposed improvements require a design ADWF flow of 200,000 gpd. Thus, County proposes a new wastewater treatment plant. Considering the relatively small wastewater flows and the need for low capital and operation and maintenance cost, a sequencing batch reactor (SBR) is recommended. The SBR is a mechanical secondary wastewater treatment process that has been shown to produce high quality effluent, is able to handle flow and organic loading variations, and needs minimal operator attention.

The proposed SBR will produce approximately 10,000 to 30,000 gpd of raw un-stabilized liquid waste sludge. Before disposal, the liquid waste sludge must be stabilized (aerobic digestion) and the liquid portion of the sludge must be removed. A typical mechanized sludge handling system for a 200,000 gpd, mechanized plant consists of aerobic digester units and dewatering such as belt presses or centrifuges. The mechanized sludge handling system will reduce the standard liquid content for disposal at a County municipal landfill in West Hawaii. Cake sludge will be hauled, as needed (either weekly or biweekly).

Seepage pits are feasible since they have been successful and the proposed wastewater treatment sites are below the Underground Injection Control (UIC) line. Two new seepage pits, each 8-foot in diameter and 25 feet deep, and two backup seepage pits are required. Seepage pits are practical because of relatively low cost and they can be adequately maintained due to the low number of seepage pits required.

A new 5-8 acre site is needed for the new WWTP. The new site should include space for a building to accommodate operational staff and to store necessary equipment and supplies. The possible sites for the new WWTP are TMKs 4-5-002:018; 61; 63; 68-72; 74-76 and TMKs 4-5-023:63-70 (See Figure 2-4). The County needs to acquire the land for the new WWTP.

The estimated cost for construction of the collection system, WWTP, and effluent disposal system will be over \$11 million. The estimated cost includes acquiring 5 acres of land for the WWTP at \$5 per square foot. This project may be funded by Federal Funds through the State of Hawaii's Clean Water State Revolving Fund (SRF) Program, which constitute a federal action, and will require the project to meet all NEPA and Hawaii SRF program requirements. County funds will be utilized for the operating and maintenance costs. Construction is expected to be completed by May 2010. This will meet the September 2010 USEPA deadline. The County's estimated annual revenue is \$194,000 and the estimated life cycle cost is \$23.46 million assuming a 20-year life, 6% interest rate and 3% inflation rate.

2.2.2 LONG TERM-5 TO 50 YEARS

The County is proposing the following long-term improvements:

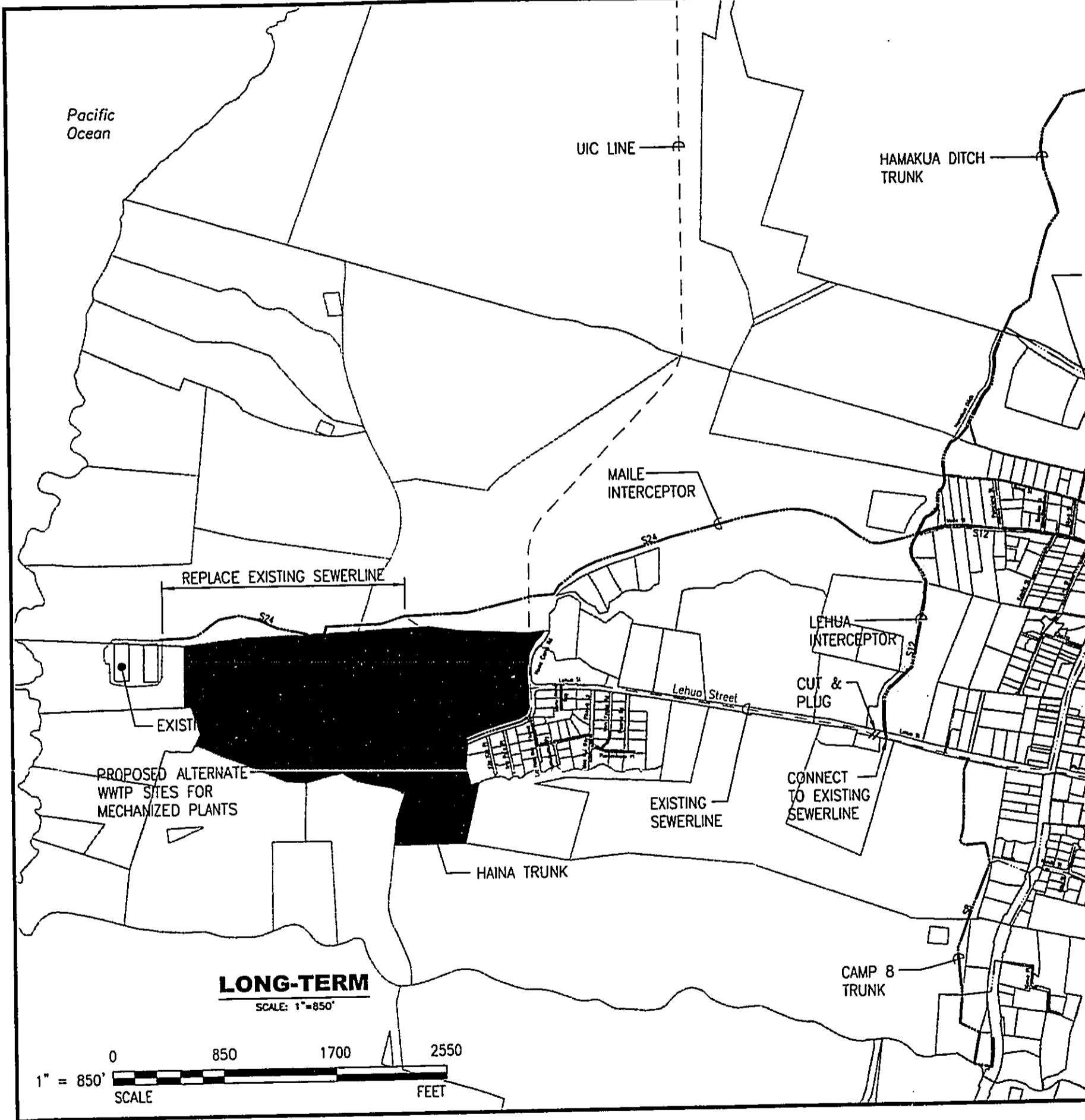
1. Increase Capacity of WWTP Phase 1 (5-10 years)
 - a. ADWF 350,000 gpd.
 - b. PWWF 1.74 mgd.
 - c. Obtain addition land for the expansion of the WWTP.
 - d. Screening facility.
 - e. Expand the WWTP to 350,000 gpd.
 - f. Seepage pit disposal system.
 - g. Expand sludge handling facilities.
2. Expand Collection System Phase 1: (10 to 20 years)
 - a. ADWF: 211,800 gpd.
 - b. PWWF: 1.06 mgd.
 - c. Continue using the existing Lehua sewer line.
 - d. Capacity of the existing Lehua sewer: 806,100 gpd.

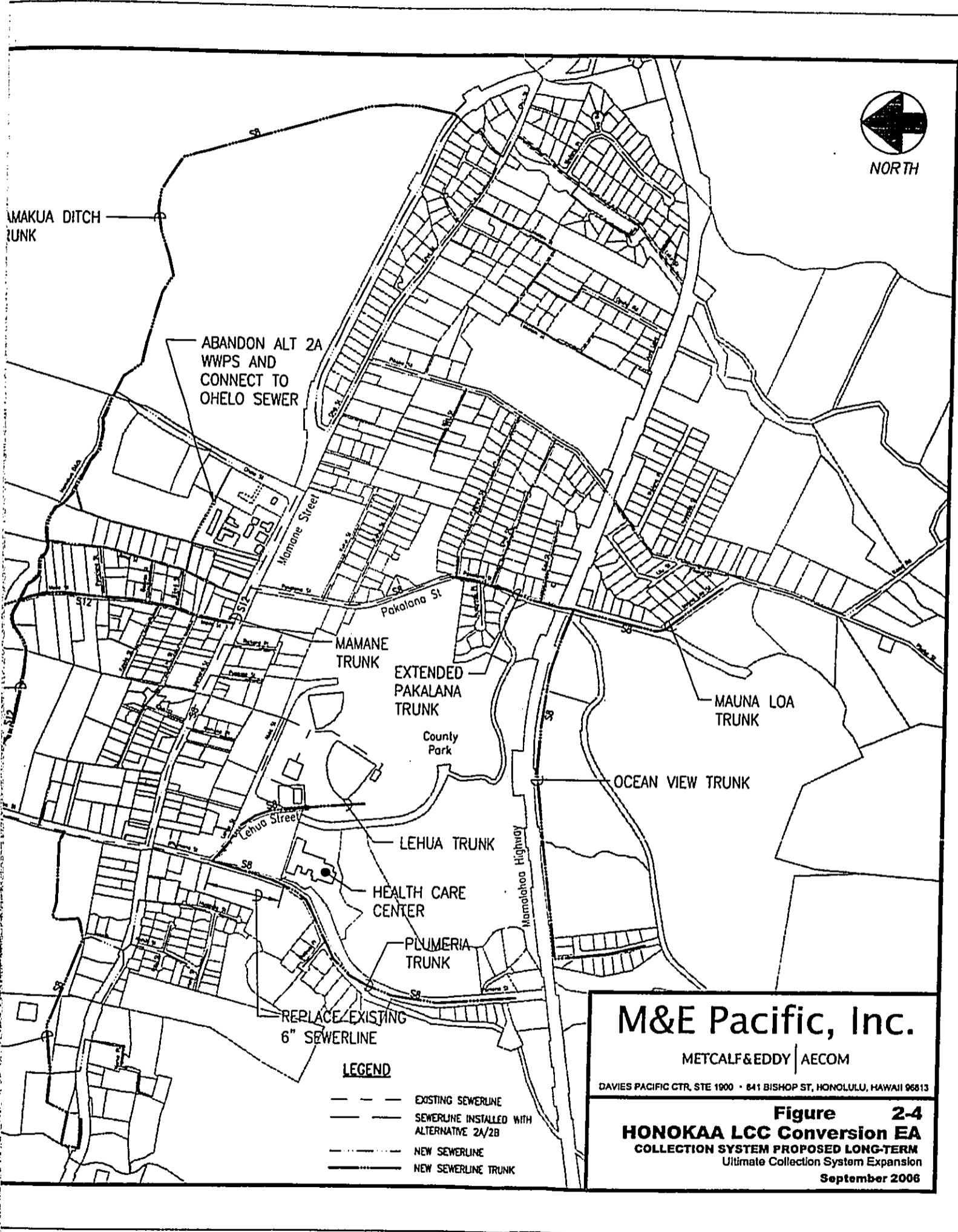
- e. Expand Mamane trunk tributary area:
 - i. This will remove many of the downtown and State and County properties from using cesspools.
 - f. Camp 8 trunk tributary area.
 - g. Plumeria trunk tributary area.
 - h. Lehua trunk tributary area.
 - i. Landowners within the proposed tributary areas must connect to the County sewer system and must pay a monthly sewer usage fee.
3. Expand Collection System Phase 2 (20 to 30 years)
- a. ADWF: 335,000 gpd.
 - b. PWWF: 1.55 mgd.
 - c. Expand Maile Interceptor to the plant site.
 - d. Expand Lehua Interceptor, which connects to the proposed Maile Interceptor.
 - e. Maile trunk tributary area.
 - f. Pakalana trunk tributary area.
 - g. Landowners within the proposed tributary areas must connect to the County sewer system and must pay a monthly sewer usage fee.
4. Expand WWTP Phase 2 (25 to 30 years)
- a. ADWF 700,000 gpd.
 - b. PWWF 3.49 mgd.
 - c. Expand WWTP from 350,000 gpd to 700,000 gpd.
 - d. Disinfection system: UV disinfection or chlorination system satisfying R2 recycled water quality.
 - e. Effluent reuse system:
 - i. Area 3 – 73 acres required.
 - ii. Effluent pump station and force main.
 - iii. Chlorination system for algae control.
 - iv. 2-day effluent storage reservoir.
 - v. Automatic spray irrigation system.
5. Expand Collection System Phase 3 (35 to 50 years)
- a. Hamakua Ditch trunk tributary area.
 - b. Haina trunk tributary area.
 - c. Mauna Loa trunk tributary area.
 - d. Ocean View trunk tributary area.
 - e. Lower Maile trunk tributary area.
 - f. Landowners within the proposed tributary areas must connect to the County sewer system and must pay a monthly sewer usage fee.
 - g. Expand sludge handling facilities.

All 37 properties with confirmed LCCs will be sewered. The proposed sewer lines will serve approximately 925 properties. The total construction cost is estimated to be over \$40 million. The estimated County revenue is \$708,000 and the estimated life cycle cost is \$79.3 million assuming a 20-year life, 6% interest rate and 3% inflation rate.

This is the long-term recommendation. The entire Towns of Honoka'a and Haina will be sewered and an estimated 625 cesspools will be removed so that raw wastewater will not be

discharged into the ground. It is recommended that this be implemented in phases (see above).





2.3 ALTERNATIVES CONSIDERED

The first alternative that was considered was the "No Action" Alternative. This alternative violates the USEPA ban on LCCs. USEPA can fine violators \$32,500 per day per LCC for everyday after April 5, 2005 that they remain in service. In addition, LCCs can pose a potential contamination source of the underground drinking water source in Honoka'a.

The second alternative considered was the expansion of the Lehua Interceptor service area. This option includes sewer user fees to offset the cost of constructing and maintaining the wastewater system. However, there will be insufficient reserve treatment capacity to connect all of Honoka'a's public schools to the WWTP. Furthermore, key issues such as effluent limitations, lack of electrical power, and difficulty accessing the existing plant site are major engineering challenges.

The last alternative considered was replacing LCC with IWS (Individual Wastewater System). This is the cheapest alternative for the County. The County will be able to convert all their LCCs to IWS. However, it is impossible for some LCCs to be converted to IWSs due to lack of open space or terrain on Mamane Street. Therefore, many property owners with LCCs are dependent on the County to expand the existing WWTP to comply with USEPA regulations.

CHAPTER 3 - AFFECTED ENVIRONMENT, ANTICIPATED EFFECTS AND PROPOSED MITIGATIVE MEASURES

3.1 INTRODUCTION

The environmental review process is regulated under Hawaii's Environmental Impact Statement Law (HRS 343), which ensures that appropriate consideration is given to all environmental concerns regarding the proposed project. Part of the process requires identification and a summary of potential environmental effects from the proposed action and all considered mitigative measures to avoid or minimize the effects, which include both "primary" and "secondary" effects, as well as, "cumulative," "short-term," and "long-term" effects.

A "primary" or "direct" effect refers to an effect caused by an action, in this case a construction activity, and occurs, immediately, at the same time and place as the instigating action.

A "secondary" or "indirect" effect refers to an effect caused by an action that occurs, later in time or farther removed in distance from the instigating action, but is still reasonably foreseeable.

A "cumulative" effect refers to a comprehensive, built-up effect comprised of the incremental effects of an immediate, instigating action adding to effects of other past, present and reasonably foreseeable future actions, regardless of the agency or person who undertakes such other actions.

A "short-term" effect is an effect of relatively short duration and generally refers to a project construction work-related effect.

A "long-term" effect is an effect of relatively long and lasting duration and generally refers to an effect that remains after completion of the project construction work.

"Mitigation" refers to procedures followed and activities undertaken during the project to alleviate and minimize any negative effects and impacts of the project work.

The following sections describe the existing physical and social environments within the project site and surrounding areas, and explore the potential effects anticipated from the proposed action and the practical mitigative measures for any adverse impacts. All project-related work shall be assessed in compliance with State and County policies.

3.2 PHYSICAL ENVIRONMENT

3.2.1 LOCATION

The project area is located in the Hamakua District on the northern coastline of the Island of Hawai'i, approximately 38 miles north west of town of Hilo along the Hawaii Belt Road and approximately 12 miles east of town of Waimea along Mamalahoa Highway.

A project location and vicinity map is presented in Figure 1. Project site photographs are seen in Photos 1 through 8 at the back of this EA. The project area is bounded on the south by Mamalahoa Highway, east by an un-named drainage way and west by a Papuaa gulch. The coastline forms the northern boundary extending from Pa'auhau Landing to Honoka'a Landing.

3.2.2 CLIMATE

Existing Condition

The climate is typified by warm uniform temperatures, wide variations in rainfall, and consistent trade winds from the east and northeast. From the County of Hawai'i website and State Commission on Water Resource Management records, the average temperature ranges from a low of 68°F to 76°F. The average annual precipitation is 86 inches with the precipitation ranging from 65.6 inches in year 2000 to 107 inches in 1998 (period of record from 1998 to 2002). From "An Inventory of Basic Water Resources Data: Island of Hawai'i," Report R34, State Department of Land and Natural Resources, February 1970, the data from a wind anemometer located at Haina wind station (State Key No. 214, U.S. Weather Bureau No. 0840) and recorded by the Hamakua Sugar Co. (no longer in business) is tabulated from 1920 to 1945. The average wind speed ranged from 7 to 8 mph with a high of 36 mph.

From Report R34, the data from evapotranspiration station Honoka'a 220.5 shows that the mean annual evaporation for this area is approximately 75 inches.

Anticipated Effects and Mitigative Measures

No short-term, long-term or cumulative adverse effects are anticipated to the climatic conditions in the project area; therefore, no mitigative measures are proposed.

3.2.3 GEOLOGY AND TOPOGRAPHY

Existing Conditions

The Island of Hawai'i was formed by lava flows from five principal volcanoes: Kohala, Mauna Kea, Hualalai, Mauna Loa, and Kilauea. The creation of the Honoka'a area resulted from primarily the lava flows from Mauna Kea, which is a dormant volcano which last erupted 4,500 years ago. The Honoka'a area is underlain by lavas of the Laupahoehoe volcanic series and overlain by shallow depths of Pahala ash. Wave action along the Hamakua coast has eroded the basic rock and has created vertical cliffs from 100 to 300 feet high. Gulches are short and steep-sided.

Elevation ranges at the project site from 160 feet Mean Sea Level (MSL) located at the existing WWTP near the shore cliff to 1200 ft MSL approximately 1.8-mile inland near mauka end of sewer extension in the County Park. Slopes in the vicinity of this project range from mild along Mamane Street (west to east direction) to average approximately 12% along south to north direction.

Anticipated Effects and Mitigative Measures

Although construction work will involve earthwork, the finish grades within the construction limits will match the existing condition upon completion of the project. Therefore, no long-term effects are anticipated to the geology and topography within the project area. When these activities are reviewed against past, present and reasonably foreseeable future actions, no cumulative effects on geology and topography are expected. Therefore, no mitigation measures are required.

3.2.4 WATER RESOURCES

The project site lies within the Honoka'a hydrologic unit (code 80201), a part of the East Mauna

Kea aquifer sector (aquifer recharge zone) as defined by the State aquifer classification system created in the late 1980's with impetus from the Department of Health in response to USEPA directives. See Figure 3-1, Hydrologic Units. The State Commission on Water Resource Management (CWRM) uses this code classification of aquifers: 8 (Hawai'i Island); 02 (East Mauna Kea Aquifer Sector; and 01 (Aquifer system). The surface boundaries of the aquifer follow major topographic ridges and encompass the towns of Honoka'a, Haina, Paauhau, etc. and the drainage basins of a number of streams.

Basal groundwater in the Hamakua basaltic formation of Mauna Kea volcano may extend five to seven miles inland of the coast. The Laupahoehoe volcanic lava flow blankets portions of the Hamakua formation and contains high-level perched water. High-level perched water likely exists in Hamakua rocks deep underground along the northwest rift of Mauna Kea. Although a sedimentary caprock does not exist at the coast, the Laupahoehoe volcanics may act as caprock where it reaches the sea. The estimated sustainable yield is 31 mgd.

The only existing drilled well in the project vicinity is Haina well (6528-01) located approximately 0.4 miles makai of Honoka'a Town at an elevation of 855 feet. In 1998, Haina well was identified by the Department of Health as having trace amounts of the contaminant Atrazine (detected level 0.1 ppb in sample dated 10/8/98). This trace amount is well below the current USEPA maximum contaminant level in water, which is delivered to any user of a public water system of 3 ppb. The Haina well is an active production well.

Surface water development is evidenced by the Lower Hamakua Ditch irrigation system running west to east between Honoka'a and Haina which collects an average of 32 mgd of drainage in the Kohala Mountains.

Storm runoff from the project site flows into Papuaa gulch and a small un-named drainage way. These inland intermittent watercourses are Class 2 State waters. The storm runoff ultimately discharges into the Pacific Ocean, classified by Department of Health as Class A.

Anticipated Effects and Mitigative Measures

The existing effluent injection wells at the WWTP are below the underground injection control line (UIC) and will not affect the source waters of the basal aquifer. This project will be in compliance with the Safe Drinking Water Act (42 U.S.C. §300f).

The Hawaii Administrative Rules (HAR), Title 11 Chapter 54 – Water Quality Standards defines inland Class 2 streams as those whose uses are to be protected for recreational purposes, propagation of fish and aquatic life, promotion of agricultural and industrial water supplies, shipping navigation and propagation of shellfish. These waters are not to receive any discharges that have not received the best degree of treatment of control compatible with criteria established for this class of waters. HAR §11-54 establishes an objective for Class A marine waters (i.e. all oceanic waters) essentially the same as stated above for Class 2 above.

The state of Hawaii does not have any rivers that are designated Wild and Scenic Rivers, so the Wild and Scenic Rivers Act (16 U.S.C. §1271) is not applicable to this project.

During construction, approved best management practices will be employed to filter any storm runoff flowing over the construction site and procedures will be in place to prevent oil or other contaminants from entering State waters (i.e. Lower Hamakua Ditch, Papuaa gulch, un-named drainage way) and Haina well.

No short-term or long-term impacts on these two water resources are anticipated. During construction, the grading permit and the permit to work within the County Right-of-Way will specify the necessary temporary erosion control measures to control runoff during construction.

It is anticipated that the size of the construction site will exceed one acre and therefore a National Pollution Discharge Elimination System (NPDES) permit will be required. Stormwater runoff from the construction site will be filtered or treated using appropriate BMPs.

3.2.5 WETLANDS

A wetland was found in Honoka'a. The wetland is a freshwater emergent wetland. The wetland is located north of the State and County of Hawaii Buildings. It is classified as a Palustrine, Emergent, Persistent, Seasonally Flooded Wetland.

Anticipated Effects and Mitigative Measures

The proposed WWTP is not expected to have any effect on the existing freshwater emergent wetland. All construction will be in accordance with the Protection of Wetlands (42 U.S.C. §4321), when applicable.

3.2.6 SOILS

Existing Conditions

The National Resource Conservation Service (NRCS, formerly Soil Conservation Service) of the U.S. Department of Agriculture (USDA) classifies the soil at the project in Honoka'a town site as Kukaiiau well-drained silty clay loam formed in volcanic ash, 12 to 20 percent slopes (KuD). See Figure 3-2, Soils map. Kukaiiau soil series consists of a surface layer of very dark grayish-brown silty clay loam about 10 inches thick. The subsoil is dark-brown silty clay loam about 40 inches thick over-laying basalt rock. The surface layer is extremely acid, and the subsoil is medium to slightly acid. This soil is moderately permeable. Runoff is medium and the erosion hazard is moderate. Small areas are used for macadamia nuts and pasture.

The soil at the existing WWTP site is Paauhau well-drained silty clay loam formed in volcanic ash, 12 to 20 percent slopes (PaD). Paauhau soil series consists of a surface layer of very dark grayish-brown silty clay loam about 10 inches thick. The subsoil is dark-brown silty clay loam about 34 inches thick over-laying weathering igneous rock. The surface layer is strongly acid, and the subsoil is medium to slightly acid. This soil is moderately permeable. Runoff is medium and the erosion hazard is moderate. Small areas are used for small crops and pasture.

Anticipated Effects and Mitigative Measures

Short-term adverse impact to the soil occurs during the utility trench excavation to install the new sewer, laying the new sewer, backfilling, and restoration of pavement. During construction, the soil in the open trench section is exposed to erosion forces.

For the protection of nearby residences, temporary BMPs (typical) will be used for the project. Storm water runoff and wind will carry sediment from exposed areas to adjoining residences and possibly to Papuaa gulch along the west side of Honoka'a and Haina and an un-named drainage way along the east side of Honoka'a and Haina. Any accumulated dirt and debris from construction activities are to be cleaned daily, as required, from public roadways and neighboring driveways to keep the surroundings clean and safe. Soil loss due to storm events will be controlled with the use of temporary BMP consisting of silt fences and dust control using water spray on stockpiles along the perimeter of the project site; mulch, and fast-growing groundcover and periodic watering on exposed areas for erosion control. The temporary BMP will be removed upon completion of the project construction work.

Dismantling and removal of the temporary BMP all have the potential to temporarily generate debris and cause temporary increases in stream turbidity due to soil disturbance; however, the disturbance is anticipated to be relatively small and of short, insignificant duration.

After the trench is backfilled and the pavement is restored or the easement area is stabilized, no long-term adverse impacts to the soils are anticipated.

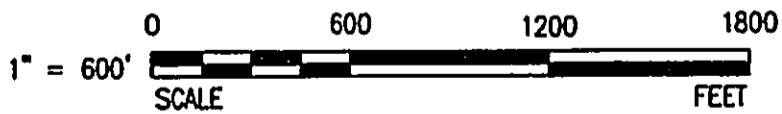
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North



SOILS
SCALE: 1"=600'



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Figure 3-2
HONOKAA LCC CONVERSION EA
SOILS

September 2006

3.2.7 NATURAL HAZARDS

Natural hazards in Hawai'i include floods, tsunamis, hurricanes and earthquakes. Existing conditions about these natural hazards and potential effects on these hazards due to proposed project are described as follows.

3.2.7.1 Floods

Existing Conditions

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Hawai'i County Community Panel Number 155166 0205 C shows currently defined flood zones. The project area in Honoka'a town shows existing "AH," flood zones along Mamane Street resulting from "detailed studies." "AH" is designated "Special Flood Hazard Areas Inundated by 100-year Flood" and flood depths of 1 to 3 feet (usually areas of ponding), base flood elevations determined. The proposed project improvements will actually cross two defined "AH" zones along Mamane Street See Figure 3-3, FIRM Map-1.

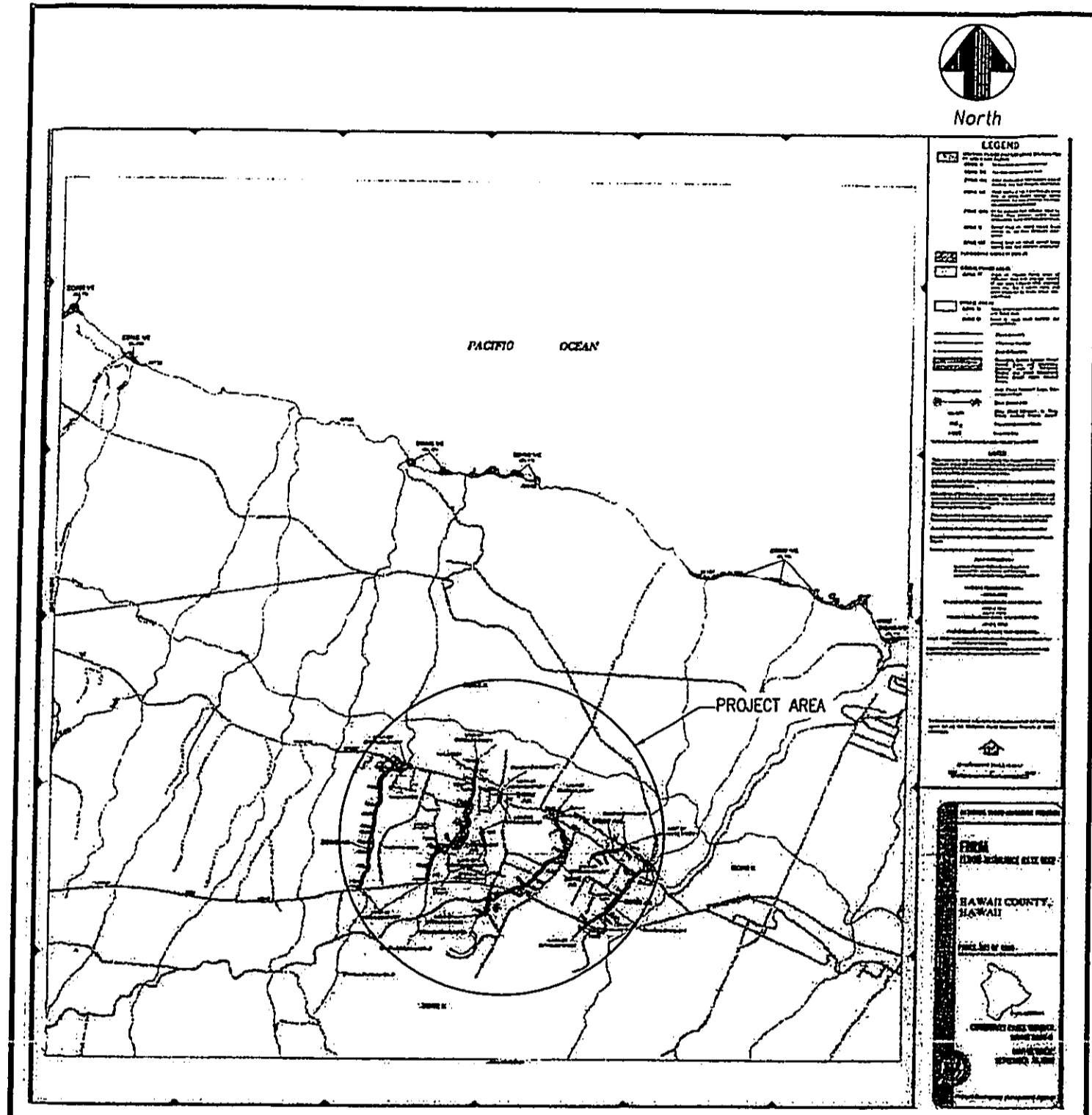
The existing WWTP site has zone "VE" defined along the shoreline below the top of cliff with elevation 17 MSL. The elevation of the existing improvements are approximately 160 MSL; clearly out of the flood zone. See Figure 3-4, FIRM Map-2. "VE" is also designated "Special Flood Hazard Areas Inundated by 100-year Flood." This zone is defined as coastal flood with velocity hazard (wave action); base flood elevations determined.

Anticipated Effects and Mitigative Measures

Short-term impacts are construction activities involving trench excavation, installing new sewer pipes, trench backfilling and pavement restoration are anticipated within these two flood zones. The typical open trench area during a working day is very small; no larger than approximately 150-ft long x 2.5-ft wide (approximately 400 sf or 0.01 acre). Before the end of a typical working day, all stockpile backfill will be removed from the flood zone to a staging area and the open trench covered with steel plating. These construction practices will mitigate the potential impacts of flooding washing construction related sediment into State waters and into the Pacific Ocean while construction activities occur within the two flood zones.

The project area improvements will not change the existing finish ground contours and will not have any long-term impacts on existing flood zones. Therefore, no long-term mitigation measures are required. Construction of this project will be in accordance with the Floodplain Management (42 U.S.C. §4321).

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General FIRM Map

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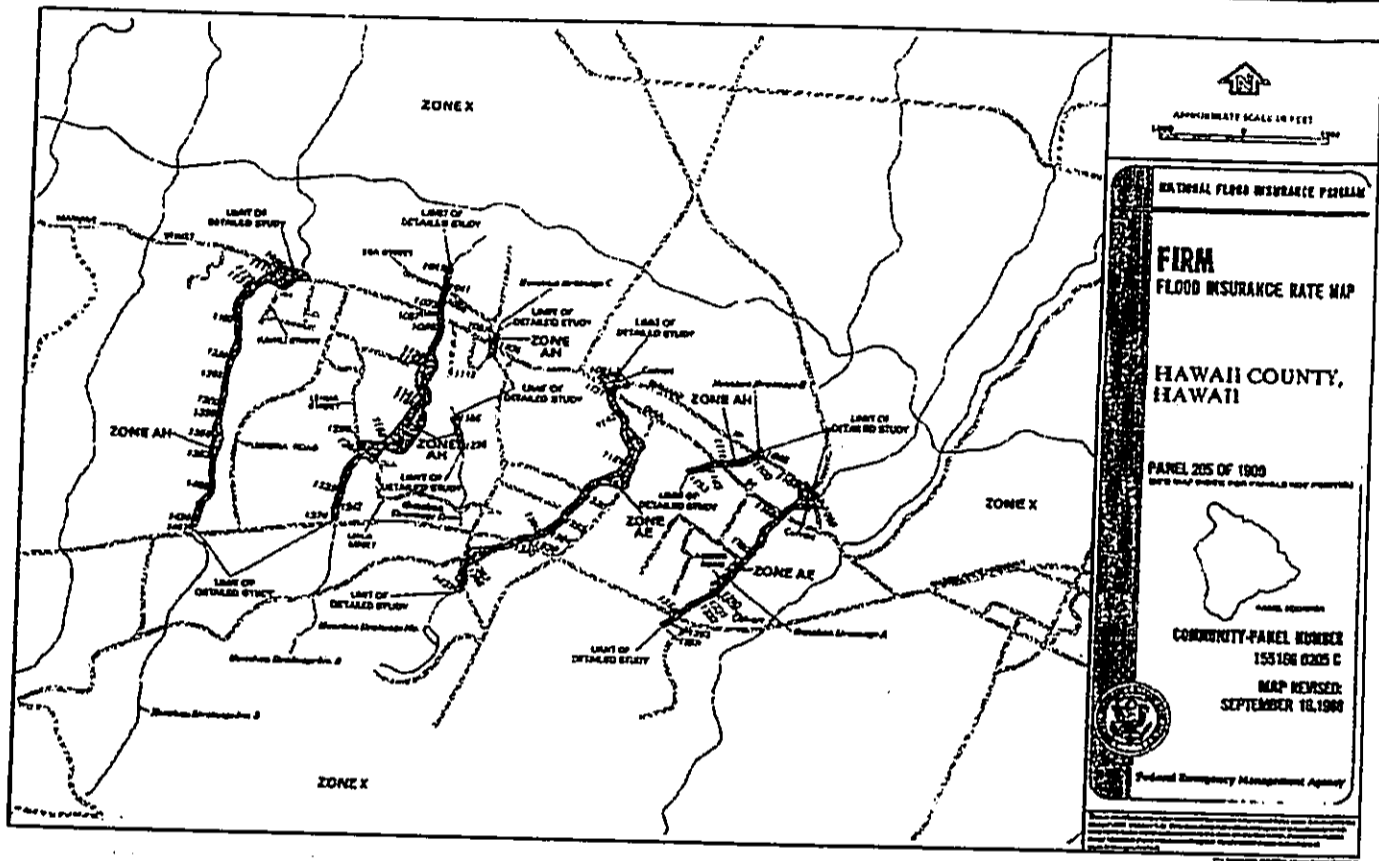
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Figure 3-3
HONOKAA LCC CONVERSION EA
GENERAL FIRM MAP

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Detailed FIRM Map

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Figure 3-4
HONOKAA LCC CONVERSION EA
DETAILED FIRM MAP

September 2006

3.2.7.2 Hurricanes

Existing Conditions

Storm systems originating in the tropics are known as tropical cyclones and are classified according to the speed of their sustained winds. Hurricane force winds exceed 73 mph. Most storms enter Hawaiian waters from the eastern Pacific. These storms also bring heavy rains, stream flooding, and cause storm surges along the first few hundred meters of the coastal zone.

Since 1960, meteorological data collected by satellites have revealed that storm systems occur more frequently in Hawaiian waters than was previously thought. From 1961 to 1995 44 depressions (sustained winds measuring up to 38 mph), 68 tropical storms (sustained winds between 39 and 73 mph), and 42 hurricanes have either entered or formed in the central North Pacific.

The first officially recorded hurricane, named Hiki occurred in 1950. Since that time, five hurricanes have affected the State. The most recent four hurricanes (Dot, 1959; 'Iwa, 1982; Estelle, 1986; 'Iniki, 1992) have been the most destructive. The estimated damage caused by 'Iniki is \$2.4 billion.

Anticipated Effects and Mitigative Measures

The proposed improvements to this project are underground and will not affect the local climate in the short-term or the long-term. No mitigative measures are required.

3.2.7.3 Volcanic and Earthquake Hazards

Existing Conditions

The volcanic lava flow hazard zone is Zone 8, a low hazard zone on a scale of 1 through 9 (Zone 1 is the most severe hazard). The lava flow hazard zones are based on the location of eruptive vents, past lava flow coverage, and the topography of the volcanoes.

Most earthquakes in Hawai'i result from magmatic migration underground unlike other areas where seismic activity accompanies movement along tectonic (crustal) plate boundaries. Thousands of earthquakes occur each year in Hawai'i. The vast majority of them are small and only detectable with sensitive instruments; however, moderate and occasionally catastrophic events occur. An earthquake of magnitude less than 5 is recorded to have occurred near the project site. The entire Island of Hawai'i is designated as Seismic Zone 4, highest severity based upon the Uniform Building Code (UBC), 1997 seismic zone criteria that range from 0 to 4 (low to higher severity).

Anticipated Effects and Mitigative Measures

These are ever-present threats that can potentially devastate an area. Although the proposed improvements are underground, if a large earthquake causes significant differential ground movements, the sewer lines and manholes could be significantly damaged. The proposed improvements will comply with current regulatory design standards. There are no practical mitigative measures currently applicable.

CORRECTION

THE PRECEDING DOCUMENT(S) HAS
BEEN REPHOTOGRAPHED TO ASSURE
LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

3.2.7.2 Hurricanes

Existing Conditions

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Anticipated Effects and Mitigative Measures

These are ever-present threats that can potentially devastate an area. Although the proposed improvements are underground, if a large earthquake causes significant differential ground movements, the sewer lines and manholes could be significantly damaged. The proposed improvements will comply with current regulatory design standards. There are no practical mitigative measures currently applicable.

3.2.7.4 Coastal Hazards

Existing Conditions

Sections of rocky shoreline can suddenly collapse when coastal rock formations and steep slopes are destabilized by landslides and undercutting by waves. Along the Hamakua coast, steep coastal cliffs show evidence of frequent slumping and land sliding.

Anticipated Effects and Mitigative Measures

The possible collapse of sections of cliff is an ever-present threat at the existing WWTP. The existing WWTP is approximately 400-ft inland from the cliff edge and the potential for catastrophic collapse affecting the WWTP is negligible. All of the possible new WWTP sites are further inland than the existing WWTP so no short-term or long-term mitigative measures are required. Construction will be in accordance with Coastal Barrier Resources Act (16 U.S.C. §3501) and Coastal Zone Management Act (16 U.S.C. §1456 (2)) (1) when applicable.

3.2.8 FLORA AND FAUNA

Existing EAs in the Honoka'a Town area were researched from the Office of Environmental Quality Control (OEQC) library. Federal and State agencies were contacted and all confirmed that no listed species of flora and fauna exist near the project area.

Existing Conditions

A search request to the OEQC for past EAs near the proposed project resulted in three published EAs:

1. The final EA report, *Honoka'a Well "B" Production Well, Honoka'a, Island of Hawai'i* prepared for State of Hawai'i, Department of Land and Natural Resources, October 2003, covered a project site (TMK: 4-5-019:020) located approximately 0.4 mile from the project site in Honoka'a.
2. A second EA report, *Environmental Assessment for a Honoka'a Health Care Facility*, prepared for State of Hawai'i Department of Accounting and General Services, DAGS Job No. 11-20-3531, October 1991 covered a project site (TMK: 4-5-010:027) approximately 600 feet away.
3. The third is a *Negative Declaration, Honoka'a High School New Auto Shop*, December 13, 1989 prepared for the proposing agency DAGS on behalf of the Department of Education covered a project area (TMK: 4-5-010:076) approximately 1000 feet away.

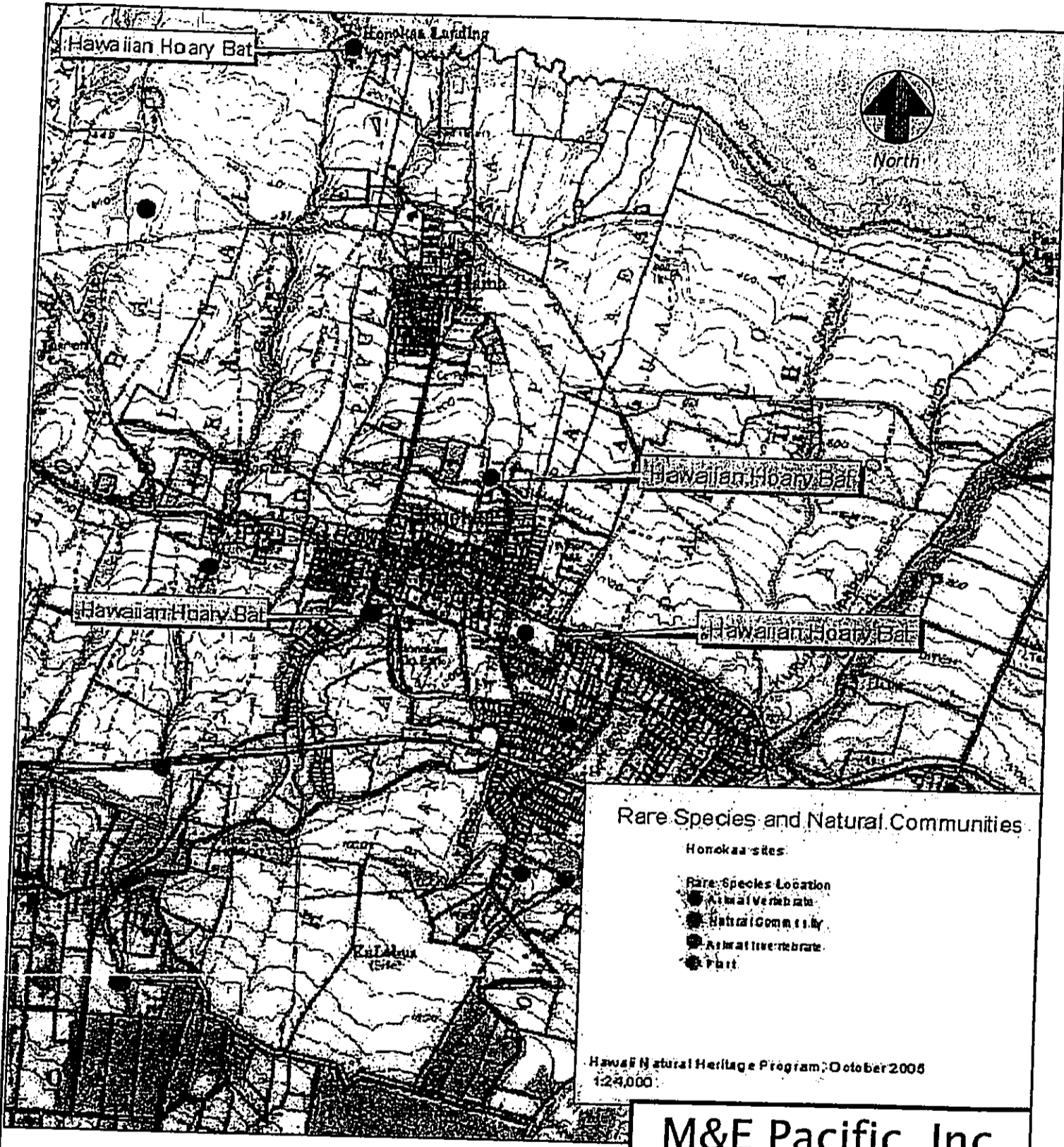
These reports state that their respective project sites were not habitats for endangered flora and fauna. The first report does mention the possibility of endangered native stream fauna in certain perennial streams in the northeast coast of the Big Island; however, the project area is not adjacent to any perennial stream.

The U.S. Fish and Wildlife Service (USFWS) stated that in response to a letter of inquiry, "no federally listed or proposed threatened or endangered species or proposed or designated critical habitats occur on the proposed project site." The Hawaii Natural Heritage Program (HINHP) reports that "according to our database there have been no rare species recorded within the TMK sites. But the Hawaiian Hoary Bat (*Lasiurus cinereus semotus* which is listed endangered) has been recorded throughout the Honoka'a region." The records for the bat sightings are quite old in

the area; most of them occurred sometime in the 1960's. No survey has been done in the area, but the bat is most likely still there. See Figure 3-3.

Anticipated Effects and Mitigative Measures

No endangered flora or fauna are identified in the developed project area. Therefore, no mitigative measures are required. If the Hawaiian Hoary Bat are found, construction will be in accordance with the Endangered Species Act (16 U.S.C. §1536 (a) (2) and (4)), Essential Fish Habitat Construction Process under Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. §1801) and Fish and Wildlife Coordination Act (16 U.S.C. §662 (a)) when applicable.

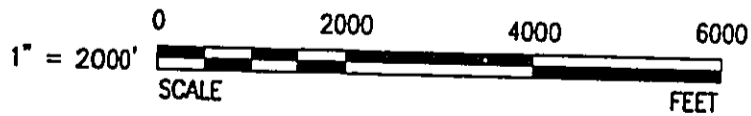


Rare Species and Natural Communities

- Honokaa sites:
- Rare Species Location
 - Animal Vertebrate
 - Natural Community
 - Animal Invertebrate
 - Plant

Hawaii Natural Heritage Program, October 2005
1:24,000

Rare Species & Natural Communities



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Figure 3-5
HONOKAA LCC CONVERSION EA
RARE SPECIES & NATURAL COMMUNITIES

September 2008

3.2.9 VISUAL RESOURCES

Existing Conditions

The project site occurs in a developed business and residential area. The proposed improvements are all underground except for the proposed pump station to be sited at the parcel where County facilities for police, fire and base yard exist. The proposed pump station, which will be located near the rear of parcel, will be placed behind the existing buildings. It will not exceed one story and typically will have a small building footprint. The structure will not protrude into views of the coast or nearby roads. There are no anticipated changes in existing view planes.

The proposed upgrade of the two stabilization ponds at the WWTP involves low profile equipment located close to the ponds' surface and there are no anticipated changes in the existing view planes.

Anticipated Effects and Mitigative Measures

The construction activities will disrupt appearance of the roadways temporarily. Disruptions will be minor and short-term and primarily will result from utility trenching operations, pipe laying, and trench restoration activities. There will be no long-term impacts to existing view planes. No mitigative measures are required.

3.2.10 NOISE CONDITIONS

According to HAR Title 11 Chapter 46, *Community Noise Control*, "noise" means any sound that may produce adverse physiological effects or interfere with individual or group activities, including, but not limited to, communication, work, rest, recreation or sleep. "Noise pollution" means noise emitted from any excessive noise source in excess of the maximum permissible sound levels. The accepted unit of measure for noise levels is the A-weighted decibel (dBA) because it reflects the way humans perceive changes in sound amplitude. Sound levels are easily measured, but human response and perception of the wide variability in sound amplitude is subjective.

Existing Conditions

The primary work area is along Mamane Street and side street Koniaka Pl. Commercial activities occur along the project site. Ambient noise levels are derived primarily from passing traffic. Sensitive noise receptors are present in the form of residences and the health care center across the County Park. The existing WWTP basically has no existing gas powered equipment and does not produce any noticeable noise.

The DOH monitors noise issues in accordance with HRS 19-342F and the Director of Health issues noise permits only when excessive noise levels are expected. The Occupational Safety and Health Act (OSHA) of 1970 were established to "assure the safe and healthy working conditions for working men and women." OSHA regulations established a maximum noise level of 90 A-weighted decibels (dBA) for a continuous 8-hour exposure (typical workday) with higher maximum noise levels for shorter duration periods. Table 3-1 summarizes the maximum permissible sound levels for various noise durations.

Table 3-1 Permissible Noise Exposure Levels

Duration per day (hrs)	Permissible Sound Level (dBA)
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ or less	115

Source: 29 CFR 1910.95.

Anticipated Effects and Mitigative Measures

Intermittent elevated noise levels from certain types of construction activities are inevitable. However, they are expected to be short-term and minor. Typical heavy construction equipment noise levels are listed in Table 3-2. The noises generated from the construction equipment that are anticipated to be used for the project are lower than the permissible sound levels; therefore, no significant noise effects are expected from the proposed project. Noise generated by construction activities will comply with noise provisions established by the State Department of Health and no further measures are required to mitigate short-term impacts. All construction work will be scheduled at daytime in accordance with HRS 342-F-1.

Table 3-2 Heavy Construction Equipment Noise Levels at 50 Feet

Equipment Type	Generated Noise Level (dBA)
Bulldozer	88
Backhoe (rubber tire)	80
Front Loader (rubber tire)	80
Dump Truck	75
Concrete Truck	75
Concrete Finisher	80
Crane	75
Asphalt Spreader	80
Roller	80
Flat-Bed Truck (18 Wheel)	75
Scraper	89
Trenching Machine	85

Source: US Army Corps of Engineers, Construction, Engineering Research Labs, 1978.

The proposed mechanical surface aerators are operated by electric motors powered by electricity from solar panels and the backup battery system. Electric motors are relatively "quiet" and should not create any long-term noise nuisance.

3.2.11 AIR QUALITY

In order to protect public health and welfare and to prevent the significant deterioration of air quality, per requirement of the Clean Air Act, last amended in 1990, the US Government Environmental Protection Agency (USEPA) has established the National Ambient Air Quality Standards (NAAQS) for certain harmful pollutants using two standards. The *Primary* standards set limits to protect public health, including the health of "sensitive" populations, such as, asthmatics, children and the elderly. The *Secondary* standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation and buildings. The DOH has also established ambient air quality standards to regulate the air quality statewide. In addition, the State of Hawai'i has established standards for carbon monoxide and nitrogen dioxide that are more stringent than the federal guidelines as well as an additional standard for hydrogen sulfide. The following table summarizes the national and state ambient air quality standards (SAAQS).

Table 3-3 National and State Ambient Air Quality Standards

Pollutant		NAAQS		SAAQS
		Standard Value	Standard Type	
Carbon Monoxide (CO)	8-hour Average	9 ppm (10 mg/m³)	Primary	5 mg/m³ (4.4 ppm)
	1-hour Average	35 ppm (40 mg/m³)	Primary	10 mg/m³ (9 ppm)
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.053 ppm (100 µg/m³)	Primary & Secondary	70 µg/m³ (0.04 ppm)
Sulfur Dioxide (SO ₂)	3-hour Average	0.50 ppm (1300 µg/m³)	Secondary	1300 µg/m³ (0.5 ppm)
	24-hour Average	0.14 ppm (365 µg/m³)	Primary	365 µg/m³ (0.14 ppm)
	Annual Arithmetic Mean	0.03 ppm (80 µg/m³)	Primary	80 µg/m³ (0.03 ppm)
Ozone (O ₃)	8-hour Average	0.08 ppm (157 µg/m³)	Primary & Secondary	157 µg/m³ (0.08 ppm)
	1-hour Average	0.12 ppm (235 µg/m³)	Primary & Secondary	–
Lead (Pb)	Quarterly Average	1.5 µg/m³	Primary & Secondary	1.5 µg/m³
Particulate (PM ₁₀) ⁽¹⁾	24-hour Average	150 µg/m³	Primary & Secondary	150 µg/m³
	Annual Arithmetic Mean	50 µg/m³	Primary & Secondary	50 µg/m³
Particulate (PM _{2.5}) ⁽²⁾	24-hour Average	65 µg/m³	Primary & Secondary	–
	Annual Arithmetic Mean	15 µg/m³	Primary & Secondary	–
Hydrogen Sulfide (H ₂ S)	1-hour Average	–	–	35 µg/m³ (25 ppb)

(1) Particles with diameters of 10 micrometers or less

(2) Particles with diameters of 2.5 micrometers or less

Note: Standards appear in bold, conversions are in parentheses. Units of measure are: Parts per million (ppm) by volume; parts per billion (ppb) by volume; milligrams per cubic meter of air (mg/m³); and micrograms per cubic meter of air (µg/m³).

Existing Conditions

Air quality in the project area normally is good and there are no known air pollution problems. The only adverse contaminant is occasional fugitive dust from agricultural operations. USEPA air quality maps indicate that the project area is an attainment area meeting National ambient air quality standards for ozone (O₃), carbon monoxide (CO), particulate matter (PM-2.5 and PM-10), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂).

There are no odor problems reported by the Department of Health with regard to the WWTP oxidation ponds.

Volcanic gases are emitted during all types of eruptions. The main components of these emissions are water vapor, carbon dioxide, and sulfur dioxide. Sulfur dioxide is the main cause for concern, because it reacts with oxygen, dust particles, and atmospheric moisture to form sulfuric acid droplets and sulfate particles that result in "vog" and acid rain. Vog causes such symptoms as headaches, itchy eyes, breathing discomfort, and can aggravate pre-existing respiratory conditions. The project area normally does not experience "vog" conditions, because of the prevailing trade winds from the north east; however, when "kona" winds blow from the south west, vog conditions may occur. Vog is estimated to contribute approximately 13% of total sulfur dioxide emission.

At present there are five (5) Air Quality Monitoring Stations on the island of Hawai'i; the nearest one to the project area is near the center of Hilo town. These five monitoring stations are special monitoring stations (for vog and geothermal). The monitoring station in Hilo has been measuring PM₁₀ and SO₂ emissions since March 1995. A Map of Air Quality Monitoring Stations for the Island of Hawai'i is attached for reference as Figure 3-6.

Anticipated Effects and Mitigative Measures

The principal project sources of air pollution will be fugitive dust emissions resulting from excavation and drilling and vehicular emissions resulting from the operation of construction equipment and vehicles. These effects are short-term in nature and will cease upon completion of the proposed projects. No long-term effects on air quality due to the operation of construction equipment or vehicles are anticipated as their presence and use will be temporary. No cumulative effects on air quality are anticipated due to the temporary nature of the construction activity. All project related impacts to air quality will be in accordance with the Clean Water Act (42 U.S.C. §7506 (c)).

Contractors shall control emission per Hawaii Administration Rules. Construction activities will incorporate dust control measures and Best Management Practices (BMPs) such as a regular dust-watering program and covering of trucks during the transport and storage of soils. Areas graded and cleared of vegetation will be revegetated as soon as possible to reduce dust emissions as well. Upon completion of the project, the air quality at the project site will return to its existing condition.

With a significant increase in raw wastewater directed to the WWTP, there is the possibility of foul odor developing should the new equipment stop working for several days. This possibility will be eliminated by daily monitoring of the WWTP operation.

3.3 SOCIAL

3.3.1 CULTURAL RESOURCES

Existing Conditions

For the project, data gathering inquiries were made to government agencies, community associations, the State Historic Preservation Division (SHPD), museums and native Hawaiian organizations. The following entities were contacted:

1. Hawai'i Island Burial Council,
2. Hui Malama Ola Na Oiwī,
3. Office of Hawaiian Affairs,
4. Bishop Museum, and
5. Lyman Museum.

Copies of our letters regarding possible impacts on historical or culturally significant resources and all responses received are found in the appendices at the back of this EA document.

From the 1990 Honoka'a Facilities Plan, the only historic site cited in the project area is the United Methodist Church (SHPD site no. 50-10-08-7180) built in 1929 and is of limited architectural and historical significance. This site is one of the parcels serviced by an LCC that will be sewered by this project.

Anticipated Effects and Mitigative Measures

Since the project area is on previously disturbed ground, we do not anticipate the existence of any historical or culturally significant resource in the affected area of this project. Although work will be performed on the grounds of the United Methodist Church, the existing LCC is probably near Mamane Street and the existing church improvements are toward the rear of the parcel. The work on the grounds would consist of trench excavation, installing a sewer lateral from the connection to the new gravity sewer to the existing sewer at the LCC, trench backfilling and closure of the LCC. Closure of the LCC requires demolition of the top of the LCC and backfilling of the cavity in accordance with Department of Health regulations. Construction will be done in accordance with the Archeological and Historic Preservation Act (16 U.S.C. §469a-1) and the National Historic Preservation Act (16 U.S.C. §470 (f)).

In the event that historical or cultural materials are discovered during ground disturbing activities, work in the area will cease immediately and the SHPD will be notified of the discovery and consulted as to the appropriate course of action. Burial finds will be treated in

accordance with HAR 12-300 and HRS 6E-43.6. The SHPD will determine the appropriate treatment of the remains and any associated historical or cultural material in consultation with recognized descendants, if any, and the Hawai'i Island Burial Council.

3.3.2 CULTURAL IMPACT ASSESSMENT

Existing Conditions

According to the *Session Laws of Hawaii, Act 50*, an EA should identify and address effects on Hawai'i's culture, and traditional and customary rights. The only known cultural practices or cultural resources in the project area is the United Methodist Church.

Anticipated Effects and Mitigative Measures

If any other cultural practices or resources are found, there will be no long-term anticipated effects because the sewer lines will be underground and the new WWTP site will be chosen so that there is no cultural impact.

3.3.3 ENVIRONMENTAL JUSTICE/SUGAR MILL LAND

Existing Conditions

Most of the possible WWTP sites are either agricultural or urban sites. The parcels in plat 23 are residential land.

Anticipated Effects and Mitigative Measures

The County will have to purchase 5-8 acres of land. The site chosen will be one that will best serve the County and will be in the best interest of the public. Mitigative measures include odor control and landscaping.

An Environmental Impact Statement (EIS) will determine the best site(s) for the new WWTP. The EIS is scheduled for completion in April 2007. The study will include interviewing landowners and conducting public outreach. After a site is selected, the public will be informed and the County will take the necessary steps towards acquiring the property.

Since the majority of the land is agricultural land, only a small number of people will be displaced. Public housing will not be affected. The landowner of the new WWTP site(s) will be compensated for the land at fair market value. All possible sites are privately owned, so this project will not affect any affordable housing.

Construction will be in compliance with the Farmland Protection Policy Act (7 U.S.C §4202 (B)) and Environmental Justice (Executive Order 12898) if applicable.

3.3.4 PUBLIC SERVICES/INFRASTRUCTURE

Existing Conditions

All standard utilities (sewer, water, electricity, gas, communication, cable TV) are available. All roads in project area are County of Hawai'i maintained.

Anticipated Effects and Mitigative Measures

This project affects an existing public utility service. Instead of collecting sewage in large capacity cesspool injection wells, new gravity sewer lines will convey sewage to existing sewer

lines and eventually flow to the Honoka'a Wastewater Treatment Plant. Short-term impacts are unlikely due to regulatory review of project task planning; however, during construction, unforeseen conditions may result in temporary downtime of a public service.

The long-term impact is a beneficial one; the proposed improvements will mitigate potential contamination of underground drinking water source by redirecting wastewater away from cesspools, which percolate wastewater into the surrounding soil.

3.3.5 TRAFFIC

Existing Conditions

This project will not increase traffic counts relative to that of preconstruction conditions. Therefore, no traffic study was conducted. The project will mostly occur within easement areas and paved roads where traffic flow is expected to be light during working hours.

Anticipated Effects and Mitigative Measures

There will be short-term impacts to traffic during construction. On two lane roads, normal traffic control measures will be employed to allow constricted travel around the immediate work area. On one-lane roads, temporary detours and associated signage will be used. The existing roadways will be restored to standard conditions and no long-term impacts are anticipated that would require mitigative measures.

3.3.6 RECREATIONAL FACILITIES

Existing Conditions

The County Park is in the immediate vicinity of the project. The other possible recreational activity is shoreline fishing on the WWTP parcel. No known hiking trails are within the project area.

Anticipated Effects and Mitigative Measures

Construction activity will take place in the County Park, which will prevent normal park activities (i.e. baseball, softball, soccer, picnics, etc.). Normal construction hours are limited to weekdays, which minimize the impact to the majority of park users who use the park on weekends. Access to the shoreline at the existing WWTP site will not be affected since a new WWTP will be constructed on another site. No long-term or cumulative adverse impacts are anticipated. No long-term mitigative measures are required.

3.3.7 PUBLIC MEETING

One public meeting was held at the Honoka'a High School Cafeteria on November 29, 2005. The purpose of this meeting was to inform the public about the project and to address any questions that the public had.

Public comments/responses included:

- Is Brantley Center part of Alt 2a? M&E: No Only in Alt. 3
- Stabilization pond effluent is no better than cesspool effluent. M&E: Stabilization pond effluent is considered secondary treatment, which is better than raw wastewater from cesspools.

- Is chlorination dangerous? M&E: Chlorine quickly dissipates before entering the groundwater.
- Stabilization pond is less labor intensive but land intensive.
- Mechanized plant is more manpower intensive but not land intensive

3.4 SOCIO-ECONOMIC ENVIRONMENT

3.4.1 DEMOGRAPHICS AND SOCIO-ECONOMIC ENVIRONMENT

The Hamakua district including Honoka'a was hit hard by the closure of sugar plantations in the early 1990s. More than 1,000 sugar-industry related jobs were lost in East Hawai'i. Over 45,000 acres have been taken out of sugar production.

A small portion of former sugar production land is used for farming, timber, cattle grazing, or various start-ups, experimental or low capital requirement commercial activities. Few of these efforts employ meaningful numbers of former sugar workers, and most of the former sugar cane acreage lies fallow.

Honoka'a has retained its country atmosphere which provides a foundation for the modest, but growing local tourist industry. Although some new residents continue to be attracted to the area, the basic demographic structure still reflects its plantation roots.

Existing Conditions

As of the census of 2000, Honoka'a has a population of 2,233 (approximately 1.5% of total population on Island of Hawai'i), and in the Census Designated Place (CDP), has a total area of 1.28 square miles. The population density is 1739.5/mi². The following table summarizes the demographic and economic characteristics of Honoka'a:

Characteristic	U.S.	Hawai'i Island	Honoka'a
Total Population	N/A	148,677	2,233
Percent Caucasian	75.1	31.5	25.0
Percent Asian	3.6	26.7	42.9
Percent Hawaiian and other Pacific Islander	0.1	9.7	3.9
Percent two or more races	2.4	28.4	27.0
Median Age	35.3	38.6	40.2
Percent under 18 Years	25.7	26.1	25.2
Percent over 65 Years	12.4	13.5	21.6
Average Household Size	2.59	2.75	2.88
Percent Housing Vacant	9.0	15.5	8.9
Per capita Income	\$21,587	\$18,791	\$17,226
Median Household Income	\$41,994	\$39,805	\$41,964

Source: U.S. Bureau of the Census, May 2001. Reported currency is in 1999 dollars.

Anticipated Effects and Mitigative Measures

Thirty (30) existing LCC services out of 37 known LCC will be converted to gravity sewer collection system. A new long-term impact is the monthly County user service fee of \$27.00 according to the *Hawaii County Code Chapter 21 Section 36* (page 21-12). Two out of these 30 LCC service conversions affect privately owned single-family zoned parcels. The other parcels are zoned for commercial or agriculture use or owned by the County or State.

During construction, access to residences, businesses, community facilities, or other activities may be controlled in accordance with approved traffic control plans, but not blocked. No relocation of residences, businesses, etc. will occur.

The proposed project should not induce nor hinder economic or population growth in the Hamakua District in the short-term, long-term or cumulatively in conjunction with any other projects. Single lane closures will be scheduled to allow for vehicular traffic during the day so that residences may travel to and from work and tourists may visit the area. It is anticipated that work will occur only on weekdays and not on weekends or holidays. Lane closures are the only mitigation measures anticipated for the short-term. No mitigation measures are necessary for the long-term.

3.5 LAND USES AND OWNERSHIP

3.5.1 HAWAII STATE PLAN

Chapter 226, HRS, also known as the Hawaii State Plan, provides long-range planning for the State. This plan is a policy statement for an array of economic, physical and social development issues. Specific portions of the Hawaii State Plan related to proposed gravity sewer project is as follows:

Section 226-11 Objectives and policies for the physical environment – scenic, natural beauty, and historic resources.

(a)(2): "Effective protection of Hawai'i's unique and fragile environmental resources."

Section 226-13 Objectives and policies for the physical environment – land, air, and water quality.

(b)(6): "Encourage design and construction practices that enhance the physical qualities of Hawai'i's communities."

The proposed project is consistent with Section 226-11 and Section 226-13 objectives. Eliminating the use of cesspools will eliminate the possible contamination of underground drinking water source from percolating wastewater. The proposed sewer improvements are underground and will not affect the appearance of the community.

3.5.2 STATE LAND USE LAW

The State Land Use Law, Chapter 205 of the HRS, classifies all state lands in one of four categories: urban, rural, agricultural and conservational. Permitted uses for each category are defined in State statutes. The state assumes sole management responsibility in the conservation district; county governments assume sole responsibility in the urban district, and both share

responsibilities in the rural and agricultural districts. The project area is in urban district and is under the sole jurisdiction of the County of Hawai'i. Refer to Figure 3 for State Land Use Designation Map.

3.5.3 COUNTY OF HAWAI'I

The Hawaii County General Plan (2005), states, "There are no public sanitary sewer systems in the Hamakua area. Oxidation ponds (pond that acts as a settling pond where bacteria can break down sewage as the liquid seeps and filters down through the earth) serve the town of Honoka'a, Paauilo, Paauhau and Haina and are presently adequate. Municipal sewage systems for the smaller towns would not be economically feasible for some time." However, elimination of LCC will result in the existing WWTP to be insufficient in size. The plan also expresses a long term goal to eliminate the need for and continued use of the oxidation ponds.

The project satisfies the intent of the General Plan. The proposed WWTP will eliminate the oxidation ponds. Converting state owned sewers will consolidate ownership/site jurisdiction to the County. No mitigation measures are required.

CHAPTER 4 - DETERMINATION WITH SUPPORTING FINDINGS AND REASONS

In accordance with Chapter 343, Hawaii Revised Statutes, this Environmental Assessment characterizes the technical, social and environmental issues related to the Honoka'a Large Capacity Cesspool Conversion Project. It identifies potential project impacts to the environment and their significance. It is anticipated that the proposed projects will not exert any significant impacts to the environment. Therefore, a Finding of No Significant Impact" (FONSI) is anticipated and an Environmental Impact Statement is not required.

This determination of an anticipated FONSI is based upon thirteen (13) significance criteria listed in HRS §11-200-12 of the Environmental Impact Statement Rules. The specific criteria used in making this determination are addressed below:

1. *The proposed project will not involve an irrevocable commitment to loss or destruction of any natural or cultural resource.* The proposed project site does not contain any previously known significant natural resources. The United Methodist Church (site no. 50-10-08-7180) built in 1929 is one of the affected parcels listed; however, this site is considered as having limited architectural and historical significance. No modification to the church is intended; only modification of the underground sewer system is proposed.
2. *The proposed project will not curtail the range of beneficial uses of the environment.* Construction activities will temporarily interfere with public use of the Honoka'a Park. An Environmental Impact Statement will determine the best site for the WWTP and the County will take the necessary steps towards acquiring the 5-8 acres needed for the WWTP. The landowner(s) will be compensated with fair market value for the land. No other major conflicts with any existing uses of the affected project areas are anticipated. A beneficial impact to the environment is reducing the likelihood of contaminating underground drinking water source from percolating wastewater discharges by decommissioning the majority of the existing large capacity cesspools servicing Honoka'a.
3. *The proposed project will not conflict 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 project will not damage sensitive natural resources nor emit excessive noise or contaminants. This project will lessen potential for contamination of water sources by reducing environmental pollution in the form of percolating wastewater from large capacity cesspools.
4. *The proposed project does not substantially affect the economic or social welfare of the community or State.* The economic impact for the homeowners in the project area is the cost to connect to the County lateral and the monthly sewer fees. The cost to connect to the lateral for the majority of individual owners range from \$2,000 to \$4,000. The current monthly sewer fee is \$27 per home and the current monthly charge per cesspool is \$15; therefore the difference is \$12 per month. These costs are consistent with costs state-wide as cesspools and individual wastewater systems are replaced with new sewers.

Road and lane closures during construction will result in some inconvenience; however, these inconveniences will be temporary and last only for the duration of construction activities. Strategic scheduling of intermittent road closures and providing detours with adequate signage will permit residents and tourists to continue to get to desired destination during the construction periods.

The estimated construction cost is over \$11 million budget funded by a loan from the State Revolving Fund. The County is under a consent agreement with the USEPA. The USEPA has suspended the original USEPA LCC ban deadline of April 5, 2005 based on a County schedule for systematic abandonment of existing LCC. Delaying or postponing the completion of this project beyond September 2010 may incur possible USEPA fines of \$32,500 per day for each large capacity cesspool (LCC) in service after April 2005.

5. *The proposed project will not substantially affect public health in a negative way.* The existing residents will continue to benefit from the same level of sewer service. During construction, environmental pollutants will be mitigated to regulated levels by using appropriate BMPs.
6. *The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities.* The sewer improvements will service existing residents and will not provide increased capacity for future users. These improvements are a short-term solution to satisfy the terms of the USEPA consent agreement. The only public facilities affected are the County roads where the new sewer will be installed. The roads pavements will be restored to original condition or better in accordance with trench restoration details.
7. *The proposed project will not involve a substantial degradation of environmental quality.* The existing rural quality of Honoka'a area will remain unchanged. During construction, environmental pollutants will be mitigated to regulated levels by using appropriate BMPs.
8. *The proposed project is individually limited and cumulatively does not have considerable effect upon the environment nor does it involve a commitment for larger actions.* Existing cesspool sewer services are redirected to gravity sewer services with no negative impact to the environment. This type of project is typical of similar projects necessitated by the USEPA ban of LCC usage. The size of similar projects is dependent upon available public funding. This project itself does not necessitate the requirement for other related projects in the Hamakua District.
9. *The proposed project will not substantially affect rare, threatened or endangered species, or its habitat.* The project site is not a known habitat for threatened or endangered flora or fauna species.
10. *The proposed project will not detrimentally affect air or water quality or ambient noise levels.* The proposed project will produce short-term gas and particulate emissions from construction vehicle exhaust and dust producing excavation; however, there are no

anticipated long-term gas and particulate emissions from the sewer system. Site work will be in accordance with grading permit conditions to minimize erosion, non-point source erosion and dust. BMPs will be utilized to prevent project site runoff from affecting nearby stream water qualities. Air quality and noise levels will not exceed State DOH standards. The project will not result in long-term adverse effects. Upon completion of construction activities, air and water qualities and ambient noise levels will revert to prior levels.

11. *The proposed project is not located in an environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.* The proposed project area does include two crossings along Mamane Street where existing FEMA FIRM flood zones are identified. The proposed construction will restore the existing pavement and will not change the existing flood limits.
12. *The proposed project will not affect scenic vistas.* The proposed improvements are underground except for the proposed one-story pump station located behind existing government buildings when viewed from Mamane Street. No protected view planes will be impacted by the project.
13. *The proposed project does not require substantial energy consumption.* The gravity sewer system is passive in nature and will not require any energy consumption to operate. The new WWTP will require approximately 180 kWh per day. The proposed pump station will require conventional power to operate and will create a new energy consumption demand; however, this pump station will serve small number of government buildings and will not require substantial energy consumption. Construction equipment and vehicles require temporary but substantial energy consumption.

CHAPTER 5 - CONSULTED AGENCIES AND PARTICIPANTS DURING THE PREPARATION OF THE ENVIRONMENTAL ASSESSMENT

The following Federal, State and County agencies, as well as, private and community organizations, were consulted directly or indirectly during the preparation of this document. This environmental assessment will be subject to public review for a 30-day period pursuant to HAR Chapter 11-200.

5.1 FEDERAL AGENCIES

- Environmental Protection Agency
- Fish and Wildlife Service
Pacific Islands Ecoregion

5.2 STATE OF HAWAII

- Department of Business, Economic Development and Tourism
Planning Office, Hawaii Coastal Zone Management Program
- Department of Education
Public Library System
- Department of Health
Clean Water Branch
Safe Drinking Water Branch
- Department of Land and Natural Resources
State Historic Preservation Division
Hawaii Island Burial Council
Office of Conservation and Coastal Lands
- Office of Environmental Quality Control
- Office of Hawaiian Affairs
- University of Hawaii at Manoa
Hawaii Natural Heritage Program

5.3 COUNTY OF HAWAII

- Department of Environmental Management
Wastewater Division
- Department of Public Works
- Department of Planning
- Department of Parks and Recreation

5.4 PRIVATE AND COMMUNITY ORGANIZATIONS

- Bishop Museum
- Historic Hawaii Foundation
- Hui Malama Ola Na OIwi
- Lyman Museum

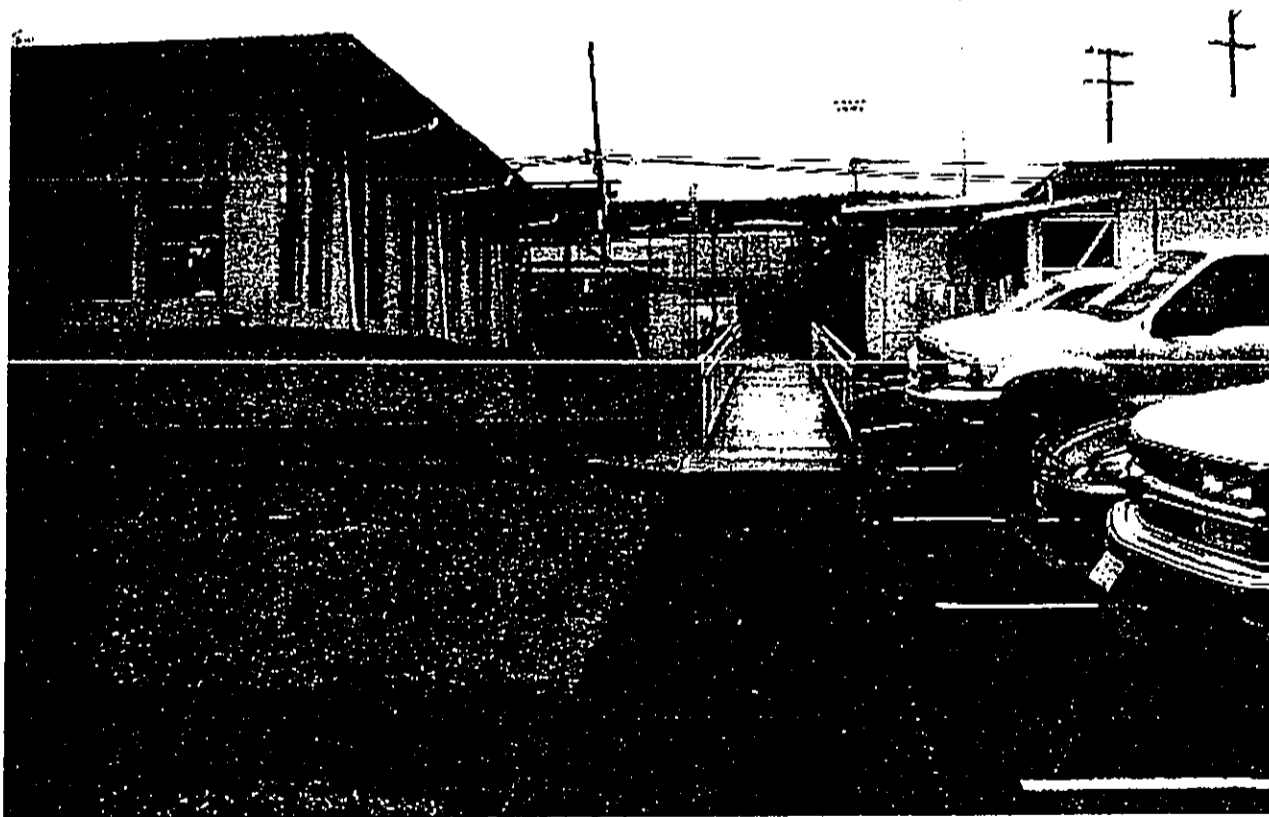
CHAPTER 6 - REFERENCES

1. *Ambient Air Quality Standards*, Chapter 59, Title 11, Hawaii Administrative Rules, Department of Health, State of Hawaii, August 28, 2001.
2. Department of Land and Natural Resources, State of Hawai'i, October 2003. *Honoka'a Well "B" Production Well, Honoka'a, Island of Hawai'i, Final Environmental Assessment*.
3. Department of Accounting and General Services, State of Hawai'i, October 1991. *Environmental Assessment for a Honoka'a Health Care Facility, Honoka'a, Hawaii*.
4. Department of Accounting and General Services, State of Hawai'i, December 13, 1989. *Negative Declaration Honoka'a High School New Auto Shop*.
5. Department of Geography, University of Hawai'i at Hilo. 1998. *Atlas of Hawai'i*. Third Edition. University of Hawai'i Press.
6. U.S. Department of Agriculture, Soil Conservation Service. 1973. *Soil Survey of Island of Hawai'i, State of Hawai'i*.
7. Department of Health. August 31, 2004. *Amendment and Compilation of Chapter 11-54, Hawaii Administrative Rules*.
8. M&E Pacific. 2005. *Draft Preliminary Engineering Report for Honoka'a Large Capacity Cesspool Conversion Project, Honoka'a, Hawaii*. Report prepared for the County of Hawaii, Department of Environmental Management.
9. *Community Noise Control*, Chapter 46, Title 11, Hawaii Administrative Rules, Department of Health, State of Hawai'i, August 28, 2001.
10. *Flood Insurance Rate Map, Hawai'i County, Hawai'i*, National Flood Insurance Program, Federal Emergency Management Agency, September 16, 1988.
11. Office of Environmental Quality Control, State of Hawaii. *Session Laws of Hawaii Act 50*. April 26, 2000.
12. State of Hawaii. *Hawaii County Code Chapter 21 Section 36*. January 31, 2006.

PHOTOGRAPHS



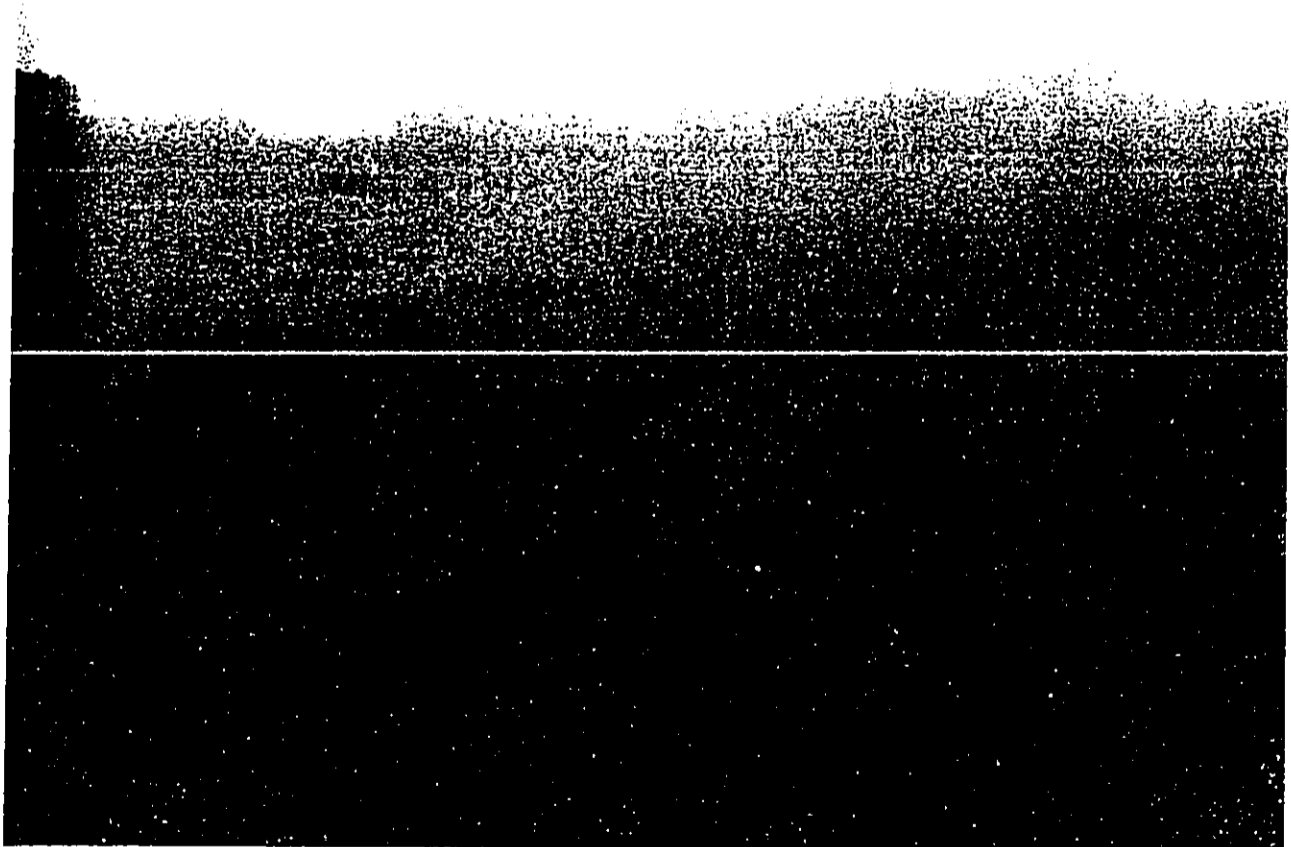
Opened Large Capacity Cesspool (LCC)



County Building Cluster at Proposed Pump Station Site



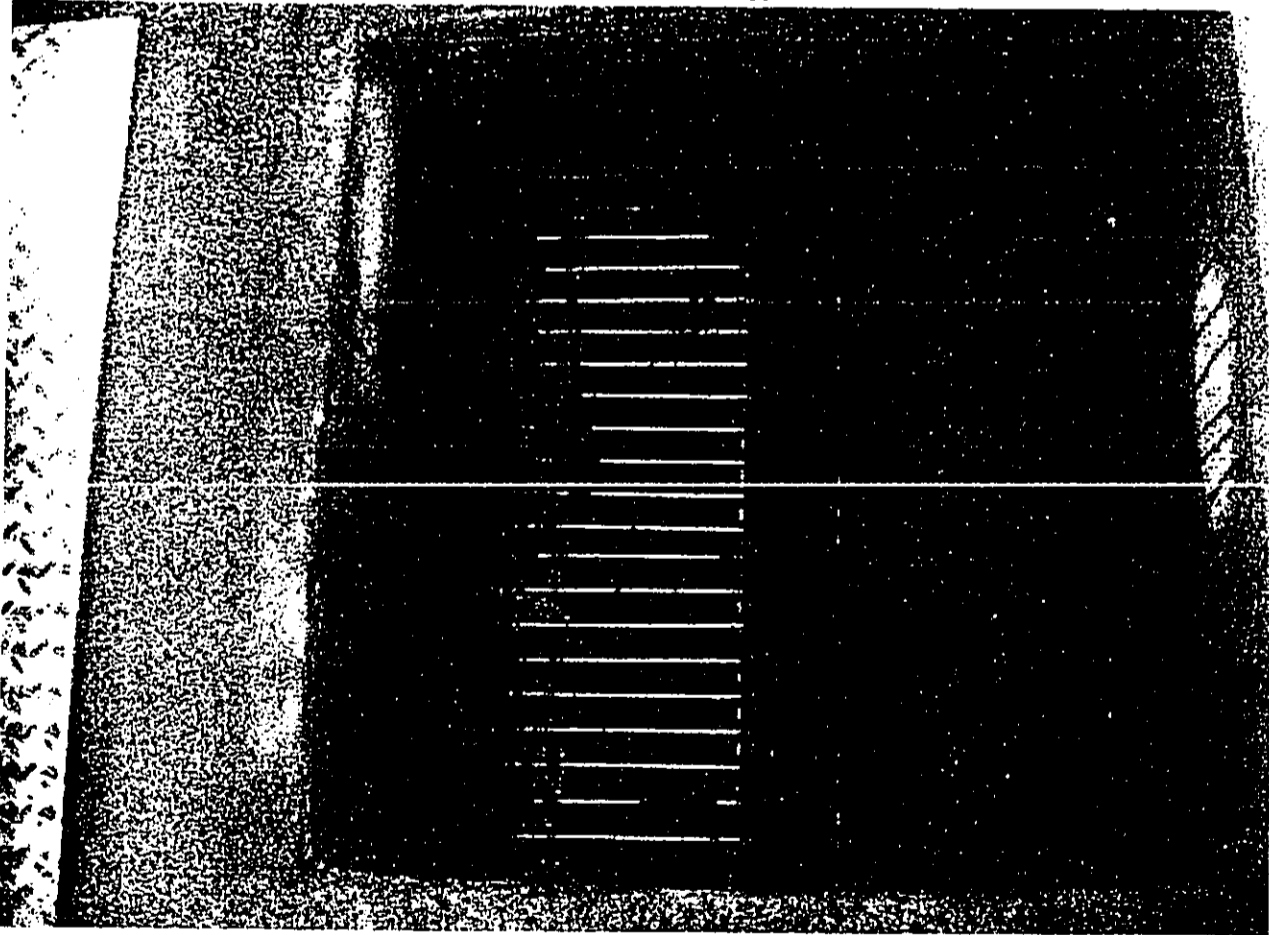
Lower Hamakua Ditch



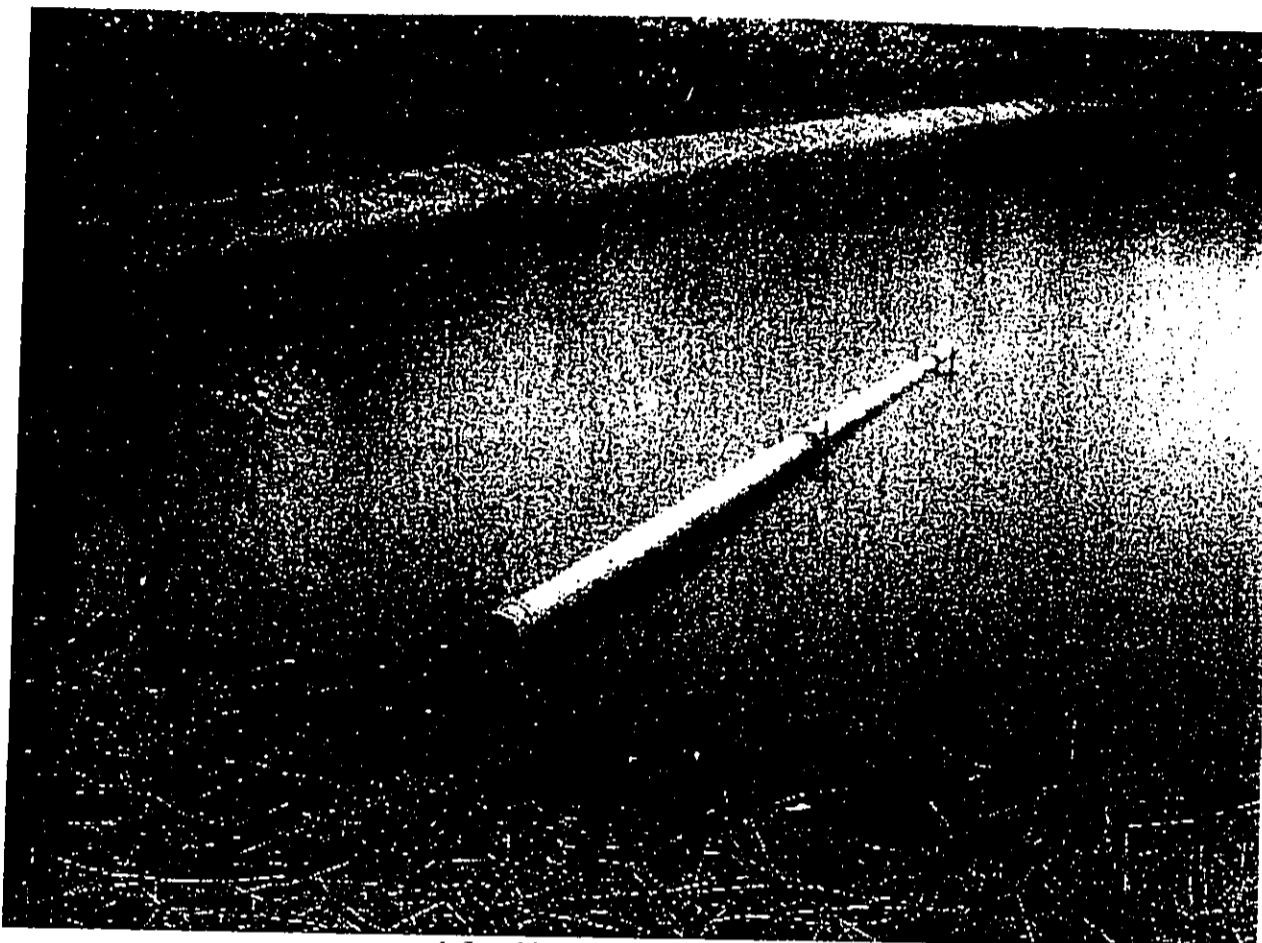
Papuaa Gulch Adjacent to WWTP



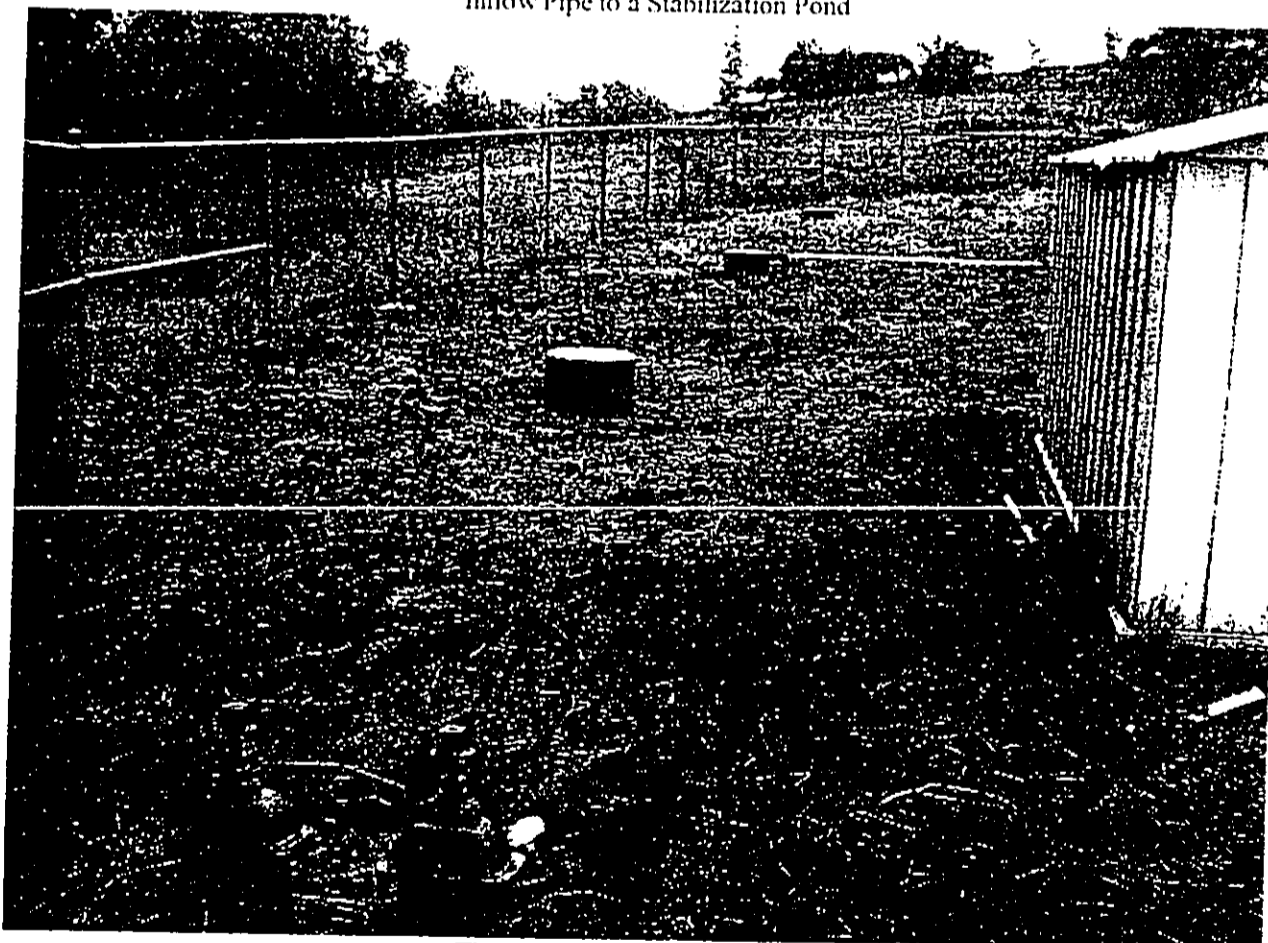
Access Road to WWTP



Bar Screen at Headworks to WWTP



Inflow Pipe to a Stabilization Pond



Three Injection Wells at WWTP

APPENDICES

APPENDIX A: Pre-consultation Letters and Responses

M&E Pacific, Inc.
MEMPHIS/TACOM

April 15, 2005

Mr. Patrick Leonard, Field Supervisor
U.S. Fish and Wildlife Service
Redesign Division
P.O. Box 50167
Honolulu, HI 96850

Subject: Honolulu a Wastewater Treatment Facility and Sewer Line Improvements
Draft Environmental Assessment Data Gathering
Dear Mr. Leonard:

The County of Hawaii is planning to install a gravity sewer system in the town of Honolulu, on the Island of Hawaii, in the Hamakua District. Associated upgrades of the existing wastewater treatment facility located on a parcel adjacent to the shoreline is also planned. We have attached a map showing the proposed tributary areas of the sewer system. Currently the initial phase of the project will service tributary areas 1 and 2.

Please inform us of any listed species and other significant resources which may be impacted by this project. If you have any questions, please call me.

Sincerely,

M&E Pacific, Inc.
Paul Inouye
Senior Project Engineer

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246
E-mail: paul@me-pacific.com
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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 2-122, Box 50088
Honolulu, Hawaii 96850

In Reply Refer To:
1-2-3003-7A-413

OCT 6 2005

Mr. Paul Inouye, P.E.
M&E Pacific, Inc.
Metcalf & Eddy A/E/C/M
Devlet Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Dear Mr. Inouye:

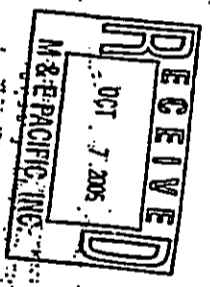
Thank you for your email dated and received September 23, 2005, requesting a list of threatened and endangered species that may occur in the vicinity of the project area at Honolulu on the Island of Hawaii. The proposed project is to install a gravity sewer system in the town of Honolulu. Your letter identifies the County of Hawaii as the originator of the project, but does not indicate the use of Federal funds for the project.

We reviewed the information you provided and pertinent information in our files, including data compiled by the Hawaii Natural Heritage Program. To the best of our knowledge, no federally listed or proposed threatened or endangered species, or proposed or designated critical habitat occur on the proposed project site.

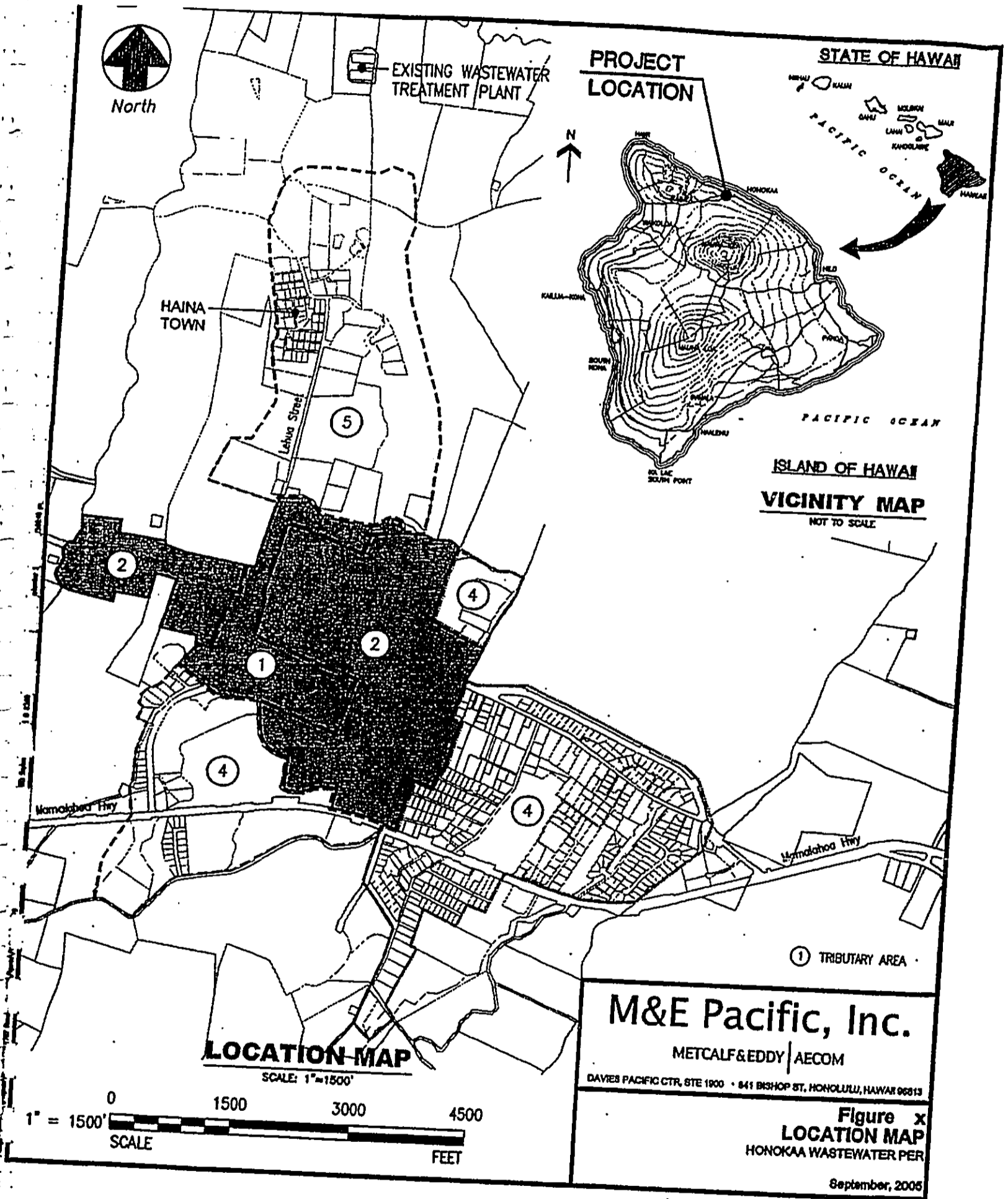
We appreciate your efforts to conserve endangered species. If you have questions, please contact Assistant Field Supervisor Gina Shultz (phone: 808/792-9400, fax: 808/792-9581).

Sincerely,

Patrick Leonard
Field Supervisor



DOCUMENT CAPTURED AS RECEIVED



PROJECT LOCATION

STATE OF HAWAII



EXISTING WASTEWATER TREATMENT PLANT

HAINA TOWN

Lehua Street

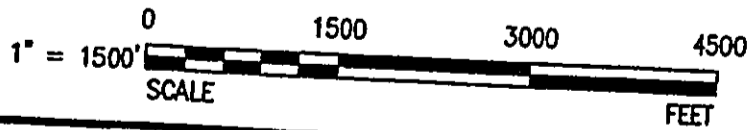
Mamalahoe Hwy

**ISLAND OF HAWAII
VICINITY MAP
NOT TO SCALE**

① TRIBUTARY AREA

LOCATION MAP

SCALE: 1"=1500'



M&E Pacific, Inc.

METCALF & EDDY | AECOM

DAVIES PACIFIC CTR, STE 1900 • 841 BISHOP ST, HONOLULU, HAWAII 96813

**Figure x
LOCATION MAP**
HONOKAA WASTEWATER PER

September, 2005

M&E Pacific, Inc.

METCALF&EDDY | ACCOM

September 26, 2005

Mr. Benjamin Lindsey
Hawai'i Island Burial Council
c/o State Historic Preservation Division
601 Kamokila Blvd., Room 555
Honolulu, HI 96707

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
4-5-008; 4-5-009; 4-5-006: 010; 4-5-012; 4-5-013; 4-5-016; 4-5-017; and 4-5-018
Draft Environmental Assessment

Dear Mr. Lindsey:

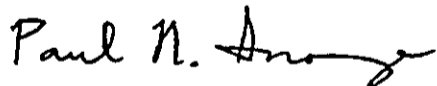
We are preparing a draft environmental assessment (EA) for proposed improvements to the wastewater collection and treatment in Honoka'a town. We are seeking your input on flora/fauna/cultural resources/historical resources/ etc. which our project may impact.

The project will install a gravity sewer system and upgrade/expand the existing wastewater treatment plant (WWTP) on parcel (TMK: (3) 4-5-002:060) adjacent to the shoreline. The project results from U.S. Environmental Protection Agency mandate to close large capacity cesspool systems. There are approximately 25 properties within the project area with large capacity cesspools. The attached location map identifies tributary areas (one through five) which identify the possible sewer-able parcels. The proposed improvements for this proposed project may provide gravity sewer service to shaded tributary areas one and two only.

Your response is requested by 10/12/05. We intend to publish our draft EA in the State Office of Environmental Quality Control (OEQC) Bulletin on November 23, 2005. Thank you for your consideration. If we do not receive a response by this date, we will assume that you are not aware of any significant resource.

Sincerely,

M&E Pacific, Inc.



Paul Inouye
Senior Project Engineer

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246
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M&E Pacific, Inc.

METCALF & EDDY | AECOM

September 26, 2005

HUI MALAMA OLA NA OIWI
Hilo Office
311 Kalanianaʻole St.
Hilo, HI 96720-4740

Subject: Honokaʻa Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
4-5-008; 4-5-009; 4-5-006: 010; 4-5-012; 4-5-013; 4-5-016; 4-5-017; and 4-5-018
Draft Environmental Assessment

To Whom It May Concern:

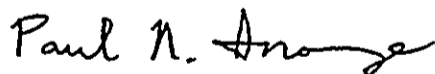
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Sincerely,

M&E Pacific, Inc.



Paul Inouye
Senior Project Engineer

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246
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M&E Pacific, Inc.

MEPAC0001/41000

September 26, 2005

Cultural Resources
Bishop Museum
1525 Bernice St.
Honolulu, HI 96817

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002; 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
4-5-008; 4-5-009; 4-5-006; 010; 4-5-012; 4-5-013; 4-5-016; 4-5-017; and 4-5-018
Draft Environmental Assessment

To Whom It May Concern:

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Your response is requested by 10/12/05. We intend to publish our draft EA in the State Office of Environmental Quality Control (OEQC) Bulletin on November 23, 2005. Thank you for your consideration. If we do not receive a response by this date, we will assume that you are not aware of any significant resources.

Sincerely,

M&E Pacific, Inc.

Paul N. Inouye

Paul Inouye
Senior Project Engineer

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246
E-mail: paul@meppacific.com



BISHOP MUSEUM

Bishop Museum
September 29, 2005

Paul Inouye
Senior Project Engineer
Honoka'a Wastewater Treatment Plant Project
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Via facsimile: 808 524 0246

Mr. Inouye,

Thank you for your letter inviting our input in your current project. Our department staff, however, is fully engaged with other commitments and is not able to take on the research that your request requires.

Our Library and Archives and our Anthropology Document collection (with possible restrictions in a few areas) are available, and you are welcome to make use of these sources during our scheduled times. Let me know if you plan this, and I'll be happy to help you schedule your visit.

I can't promise that you will locate new material, but typically the research is much more efficient if done by someone already familiar with the area and the needs. Our staff will assist you in their customary helpful manner.

Forgive me, you may have already visited the Museum to do research on this project. Feel free to call me if you have questions (848 4144).

Sincerely,

Blaise Lon Kani

Blaise Lon Kani
Cultural Resources

M&E Pacific, Inc.

METCALF&EDDY | AECOM

September 26, 2005

Ms. Ulu Sherlock
OFFICE OF HAWAIIAN AFFAIRS
162 Baker Ave.
Hilo, HI 96720-4869

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
4-5-008; 4-5-009; 4-5-006: 010; 4-5-012; 4-5-013; 4-5-016; 4-5-017; and 4-5-018
Draft Environmental Assessment

Dear Ms. Sherlock:

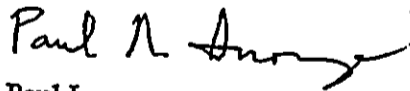
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The project will install a gravity sewer system and upgrade/expand the existing wastewater treatment plant (WWTP) on parcel (TMK: (3) 4-5-002:060) adjacent to the shoreline. The project results from U.S. Environmental Protection Agency mandate to close large capacity cesspool systems. There are approximately 25 properties within the project area with large capacity cesspools. The attached location map identifies tributary areas (one through five) which identify the possible sewer-able parcels. The proposed improvements for this proposed project may provide gravity sewer service to shaded tributary areas one and two only.

Your response is requested by 10/12/05. We intend to publish our draft EA in the State Office of Environmental Quality Control (OEQC) Bulletin on November 23, 2005. Thank you for your consideration. If we do not receive a response by this date, we will assume that you are not aware of any significant resource.

Sincerely,

M&E Pacific, Inc.



Paul Inouye
Senior Project Engineer

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246
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M&E Pacific, Inc.

METCALF&EDDY | AECOM

September 26, 2005

Lyman Museum
276 Haili St.
Hilo, HI 96720-2927

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
4-5-008; 4-5-009; 4-5-006: 010; 4-5-012; 4-5-013; 4-5-016; 4-5-017; and 4-5-018
Draft Environmental Assessment

To Whom It May Concern:

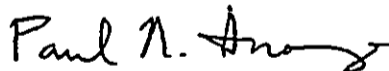
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Sincerely,

M&E Pacific, Inc.



Paul Inouye
Senior Project Engineer

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246
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M&E Pacific, Inc.

METCALF&EDDY | AECOM

September 26, 2005

Historic Preservation Division
Department of Land & Natural Resources
P.O. Box 621
Honolulu, HI 96809

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
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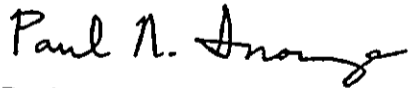
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M&E Pacific, Inc.

METCALF&EDDY | AECOM

September 26, 2005

Office of Hawaiian Affairs
711 Kapiolani Boulevard
Suite 500
Honolulu, HI 96813-5249

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
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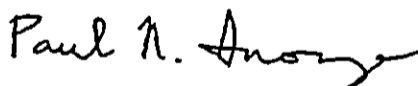
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M&E Pacific, Inc.

METCALF & EDDY | AECOM

September 26, 2005

Planning Department
101 Pauahi St.
Suite 3
Hilo, HI 96720

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
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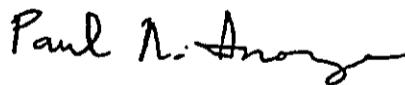
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Harry Kim
Mayor



Christopher J. Yuen
Director

Roy R. Takemoto
Deputy Director

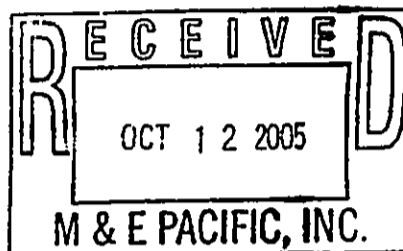
County of Hawaii

PLANNING DEPARTMENT

Aupuni Center • 101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720
Phone (808) 961-8288 • Fax (808) 961-8742

October 6, 2005

Mr. Paul Inouye
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, HI 96813



Dear Mr. Inouye:

SUBJECT: Honoka`a Wastewater Treatment Plant and Sewer Improvements
Draft Environmental Assessment
Hāmākua District, Hawai`i Island
TMKs: (3) 4-5-002:060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006;
4-5-007; 4-5-008; 4-5-009; 4-5-006:010; 4-5-012; 4-5-013; 4-5-016;
4-5-017; and 4-5-018

The above-mentioned properties include the County Zoning Districts of Single-Family Residential, Agricultural, Residential Agricultural, and Village Commercial. State Land Use designations for these properties include Agriculture, Urban, Rural, and Conservation. The listed properties will be affected by the installation of a gravity sewer system, and our department is not aware of significant natural, cultural or historical resources in these locations.

The parcel that is subject to special reviews by the Planning Department is the one in which the wastewater treatment plant (WWTP), its ponds, wells, and appurtenant structures will be located, TMK: (3) 4-5-002:060. That parcel is in the County's Agricultural - 40 acre (A-40a) Zoning District. A portion of parcel 60 is in the Special Management Area (SMA) and it has the State Land Use Designations of Agriculture and Conservation (along the coastline). The project is subject to an SMA review and Plan Approval by this department. The State Department of Land and Natural Resources' requirements with regards to land within the Conservation District will be incorporated in the SMA review and Plan Approval.

The SMA review implements the objectives and policies of the Coastal Zone Management Program set forth in Section 205A-2, HRS, as amended. To promote assessment of the potential impacts of the proposed project on the SMA, the Environmental Assessment should include the following information:

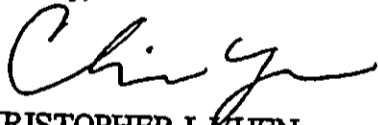
Hawai'i County is an equal opportunity provider and employer

Mr. Paul Inouye
October 6, 2005
Page 2

- Background history on the WWTP's establishment and permits that were obtained for the existing uses.
- A detailed site plan, drawn to scale, of parcel 60 showing the locations of all existing structures, ponds, and wells of the WWTP as well as where proposed upgrades and expansion will take place. The site plan should also clearly delineate the SMA and State Land Use Conservation boundaries in relation to all existing and proposed uses and structures.
- Maps showing the planned routing of the gravity sewer system on parcel 60 and the other affected properties.
- Description of the proposed project and its objectives.
- Description of the environmental setting and the probable impacts of the proposed project on the environment and the SMA.
- Alternatives to the proposed actions and proposed mitigating measures to minimize impacts.
- Description of the anticipated impacts of the proposed project on valued cultural, historical, or natural resources on or in the vicinity of the property, including the extent to which traditional and customary native Hawaiian rights are exercised in the area.
- Information on existing public access to and along the shoreline and whether the access is being used.
- A statement of the valuation of the proposed upgrades and expansion.
- The relationship of the proposed project to goals, standards, and policies of the Hawai'i County General Plan 2005 and any other relevant land use plans for the affected area.

Thank you for the opportunity to provide input on this important project. Should you have any questions, please contact Deborah Chang of this department at 961-8288, ext. 254.

Sincerely,



CHRISTOPHER J. YUEN
Planning Director

DLC:cd
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xc: Long-Range Planning -- Deborah Chang

M&E Pacific, Inc.

METCALF & EDDY | AUCOM

September 26, 2005

Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96809

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
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Draft Environmental Assessment

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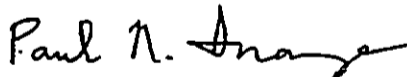
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M&E Pacific, Inc.

METCALF & EDDY | AECOM

September 26, 2005

Mr. Irving Kawashima
Na Ala Hele Trails Program
Forestry and Wildlife Division, DLNR
P.O. Box 4849
Hilo, HI 96720

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
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Draft Environmental Assessment

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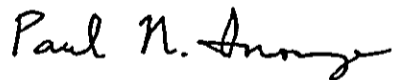
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M&E Pacific, Inc.

METCALF&EDDY | AECOM

September 26, 2005

Mr. Patrick Leonard
U.S. Fish and Wildlife Service
Refuges Division
P.O. Box 50167
Honolulu, HI 96850

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
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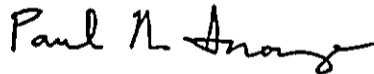
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M&E Pacific, Inc.

METCALF&EDDY | AECOM

September 26, 2005

Ms. Mary Lou Kobayashi
Hawaii Coastal Zone Management Program
Office of Planning
P.O. Box 2359
Honolulu, HI 96804

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
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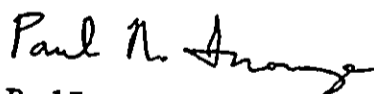
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M&E Pacific, Inc.

METCALF & EDDY | AECOM

September 26, 2005

Ms. Mary Anne B. Maigret
Historic Preservation Division, DLNR
State of Hawaii
74-383 Kealakehe Parkway
Kailua-Kona, HI 96740

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
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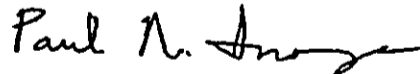
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M&E Pacific, Inc.

METCALF & EDDY | AECOM

September 26, 2005

The Nature Conservancy
68-1796 Puu Nui St.
Waikoloa, HI 96738

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
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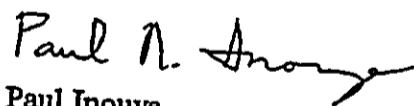
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M&E Pacific, Inc.

METCALF & EDDY | AECOM

September 26, 2005

The Outdoor Circle
1314 So. King St.
Suite 306
Honolulu, HI 96814

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
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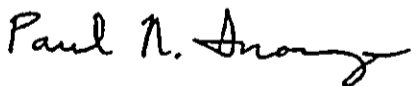
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M&E Pacific, Inc.

METCALF & EDDY | AECOM

September 26, 2005

Sierra Club Hawaii Chapter
P.O. Box 2577
Honolulu, HI 96803

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
4-5-008; 4-5-009; 4-5-006: 010; 4-5-012; 4-5-013; 4-5-016; 4-5-017; and 4-5-018
Draft Environmental Assessment

To Whom It May Concern:

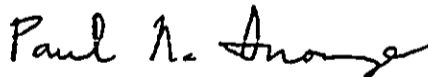
We are preparing a draft environmental assessment (EA) for proposed improvements to the wastewater collection and treatment in Honoka'a town. We are seeking your input on flora/fauna/cultural resources/historical resources/ etc. which our project may impact.

The project will install a gravity sewer system and upgrade/expand the existing wastewater treatment plant (WWTP) on parcel (TMK: (3) 4-5-002:060) adjacent to the shoreline. The project results from U.S. Environmental Protection Agency mandate to close large capacity cesspool systems. There are approximately 25 properties within the project area with large capacity cesspools. The attached location map identifies tributary areas (one through five) which identify the possible sewer-able parcels. The proposed improvements for this proposed project may provide gravity sewer service to shaded tributary areas one and two only.

Your response is requested by 10/12/05. We intend to publish our draft EA in the State Office of Environmental Quality Control (OEQC) Bulletin on November 23, 2005. Thank you for your consideration. If we do not receive a response by this date, we will assume that you are not aware of any significant resource.

Sincerely,

M&E Pacific, Inc.



Paul Inouye
Senior Project Engineer

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246
P:\Projects\Hawaii\60001707 Honokaa Fac PBR\EA\Draft\Honokaa_Formltr.doc

M&E Pacific, Inc.

METCALF&EDDY | AECOM

September 26, 2005

Mr. E. Gordon Grau, Ph.D.
University of Hawaii Sea Grant College Program
2525 Correa Road, HIG 238
Honolulu, HI 96822

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
4-5-008; 4-5-009; 4-5-006: 010; 4-5-012; 4-5-013; 4-5-016; 4-5-017; and 4-5-018
Draft Environmental Assessment

Dear Mr. Grau, Ph.D.:

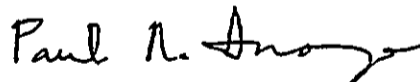
We are preparing a draft environmental assessment (EA) for proposed improvements to the wastewater collection and treatment in Honoka'a town. We are seeking your input on flora/fauna/cultural resources/historical resources/ etc. which our project may impact.

The project will install a gravity sewer system and upgrade/expand the existing wastewater treatment plant (WWTP) on parcel (TMK: (3) 4-5-002:060) adjacent to the shoreline. The project results from U.S. Environmental Protection Agency mandate to close large capacity cesspool systems. There are approximately 25 properties within the project area with large capacity cesspools. The attached location map identifies tributary areas (one through five) which identify the possible sewer-able parcels. The proposed improvements for this proposed project may provide gravity sewer service to shaded tributary areas one and two only.

Your response is requested by 10/12/05. We intend to publish our draft EA in the State Office of Environmental Quality Control (OEQC) Bulletin on November 23, 2005. Thank you for your consideration. If we do not receive a response by this date, we will assume that you are not aware of any significant resource.

Sincerely,

M&E Pacific, Inc.



Paul Inouye
Senior Project Engineer

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246
P:\Projects\Hawaii\60001707 Honokaa Fac PER\EA\Draft\Honokaa_Formltr.doc

M&E Pacific, Inc.

METCALF & EDDY | AECOM

September 26, 2005

Mr. David Cheever
Historic Hawaii Foundation
P.O. Box 1658
Honolulu, HI 96806

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
4-5-008; 4-5-009; 4-5-006: 010; 4-5-012; 4-5-013; 4-5-016; 4-5-017; and 4-5-018
Draft Environmental Assessment

Dear Mr. Cheever:

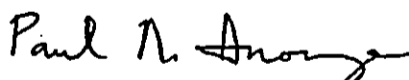
We are preparing a draft environmental assessment (EA) for proposed improvements to the wastewater collection and treatment in Honoka'a town. We are seeking your input on flora/fauna/cultural resources/historical resources/ etc. which our project may impact.

The project will install a gravity sewer system and upgrade/expand the existing wastewater treatment plant (WWTP) on parcel (TMK: (3) 4-5-002:060) adjacent to the shoreline. The project results from U.S. Environmental Protection Agency mandate to close large capacity cesspool systems. There are approximately 25 properties within the project area with large capacity cesspools. The attached location map identifies tributary areas (one through five) which identify the possible sewer-able parcels. The proposed improvements for this proposed project may provide gravity sewer service to shaded tributary areas one and two only.

Your response is requested by 10/12/05. We intend to publish our draft EA in the State Office of Environmental Quality Control (OEQC) Bulletin on November 23, 2005. Thank you for your consideration. If we do not receive a response by this date, we will assume that you are not aware of any significant resource.

Sincerely,

M&E Pacific, Inc.



Paul Inouye
Senior Project Engineer

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246
P:\Projects\Hawaii\60001707 Honokaa Fac PER\EA\Draft\Honokaa_Formltr.doc

M&E Pacific, Inc.
MTC/AV/SD/07 | AECOM

September 28, 2005

Mr. Sam Lemmo, Administrator
Office of Conservation and Coastal Lands
P.O. Box 621
Honolulu, HI 96809

Subject: Honoka'a Wastewater Treatment Plant and Sewer Improvements
TMK: (3) 4-5-002: 060, 008, 035, 036; 4-5-003; 4-5-005; 4-5-006; 4-5-007;
4-5-008; 4-5-009; 4-5-010; 4-5-012; 4-5-013; 4-5-016; 4-5-017; and 4-5-018
Draft Environmental Assessment

Dear Mr. Lemmo:

We are preparing a draft environmental assessment (EA) for proposed improvements to the wastewater collection and treatment in Honoka'a town. The existing treatment plant is on parcel (TMK: (3) 4-5-002:060) adjacent to the shoreline and part of which is zoned State Conservation area. We are proposing to rehabilitate an existing stabilization pond located within the Conservation area. We are seeking your input on regulatory requirements which will impact our project.

The project will install a gravity sewer system and upgrade/expand the existing wastewater treatment plant (WWTP). The project results from U.S. Environmental Protection Agency mandate to close large capacity cesspool systems. Please refer to the attached maps for reference. The location map identifies the existing WWTP and tributary areas (one through five) which identify the possible sewer-able parcels. The second map was received from the State Land Use Commission (SLUC) and identifies the parcel and approximate Agricultural/Conservation district boundary. The first map was also received from the SLUC and depicts the Conservation district boundary on a U.S. Geological Survey Quadrangle map with a red "X" adjacent to parcel 60.

Your response is requested by 10/12/05. We intend to publish our draft EA in the State Office of Environmental Quality Control (OEQC) Bulletin on November 23, 2005. Thank you for your consideration. Please call me to further discuss the required regulatory requirements.

Sincerely,

M&E Pacific, Inc.

Paul N. Anaya

Paul Knorpe
Senior Project Engineer

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246
Project Email: 62001707.Honoka'a.Fw.FENCorrespondentOCCL_DLR01.doc



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 61
HONOLULU, HAWAII 96809

FRANK YONG
DIRECTOR OF LAND AND NATURAL RESOURCES
KIMBERLY S. HARRIS
DEPUTY DIRECTOR
MARGARET MALDEN
ASSISTANT DIRECTOR
OFFICE OF CONSERVATION
OFFICE OF COASTAL LANDS
OFFICE OF LAND AND WATER
OFFICE OF PLANNING AND
OFFICE OF PUBLIC AFFAIRS

REF:OCCL-CP

Paul Knorpe, Senior Project Engineer
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Correspondence: EA-06-70

OCT - 6 2005

Dear Mr. Knorpe,

Subject: Honoka'a Wastewater Treatment Plant Sewer Improvements of Parcel TMK: (3) 4-5-002:060
The Department of Land and Natural Resources (DLNR) Office of Conservation and Coastal Lands (OCCL) is in receipt of your letter requesting information about regulatory requirements that may impact the subject project located north of Honoka'a, Island of Hawaii, subject parcel TMK (3) 4-5-002:060.

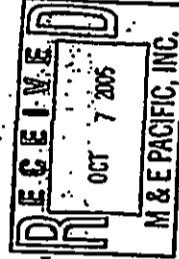
The OCCL notes that the subject parcel appears to be partially located in the State Land Use (SLU), Conservation District, Limited Subzone. The Hawaii Administrative Rules (HAR) Chapter 13-5 identifies land uses that may be applied for in each subzone.

According to your information, you are proposing to rehabilitate the existing stabilization pond located within the Conservation District. The proposed project involves the installation of a gravity sewer system and upgrade/expand of the existing wastewater treatment plant. The project is a result of the U.S. Environmental Protection Agency's mandate to close large capacity cesspool systems.

Before the OCCL can determine if the proposed land use is an identified use pursuant to Hawaii Administrative Rules (HAR) 13-5, more information is required. Please submit diagrams and descriptions indicating what specific work is to be conducted within the Conservation District, the size and scope of the project, the amount of area within the Conservation District that is to be disturbed, and any landscaping requirements. Dependent upon what you are proposing, your project may require a Conservation District Use Application (CDUA) subject to the discretion of the Department or Board of Land and Natural Resources.

Because the subject parcel lies partially within the Conservation District, land uses must adhere to the HAR, Chapter 13-5. You can find Chapter 13-5 of the Hawaii Administrative Rules and Conservation District Use Application on the OCCL website at www.hawaii.gov/dlnr/occl. Should you have questions, please call Chris Pramoudmeter of our OCCL staff at 587-0048.

Honolulu



Samuel P. Lemmo, Administrator
Office of Conservation and Coastal Lands

APPENDIX B: Draft Environmental Comment and Response Letters

Harry Kim
Mayor



Barbara Bell
Director

Nelson Ho
Deputy Director

County of Hawaii
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
25 Aupuni Street, Room 210 • Hilo, Hawaii 96720-4252
(808) 961-8083 • Fax (808) 961-8086

July 24, 2006

Mr. William A. Garnet, President
Hamakua Land Partners, LLP
600 Fairview Road, Suite 600
Charlotte, North Carolina 28210

**Subject: Honokaa Large Capacity Cesspool Conversion Project
Draft Environmental Assessment Comments**

Dear Mr. Garnet,

We greatly appreciate the comments in your letter dated July 7, 2006. The County plans to select a wastewater treatment plant site that will best serve the County and also serve in the best interest of the public. The site selection will be based on a Wastewater Treatment Plant Site Selection Study tentatively scheduled for completion in April 2007.

The study would include interviewing landowners and conducting public outreach. After the site selection process has been completed, we will inform the public of our recommendations. When a site is selected, the County typically takes steps towards acquiring the property.

Should you have any further questions or comments, please do not hesitate to call Dora Beck of the Technical Services Section at 808-961-8028.

Sincerely,

A handwritten signature in cursive script, appearing to read "Barbara Bell".

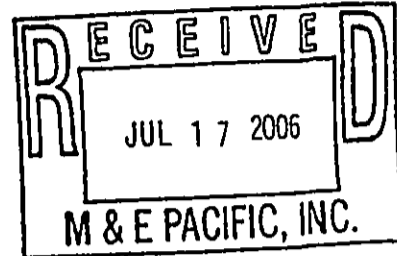
Barbara Bell
DIRECTOR

cc: Bert Saito, M&E Pacific
Nelson Ho, Deputy Director
Dora Beck, Technical Services Section Chief

Hawaii's County is an equal opportunity provider and employer.

1901

HAMAKUA LAND PARTNERSHIP, L.L.P.
HAMAKUA ENERGY PARTNERS, L.P.
600 Fairview Road, Suite 600
Charlotte, North Carolina 28210
Telephone: (704) 553-3036
Fax: (704) 553-3037



July 7, 2006

Via Fax (808) 961-8086; Confirmation by Mail
Department of Environmental Management
County of Hawai'i
25 Aupuni Street, Suite 210
Hilo, Hawai'i 96720
Attention: Ms. Dora Beck, P.E.

Via Fax (808) 524-0246; Confirmation by Mail
M&E Pacific, Inc.
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawai'i 96813
Attention: Mr. Bruce Wade, P.E.

Re: Honoka'a Large Capacity Cesspool Conversion Project

Dear Ms. Beck and Mr. Wade:

We have reviewed both the Final Preliminary Engineering Report for Honoka'a Large Capacity Cesspool Conversion Project dated February 7, 2006 and the Draft Environmental Assessment dated May 2006 related to the same project. These reports describe the County of Hawai'i's proposal to eliminate large capacity cesspools in Honoka'a by expanding the existing wastewater collection treatment systems. As part of this project, the County of Hawai'i ("County") contemplates expanding the existing gravity sewer collection system to connect the majority of large capacity cesspool users to the sewer and building a new wastewater treatment plant ("WWTP"). According to a consent agreement with the U.S. Environmental Protection Agency ("USEPA"), the conversion of USEPA approved alternative sewer disposal must be completed by September 2010.

Upon our review of these reports, we discovered for the first time that the expansion of the existing wastewater collection treatment systems would result in a taking of lands owned by us or other lands that we have rights to use. Please be advised that if the County is contemplating such an action, we will vigorously oppose such a move by the County and will defend our rights as property owners.

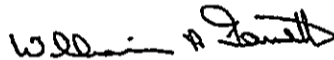
This contemplated action has already negatively impacted our use and enjoyment of our properties. We have been advised by the consultants involved in the potential sale of some of our properties that this proposed action has negatively impacted the value of our properties and our ability to sell the properties. They have advised us that it may be impossible to sell our properties at the price that we would have been able to obtain but for this cloud on our title.

You should also be aware that we have our power lines throughout adjacent properties which feed power to Hawaiian Electric Light Company, Inc.'s power grid. We also have water transport rights throughout the area surrounding our properties. Our interests in the Honoka'a area do not stop at the boundaries of our properties. Any expansion into those areas will also be met by resistance from us.

We reject the County's plan to expand the WWTP if such a plan results in a taking of any of our properties or adjacent properties which we are using. Any delay by the County in determining which properties will be affected by the expansion will continue to result in a devaluation of our properties and further damage to us.

We are available to meet with you to discuss our comments and to obtain further information about the County's plan. Our affiliated company, Hamakua Energy Partners, is a major electric provider and a reliable electric utility supplier to the island. We are interested in seeing a durable solution to any water utility issue on the island and would suggest that our power plant water use experience may be useful in your final planning considerations.

Sincerely,



William A. Garnett, President

cc: Sheila L. Y. Sakashita, Esq.

M&E Pacific, Inc.
100 Pauahi Street, Suite 207, Hilo, Hawaii 96720
T 808.961.2776 F 808.935.5934 www.m-e.aecom.com

July 31, 2006

Mr. Kelvin Sunada, Manager
Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Dear Mr. Sunada:

**Subject: Honokaa Large Capacity Cesspool Conversion Project
Draft Environmental Assessment Comments**

We greatly appreciate your comments in your letter dated June 28, 2006. We have the following responses to your comments:

Wastewater Branch

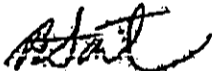
We acknowledge that there are no objections from the Wastewater Branch and we will append your letter to the final EA. All federal cross cutters will be included in the final EA. The wastewater plans will conform to the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater System."

Safe Water Drinking Branch

The final EA will state that closure of large capacity cesspools, that received over 1000 gallons per day of wastewater, will conform to Underground Injection Control (UIC) injection-well cesspool backing and abandonment requirements. Of the known large capacity cesspools, the County will be responsible for the abandonment of seven (7) cesspools; the State will be responsible for eight (8) cesspools; and ten (10) cesspools will be abandoned by private owners.

Should you have any further questions or comments, please do not hesitate to contact me at 808-961-2776 or bert.saito@m-e.aecom.com.

Yours sincerely,



Bert Saito, P.E.
Project Manager

cc: Ms. Dora Beck, COH DEM
Mr. Lyle Hirota, COH DEM
Ms. Bobbi-Jean Todd, COH Corporation Counsel
Mr. Martin Nakasona, M&E Pacific, Inc.
Mr. Bruce Wade, M&E Pacific, Inc.
Ms. Trudy Hamlo, M&E Pacific, Inc.

LINDA LINGLE
GOVERNOR OF HAWAII



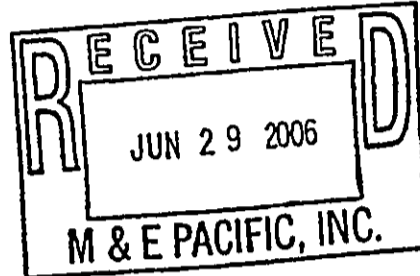
CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. Box 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
EPO-06-081

June 26, 2006

Mr. Bruce Wade, P. E.
M & E Pacific, Inc.
Davis Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813



Dear Mr. Wade:

SUBJECT: Draft Environmental Assessment
Honoka'a Large Capacity Cesspool (LCC) Conversion Project
Honoka'a, Island of Hawaii, Hawaii
TMK: (3) 4-5-001: 011, 012, 018
TMK: (3) 4-5-002: 018, 061, 063, 068, 069, 070, 071, 072, 074, 075, 076
TMK: (3) 4-5-003: 018, 020
TMK: (3) 4-5-005: 002, 006, 012
TMK: (3) 4-5-006: 003, 005, 006, 007, 011, 013, 071
TMK: (3) 4-5-007: 010
TMK: (3) 4-5-008: 016
TMK: (3) 4-5-010: 076, 078, 087, 088
TMK: (3) 4-5-012: 021, 025
TMK: (3) 4-5-016: 003, 011, 012, 018
TMK: (3) 4-5-017: 009
TMK: (3) 4-5-018: 005, 031, 032
TMK: (3) 4-5-021: 001
TMK: (3) 4-5-023: 063, 064, 065, 066, 067, 068, 069, 070

Thank you for allowing us to review and comment on the subject application. The document was routed to the various branches of the Environmental Health Administration. We have the following Wastewater Branch and Safe Drinking Water Branch comments.

Wastewater Branch

We have reviewed the subject document which addresses the abandonment of large capacity cesspools as part of a consent agreement with the USEPA. As part of this agreement, the County proposes the Honoka'a Large Capacity Cesspool Conversion project to improve the existing sewerage systems in the town of Honoka'a. It is further stated that the County will be expanding

Mr. Wade
June 26, 2006
Page 2

the existing gravity sewer collection system to connect the majority of the LCC users to the sewer system and phase 2, build a new WWTP as well as further expand the sewer system.

The subject project is located in the Non-Critical Wastewater Disposal Area (CWDA) as determined by the Hawaii County Wastewater Advisory Committee. However, the mandate to ban all Large Capacity Cesspools does override the Non-CWDA ruling which would allow cesspools. Therefore, as the proposal is to expand the gravity sewer collection system and connect existing LCC to the existing sewer system, we have no objects to the proposed project.

We encourage the developer to work with the County and utilize recycle water for irrigation and other non-potable water purposes. Additionally, as funding for this project may utilize SRF funds, we remind the county to insure that all federal cross cutters are included in the environmental assessment.

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 questions, please contact the Planning & Design Section of the Wastewater Branch at (808) 586-4294.

Safe Drinking Water Branch

If appropriate, the Draft Environmental Assessment should mention that the closure of a large-capacity cesspool, that had received over 1000 gallons per day of wastewater, must conform to Underground Injection Control (UIC) injection-well cesspool backfilling and abandonment requirements.

A UIC Application for backfilling an injection-well cesspool must be submitted to the UIC program. Backfilling instructions will then be issued to the facility. If an injection-well LCC is to be retained for use, then an existing injection well application to operate must be completed and submitted to the UIC program. A UIC permit will then be issued to the facility to authorize the injection well's (seepage pit's) use.

Questions about UIC may be directed to Chauncey Hew at (808) 586-4258.

Mr. Wade
June 26, 2006
Page 3

We strongly recommend that you review all of the Standard Comments on our website:
www.state.hi.us/health/environmental/env-planning/landuse/landuse.html. Any comments
specifically applicable to this application should be adhered to.

If there are any questions about these comments please contact Jiakai Liu with the Environmental
Planning Office at 586-4345.

Sincerely,



KELVIN H. SUNADA, MANAGER
Environmental Planning Office

c: EPO
WWB
SDWB
EH-Hawaii

M&E Pacific, Inc.
100 Pauahi Street, Suite 207, Hilo, Hawaii 96720
T 808.961.2776 F 808.935.5934 www.m-e.aecom.com

July 31, 2006

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

**Subject: Honokaa Large Capacity Cesspool Conversion Project
Draft Environmental Assessment Comments**

We greatly appreciate your comments in your letter dated June 23, 2006. We have the following responses to your comments:

Cultural impacts assessment: In accordance with Act 50, a cultural impacts assessment section will be added in the final EA.

Two-sided pages: The final EA will be printed on both sides of the pages in the final document in accordance with HRS 342G-44.

State Land Use designations: The State Land Use Commission designations will be corrected in the final EA.

Acronyms and abbreviations: Acronyms and abbreviations that appear in the text will be defined in the Acronyms and Abbreviations list in the final EA.

Permits: Plan Approval is a required permit once the wastewater treatment plant site is selected.

Cesspools: The closure of large-capacity cesspools, received over 1000 gallons per day of wastewater will conform to the Underground Injection Control (UIC) injection-well cesspool backfilling and abandonment requirements. Of the known large capacity cesspools, the County will be responsible for the abandonment of seven (7) cesspools; the State will be responsible for eight (8) cesspools; and ten (10) cesspools will be abandoned by private owners.

Appendices: Appendices will be included in the final EA.

Should you have any further questions or comments, please do not hesitate to contact me at 808-961-2776 or bert.salto@m-e.aecom.com.

Yours Sincerely,


Bert Salto, P.E.
Project Manager

cc: Ms. Dora Beck, COH DEM
Mr. Lyle Hirata, COH DEM
Ms. Bobbi-Jean Todd, COH Corporation Counsel
Mr. Martin Nakasona, M&E Pacific, Inc.
Mr. Bruce Wade, M&E Pacific, Inc.
Ms. Trudy Hamic, M&E Pacific, Inc.

OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 South Beretania Street, Suite 702

Honolulu, Hawaii 96813

Telephone (808) 586-4185

FAX (808) 586-4186

Email: oeqc@doh.hawaii.gov

Fax Transmittal Cover Sheet



JULY 18, 2006

To: HDEM, TERRY MAHA PACIFIC Sender: Nancy Heinrich
 Agency: OEQC
 Fax # of Sender: (808) 586-4186
 Total Number of Pages Transmitted, Including Cover: _____

Attachment:
 I am sending a corrected copy of a comment letter on the Honokaa LCC Conversion Project draft EIS. The original letter had the incorrect subject line. Sorry for the confusion. Please call if you have any questions.
 Nancy Heinrich

This transmittal is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged or confidential. If the reader of this transmittal is not the intended recipient, or the employee or agent responsible for delivering the transmittal to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please contact me at (808) 586-4185. Mahalo.

DOCUMENT CAPTURED AS RECEIVED

LINDA LINGLE
GOVERNOR OF HAWAII



GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186
E-mail: oeqc@health.state.hi.us

June 23, 2006

Barbara Bell
Department of Environmental Management
25 Aupuni Street #210
Hilo, Hawaii 96720

Subject: Draft environmental assessment (EA), Honokaa LCC Conversion Project

Dear Ms. Bell:

We have the following comments to offer:

Cultural impacts assessment: Act 50 was passed by the legislature in April 2000. This mandates an assessment of impacts to current cultural practices by the project. In the final EA include such an assessment. For assistance in the preparation refer to our *Guidelines for Assessing Cultural Impacts*, which you may find at <http://www.state.hi.us/health/oeqc/guidance/cultural.htm>, or contact our office for a paper copy. You will also find the text of Act 50 linked to this section of our homepage.

Two-sided pages: Please print on both sides of the pages in the final document to reduce bulk and save on paper. HRS 342G-44 requires double-sided copying in all state and county agencies, offices and facilities.

State Land Use designations: The State Land Use Commission employs four possible designations: Conservation, Rural, Urban and Agricultural. Several places in the draft EA text list the SLU designation as Industrial. Please correct this in the final EA.

Acronyms and abbreviations: The following terms which appeared in the text are not defined in the Acronyms and Abbreviations list. Please add them to the final EA acronyms list: SBR, UIC, gpd, PER and SRF.

Permits: In the final EA indicate the outcome of your follow-up with DLNR and with the Planning Department regarding possible Conservation District Use and Special Management Area permits. If required, add them to your list of permits in section 1-3.

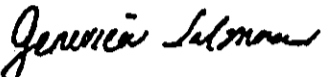
Cesspools: The draft EA does not indicate how the cesspools will be taken out of service. Will they be capped or seal and then left in place? Or will they be physically removed? Describe this in the final EA.

Barbara Bell
June 23, 2006
Page 2

Appendices: Neither Appendix A, *Investigatory Letters and Responses*, nor the Photographs appendix have any entries. Enclose them in the final EA.

If you have any questions call Nancy Heinrich at 586-4185.

Sincerely,


GENEVIEVE SALMONSON
Director

c: Bruce Wade, M&E Pacific

M&E Pacific, Inc.
100 Pauahi Street, Suite 207, Hilo, Hawaii 96720
T 808.961.2776 F 808.935.5934 www.m-e.aecom.com

July 31, 2006

Mr. Christopher J. Yuen, Planning Director
Planning Department
County of Hawaii
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720-3043

Dear Mr. Yuen:


**Subject: Honokaa Large Capacity Cesspool Conversion Project
Draft Environmental Assessment Comments**

We greatly appreciate your comments in your letter dated June 23, 2006. We have the following responses to your comments:

1. The proposed project does not involve improvements on TMK: 4-5-002-060 and the new project site is not in the Special Management Area.
2. Thank you for bringing these errors and omissions to our attention. Corrections will be made for the final draft of the Environmental Assessment.
3. Plan Approval will be listed as a required permit once the site for the new wastewater treatment plant is selected.
4. We concur.
5. We will clarify that the existing wastewater treatment plant will not be incorporated into this project and should not affect present shoreline access. The County plans to construct a new wastewater treatment plant.

When we finalize the Wastewater Treatment Plant Site Selection Study, we will inform you of our recommendations. Should you have any further questions or comments, please do not hesitate to contact me at 961-2776 or bert.saito@m-e.aecom.com

Yours sincerely,



Bert Saito, P.E.
Project Manager

cc: Ms. Dora Beck, COH DEM
Mr. Lyle Hirota, COH DEM
Ms. Bobbi-Jean Todd, COH Corporation Counsel
Mr. Martin Nakasone, M&E Pacific, Inc.
Mr. Bruce Wade, M&E Pacific, Inc.
Ms. Trudy Hamic, M&E Pacific, Inc.

Harry Kim
Mayor

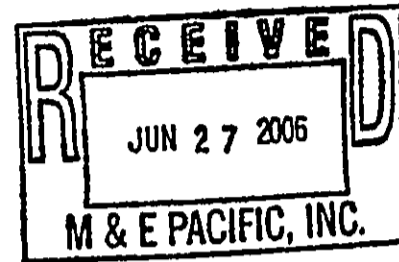


County of Hawaii
PLANNING DEPARTMENT
101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720-3043
(808) 961-8288 • FAX (808) 961-8742

Christopher J. Yuen
Director

Brad Kurokawa, ASLA
LEED® AP
Deputy Director

June 23, 2006



Mr. Bruce Wade
M&E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, HI 96813

Dear Mr. Wade:

Subject: Draft Environmental Assessment (DEA) for Honoka`a Large Capacity Cesspool Conversion Project
TMKs: numerous parcels on (3) 4-5-001; 4-5-002; 4-5-003; 4-5-005; 4-5-006; 4-5-007; 4-5-008:016; 4-5-010; 4-5-012; 4-5-016; 4-5-017:009; 4-5-018; 4-5-021:001; and 4-5-023;
Hāmākua District, Hawai`i Island

The above-mentioned project involves installing a gravity sewer system, construction of a new wastewater treatment plant, and abandonment and demolition of large capacity cesspools. The large capacity cesspool conversion project is being undertaken pursuant to a Consent Agreement between the County of Hawai`i and the U.S. Environmental Protection Agency (USEPA). The agreement extends the USEPA's deadline for the elimination of large capacity cesspools in Honoka`a to September 2010. By that time, the County must complete construction of a sewage collection system approved by the USEPA.

Our comments and clarifications to the DEA are as follows:

1. The existing Waste Water Treatment Plant (WWTP) was built in 1995 on TMK: 4-5-002:060. Will this proposed project involve improvements on TMK: 4-5-002:060? Page 2-1 states that a portion of this parcel has State Land Use (SLU) "Conservation" designation along the coastline and that all proposed improvements lie outside of the Conservation Area. The Special Management Area (SMA) which is under County jurisdiction runs further inland of the State's Conservation SLU on this parcel. Any improvements within the SMA will require review by our department against the SMA rules and regulations. It appears that the *mauka* boundary of the SMA coincides with the *mauka* boundary of the abandoned settling pond shown on Figure 2-2.

Mr. Bruce Wade
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As long as no land altering activity (including landscaping) is proposed within the SMA, no SMA review will be required.

- The parcel-specific information listed on pages 1-1 through 1-8 contains numerous errors and omissions. The table below corrects errors contained in the DEA, but you will need to further clarify the information. Land ownership is subject to change so we do not include that information in the table.

TMK No.	Corrections
4-5-001:011	4.43 acres. Zoning - A-1a
4-5-001:012	Zoning - A-1a
4-5-003:020	Zoning - RS-10
4-5-005:002	3.36 acres
4-5-005:012	Zoning - RS-10 and CV-10
4-5-006:003	2.39 acres
4-5-006:006	Zoning - RS-7.5
4-5-006:013	Zoning - RS-7.5 and CV-10
4-5-006:071	0.48 acres
4-5-007:010 and 4-5-008:016	Zoning - CV-10
4-5-010:076	11.21 acres
4-5-010:078	2.42 acres
4-5-010:087	Not a valid TMK No.
4-5-010:088	23.91 acres
4-5-010:021	0.59 acres
4-5-012:025	0.55 acres. Zoning - RS-10
4-5-016:003, 011, 012, and 018	Zoning - CV-10
4-5-017:009	0.54 acres. Zoning - RS-10
4-5-018:031	0.25 acres. Zoning - CV-10 and A-1a
4-5-018:032	0.22 acres. Zoning - A-1a
4-5-021:001	0.67 acres. Zoning A-1a
4-5-003:018	8.00 acres
4-5-002:018	SLU - Ag. and Urban. Zoning - A-40a and RS -15
4-5-002:061	28.43 acres. SLU - Ag. and Urban. Zoning - A-40a
4-5-002:063	8.88 acres. SLU - Urban. Zoning - RS-15, MG-1a, and A-40a
4-5-002:070	3.70 acres. SLU - Urban. Zoning - RS-15 and MG-1a
4-5-002:071	SLU - Urban. Zoning - MG-1a and A-40a
4-5-002:072	SLU - Urban. Zoning - RS-15, MG-1a, and A-40a
4-5-002:074	SLU - Urban
4-5-002:075	Zoning - MG-1a and RS-15
4-5-002:076	SLU - Urban

- Plan Approval is a required permit once the site for the new WWTP is selected. Plan Approval needs to be listed in 1.3 Required Permits and Clearances on page 1-13. The proposed project is a necessary public utility, crucial to public health and protective of ground water resources and off-shore water quality. The Hawai'i County Zoning Code Section 25-4-11(c) pertaining to Power lines; utility substations; public buildings states:


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"Public uses, structures and buildings and community buildings are permitted uses in any district, provided that the director has issued plan approval for such use."

4. Depending on the location chosen for the new WWTP site, Consolidation and/or Resubdivision may also be necessary.
5. The DEA recognizes that shoreline fishing is occurring and commits to maintaining access to the shoreline through the present WWTP site (page 3-22). How is the public gaining access to that site presently? Is the route being used to traverse the WWTP site in an acceptable location and marked on the ground? Do you anticipate any changes in the way shoreline access is permitted on the present WWTP site?

Thank you for the opportunity to review the DEA. Should you have questions, please contact Deborah Chang of my staff at 961-8288, Ext. 254.

Sincerely,



CHRISTOPHER J. YUEN
Planning Director

DLC:cd

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cc: Dora Beck, Dept. of Environmental Management