Harry Kim
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County of Hawaii
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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March 13, 2007

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

RE: Komohana Heights Large Capacity Cesspool Replacement Project
Final Environmental Assessment Publication
TMK: (3) 02-03-042, 043, 048 & 050, Hilo, County of Hawai`i, Hawai`i.

Dear Ms. Salmonson,

The County of Hawai`i Department of Environmental Management has reviewed the comments received during the 30-day public comment period that began on June 23, 2005 regarding the subject project. We have determined that this project will not have significant environmental effects thus we are declaring a Finding of No Significant Impact (FONSI).

Please publish the notice of availability of this Final EA and FONSI declaration for this project in the March 23, 2007 issue of the Office of Environmental Quality Control's *The Environmental Notice.*

We have enclosed a completed OEQC Publication Form and four copies of the Final EA. Should you have any questions, please call Dora Beck at (808) 961-8028. Thank you.

Sincerely,

for Barbara Bell
DIRECTOR

enclosures

cc: Martin Nakasone, M&E Pacific, Inc.

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ENVIRONMENTAL ASSESSMENT

KOMOHANA HEIGHTS
LARGE CAPACITY CESSPOOL REPLACEMENT

Hilo, Big Island, Hawai'i
TMK: (3)-2-3-042, 043, 048 & 050

MARCH 2007

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

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
BMPs	Best Management Practice(s)
CFR	Code of Federal Regulations
CWA	Clean Water Act
CWB	Clean Water Branch
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act
DBEDT	State Department of Business, Economic Development and Tourism
DLNR	State Department of Land and Natural Resources
DOH	State Department of Health
EA	Environmental Assessment
EPA	U.S. Environmental Protection Agency
FONSI	Finding of No Significant Impact
HAR	Hawaii Administration Rules
HRS	Hawaii Revised Statutes
LCCs	Large Capacity Cesspool(s)
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
NWP	Nationwide Permit
OEQC	State Office of Environmental Quality Control
OHA	State Office of Hawaiian Affairs
SCS	Soil Conservation Service
SHPD	State Historic Preservation Division
VCP	Vitrified Clay Pipe

CHAPTER 1 - INTRODUCTION

1.1 PROJECT INFORMATION SUMMARY

Project Name:	Komohana Heights Large Capacity Cesspool Replacement
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: South Hilo District	**Komohana Heights Subdivision** Owner: Private, various Tax Map Keys: 3rd Tax Div., 2-3-42: parcels 027, 033 3rd Tax Div., 2-3-43: parcels 001, 002, 003, 005, 006, 007, 009, 012, 016, 018, 019, 020, 022, 023, 024, 025 and 026 3rd Tax Div., 2-3-48: parcels 007 through 033 SLU District: Urban County Zoning: RS-7.5 (Residential, Single-Family, 7,500 sf) Special Management Area: NA **Sunrise Ridge Subdivision** Owner: Private, various Tax Map Keys: 3rd Tax Div., 2-3-50: parcels 011 and 012 SLU District: Urban County Zoning: RS-10 (Residential, Single-Family, 10,000 sf) Special Management Area: NA **Sunrise Ridge Subdivision** Owner: County Tax Map Key: 3rd Tax Div., 2-3-50: 013 (Sewage Pump Station) SLU District: Urban County Zoning: RS-10 (Residential, Single-Family, 10,000 sf) Special Management Area: NA
Applicant Agent:	M & E Pacific, Inc. Davies Pacific Center 841 Bishop Street, Suite 1900 Honolulu, Hawaii 96813 Contact: Paul Inouye, P.E. Phone: (808) 521-3051, Fax: (808) 524-0246
Proposed Action:	The proposed action involves the extension of gravity sewer lines, the abandonment and demolition of large capacity cesspools, and the abandonment of a sewage pump station.
Determination:	Finding of No Significant Impact (FONSI)

1.2 OVERVIEW OF PROPOSED PROJECT

In accordance with a U.S. Environmental Protection Agency (EPA) ban on large capacity cesspools (LCCs) currently in effect, the County of Hawai'i has entered into a consent agreement with the EPA 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 begin conversion of regulated LCCs to EPA approved alternative sewer disposal. As part of this agreement, the County proposes the Komohana Heights Large Capacity Cesspool Replacement project to improve the existing sewerage systems in the Komohana Heights Subdivision (KHS) and Sunrise Ridge Subdivision (SRS). Construction for this project is scheduled to begin on October 1, 2007.

The County proposes to install new 8-inch collector sewers, 6-inch laterals, and manholes at KHS and SRS in order to:

A. Abandon the KHS large capacity cesspools (LCCs) in accordance with the EPA consent agreement as scheduled; and
B. Abandon and demolish the SRS pump station (SRSPS) and abandon the 4-inch force main to eliminate the cost of equipment maintenance and replacement requirements as well as neighborhood noise and odor concerns.

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:

- County of Hawai'i
  - Department of Public Works (DPW)
    - Grading Permit
    - Permit to Work Within the County Right-of-Way

- State of Hawaii

  Department of Health (DOH), Safe Drinking Water Branch (SDWB)

  Application for Abandonment of an Unregistered Injection Well and Authorization to Operate Until Abandonment

  Department of Health (DOH), Clean Water Branch (CWB)

  National Pollutant Discharge Elimination System (NPDES) General Permit CWB-NOI Form C (Discharges of Storm Water Associated With Construction Activities)

  Department of Health (DOH), Wastewater Branch (WWB)

  Approval to Construct or Modify Wastewater System

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

Refer to Figure 1 on page Fg-1 for the project location and concept plan. The existing public sewer system consists of 6-inch VCP laterals and 8-inch VCP collector sewers, a wet well, above ground pump station, a 4-inch force main, and two large capacity cesspools (LCCs). Public sewer service is provided to all 72 single-family parcels in Sunrise Ridge Subdivision (SRS) and a portion of parcels in Komohana Heights Subdivision (KHS) (33 single-family parcels). Of the remaining 74 parcels, 27 parcels are privately sewered by LCCs, 44 parcels in Komohana Heights are privately sewered with cesspools (allowed), and 3 parcels are unimproved. 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 Hilo Wastewater Treatment Plant.

Currently an EPA ban on LCCs is in effect since April 5, 2005. The County entered into a consent agreement with the EPA to schedule systematic conversion from LCCs to acceptable wastewater collection and disposal systems. During this period, the EPA ban deadline is extended to preclude the possibility of fines levied by the EPA. The County has set October 1, 2007 as the anticipated start of construction for the conversion of LCCs at KHS. Refer to Figures 2A, 2B, and 2C on pp. Fg-2 through Fg-4 for proposed improvements as described below.

The proposed public sewer system will be extended to include new services to 39 parcels (36 are privately sewered with cesspools and 3 are unimproved) leaving 35 parcels privately sewered and 72 parcels publicly sewered in KHS. New sewer manholes (MH-15 & MH-16) will be installed in the existing SPS on Ohukea St. Manhole (MH-15) is 9.25-lf west from (MH-16) within the SPS. A new 8-inch PVC collector sewer will run 141.75-lf south-southeast from MH-15 thru MH-14 to continue south-southeast to MH-13 on Ohukea St. four existing sewer laterals on Ohukea St. will be reconstructed using 6-inch PVC laterals. From MH-14 the new 8-inch sewer will exit the manhole and run 192.45-lf east-northeast thru the proposed sewer easement till it arrives at MH-12 located on Komohana St.. From this manhole (MH-12), a new 8-inch sewer will run 69.66-lf south-southeast down Komohana St. to another manhole (MH-11). From MH-11 the new 8-inch sewer will run 141.61-lf east-northeast across Komohana St. to an

existing manhole on Huali Place to tie-in to the existing gravity sewer in KHS. The existing pump station in SRS will be abandoned with above ground structures removed. The wet well will be emptied and filled with backfill and the 4-inch force main will be abandoned.

A new 8-inch sewer will extend from an existing manhole on Huali Place and run 150-lf northeast through an existing sewer easement adjacent to one of the LCC (Latitude 19°42' 36.6" N, Longitude 155°05' 40.5" W) to a new manhole (MH-8) at a property corner. This leg will bypass one of the existing large capacity cesspools which will be abandoned and demolished. From MH-8 a new 8-inch sewer will run 84.61-lf southeast to a new manhole (MH-7) and then run up-gradient 229.54-lf northwest to a new manhole (MH-9) in an existing sewer easement. From MH-9 the new 8-inch sewer will run up-gradient 130.39-lf west adjacent to the second LCC (Lat. 19°42' 38.8" N, Long. 155°05' 42.7" W) to be demolished) in an existing sewer easement. From MH-7 the new 8-inch sewer continues 199.94-lf northeast to MH-6 two new 6-inch sewer laterals will be added to this segment. At MH-6 a new 8-inch sewer line will run southeast up-gradient 211.02-lf to MH-18 on Manele Lane, with four new 6-inch sewer laterals. Back to MH-6 the new 8-inch line continues northeast 189.29-lf to MH-5 in a proposed sewer easement, with one new 6-inch sewer lateral. From MH-5 a new 8-inch sewer line runs 219.39-lf up-gradient in a proposed sewer easement to MH-17, with two new sewer laterals. Back to MH-5 the new 8-inch sewer line runs 531.63-lf northeast thru MH-4, MH-3, and reaches MH-2 in a proposed sewer easement, with four new 6-inch sewer laterals. From MH-2 the new 8-inch sewer line runs 240.35-lf southeast on a private road towards in a new sewer easement to tie into the existing 8-inch collector sewer on Kukuau St. at the new manhole (MH-1).

For the protection of nearby residences, both temporary and permanent BMPs will be used for the project. Storm water runoff and wind will carry sediment from exposed areas to adjoining residences and possibly to Alenaio Stream. Any accumulated dirt and debris from construction activities will 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 BMPs 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 BMPs will be removed upon completion of the project construction work.

Dismantling and removal of the temporary BMPs 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.

Existing utilities in the project vicinity include the following:

- 6-inch and 4-inch waterline along Ohukea Street;
- 8-inch and 6-inch gravity sewer along Ohukea Street;
- 4-inch force main along Ohukea Street;
- 18-inch drainline at intersection of Ohukea Street and Kukuau Street;
- 12-inch waterline along Komohana Street;
- 8-inch, 10-inch and 12-inch gravity sewer along Kukuau Street;
- 2 ¼-inch waterline and 8-inch waterline along Kukuau Street, intersection of Kukuau Street & Manele Lane;
- 6-inch and 8-inch gravity sewer along Huali Place / Huali Way; and
- Large capacity cesspools in the vicinity of Huali Place / Huali Way.

2.2 ALTERNATIVES CONSIDERED

2.2.1 NO ACTION

The "No Action" alternative entails the lack of any type of replacement work on the existing sewer system and is not a viable option in this case. This alternative is non-compliant with the U.S. EPA ban on existing large capacity cesspool (LCC) injection wells. EPA could fine violators at a rate of $32,500/day for each day after April 5, 2005. Continued use of these cesspools and percolation of wastewater into the ground of the cesspools would pose a potential contamination source of the underground drinking water source in Hilo. Currently 27 single-family parcels in Komohana Heights Subdivision are serviced by on-site LCCs.

2.2.2 PROPOSED ALTERNATIVE

In accordance with County consent agreement in effect with EPA, the County has submitted a schedule of LCCs conversions to acceptable wastewater collection and disposal methods. The County of Hawaii is expediting its efforts to extend its public sewer system to as many of these residences as possible with available funds. As public funds allow, the County will proceed with projects similar to this one.

This proposed project area is the Komohana Heights Subdivision. The construction funding limit is $2 million from a loan out of the State Revolving Fund (SRF). A preliminary engineering report (PER) has determined that only a portion of the residences can be connected to the extended public gravity sewer system. The PER has evaluated several configurations and this is the selected configuration. Refer to Figures 1, 2A, 2B, and 2C on pp. Fg-1 through 4 for location and conceptual scope of work.

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 site is located in the South Hilo District above the town of Hilo and is identified as the State of Hawai'i Third Tax Division, Tax Map Key (TMK) 2-3-42, 43, 48 and 50. The project area is generally bounded by Ohukea Street to the west, Alenaio Stream to the north, Ilima Lane to the east and Kukuau Street to the south. It is approximately 28 acres in size. The nearest distance between the Alenaio Stream and potential project work area is approximately 120 feet and is located at the Sunrise Ridge Sewage Pump Station site.

A project location and vicinity map is presented in Figure 1. Project site photographs are seen in Photos1 through 12 at the back of this EA.

3.2.2 CLIMATE

Existing Condition

Equable temperatures, moderately high humidity, frequent rainfall, and persistent breezes characterize Hilo's climate. According to www.climatezone.com, the average minimum and maximum temperature in Hilo range from 66.4°F to 81.5°F. The relative humidity ranges from 77.0 to 81.0. Maximum precipitation occurs at night as downslope winds from Mauna Loa volcano converge with oceanic trade winds to form clouds that drift over Hilo and deposit rain. Although Hilo is often cloudy and annual rainfall ranges from 133 inches at the airport to more than 300 inches at higher elevations above the city, Hilo residences are able to utilize solar water heaters, because cloudiness and rainfall are minimal at midday during peak sunlight hours. Average wind blows approximately 7 mph.

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

Elevation ranges at the project site from 149.25 feet Mean Sea Level (MSL) located near intersection of Kukuau St. and Lane "A" to 269.85 ft MSL on the unpaved driveway in lot TMK (3) 2-3-50 010 between Ohukea St. and Komohanaa St. in Sunrise Ridge Subdivision. Slopes in the vicinity of this project are approximately 4%.

Geotechnical explorations will be conducted along the proposed sewer line routing. The geotechnical engineer's recommendations will be incorporated into the design of the new sewer.

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 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 is in the vicinity of Alenaio Stream. Alenaio Stream flows intermittently. When it does flow after heavy rains, it is part of the Waipahoehoe-Kalui Iki-Alenaio stream complex and drains into Wailoa River via Waiolama Canal. Wailoa River discharges into Hilo Bay. The Kalui Iki branch joins Waipahoehoe Stream above Chong's Bridge (at Chong St.) approximately 2.3 miles mauka of the project area. The stream becomes undefined in the flood plain below Chong's Bridge in the lava-covered land area. The flow disappears in the lava land area primarily through seepage into fractures or lava tubes. The flow reappears above Komohana Street where it forms Alenaio Stream.

Alenaio Stream is an inland fresh water stream classified by the Department of Health as Class 2 stream. The ultimate discharge destination is Hilo Bay (inside breakwater), classified by Department of Health as Class A. This ephemeral stream is not a significant habitat for any rare or endangered stream fauna and fauna.

Anticipated Effects and Mitigative Measures

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. Hilo Bay) essentially the same as stated above for Class 2 above.

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 SOILS

Existing Conditions

The Soil Conservation Service of the U.S. Department of Agriculture (USDA, 1973) classifies the soil at the project site as Keaukaha extremely rocky muck, 6 to 20 percent slopes (rKFD). Keaukaha soil series consists of well-drained, thin organic soils overlaying pahoehoe lava bedrock. This soil is undulating to rolling and follows the topography of the underlying pahoehoe lava. In a representative profile, the surface layer is very dark brown muck about 8 inches thick. This soil is rapidly permeable. The pahoehoe lava is very slowly permeable, but water moves rapidly through cracks. Runoff is medium and the erosion hazard is slight.

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. 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.

3.2.6 NATURAL HAZARDS

Natural hazards in Hawaii 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.

3.2.6.1 Floods

Existing Conditions

Figure 4 indicates that most of the project area is located in Flood Zone X which is outside of the 500 year flood plain. A small portion along Komohana Street where the designation is designated Zone AE. In this AE zone the Base Flood Elevation is 251 feet above mean sea level.

Anticipated Effects and Mitigative Measures

The project area will not have any short term or long term impacts on existing flood zones. Therefore no mitigation measures are required.

3.2.6.2 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 a total of 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.

3.2.6.3 Volcanic and Earthquake Hazards

Existing Conditions

The volcanic lava flow hazard zone is Zone 3 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. Each year, thousands of earthquakes occur 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 Lelewi Point approximately 4 miles east of the project site. The entire Island of Hawai'i is designated as Seismic Zone 4 based upon the Uniform Building Code (UBC), 1997 seismic zone criteria that range from 0 to 4 (low to higher severity).

Research suggests that many of the significant earthquakes on the Island of Hawai'i have resulted from the seaward sliding of the south flanks of Kilauea and Mauna Loa along a nearly horizontal fault. This fault is thought to be the buried boundary between the ancient oceanic crust and the volcanic edifice, approximately 6 miles deep. Earthquakes along this fault include the November 1975 magnitude 7.2 Kalapana earthquake which resulted in the loss of two lives,

caused considerable damage, and generated a tsunami that inundated the Ka'u and Puna coastlines.

Other less frequent major earthquakes that are not directly related to the active volcanic flanks originate at greater depths (10 – 35 miles). These events signal adjustments of the lithosphere (Earth's outermost region) to the weight of the islands. The most recent damaging earthquake of this type, in 1973, registered a magnitude of 6.3 and occurred about 24 miles beneath Honomu on the Island of Hawai'i about 11 miles north of the project site.

Anticipated Effects and Mitigative Measures

These are an ever present threat which 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 can be significantly damaged. The proposed improvements will comply with current regulatory design standards. There are no practical mitigative measures currently applicable.

3.2.7 FLORA AND FAUNA

A search request to the Office of Environmental Quality Control (OEQC) for past EAs in the vicinity of the proposed project resulted in two published EAs. The report *GTE Hawaiian Telephone Company Incorporated, Kaumana to Kamuela Fiber Optic Trunk Line Project, Komohana to Kaumana Link; Hawaii Electric Light Company, Inc., Existing 69 KV Power Transmission Pole Line, East Hawaii to West Hawaii, HELCO Komohana Substation to HELCO Kaumana Substation Segment, Portions Cross State Land at TMK 3/2-5-06:142, Kukuau 2nd, South Hilo, Hawaii* by AT&T Network Systems, January 1996, covered two project sites. Both sites were located mauka of Sunrise Estates subdivision in Hilo and below Kaumana City. A second report *Piihonua-Kukuau Transmission Main and Reservoir, Punahoa 1, Ponahawai Homesteads, Kukuau 1, South Hilo District, Hawaii,* prepared for Department of Water Supply, County of Hawaii, by Roy R. Takemoto, Land Use Consultant, August 13, 1996 covered an area from Sunrise Estates Subdivision, across Alenaio Stream (mauka of Sunrise Ridge Subdivision) to near end of Halekoke St. in Punahoa 1 Subdivision. Both reports state that their respective project sites were not habitats for endangered flora and fauna. The first report also stated that no evidence of archaeological sites existed in their project area. The second report does identify

evidence of archaeological features "similar to traditional agricultural and burial features" in an undeveloped area in the vicinity of Waipahoehoe Stream (approximately 0.65 mile mauka of Sunrise Ridge Subdivision).

Existing Conditions

In accordance with database search from Hawai'i Natural Heritage Program (HINHP), University of Hawai'i, Center for Conservation Research and Training, no records of endangered flora or fauna exist in the vicinity of our project area in a developed subdivision. Based on a map prepared by HINHP, refer to Figure 6 on p Fg-8. The nearest identification of a rare plant location in a natural community is approximately 0.26 mile up-gradient or west of the project site. The nearest protected area is the Waiakea 1942 Lava Flow Natural Area Reserve approximately 10 miles south west of the project area. The Hakalau Forest, a National Wildlife Refuge is a montane rain forest and an important habitat for endangered forest birds is located approximately 15 miles northwest of the project area. Although no specific site is identified, throughout Hilo there have been sightings of the endangered Hawaiian Hawk and the Hawaiian Hoary Bat.

Anticipated Effects and Mitigative Measures

No endangered flora or fauna are identified in the developed project area. Therefore no mitigative measures are required.

3.2.8 VISUAL RESOURCES

Existing Conditions

The project site occurs in a developed residential area. The proposed improvements are all underground except for the removal of an existing sewage pumping station on Ohukea St. in the Sunrise Ridge Subdivision. There are no anticipated changes in 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.

3.2.9 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

No industrial or commercial activities occur near the project site. Ambient noise levels are derived primarily from passing traffic or other natural sources.

The DOH monitors noise issues in accordance with HRS 19-342F and the Director issues noise permits only when excessive noise levels are expected. The Occupational Safety and Health Act (OSHA) of 1970 was 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 work day) 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 noise 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.

3.2.10 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 (EPA) 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/m^3)	Primary	**5 mg/m^3** (4.4 ppm)
	1-hour Average	**35 ppm** (40 mg/m^3)	Primary	**10 mg/m^3** (9 ppm)
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	**0.053 ppm** (100 µg/m^3)	Primary & Secondary	**70 µg/m^3** (0.04 ppm)
Sulfur Dioxide (SO_2)	3-hour Average	**0.50 ppm** (1300 µg/m^3)	Secondary	**1300 µg/m^3** (0.5 ppm)
	24-hour Average	**0.14 ppm** (365 µg/m^3)	Primary	**365 µg/m^3** (0.14 ppm)
	Annual Arithmetic Mean	**0.03 ppm** (80 µg/m^3)	Primary	80 µg/m^3 (0.03 ppm)
Ozone (O_3)	8-hour Average	**0.08 ppm** (157 µg/m^3)	Primary & Secondary	**157 □g/m^3** (0.08 ppm)
	1-hour Average	**0.12 ppm** (235 µg/m3)	Primary & Secondary	--
Lead (Pb)	Quarterly Average	**1.5 µg/m^3**	Primary & Secondary	**1.5 µg/m^3**
Particulate (PM_{10})(1)	24-hour Average	**150 µg/m^3**	Primary & Secondary	**150 µg/m^3**
	Annual Arithmetic Mean	**50 µg/m^3**	Primary & Secondary	**50 µg/m^3**
Particulate ($PM_{2.5}$)(2)	24-hour Average	**65 µg/m^3**	Primary & Secondary	--
	Annual Arithmetic Mean	**15 µg/m^3**	Primary & Secondary	--
Hydrogen Sulfide (H_2S)	1-hour Average	--	--	**35 µg/m^3** (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/m^3); and micrograms per cubic meter of air (µg/m^3).

Existing Conditions

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 Hilo 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 occur and they occur frequently. Vog is estimated to contribute approximately 13% of total sulfur dioxide emission.

Sulfur dioxide is a significant and chronic pollutant in Hilo. Other sources of air pollutant sulfur dioxide come from burning oil (approximately 75%) and burning other fuels (12%).

Other common air pollutants are lead, miscellaneous hazardous air pollutants (HAP), and Acrolein. The primary sources are from open burning, miscellaneous activities burning fuel, using solvents, and spraying pesticides.

At present there are five (5) Air Quality Monitoring Stations on the island of Hawai'i; one of them 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 PM_{10} and SO_2 emissions since March 1995. A Map of Air Quality Monitoring Stations for the Island of Hawai'i is attached for reference as Figure 5 on p. Fg-7.

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.

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.

3.3 SOCIAL

3.3.1 CULTURAL RESOURCES

Existing Conditions

Compliance with NHPA Section 106 is not mandatory as no Federal funds will be used for this project. However, the assessment will review this project for compliance with Section 106 anyways.

The purpose of the NHPA Section 106 review process is to evaluate the potential for effects on existing historic sites, if any, resulting from the project. For the project, data gathering inquiries were made to government agencies, community associations, the SHPD, museums and native Hawaiian organizations. The following entities were contacted:

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

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

Anticipated Effects and Mitigative Measures

Since the project area is an existing subdivision, we do not anticipate the existence of any historical or culturally significant resource in the affected area of this project. 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.

Cultural Impact Assessment

It is anticipated that this project will have no adverse affect on cultural practices. The implementation of sewer lines to satisfy EPA regulations will not restrict cultural practices of the community or State. The proposed sewerlines are underground and will not restrict access or alter the environment to any significant degree. Upon completion of the project, access to the site will be returned to pre-construction conditions.

3.3.2 PUBLIC SERVICES/INFRASTRUCTURE

Existing Conditions

All standard utilities (sewer, water, electricity, gas, communication, cable TV) are available. The electrical services in KHS and SRS are underground. 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 Hilo 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 down-time 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.

3.3.3 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 subdivision roads where traffic flow is expected to be light during working hours. The other road affected is Komohana Street, a secondary throughway where more traffic flow is anticipated 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 Komohana Street, ample shoulder area and traffic control plans will minimize the impact to traffic flow. 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.

3.3.4 RECREATIONAL FACILITIES

Existing Conditions

No recreation facilities exist in the immediate vicinity of the project.

Anticipated Effects and Mitigative Measures

No short-term, long-term or cumulative adverse impacts are anticipated. No mitigative measures are required.

3.4 SOCIO-ECONOMIC ENVIRONMENT

3.4.1 DEMOGRAPHICS

Existing Conditions

As of the census of 2000, Hilo has a population of 40,759 (approximately 28% of total population on Island of Hawai'i), 14,577 households, and 10,101 families residing in the Census Designated Place (CDP) having a total area of 58.4 square miles. The population density is 750.8/mi^2. There are 16,026 housing units at an average density of 295.2/mi^2. The average household size is 2.70 and the average family size is 3.19.

Anticipated Effects and Mitigative Measures

Thirty-nine (39) new services will be provided by this project. Twenty-seven (27) of those thirty-nine (39) have existing laterals and are serviced by the two gang cesspools in the Komohana Heights subdivision. In the housing area below Komohana Heights new laterals will service twelve (12) additional properties. Refer to figures 2B and 2C and Table 3.5.4 below for identification of new services.

It is not anticipated that this project will induce or reduce population in the South Hilo District in the short-term, long-term or cumulatively in conjunction with any other projects. Therefore, no mitigation measures are required.

3.4.2 SOCIO-ECONOMIC ENVIRONMENT

Existing Conditions

The median income for a household in the CDP is $39,139 and the median income for a family is $48,150. The per capita income for the CDP is $18,220. The gross county product for the Island of Hawai'i is approximately $2.6 billion (46% tourism, 36% science and technology and 18% diversified agriculture).

Anticipated Effects and Mitigative Measures

The proposed project should not induce nor hinder economic or population growth in the South Hilo District. The major portion of the proposed improvements will take place on residential subdivision roads, except where the new sewer lines cross Komohana Street. These improvements will not induce or reduce economic growth in the South Hilo District in the short-term, long-term or cumulatively. 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.

3.4.3 ENVIRONMENTAL JUSTICE

No federal funding will be utilized for this project and formal compliance with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* is not required. However, this project complies with the intent of the EO which requires federal agencies to take appropriate steps to identify and avoid disproportionately high and adverse effects of federal projects on the health and welfare of minority and low-income populations.

Any impact, either short term or long term, will result only from temporary construction issues. No persons will be displaced or adversely affected as a result of this project. In the instances

where sewer easements are proposed within private lots, the land owner will be compensated at current rate schedule for the use restriction placed on the easement area in order to maintain the sewer.

3.5 LAND USES AND OWNERSHIP

3.5.1 HAWAI'I STATE PLAN

Long-range planning for the State is provided by Chapter 226, HRS, also known as the Hawaii State Plan. 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."

Two objectives of the Hawai'i State Plan are to protect unique and fragile environmental resources, and encourage design and construction practices that enhance the physical qualities of communities. The proposed project is consistent with both these 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 impact 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 statute. 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.

Two objectives of the Hawai'i State Plan are, 1) to protect unique and fragile environmental resources, and 2) encourage design and construction practices that enhance the physical qualities of communities. The proposed project is consistent with both of these objectives. Eliminating the use of cesspools will eliminate the possible contamination of underground drinking water sources from percolating wastewater. The proposed sewer improvements are underground and will not impact appearance of the community.

3.5.3 COUNTY OF HAWAI'I

Under the Hawai'i County General Plan (2005), a goal is to "expand the existing sewer collection system to all densely populated areas in and around Hilo." The proposed project is consistent with the County of Hawai'i General Plan. A long-term impact will be the needed process equipment upgrade or expansion of the Hilo Wastewater Treatment Plant (HWWTP) facility as more private sewer users are converted to public sewer users. Maintenance procedures to identify defects and investigate illegal connections can be utilized by the County to minimize the infiltration and inflow of storm water into the public sewer system to keep the peak wastewater flows from prematurely approaching HWWTP sewer capacity. No adverse cumulative impacts on land use are anticipated. No mitigation measures are required.

The project area land use designation is "Medium Density Urban." This designation includes general commercial uses, single family and multiple family residential uses and related services, mixed industrial commercial uses in areas of transition. In residential uses, a goal is to "promote and encourage rehabilitation and use of urban residential areas that are serviced by basic community facilities and utilities."

3.5.4 PROPERTY OWNERSHIP

The following table summarizes the affected parcels:

TMK:	Gravity Sewer Service	Land Use/ County Zoning	Remark
(3) 2-3-42: 027	Existing	Improved Residential / RS-7.5	New 15 ft wide sewer easement at common side prop bdy
(3) 2-3-42: 033	Existing	Improved Residential / RS-7.5	Parcel adjacent to affected sewer easement
(3) 2-3-43: 001	Existing	Improved Residential / RS-7.5	Parcel adjacent to affected sewer easement
(3) 2-3-43: 002	Existing	Improved Residential / RS-7.5	Parcel adjacent to affected sewer easement
(3) 2-3-43: 003	Existing	Improved Residential / RS-7.5	Parcel adjacent to affected sewer easement
(3) 2-3-43: 005	Proposed	Unimproved Residential / RS-7.5	New 15 ft wide sewer easement at common prop bdy
(3) 2-3-43: 006	Proposed	Homeowner / RS-7.5	New 15 ft wide sewer easement at back prop bdy
(3) 2-3-43: 007	Proposed	Homeowner / RS-7.5	New 15 ft wide sewer easement at common prop bdy
(3) 2-3-43: 009	Existing	Homeowner / RS-7.5	Parcel adjacent to affected sewer easement
(3) 2-3-43: 012	Proposed	Homeowner / RS-7.5	New 15 ft wide sewer easement at common prop bdy
(3) 2-3-43: 016	Proposed	Unimproved Residential / RS-7.5	New 15 ft wide sewer easement at back prop bdy and at common prop bdy
(3) 2-3-43: 018	Proposed	Homeowner / RS-7.5	New gravity sewer service
(3) 2-3-43: 019	Proposed	Unimproved Residential / RS-7.5	New gravity sewer service
(3) 2-3-43: 020	N/A	Improved Residential	Private access lane; various owners
(3) 2-3-43: 022	Proposed	Homeowner / RS-7.5	New gravity sewer service
(3) 2-3-43: 023	Proposed	Improved Residential / RS-7.5	New gravity sewer service

(3) 2-3-43: 024	Proposed	Homeowner / RS-7.5	New gravity sewer service
(3) 2-3-43: 025	Proposed	Improved Residential / RS-7.5	Parcel adjacent to affected sewer easement
(3) 2-3-43: 026	Proposed	Improved Residential / RS-7.5	Parcel adjacent to affected sewer easement
(3) 2-3-48: 007, 008, 011, 012, 014, 015, 016, 018, 019, 020, 024, 025, 029, 030, 031, 032, 033	Proposed	Homeowner / RS-7.5	New gravity sewer service when down-gradient sewer realigned and LCCs abandoned and demolished.
(3) 2-3-48: 009, 010, 013, 017, 021	Proposed	Improved Residential / RS-7.5	New gravity sewer service when down-gradient sewer realigned and LCCs abandoned and demolished.
(3) 2-3-48: 022	Proposed	Improved Residential / RS-7.5	Existing 15 ft wide sewer easement at common prop bdy
(3) 2-3-48: 023	Proposed	Homeowner / RS-7.5	Existing 15 ft wide sewer easement at common prop bdy
(3) 2-3-48: 026	Proposed	Homeowner / RS-7.5	Existing 15 ft wide sewer easement at back prop bdy
(3) 2-3-48: 027	Proposed	Homeowner / RS-7.5	Existing 15 ft wide sewer easement at back prop bdy and common prop bdy
(3) 2-3-48: 028	Proposed	Homeowner / RS-7.5	Existing 15 ft wide sewer easement at back prop bdy and common prop bdy
(3) 2-3-50: 011	Existing	Improved Residential / RS-10	Parcel adjacent to affected sewer easement
(3) 2-3-50: 012	Existing	Homeowner / RS-10	Modify existing 7.5 ft wide drain easement at common prop bdy to 15 ft wide to include sewer easement purposes also.
(3) 2-3-50: 013	N/A	RS-10	Existing SPS to be abandoned; County owned

Legend: RS-7.5 (Single Family Residential, 7,500 SF minimum building area)

RS-10 (Single Family Residential, 10,000 SF minimum building area)

The affected single family residential (County zoning) parcels number 39. Two parcels are publicly sewered, and are affected by creation of new sewer easements. Five parcels are affected by creation of new sewer easements and new sewer services. Five parcels are affected by work in existing sewer easements and new sewer services. Five parcels are publicly sewered and affected

by being adjacent to work-affected sewer easements. Two parcels are affected by being adjacent to work-affected sewer easements and new sewer services. Five parcels are affected by new sewer connections to proposed sewer extensions. 22 parcels are affected by new sewer services when existing sewers to LCCs are re-routed and LCCs are demolished. The affected roads are County owned and maintained. The proposed alignment of the new gravity sewer will require the County to negotiate appropriate compensation to private landowners for new perpetual utility easements in 7 parcels in favor of the County for maintenance purposes. No short-term impacts are anticipated.

Easements generally result in the long-term adverse impact of a loss of build-able area. In order to minimize the impact to the land owner, new utility easements are located to coincide with existing property setbacks where no structure may be placed. Residents so affected by grant of easement will be compensated. No long-term impacts are realistically anticipated. No mitigative 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 Sewer Upgrade at a portion of Komohana Heights and Sunrise Ridge Subdivisions. 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, the County of Hawaii, Department of Environmental Management is issuing a Finding of No Significant Impact (FONSI) and an Environmental Impact Statement is not required.

This determination of the 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 or cultural resources.

2. ***The proposed project will not curtail the range of beneficial uses of the environment.*** The proposed sewer improvements will not conflict with any existing uses of the affected project areas. A beneficial impact to the environment is reducing the likelihood of contaminating underground drinking water source from percolating wastewater discharges by decommissioning existing large capacity cesspools servicing Komohana Heights.

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.*** 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 under the $2 million budget funded by a loan from the State Revolving Fund. The County is under a consent agreement with the EPA which has suspended the original EPA LCC ban deadline of April 5, 2005 based on a County schedule for systematic abandonment of existing LCCs. Delaying or postponing this project beyond the scheduled start of construction date of October 1, 2007 may incur possible EPA fines of $32,500 / day for each large capacity cesspool (LCC) still being used beyond a certain milestone date in the consent agreement.

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. 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 residential quality of Komohana Heights and Sunrise Ridge 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 EPA 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 South Hilo 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 is in a long time residential development.

12. ***The proposed project will not affect scenic vistas.*** The proposed improvements are underground.

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. Energy expended in relation to this project is temporary and construction related.

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

The following Federal, State and City and County agencies, as well as, private and community organizations, were consulted 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 HAWAI'I

- 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
  Hawai'i Island Burial Council
- Office of Environmental Quality Control
- Office of Hawaiian Affairs
- University of Hawaii at Mānoa
  Hawaii Natural Heritage Program

5.3 COUNTY OF HAWAI'I

- Department of Environmental Management
  Wastewater Division
- Department of Public Works
  Highway Maintenance Division
  Engineering Division
- Department of Planning
- Department of Parks and Recreation
  Culture and Community Arts Section

5.4 PRIVATE AND COMMUNITY ORGANIZATIONS

- Bishop Museum
- Historic Hawai'i Foundation
- Hui Malama Ola Na Oiwi
- Lyman Museum
- Geolabs, Inc.

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. AT&T Network Systems, January 1996. *GTE Hawaiian Telephone Company Incorporated, Kaumana to Kamuela Fiber Optic Trunk Line Project, Komohana to Kaumana Link; Hawaii Electric Light Company, Inc., Existing 69 KV Power Transmission Pole Line, East Hawaii to West Hawaii, HELCO Komohana Substation to HELCO Kaumana Substation Segment, Portions Cross State Land at TMK 3/2-5-06:142, Kukuau 2nd, South Hilo, Hawaii*

3. Department of Geography, University of Hawai'i at Hilo. 1998. *Atlas of Hawai'i.* Third Edition. University of Hawai'i Press.

4. Department of Water Supply, County of Hawaii, August 13, 1996. *Piihonua-Kukuau Transmission Main and Reservoir, Punahoa 1, Ponahawai Homesteads, Kukuau 1, South Hilo District, Hawaii.*

5. U.S. Department of Agriculture, Soil Conservation Service. 1973. *Soil Survey of Island of Hawai'i, State of Hawai'i.*

6. Department of Health. August 31, 2004. *Amendment and Compilation of Chapter 11-54, Hawaii Administrative Rules.*

7. M&E Pacific. 2005. *Draft Preliminary Engineering Report for Komohana Heights Large Capacity Cesspool Replacement.* Report prepared for the County of Hawai'i, State of Hawai'i.

8. *Community Noise Control,* Chapter 46, Title 11, Hawaii Administrative Rules, Department of Health, State of Hawai'i, August 28, 2001.

9. *Flood Insurance Rate Map, Hawai'i County, Hawai'i*, National Flood Insurance Program, Federal Emergency Management Agency, September 16, 1988.

10. Terrance Sing, "Economic Diversification Continues on Counties," *2002 Book of Lists*, Pacific Business News, Vol. 39, No. 42, December 28, 2001: pp 6-10.

FIGURES

LIST OF FIGURES

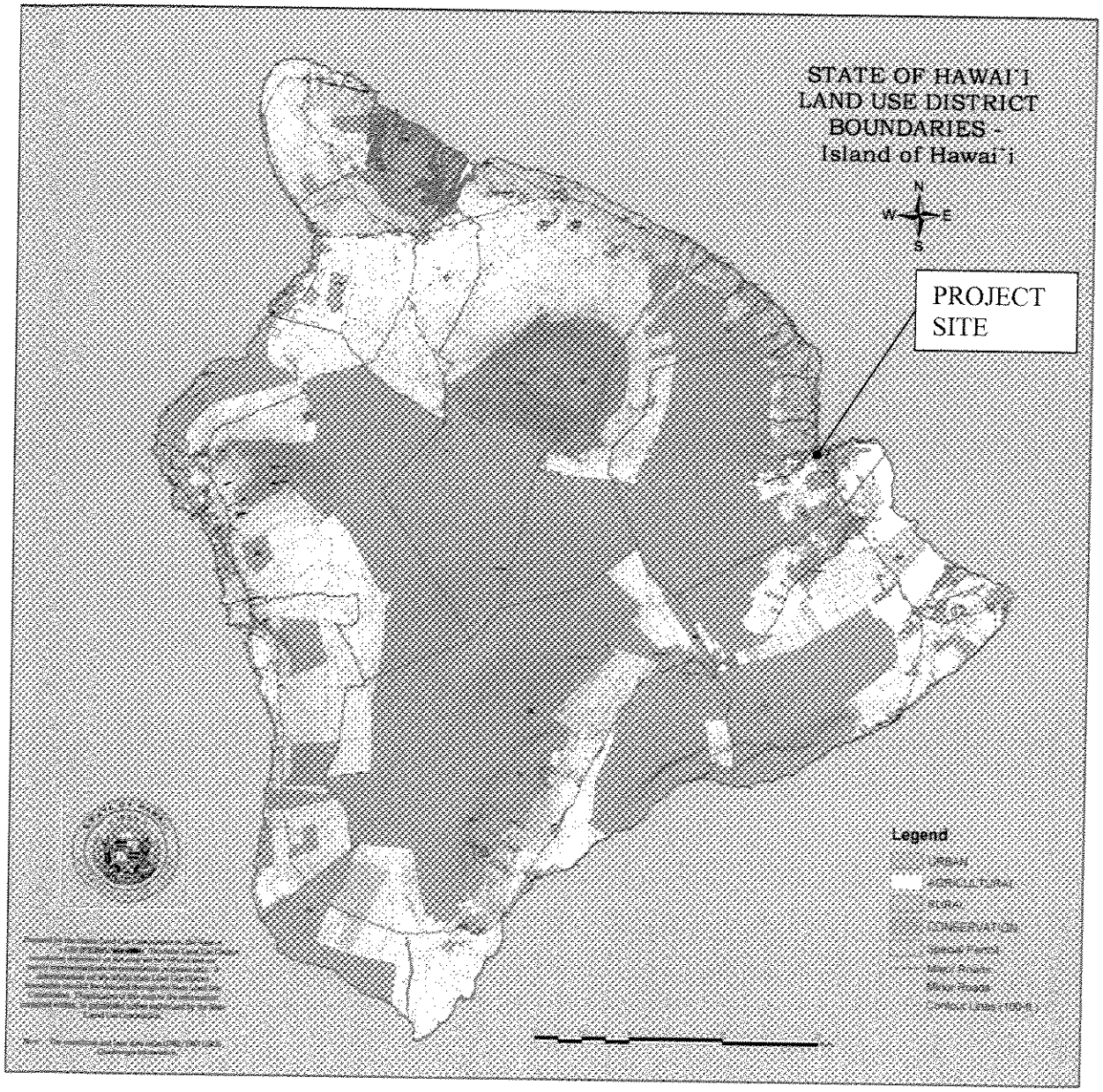
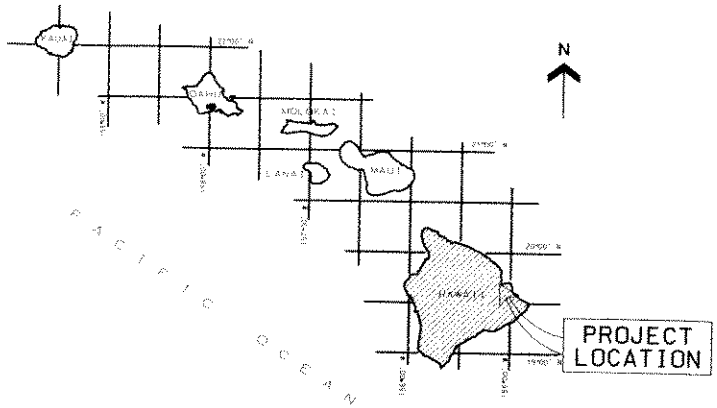
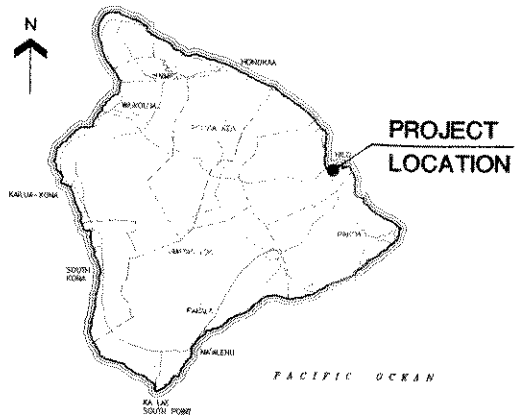


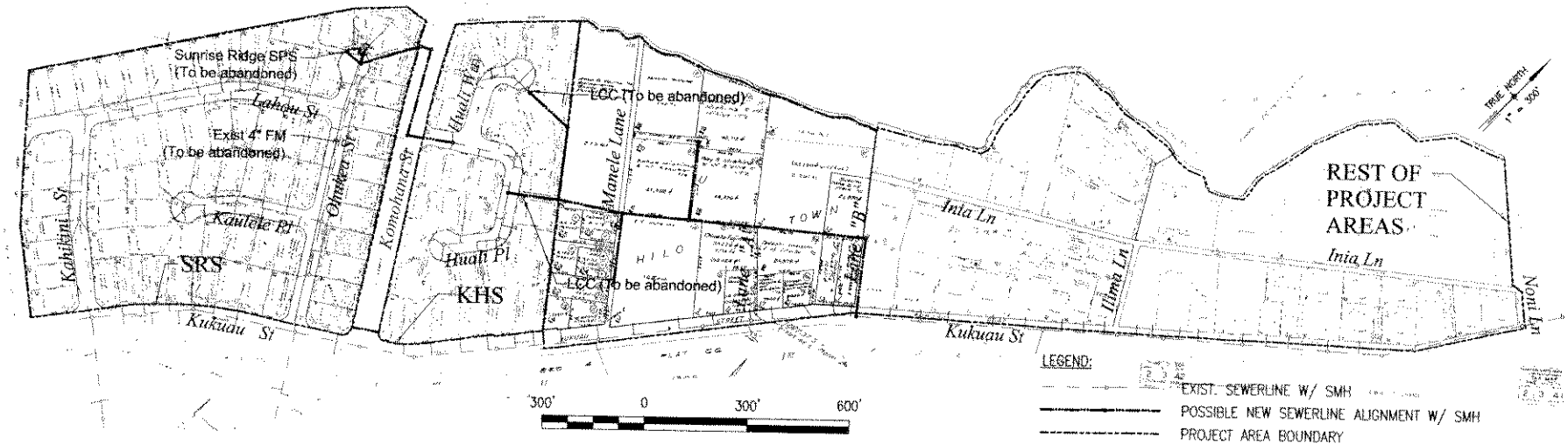
FIGURE 3 – STATE LAND USE DISTRICT MAP



HAWAIIAN ISLANDS
NOT TO SCALE



ISLAND OF HAWAII
NOT TO SCALE



	M&E Pacific, Inc. METCALF & EDDY | AECOM DAVIES PACIFIC CTR, STE 1900 841 BISHOP ST HONOLULU, HAWAII 96813	Fg-1	Figure 1 COUNTY OF HAWAI'I KOMOHANA HEIGHTS LCC REPLACEMENT HILO, HAWAI'I Vincinity, Location & Concept Map MAY 2005

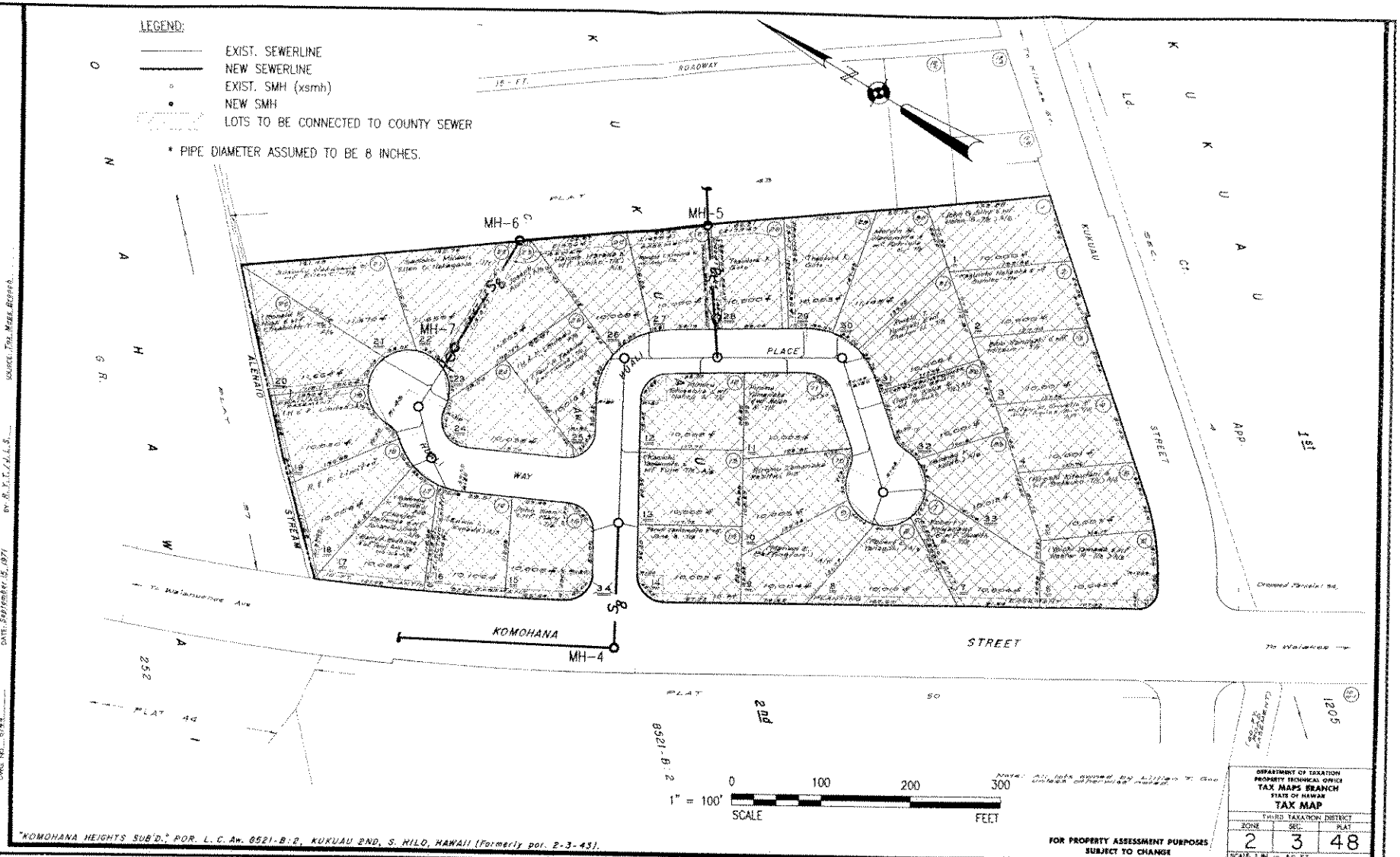
M&E Pacific, Inc.

METCALF & EDDY | AECOM

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

Fg-2

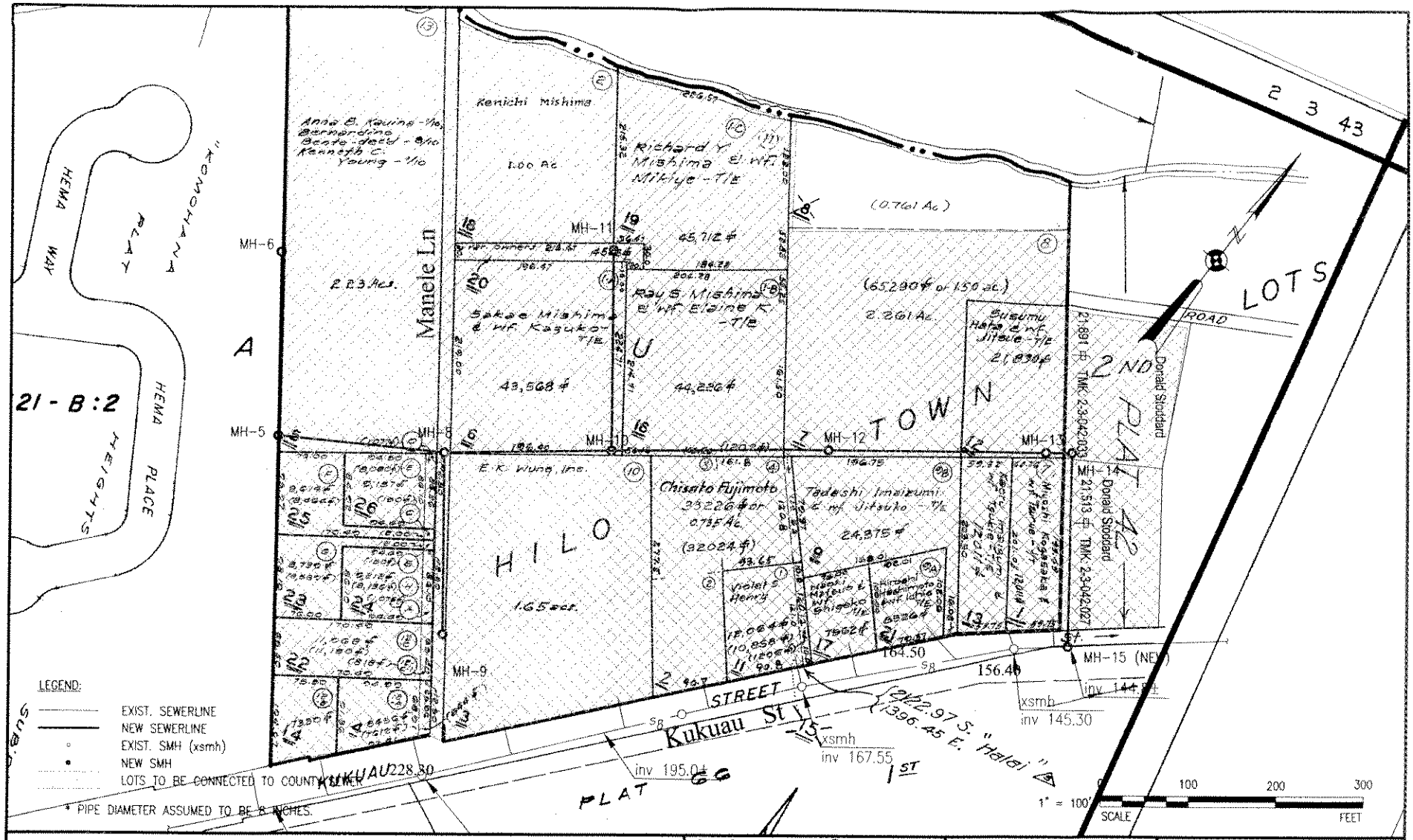
Figure 2A
COUNTY OF HAWAII
KOMOHANA HEIGHTS LCC REPLACEMENT
HILO, HAWAII
TAX MAP KEY MAP 3 (2-3-050)
MAY 2008



M&E Pacific, Inc.
METCALF & EDDY | AECOM
DAVIES PACIFIC CTR, STE 1900
841 BISHOP ST
HONOLULU, HAWAII 96813

Fg-3

Figure 2B
COUNTY OF HAWAI'I
KOMOHANA HEIGHTS LCC REPLACEMENT
HILO, HAWAI'I
TAX MAP KEY MAP 2 (2-3-048)
MAY 2005



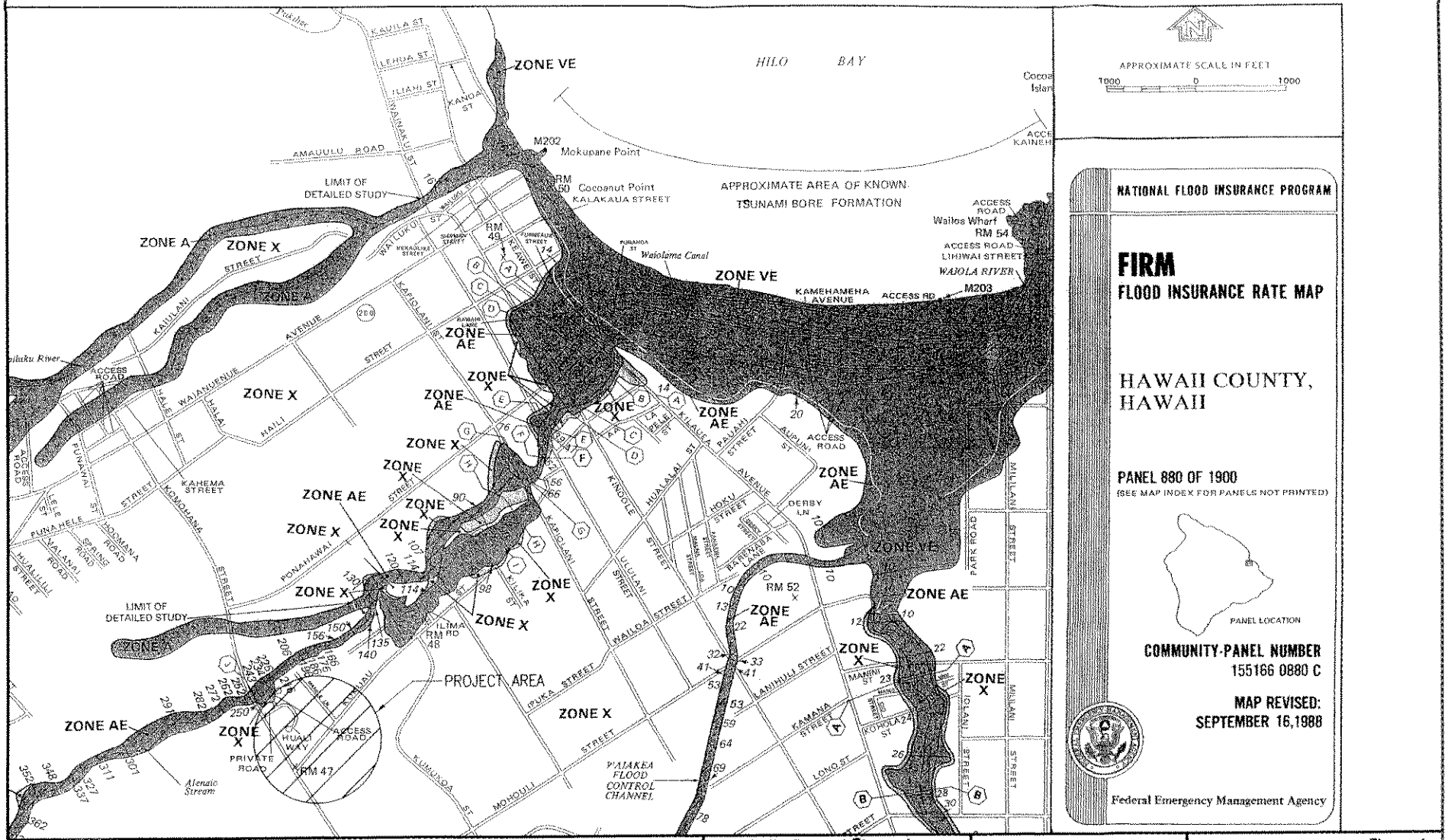
M&E Pacific, Inc.

METCALF & EDDY | AECOM

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

Fg-4

Figure 2C
COUNTY OF HAWAI'I
KOMOHANA HEIGHTS LCC REPLACEMENT
HILO, HAWAI'I
TAX MAP KEY MAP 1 (2-3-043)
MAY 2005



M&E Pacific, Inc.

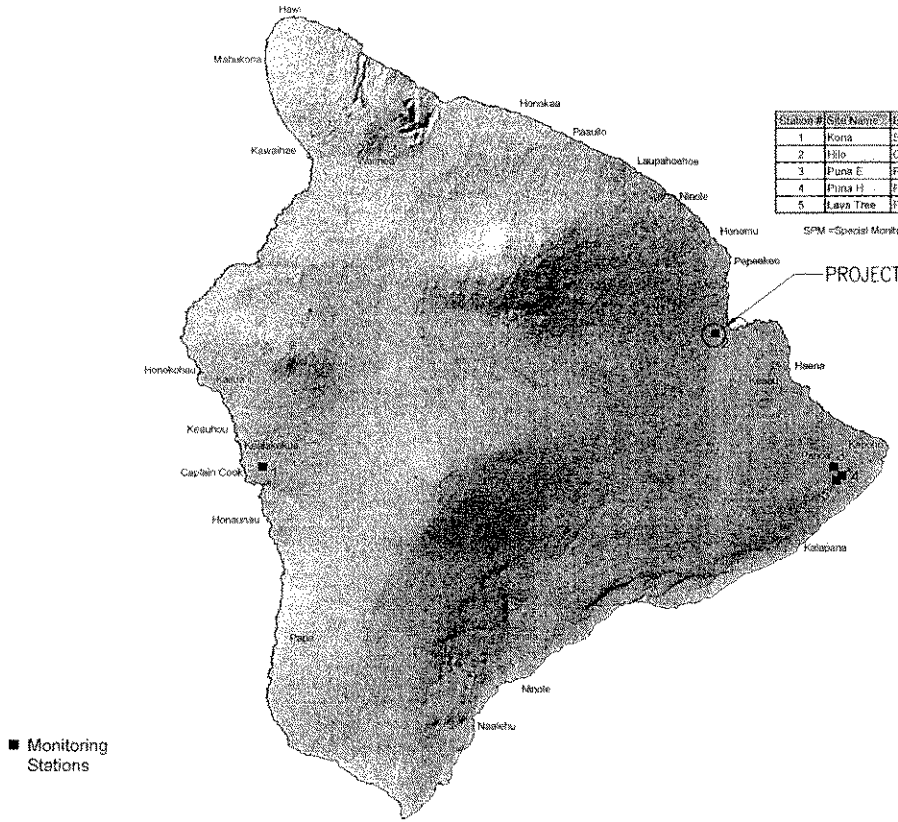
METCALF&EDDY | AECOM

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

Fg-6

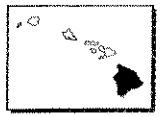
Figure 4
COUNTY OF HAWAI'I
KOMOHANA HEIGHTS LCC REPLACEMENT
HILO, HAWAI'I
FEMA FLOOD INSURANCE RATE MAP
MAY 2006

Island of Hawaii - Air Quality Monitoring Stations



Station #	Site Name	Description	PM10	CO	OS	SO2	PM2.5	NO2	H2S	Start Date
1	Kona	Suburban				SPM				4/1997
2	Hilo	Center City	SPM			SPM				2/1995
3	Puna E	Rural							SPM	1992
4	Puna H	Rural							SPM	11/02
5	Lava Tree	Rural							SPM	8/1993

SPM =Special Monitoring Station (for Vog and Geothermal)



Department of Health
Environmental Geographic Information System
July 2004

M&E Pacific, Inc.
METCALF & EDDY | AECOM
DAVIES PACIFIC CTR STE 1900
841 BISHOP ST
HONOLULU, HAWAII 96813

Fg-7

Figure 5
COUNTY OF HAWAI'I
KOMOHANA HEIGHTS LCC REPLACEMENT
HILO, HAWAI'I
AIR QUALITY MONITORING STATIONS
MAY 2005

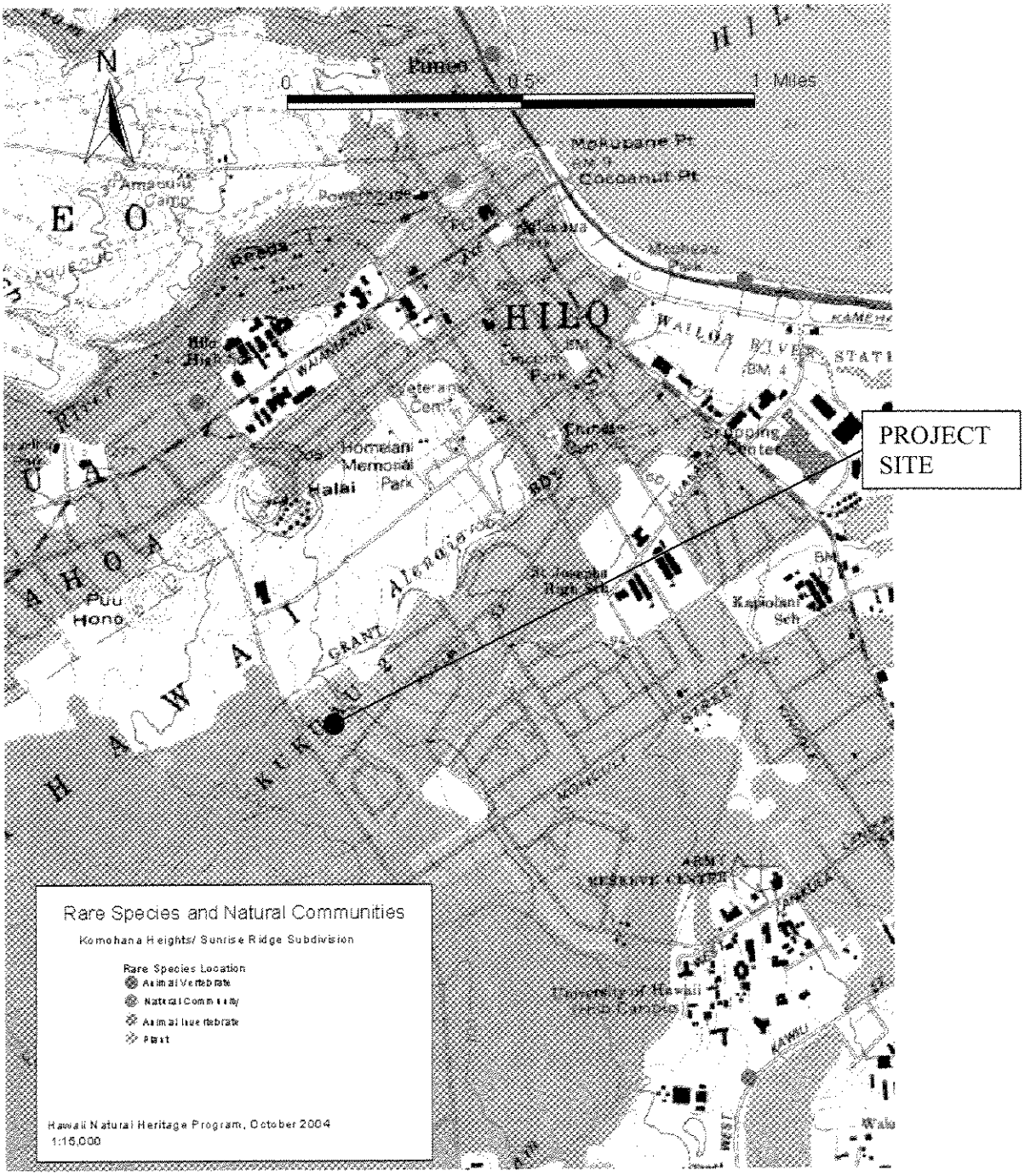
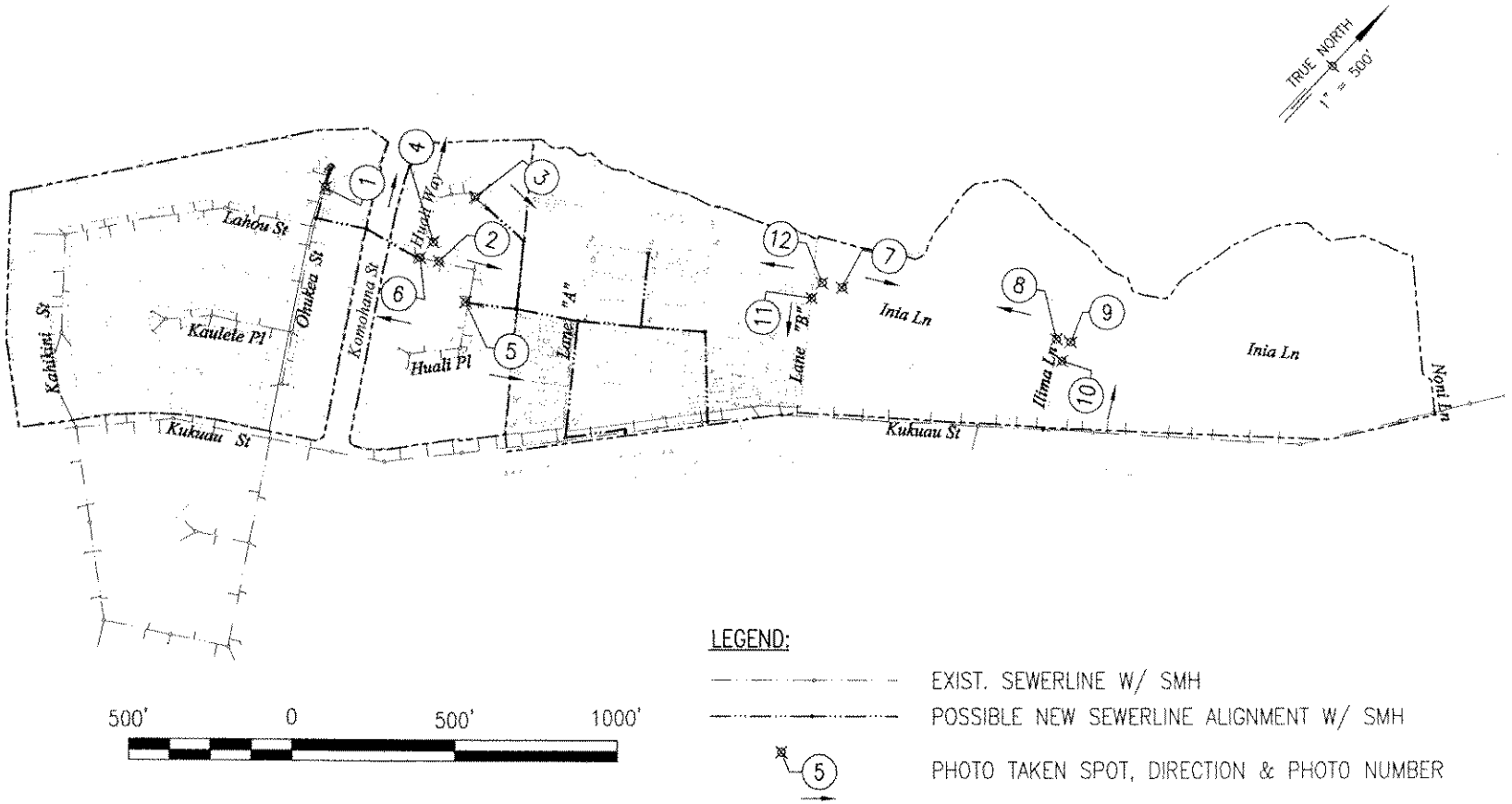


FIGURE 6 – RARE SPECIES & NATURAL COMMUNITIES MAP

M&E Pacific, Inc. METCALF & EDDY | AECOM DAVIES PACIFIC CTR, SUITE 1900 841 BISHOP ST HONOLULU, HAWAII 96813	COUNTY OF HAWAI'I DEPARTMENT OF ENVIRONMENTAL MANAGEMENT KOMOHANA HEIGHTS LARGE CAPACITY CESSPOOL REPLACEMENT Hilo, Hawai'i

PHOTOGRAPHS

LIST OF PHOTOS



M&E Pacific, Inc. METCALF & EDDY | AECOM DAVIES PACIFIC CTR, STE 1900 841 BISHOP ST HONOLULU, HAWAII 96813	COUNTY OF HAWAI'I DEPARTMENT OF ENVIRONMENTAL MANAGEMENT **KOMOHANA HEIGHTS** **LARGE CAPACITY CESSPOOL REPLACEMENT** HILO, HAWAI'I	**PHOTO KEY MAP**

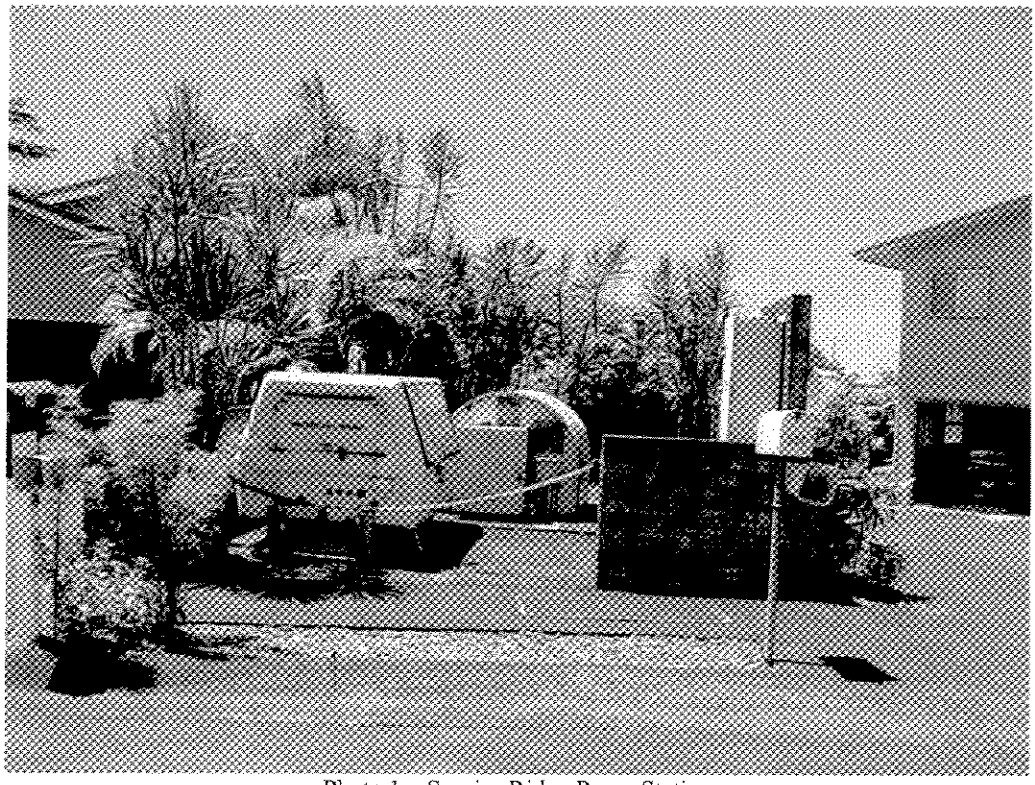
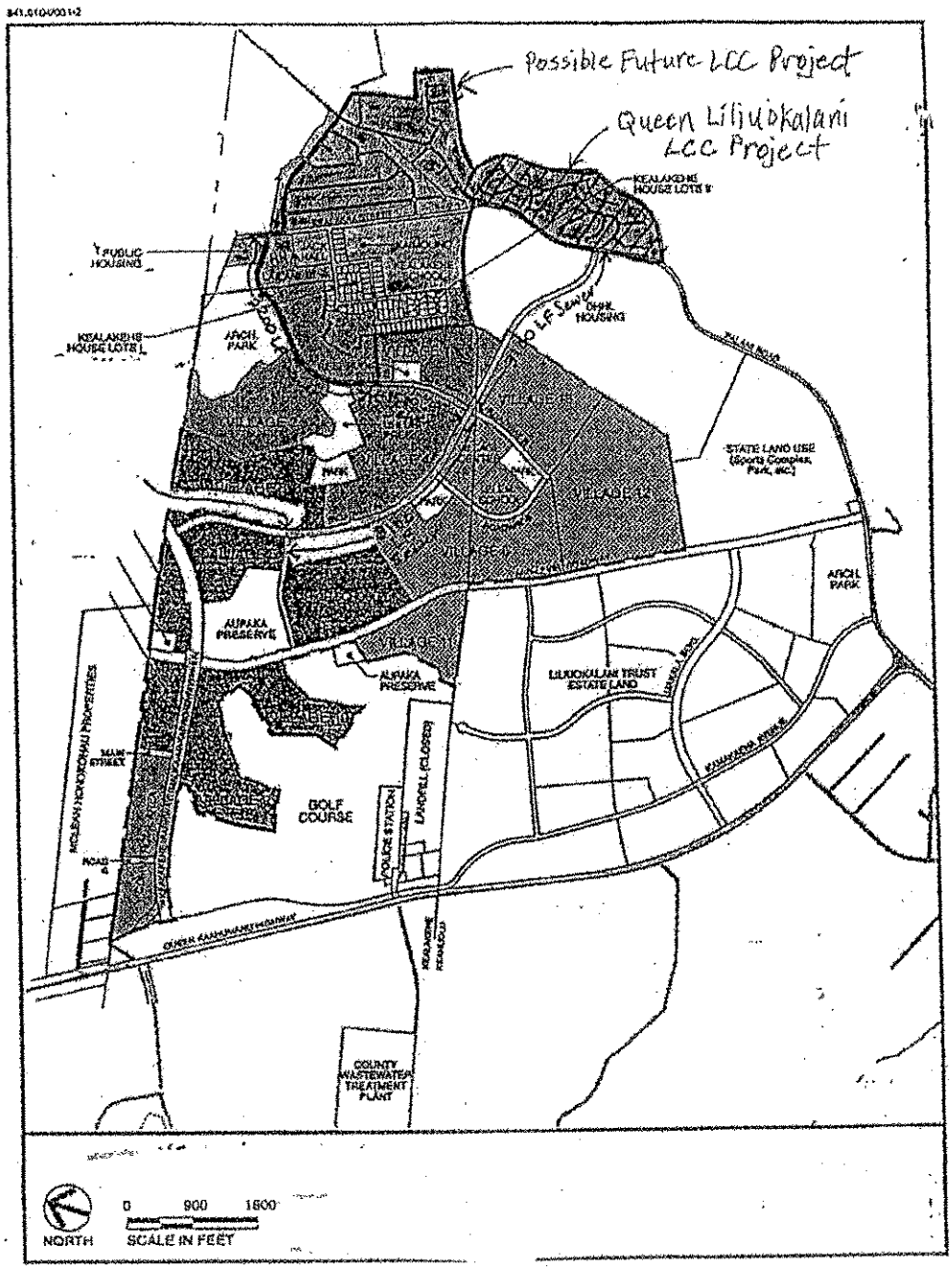


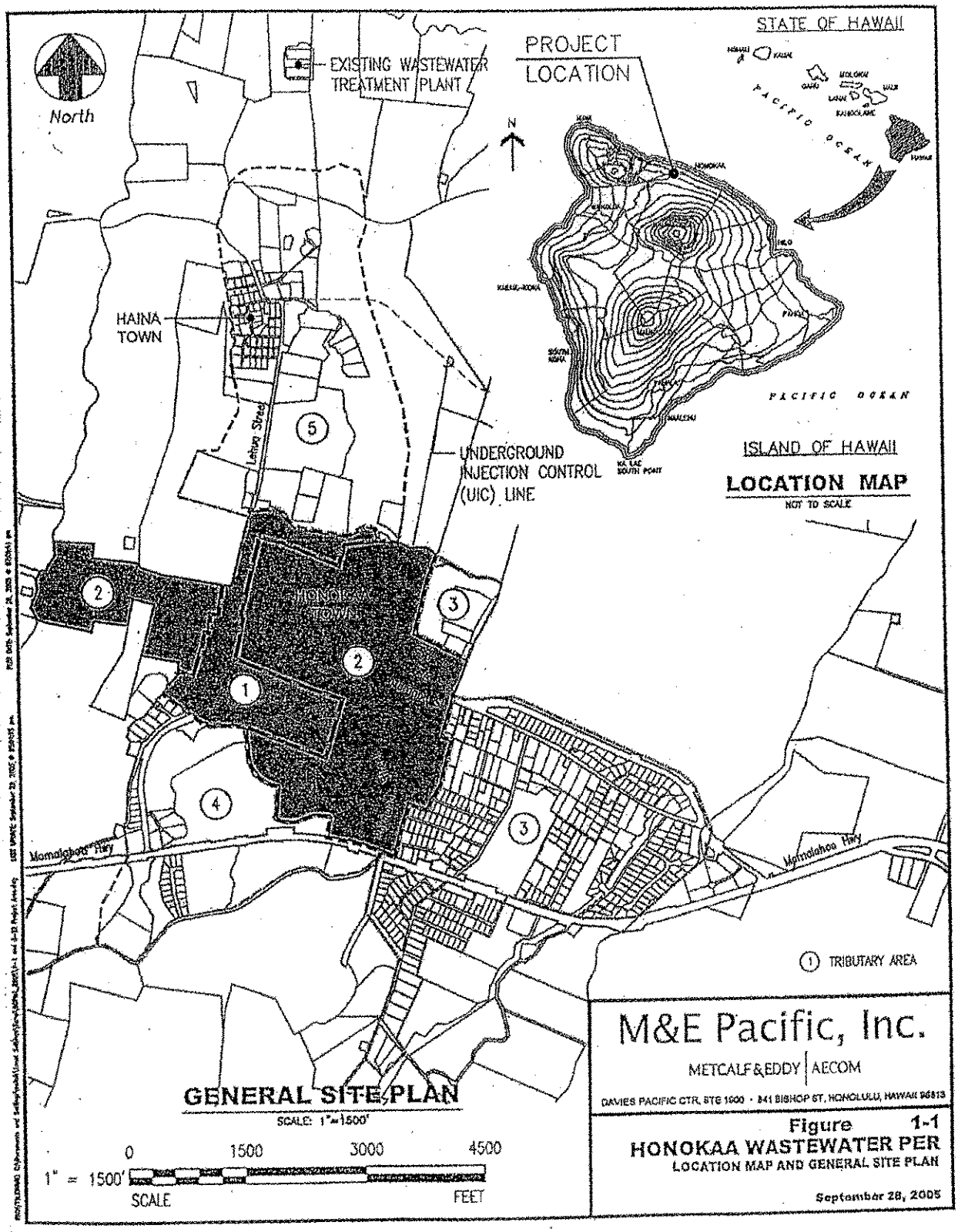
Photo 1 – Sunrise Ridge Pump Station

Photo 2 – Huali Way Looking Towards Huali Place

Queen Liliuokalani Project



ATTACHMENT 4



ATTACHMENT 3

QUEEN LILIUOKALANI LCC PROJECT

	Parcel Number	Address Main	Address City	Address State
127	7-4-011:003	74-5136 NAMAKA PL	Kona	HI
128	7-4-011:004	74-5138 NAMAKA PL	Kona	HI
129	7-4-011:005	74-5140 NAMAKA PL	Kona	HI
130	7-4-011:006	74-5140 PALIHIOLO	Kona	HI
131	7-4-011:007	74-5138 PALIHIOLO	Kona	HI
132	7-4-011:008	74-5136 PALIHIOLO	Kona	HI
133	7-4-011:009	74-5134 PALIHIOLO	Kona	HI
134	7-4-011:010	74-5132 PALIHIOLO	Kona	HI
135	7-4-011:011	74-5130 PALIHIOLO	Kona	HI
136	7-4-011:012	74-5128 PALIHIOLO	Kona	HI
137	7-4-011:013	74-5126 PALIHIOLO	Kona	HI
138	7-4-011:014	74-5124 PALIHIOLO	Kona	HI
139	7-4-011:015	74-5122 PALIHIOLO	Kona	HI
140	7-4-011:016	74-5118 PALIHIOLO	Kona	HI
141	7-4-011:017	74-5116 PALIHIOLO	Kona	HI
142	7-4-011:018	74-5114 PALIHIOLO	Kona	HI
143	7-4-011:019	74-5112 PALIHIOLO	Kona	HI
144	7-4-011:020	74-5110 PALIHIOLO	Kona	HI
145	7-4-011:021	74-5108 PALIHIOLO	Kona	HI
146	7-4-011:022	74-5106 PALIHIOLO	Kona	HI
147	7-4-011:023	74-5104 PALIHIOLO	Kona	HI
148	7-4-011:024	74-5105 PALIHIOLO	Kona	HI
149	7-4-011:025	74-5107 PALIHIOLO	Kona	HI
150	7-4-011:026	74-5109 PALIHIOLO	Kona	HI
151	7-4-011:027	74-5111 PALIHIOLO	Kona	HI
152	7-4-011:028	74-5113 PALIHIOLO	Kona	HI
153	7-4-011:029	74-5132 KAALAEA PL	Kona	HI
154	7-4-011:030	74-5134 KAALAEA PL	Kona	HI
155	7-4-011:031	74-5136 KAALAEA PL	Kona	HI
156	7-4-011:032	74-5138 KAALAEA PL	Kona	HI
157	7-4-011:033	74-5140 KAALAEA PL	Kona	HI
158	7-4-011:034	74-5140 ILUNA PL	Kona	HI
159	7-4-011:035	74-5138 ILUNA PL	Kona	HI
160	7-4-011:036	74-5136 ILUNA PL	Kona	HI
161	7-4-011:037	74-5134 ILUNA PL	Kona	HI
162	7-4-011:038			
163	7-4-011:040			
164	7-4-011:041			

QUEEN LILIUOKALANI LCC PROJECT

	Parcel Number	Address Main	Address City	Address State
85	7-4-013:085	74-5214 KAUWELA PL	Kona	HI
86	7-4-013:086	74-5213 KAUWELA PL	Kona	HI
87	7-4-013:087	74-5215 KAUWELA PL	Kona	HI
88	7-4-013:088	74-5217 KAUWELA PL	Kona	HI
89	7-4-013:089	74-5219 KAUWELA PL	Kona	HI
90	7-4-013:090	74-5221 KAUWELA PL	Kona	HI
91	7-4-013:091	74-5220 KAUWELA PL	Kona	HI
92	7-4-013:092	74-5218 KAUWELA PL	Kona	HI
93	7-4-013:093	74-5216 KAUWELA PL	Kona	HI
94	7-4-013:094	74-5214 KAUWELA PL	Kona	HI
95	7-4-013:095	74-5212 KAUWELA PL	Kona	HI
96	7-4-013:096	74-5210 KAUWELA PL	Kona	HI
97	7-4-013:097	74-5208 KAUWELA PL	Kona	HI
98	7-4-013:098	74-5206 KAUWELA PL	Kona	HI
99	7-4-013:099	74-5204 KAUWELA PL	Kona	HI
100	7-4-013:100	74-5201 KIHAWAHINE	Kona	HI
101	7-4-013:101	74-5205 KIHAWAHINE	Kona	HI
102	7-4-013:102	74-5209 KIHAWAHINE	Kona	HI
103	7-4-013:103	74-5211 KIHAWAHINE	Kona	HI
104	7-4-013:104	74-5213 KIHAWAHINE	Kona	HI
105	7-4-013:105	74-5215 KIHAWAHINE	Kona	HI
106	7-4-013:106	74-5217 KIHAWAHINE	Kona	HI
107	7-4-013:107	74-5219 KIHAWAHINE	Kona	HI
108	7-4-013:108	74-5221 KIHAWAHINE	Kona	HI
109	7-4-013:109	74-5223 KIHAWAHINE	Kona	HI
110	7-4-013:110	74-5225 KIHAWAHINE	Kona	HI
111	7-4-013:111	74-5226 KIHAWAHINE	Kona	HI
112	7-4-013:112	74-5224 KIHAWAHINE	Kona	HI
113	7-4-013:113	74-5220 KIHAWAHINE	Kona	HI
114	7-4-013:114	74-5218 KIHAWAHINE	Kona	HI
115	7-4-013:115	74-5216 KIHAWAHINE	Kona	HI
116	7-4-013:116	74-5214 KIHAWAHINE	Kona	HI
117	7-4-013:117	74-5212 KIHAWAHINE	Kona	HI
118	7-4-013:118	74-5210 KIHAWAHINE	Kona	HI
119	7-4-013:119	74-5208 KIHAWAHINE	Kona	HI
120	7-4-013:120	74-5206 KIHAWAHINE	Kona	HI
121	7-4-013:121	74-5204 KIHAWAHINE	Kona	HI
122	7-4-013:122	74-5202 KIHAWAHINE	Kona	HI
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124	7-4-013:124			
125	7-4-011:001	74-5132 NAMAKA PL	Kona	HI
126	7-4-011:002	74-5134 NAMAKA PL	Kona	HI

QUEEN LILIUOKALANI LCC PROJECT

	Parcel Number	Address Main	Address City	Address State
43	7-4-013:043	74-5159 HOKULII PL	Kona	HI
44	7-4-013:044	74-5157 HOKULII PL	Kona	HI
45	7-4-013:045	74-5155 HOKULII PL	Kona	HI
46	7-4-013:046	74-5153 HOKULII PL	Kona	HI
47	7-4-013:047	74-5151 HOKULII PL	Kona	HI
48	7-4-013:048	74-5149 HOKULII PL	Kona	HI
49	7-4-013:049	74-5147 HOKULII PL	Kona	HI
50	7-4-013:050	74-5145 HOKULII PL	Kona	HI
51	7-4-013:051	74-5143 HOKULII PL	Kona	HI
52	7-4-013:052	74-5146 HOKULII PL	Kona	HI
53	7-4-013:053	74-5148 HOKULII PL	Kona	HI
54	7-4-013:054	74-5150 HOKULII PL	Kona	HI
55	7-4-013:055	74-5152 HOKULII PL	Kona	HI
56	7-4-013:056	74-5154 HOKULII PL	Kona	HI
57	7-4-013:057	74-5156 HOKULII PL	Kona	HI
58	7-4-013:058	74-5158 HOKULII PL	Kona	HI
59	7-4-013:059	74-5160 HOKULII PL	Kona	HI
60	7-4-013:060	74-5162 HOKULII PL	Kona	HI
61	7-4-013:061	74-5164 HOKULII PL	Kona	HI
62	7-4-013:062	74-5169 PUUOLOKA'A	Kona	HI
63	7-4-013:063	74-5167 PUUOLOKA'A	Kona	HI
64	7-4-013:064	74-5163 PUUOLOKA'A	Kona	HI
65	7-4-013:065	74-5161 PUUOLOKA'A	Kona	HI
66	7-4-013:066	74-5157 PUUOLOKA'A	Kona	HI
67	7-4-013:067	74-5149 PUUOLOKA'A	Kona	HI
68	7-4-013:068	74-5147 PUUOLOKA'A	Kona	HI
69	7-4-013:069	74-5145 PUUOLOKA'A PL	Kona	HI
70	7-4-013:070	74-5146 PUUOLOKA'A	Kona	HI
71	7-4-013:071	74-5148 PUUOLOKA'A	Kona	HI
72	7-4-013:072	74-5150 PUUOLOKA'A	Kona	HI
73	7-4-013:073	74-5152 PUUOLOKA'A	Kona	HI
74	7-4-013:074	74-5156 PUUOLOKA'A	Kona	HI
75	7-4-013:075	74-5158 PUUOLOKA'A	Kona	HI
76	7-4-013:076	74-5160 PUUOLOKA'A	Kona	HI
77	7-4-013:077	74-5162 PUUOLOKA'A	Kona	HI
78	7-4-013:078	74-5164 PUUOLOKA'A	Kona	HI
79	7-4-013:079	74-5166 PUUOLOKA'A	Kona	HI
80	7-4-013:080	74-5168 PUUOLOKA'A	Kona	HI
81	7-4-013:081	74-5203 KAUWELA PL	Kona	HI
82	7-4-013:082	74-5205 KAUWELA PL	Kona	HI
83	7-4-013:083	74-5207 KAUWELA PL	Kona	HI
84	7-4-013:084	74-5209 KAUWELA PL	Kona	HI

QUEEN LILIUOKALANI LCC PROJECT

	Parcel Number	Address Main	Address City	Address State
1	7-4-013:001	74-5167 KANAI PL	Kona	HI
2	7-4-013:002	74-5169 KANAI PL	Kona	HI
3	7-4-013:003	74-5171 KANAI PL	Kona	HI
4	7-4-013:004	74-5175 KANAI PL	Kona	HI
5	7-4-013:005	74-5179 KANAI PL	Kona	HI
6	7-4-013:006	74-5183 KANAI PL	Kona	HI
7	7-4-013:007	74-5186 KANAI PL	Kona	HI
8	7-4-013:008	74-5187 KANAI PL	Kona	HI
9	7-4-013:009	74-5189 KANAI PL	Kona	HI
10	7-4-013:010	74-5191 KANAI PL	Kona	HI
11	7-4-013:011	74-5193 KANAI PL	Kona	HI
12	7-4-013:012	74-5195 KANAI PL	Kona	HI
13	7-4-013:013	74-5198 KANAI PL	Kona	HI
14	7-4-013:014	74-5196 KANAI PL	Kona	HI
15	7-4-013:015	74-5194 KANAI PL	Kona	HI
16	7-4-013:016	74-5192 KANAI PL	Kona	HI
17	7-4-013:017	74-5190 KANAI PL	Kona	HI
18	7-4-013:018	74-5188 KANAI PL	Kona	HI
19	7-4-013:019	74-5186 KANAI PL	Kona	HI
20	7-4-013:020	74-5184 KANAI PL	Kona	HI
21	7-4-013:021	74-5182 KANAI PL	Kona	HI
22	7-4-013:022	74-5180 KANAI PL	Kona	HI
23	7-4-013:023	74-5178 KANAI PL	Kona	HI
24	7-4-013:024	74-5176 KANAI PL	Kona	HI
25	7-4-013:025	74-5174 KANAI PL	Kona	HI
26	7-4-013:026	74-5172 KANAI PL	Kona	HI
27	7-4-013:027	74-5170 KANAI PL	Kona	HI
28	7-4-013:028	74-5168 KANAI PL	Kona	HI
29	7-4-013:029	74-5166 PUUOKALIU PL	Kona	HI
30	7-4-013:030	74-5163 PUUOKALIU PL	Kona	HI
31	7-4-013:031	74-5161 PUUOKALIU PL	Kona	HI
32	7-4-013:032	74-5159 PUUOKALIU PL	Kona	HI
33	7-4-013:033	74-5157 PUUOKALIU PL	Kona	HI
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35	7-4-013:035	74-5153 PUUOKALIU PL	Kona	HI
36	7-4-013:036	74-5156 PUUOKALIU PL	Kona	HI
37	7-4-013:037	74-5158 PUUOKALIU PL	Kona	HI
38	7-4-013:038	74-5160 PUUOKALIU PL	Kona	HI
39	7-4-013:039	74-5162 PUUOKALIU PL	Kona	HI
40	7-4-013:040	74-5164 PUUOKALIU PL	Kona	HI
41	7-4-013:041	74-5166 PUUOKALIU PL	Kona	HI
42	7-4-013:042	74-5163 HOKULII PL	Kona	HI

ATTACHMENT 2

KOMOHONA HEIGHTS LCC PROJECT

	Parcel Number	Address Main	Address City	Address State
1	2-3-048:007	419 HUALI PL	Hilo	HI
2	2-3-048:008	420 HUALI PL	Hilo	HI
3	2-3-048:009	415 HUALI PL	Hilo	HI
4	2-3-048:010	416 HUALI PL	Hilo	HI
5	2-3-048:011	408 HUALI PL	Hilo	HI
6	2-3-048:012	370 HUALI PL	Hilo	HI
7	2-3-048:013	364 HUALI PL	Hilo	HI
8	2-3-048:014	358 HUALI PL	Hilo	HI
9	2-3-048:015	353 HUALI PL	Hilo	HI
10	2-3-048:016	334 HUALI WAY	Hilo	HI
11	2-3-048:017	332 HUALI WAY	Hilo	HI
12	2-3-048:018	330 HUALI WAY	Hilo	HI
13	2-3-048:019	324 HUALI WAY	Hilo	HI
14	2-3-048:020	320 HUALI WAY	Hilo	HI
15	2-3-048:021	319 HUALI WAY	Hilo	HI
16	2-3-048:022	321 HUALI WAY	Hilo	HI
17	2-3-048:023	323 HUALI WAY	Hilo	HI
18	2-3-048:024	335 HUALI WAY	Hilo	HI
19	2-3-048:025	373 HUALI PL	Hilo	HI
20	2-3-048:026	377 HUALI PL	Hilo	HI
21	2-3-048:027	381 HUALI PL	Hilo	HI
22	2-3-048:028	393 HUALI PL	Hilo	HI
23	2-3-048:029	399 HUALI PL	Hilo	HI
24	2-3-048:030	401 HUALI PL	Hilo	HI
25	2-3-048:031	403 HUALI PL	Hilo	HI
26	2-3-048:032	411 HUALI PL	Hilo	HI
27	2-3-048:033	415 HUALI PL	Hilo	HI

FINAL ORDER

The United States Environmental Protection Agency Region IX ("EPA"), and County of Hawaii, Department of Environmental Management, having entered into the foregoing Consent Agreement, and EPA having duly publicly noticed the Stipulations and Findings and Proposed Order regarding the matters alleged therein,

IT IS HEREBY ORDERED THAT:

1. The foregoing Consent Agreement and this Final Order (Docket No.UIC-AO-2005-0014) be entered; and

2. Respondent, County of Hawaii, Department of Environmental Management, shall comply with the requirements set forth in the Consent Agreement and Proposed Order, which shall become final and effective thirty ("30") days from the date it is signed below.

_____ Date:_____

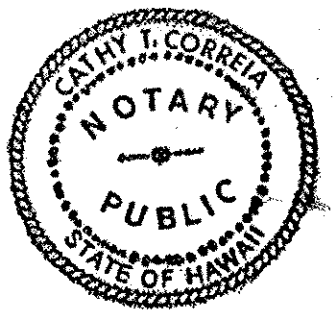
Alexis Strauss
Director, Water Division
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

STATE OF HAWAII)
) SS.
COUNTY OF HAWAII)

On this 8th day of November 2005, before me personally appeared DIXIE KAETSU, to me personally known, who, being by me duly sworn, did say that she is the Managing Director of the County of Hawaii, a municipal corporation of the State of Hawaii; that the seal affixed to the foregoing instrument is the corporate seal of said County of Hawaii; that the foregoing instrument was signed and sealed in behalf of the County of Hawaii by authority given to said Mayor of the County of Hawaii by Section 5-1.3(g) of the County Charter, County of Hawaii (2000), as amended, and assigned by the Mayor to the Managing Director pursuant to Section 6-1.3(h) of the County Charter; and said DIXIE KAETSU acknowledged said instrument to be the free act and deed of said County of Hawaii.

CATHY T. CORREIA
Notary Public, State of Hawaii

My commission expires: 10/13/06



FOR THE CONSENTING PARTIES:

For County of Hawaii, Department of Environmental Management

RECOMMEND APPROVAL:

Date: 11/7/05

BARBARA BELL, Director
Department of Environmental Management

APPROVED AS TO FORM AND LEGALITY:

Date: Nov 7 2005

BOBBY JEAN LEITHEAD-TODD
Deputy Corporation Counsel

Date: 11/8/05

DIXIE KAETSU
Managing Director, County of Hawaii
25 Aupuni Street
Hilo, HI 96720

For the United States Environmental Protection Agency:

Date:

Alexis Strauss
Director, Water Division
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

any matters which it considers necessary for EPA's determination. If Respondent does not invoke formal dispute resolution within seven (7) business days, EPA's decision shall be binding on Respondent.

36. EPA and Respondent shall have ten (10) business days from receipt of Respondent's written objections to attempt to resolve the dispute through formal discussions. During such time, if Respondent so requests, the Associate Director, Water Division, will meet with Respondent to discuss the dispute either by telephone or at EPA's offices in San Francisco unless another location is mutually agreed upon.

37. Within twenty (20) business days of EPA's receipt of Respondent's written objections, EPA, through its Associate Director, Water Division, will provide to Respondent, in writing, EPA's decision on the pending dispute.

38. If the Respondent disagrees with the written decision, the Respondent may, within ten (10) business days of receipt of the written decision, appeal to the Director, Water Division. Respondent's appeal must set forth the specific points of the dispute, the basis for Respondent's position and any matters which it considers necessary for EPA's determination. Within thirty (30) business days of receipt of the appeal, the Director, Water Division will issue a written decision which shall be the final decision and which EPA and Respondent agree to be bound by and to follow.

39. The Parties may, by mutual written agreement, extend any of the time periods provided for in the dispute resolution process.

40. EPA and Respondent have agreed to the foregoing dispute resolution procedures solely for the purposes, and based on the unique circumstances, of this CA/FO.

D. Effective Date

41. The effective date of the CA/FO shall be 30 days from the date that the Final Order is issued.

of the evidence, that the actual or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay was or will be warranted under the circumstances, that Respondent did exercise or is using its best efforts to avoid and mitigate the effects of the delay, and that Respondent complied with the requirements of this section.

31. All milestone reports and any requests for extension of time required to be submitted pursuant to this CA/FO shall be sent to the following address:

LCC Project Coordinator
Ground Water Office, WTR-9
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

32. Respondent's closure of the large capacity cesspools listed paragraph **13** and submission of the Engineer's Report, by the dates set forth in paragraph **12 & 13**, shall constitute full and complete satisfaction of this CA/FO.

C. Dispute Resolution

33. The dispute resolution procedures of this section shall be the exclusive mechanism to resolve disputes arising under or with respect to this CA/FO.

34. If Respondent disagrees, in whole or in part, with any decision by EPA under this CA/FO, Respondent's Project Coordinator or equivalent shall orally notify EPA's LCC Coordinator of the dispute ("Project Coordinators"). The Project Coordinators shall use their best efforts to informally and in good faith resolve all disputes or difference of opinion relating to this CA/FO. The period for informal negotiations shall not exceed ten (10) business days from the time the dispute arises, unless it is modified by written agreement of the parties.

35. In the event that the Project Coordinators cannot resolve a dispute by informal negotiations under the preceding paragraph, Respondent may pursue the matter by submitting its objection to EPA in writing. Respondent must send its written objections to EPA within seven (7) business days of Respondent's receipt of the EPA's decision referred to in the previous paragraph. Respondent's written objections must set forth the specific points of the dispute, the basis for Respondent's position and

applicable requirements of the Act, regulations promulgated thereunder, and any order or permit issued thereunder.

25. EPA reserves any and all legal and equitable remedies available to enforce this CA/FO, as well as the right to seek recovery of any costs and attorneys' fees incurred by EPA in any actions against Respondent for noncompliance with this CA/FO. Violation of this CA/FO shall be deemed a violation of the Act.

26. Except as stated in paragraph **25**, each party hereto shall bear its own costs and attorneys fees incurred in this proceeding.

27. If any event occurs which causes or may cause delays in either: 1) submission of milestone reports; or 2) reaching the deadline for closure of the large capacity cesspool[s], as set forth in paragraph **13** of this CA/FO, Respondent shall, within two (2) business days of the delay or within two (2) business days of Respondent's knowledge of the anticipated delay, whichever is earlier, notify by telephone or voicemail the EPA Region 9 LCC Project Coordinator or, in her/his absence, the Manager of the EPA Region 9 Ground Water Office. Within fifteen (15) business days thereafter, Respondent shall provide in writing the reasons for the delay, the anticipated duration of the delay, the measures taken or to be taken to prevent or minimize the delay, and a timetable by which those measures will be implemented. Respondent shall exercise its best efforts to avoid or minimize any delay and any effects of a delay. Failure to comply with the notice requirement of this paragraph shall preclude Respondent from asserting any claim of force majeure.

28. If EPA agrees that the delay or anticipated delay in compliance with this CA/FO has been or will be caused by circumstances entirely beyond the control of Respondent, the time for performance maybe extended for a period of no longer than the delay resulting from the circumstances causing the delay. In such event, EPA shall grant in writing, signed by the Manager of the EPA Region 9 Ground Water Office, the extension of time. An extension of the time for performing an obligation granted by EPA pursuant to this paragraph shall not, of itself, extend the time for performing a subsequent obligation.

29. In the event that EPA does not agree that a delay in achieving compliance with the requirements of this CA/FO has been or will be caused by circumstances beyond the control of the Respondent, EPA will notify Respondent in writing of its decision and any delays will not be excused.

30. Respondent shall have the burden of demonstrating, by a preponderance

allegations of the Consent Agreement and agrees not to contest, in any administrative or judicial forum, EPA's jurisdiction to enter into this CA/FO.

17. The provisions of this CA/FO shall be binding upon Respondent, its officers, directors, agents, servants, authorized representatives, employees, and successors or assigns. Action or inaction of any persons, firms, contractors, employees, agents, or corporations acting under, through, or for Respondent shall not excuse any failure of Respondent to fully perform its obligations under this CA/FO.

18. Respondent shall give notice, and provide a copy of this CA/FO, to any successor-in-interest prior to transfer of ownership or operation of any large capacity cesspool referred to in paragraph **13**. Such transfer, however, shall have no effect on Respondent's obligation to comply with this CA/FO. Respondent shall notify EPA in writing at least thirty (30) days prior to any such transfer of ownership or operation of any large capacity cesspool referred to in paragraph **13**.

19. Each undersigned signatory to this Consent Agreement certifies that he or she is duly and fully authorized to enter into and ratify this Consent Agreement.

20. Respondent consents to the issuance of this CA/FO and the conditions specified herein.

21. Respondent waives any right to a hearing under Section 1423(c)(3) of the Act, 42 U.S.C. § 300h-2(c)(3) for the violations alleged in the Consent Agreement, to otherwise contest the allegations contained in the Consent Agreement, or to appeal the CA/FO.

22. This CA/FO does not constitute a waiver, suspension, or modification of the requirements of any federal, state, or local statute, regulation, or condition of any permit issued thereunder, including the requirements of the Act and accompanying regulations.

23. Issuance of this CA/FO does not in any case affect the right of EPA to pursue civil or criminal remedies and/or sanctions including appropriate injunctive or other equitable relief and/or penalties, for any violations of law.

24. Issuance of or compliance with this CA/FO does not waive, extinguish, satisfy, or otherwise affect Respondent's obligation to comply with all

address, will be submitted by July 15, 2006.

Within 30 days of completion of the Queen Liliuokalani PER, DEM shall notify all property owners within the study area who are eligible to connect to the sewer of such availability. DEM shall also notify all property owners within the study area NOT eligible to connect to the sewer. A copy of these letters shall be submitted to the LCC Coordinator, at the address listed below, within 30 days of the mailing of such letters. All letters shall include the TMK and the address of the property to which the letters refer.

DEM shall provide verification of the properties, including the TMK and the address of the property, which actually connect to the sewer, within 180 days after letter notification to connect to the sewer.

14. If the alternative treatment technology is a septic tank system, an effluent filter is required prior to disposal into the leach field or seepage pit.

15. Such submittals shall be in writing and shall be sent to:

LCC Project Coordinator
Ground Water Office, WTR-9
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

and shall include the following certification signed by a duly authorized representative:

"I certify under penalty of law that this document and all attachments were prepared by direct supervision or in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

B. General Provisions

16. For the purpose of this proceeding, Respondent admits the jurisdictional

In addition to the seven (7) large capacity cesspools listed above, DEM will be completing the Honokaa Preliminary Engineering Report, whereby DEM will evaluate sewer alignment and treatment alternatives in study areas 1 and 2 shown in Attachment 3 (Figure 1-1, Honokaa Wastewater PER), attached hereto and incorporated by reference. A copy of the Honokaa Preliminary Engineering Report ("Honokaa PER") will be submitted to EPA by March 28, 2006. A list of all properties by TMK and address that will be eligible to connect to the sewer will be submitted by March 28, 2006. Within 30 days of completion of the Honokaa PER, DEM shall notify all Honokaa property owners within the study area who are eligible to connect to the sewer of such availability. DEM shall also notify all Honokaa property owners within the study area NOT eligible to connect to the sewer. A copy of all letters shall be submitted to the LCC Coordinator, at the address listed below, within 30 days of the mailing of such letters. All letters shall include the TMK and the address of the property to which the letters refer. DEM shall also provide verification of the properties, including TMK number, which connect to the sewer within 180 days after letter notification to connect to the sewer.

D. Queen Liliuokalani Subdivision. Eighteen (18) large capacity cesspools serving 124 properties listed in Attachment 2 (Queen Liliuokalani LCC Project), attached hereto and incorporated by reference, shall be closed in accordance with the following schedule:

Design Completed: March 01, 2007
Approval to Construct: March 1, 2008
Bidding Start: June 1, 2008
Construction Start: October 1, 2008
Final Inspection: March 1, 2010
LCC Closure: June 1, 2010
Engineer's Report: September 1, 2010

In addition to the eighteen (18) large capacity cesspools listed above, DEM will be initiating a Queen Liliuokalani Preliminary Engineering Report ("Queen Liliuokalani PER") by December 15, 2005. In the Queen Liliuokalani PER, DEM will evaluate sewer alignment and treatment alternatives for the Queen Liliuokalani subdivision which will allow properties in the study area as defined in Attachment 4 (Queen Liliuokalani Project), attached hereto and incorporated by reference, to connect to the newly constructed sewer line. A copy of the Queen Liliuokalani PER will be submitted to EPA by July 15, 2006. A list of all properties that will be eligible to connect to the sewer, including TMK and

A. Sewer Pump Stations. Three (3) large capacity cesspools:

i. Banyan Sewer Pump Station, TMK 2-1-01:101
ii. Onekahakaha Sewer Pump Station, TMK 2-1-14:036
iii. Kolea Sewer Pump Station, TMK 2-1-17:018

shall be closed in accordance with the following schedule:

Final Inspection: December 30, 2005
LCC Closure: December 30, 2005
Engineer's Report: March 1, 2006

B. Komohana Heights Subdivision. Two (2) large capacity cesspools serving 27 properties listed in Attachment 1 (Komohana Heights LCC Project), attached hereto and incorporated by reference, shall be closed in accordance with the following schedule:

Design Completed: March 30, 2006
Approval to Construct: March 30, 2007
Bidding Start: June 30, 2007
Construction Start: October 1, 2007
Final Inspection: October 1, 2008
LCC Closure: January 1, 2009
Engineer's Report: April 1, 2009

C. Honokaa LCC Conversion Project. Seven (7) large capacity cesspools:

i. Honokaa Fire Station, TMK 4-5-06:003
ii. Hamakua Police Station, TMK 4-5-06:003
iii. Hamakua County Garage (Baseyard), TMK 4-5-06:003
iv. Honokaa Park/Gym, TMK 4-5-10:088, 090
v. Honokaa Track Field, TMK 4-5-10:088, 090
vi. Honokaa Ball Field, TMK 4-5-10:088, 090
vii. Honokaa Swimming Pool, TMK 4-5-03:020

shall be closed in accordance with the following schedule:

Design Completed: December 1, 2007
Approval to Construct: December 1, 2008
Bidding Start: March 1, 2009
Construction Start: June 1, 2009
Final Inspection: June 1, 2010
LCC Closure: September 1, 2010

III. PROPOSED ORDER

Respondent, County of Hawaii, DEM, and EPA agree to the following, which, upon issuance of the Final Order, shall become effective:

A. Compliance Requirements

12. In accordance with 40 C.F.R. § 144.89(a), Respondent shall close the large capacity cesspools listed in: (a) paragraph 13.A. below no later than **December 30, 2005** and submit an Engineer's Report for those large capacity cesspools no later than **March 1, 2006;** (b) paragraph 13.B. below no later than **January 1, 2009** and submit an Engineer's Report for those large capacity cesspools no later than **April 1, 2009;** (c) paragraph 13.C. below no later than **September 1, 2010** and submit an Engineer's Report for those large capacity cesspools no later than **December 1, 2010**; and (d) paragraph 13.D. no later than **June 1, 2010** and submit an Engineer's Report for those large capacity cesspools no later than **September 1, 2010.**

All Engineer's reports for paragraphs 13.B, 13.C. and 13.D. shall contain a description of the infrastructure constructed and identify all parcels, by TMK, that will be served by the new system. For all large capacity cesspools in paragraph 13, the Engineer's reports shall also include: a description of the cesspool closed including dimensions and condition of the cesspool; a notation as to whether ground water was encountered or solids had accumulated; a specific date the cesspool was filled; and the specific backfill material used. Pictures of the cesspool closure prior to, during and after compaction, at a step back distance of 8 and 20 feet, shall be provided.

Closures of all large capacity cesspools with flows greater than 1000 gallons per day must be done in conformance of the Hawaii Department of Health ("HDOH") UIC requirements. For those large capacity cesspools subject to the HDOH UIC requirements, a copy of the completed HDOH UIC closure report shall be submitted to document the closure.

13. Respondent shall submit semi-annual reports, in accordance with paragraph 15 below, beginning July 1, 2006, confirming that the milestones set forth in this paragraph have been met. The semi-annual reports shall be sent to EPA within thirty (30) days of January 1 and July 1 of each year until all large capacity cesspools listed in this paragraph and Attachments 1 (Komohana Heights LCC Project) and 2 (Queen Liliuokalani LCC Project), attached hereto and incorporated by reference, have been closed and the Engineering Reports submitted.

required to be closed no later than April 5, 2005. "Large capacity cesspools" include "multiple dwelling, community or regional cesspools, or other devices that receive sanitary wastes, containing human excreta, which have an open bottom and sometimes perforated sides." 40 C.F.R. § 144.81(2). Large capacity cesspools do not include single family residential cesspools, or non-residential cesspools which receive solely sanitary waste and have the capacity to serve fewer than 20 persons per day. Id. A "cesspool," is a "drywell," which in turn is a "well," as those terms are defined in 40 C.F.R. § 144.3.

4. Pursuant to Section 1422(c) of the Act, 42 U.S.C. § 300h-1(c), and 40 C.F.R. Part 147 Subpart M, Section 147.601, EPA administers the UIC program in the State of Hawaii. This UIC program consists of the program requirements of 40 C.F.R. Parts 124, 144, 146, 147 (Subpart M), and 148.

5. Pursuant to Section 1423(c)(1) of the Act, 42 U.S.C. § 300h-2(c)(1), EPA may assess an administrative compliance order to any person who violates any requirement of an applicable UIC program. 42 U.S.C. § 300h-2(c)(1).

6. Pursuant to Section 1445(a)(1)(A) of the Act, 42 U.S.C. § 300j-4(a), EPA may require any person who is subject to the requirements of the Act to submit information relating to such person's compliance with the requirements of the Act. 42 U.S.C. § 300j-4(a)(1)(A).

7. Respondent, County of Hawaii DEM is a department of the County of Hawaii, which is a State of Hawaii municipality. Thus, Respondent is a "person" within the meaning of Section 1401(12) of the SDWA, 42 U.S.C. § 300f(12), and 40 C.F.R. § 144.3.

8. Respondent owns and operates **30** large capacity cesspools. The large capacity cesspools owned and operated by Respondent are listed in paragraph **13**.

9. Respondent did not close the large capacity cesspools referred to in paragraph **13** by April 5, 2005 as required by 40 C.F.R. § 144.88.

10. Respondent intends to undertake the measures outlined in paragraph **12** by the dates specified in order to close the large capacity cesspools referred to in paragraph **13.**

11. Based on all the foregoing, Respondent has violated the requirement that all large capacity cesspools be closed by April 5, 2005, and is therefore in violation of 40 C.F.R. § 144.88.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX

IN THE MATTER OF County of Hawaii, Department of Environmental Management, Hilo, HI Proceedings under Section 1423(c) of the Safe Drinking Water Act, 42 U.S.C. § 300h-2(c)	DOCKET NO. UIC-AO-2005-0014 CONSENT AGREEMENT AND FINAL ORDER

CONSENT AGREEMENT

I. STATUTORY AUTHORITY

This Consent Agreement and Final Order is issued under the authorities vested in the Administrator of the United States Environmental Protection Agency ("EPA") by Sections 1423(c) and 1445(a) of the Safe Drinking Water Act (the "Act"), 42 U.S.C. §§ 300h-2(c), 300j-4(a). The Administrator has delegated these authorities to the Regional Administrator of EPA Region IX. The Regional Administrator in turn has delegated these authorities to the Director of the Water Division, EPA Region IX. In accordance with these authorities, the Director of the Water Division, EPA Region IX, hereby issues, and the County of Hawaii, Department of Environmental Management ("Respondent" or "DEM") hereby agrees to the issuance of this Consent Agreement and Final Order.

II. STIPULATIONS AND FINDINGS

Respondent, County of Hawaii DEM, stipulates, and EPA finds as follows:

1. Pursuant to Part C of the Act, 42 U.S.C. §§ 300h-300h-8, EPA has promulgated regulations establishing minimum requirements for Underground Injection Control("UIC") programs to prevent underground injection which endangers drinking water sources. These regulations are set forth at 40 C.F.R. Part 144.

2. "Underground injection" means the subsurface emplacement of fluids by well injection. 42 U.S.C. § 300h(d)(1), 40 C.F.R. § 144.3.

3. Pursuant to 40 C.F.R. § 144.88, existing large capacity cesspools ("LCCs") are

Harry Kim
Mayor

Barbara Bell
Director

Nelson Ho
Deputy Director

County of Hawaii

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

25 Aupuni Street, Room 210 • Hilo, Hawai'i 96720-4252
(808) 961-8083 • Fax (808) 961-8086
email: cohdem@co.hawaii.hi.us

November 9, 2005

Ms. Elizabeth La Blanc, Esq.
Office of Regional Counsel
US EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105

RE: DOCKET NO. UIC-AO-2005-0014
CONSENT AGREEMENT AND FINAL ORDER

Enclosed is the signed subject document. Please furnish us a copy of the fully executed document when it is available.

Thank you.

Barbara Bell
DIRECTOR

enclosure

16324

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

5 January 2006

Honorable Mayor Harry Kim
Mayor, County of Hawaii
25 Aupuni Street
Hilo, HI 96740

Subject: Consent Agreement and Final Order, Docket No. UIC AO-2005-0014

Dear Mayor Kim:

Enclosed is a copy of the signed Consent Agreement and Final Order, which addresses the closure of the large capacity cesspools owned and/or operated by the County of Hawaii, Department of Environmental Management. As no comments were received during the public review period, no changes were needed to the agreement and I have signed the Final Order. The Consent Agreement and Final Order are effective February 4, 2006.

I appreciate the efforts you and your staff have put into establishing this agreement and developing a plan to achieve compliance with EPA's regulations. I look forward to our continued joint efforts to implement this agreement over the next few years. Please direct any technical questions to Laura Tom Bose at (415) 972- 3538 and legal questions to Elizabeth LaBlanc, EPA Office of Regional Counsel, at (415) 972-3915. Thank you and best wishes

Sincerely yours,

Alexis Strauss
Director, Water Division 6 January 2006

Enclosures

cc: Bobby Jean Leithead-Todd

M&E Pacific, Inc.

METCALF & EDDY | AECOM

April 29, 2005

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

Subject: Komohana Heights Large Capacity Cesspool Replacement
TMK: (3) 2-3-41, 42, 43, 48 & 50
Draft Environmental Assessment

To Whom It May Concern:

I am preparing a draft environmental assessment (EA) for the County of Hawaii for the proposed subject project. The project in the South Hilo District (see the attached map) will extend the existing gravity sewer system at the Komohana Heights Subdivision (near intersection of Komohana St. and Kukuau St.) and abandon and demolish the existing large capacity cesspools (LCC) which are currently banned by the U.S. Environmental Protection Agency. The project will also demolish an existing sewage pump station located in Sunrise Ridge Subdivision across Komohana St.

In am interested in identifying any culturally or historically significant resources or assets which our project may impact. We are planning to publish our draft EA in the State Office of Environmental Quality Control (OEQC) Bulletin on June 8, 2005. In order to meet this deadline, we are requesting a response to our letter by **May 20, 2005**. If we do not receive a response by this date, we will assume that you are not aware of any cultural resource.

If you have any questions, please contact me.

Sincerely,

M&E Pacific, Inc.

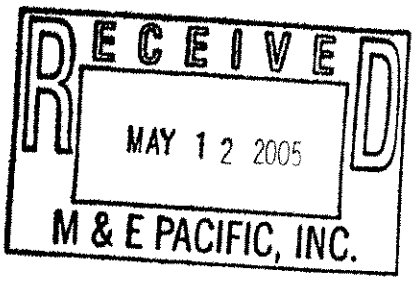
Paul N. Inouye

Paul Inouye
Senior Project Manager

cc: files

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246

BISHOP MUSEUM



May 9, 2005

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

Dear Mr. Inouye;

In regard to your letter of April 29, 2005, may I suggest that you contact the State Historic Preservation Office of DLNR rather than Bishop Museum? They are the suitable agency to identify sites of cultural or historical significance that have already been recognized.

Thank you.

Sincerely,

Betty Lou Kam
Cultural Resources
Bishop Museum

1525 Bernice Street • Honolulu, Hawai'i 96817-2704 • Ph: (808) 847-3511 • Fax: (808) 841-8968 • Email: museum@bishopmuseum.org

M&E Pacific, Inc.

METCALF & EDDY | AECOM

April 29, 2005

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

Subject: Komohana Heights Large Capacity Cesspool Replacement
TMK: (3) 2-3-41, 42, 43, 48 & 50
Draft Environmental Assessment

To Whom It May Concern:

I am preparing a draft environmental assessment (EA) for the County of Hawaii for the proposed subject project. The project in the South Hilo District (see the attached map) will extend the existing gravity sewer system at the Komohana Heights Subdivision (near intersection of Komohana St. and Kukuau St.) and abandon and demolish the existing large capacity cesspools (LCC) which are currently banned by the U.S. Environmental Protection Agency. The project will also demolish an existing sewage pump station located in Sunrise Ridge Subdivision across Komohana St.

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If you have any questions, please contact me.

Sincerely,

M&E Pacific, Inc.

Paul N. Inouye

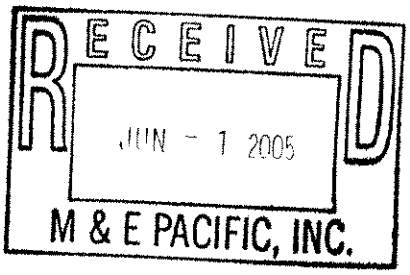
Paul Inouye
Senior Project Manager

cc: files

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246

the Lyman Museum

276 Haili Street ~ Hilo, Hawai'i 96720 ~ Phone (808) 935-5021 ~ Fax (808) 969-7685 ~ Email: info@lymanmuseum.org



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

Aloha Paul,

This response is to your letter of April 29, 2005, and our telephone conversation this morning (May 20, 2005). The Lyman Museum's archives are available to researchers by appointment. Some of the resources in this collection such as photographs, maps, publications and paper records may have information that could assist you in identifying significant cultural or historic resources or assets in the land area of Kukuau, Hilo, Hawaii. We do not do research for outside contractors, however we make our facilities available to researchers by appointment. If you would like to make an appointment, please be aware that you need to do it at least 2 months ahead. Enclosed is a research request form, and archives services fees. It is also available on the Museum's website: www.lymanmuseum.org.

Sincerely,

Lynn K. Manuel
Registrar/Collections Manager

xc: Director

Accredited by the American Association of Museums

M&E Pacific, Inc.

METCALF & EDDY | AECOM

April 29, 2005

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

Subject: Komohana Heights Large Capacity Cesspool Replacement
TMK: (3) 2-3-41, 42, 43, 48 & 50
Draft Environmental Assessment

Dear Mr. Lindsey:

I am preparing a draft environmental assessment (EA) for the County of Hawaii for the proposed subject project. The project in the South Hilo District (see the attached map) will extend the existing gravity sewer system at the Komohana Heights Subdivision (near intersection of Komohana St. and Kukuau St.) and abandon and demolish the existing large capacity cesspools (LCC) which are currently banned by the U.S. Environmental Protection Agency. The project will also demolish an existing sewage pump station located in Sunrise Ridge Subdivision across Komohana St.

In am interested in identifying any culturally or historically significant resources or assets which our project may impact. We are planning to publish our draft EA in the State Office of Environmental Quality Control (OEQC) Bulletin on June 8, 2005. In order to meet this deadline, we are requesting a response to our letter by **May 20, 2005**. If we do not receive a response by this date, we will assume that you are not aware of any cultural resource.

If you have any questions, please contact me.

Sincerely,

M&E Pacific, Inc.

Paul N. Inouye

Paul Inouye
Senior Project Manager

cc: files

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246

M&E Pacific, Inc.

METCALF & EDDY | AECOM

April 29, 2005

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

Subject: Komohana Heights Large Capacity Cesspool Replacement
TMK: (3) 2-3-41, 42, 43, 48 & 50
Draft Environmental Assessment

Dear Ms. Sherlock:

I am preparing a draft environmental assessment (EA) for the County of Hawaii for the proposed subject project. The project in the South Hilo District (see the attached map) will extend the existing gravity sewer system at the Komohana Heights Subdivision (near intersection of Komohana St. and Kukuau St.) and abandon and demolish the existing large capacity cesspools (LCC) which are currently banned by the U.S. Environmental Protection Agency. The project will also demolish an existing sewage pump station located in Sunrise Ridge Subdivision across Komohana St.

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If you have any questions, please contact me.

Sincerely,

M&E Pacific, Inc.

Paul N. Inouye

Paul Inouye
Senior Project Manager

cc: files

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246

M&E Pacific, Inc.

METCALF & EDDY | AECOM

April 29, 2005

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

Subject: Komohana Heights Large Capacity Cesspool Replacement
TMK: (3) 2-3-41, 42, 43, 48 & 50
Draft Environmental Assessment

To Whom It May Concern:

I am preparing a draft environmental assessment (EA) for the County of Hawaii for the proposed subject project. The project in the South Hilo District (see the attached map) will extend the existing gravity sewer system at the Komohana Heights Subdivision (near intersection of Komohana St. and Kukuau St.) and abandon and demolish the existing large capacity cesspools (LCC) which are currently banned by the U.S. Environmental Protection Agency. The project will also demolish an existing sewage pump station located in Sunrise Ridge Subdivision across Komohana St.

In am interested in identifying any culturally or historically significant resources or assets which our project may impact. We are planning to publish our draft EA in the State Office of Environmental Quality Control (OEQC) Bulletin on June 8, 2005. In order to meet this deadline, we are requesting a response to our letter by **May 20, 2005**. If we do not receive a response by this date, we will assume that you are not aware of any cultural resource.

If you have any questions, please contact me.

Sincerely,

M&E Pacific, Inc.

Paul N. Inouye

Paul Inouye
Senior Project Manager

cc: files

841 Bishop Street, Suite 1900
Honolulu, HI 96813
Voice: 808-521-3051 x243 Fax: 808-524-0246

Photo 3 – Huali Way Looking East (LCC)

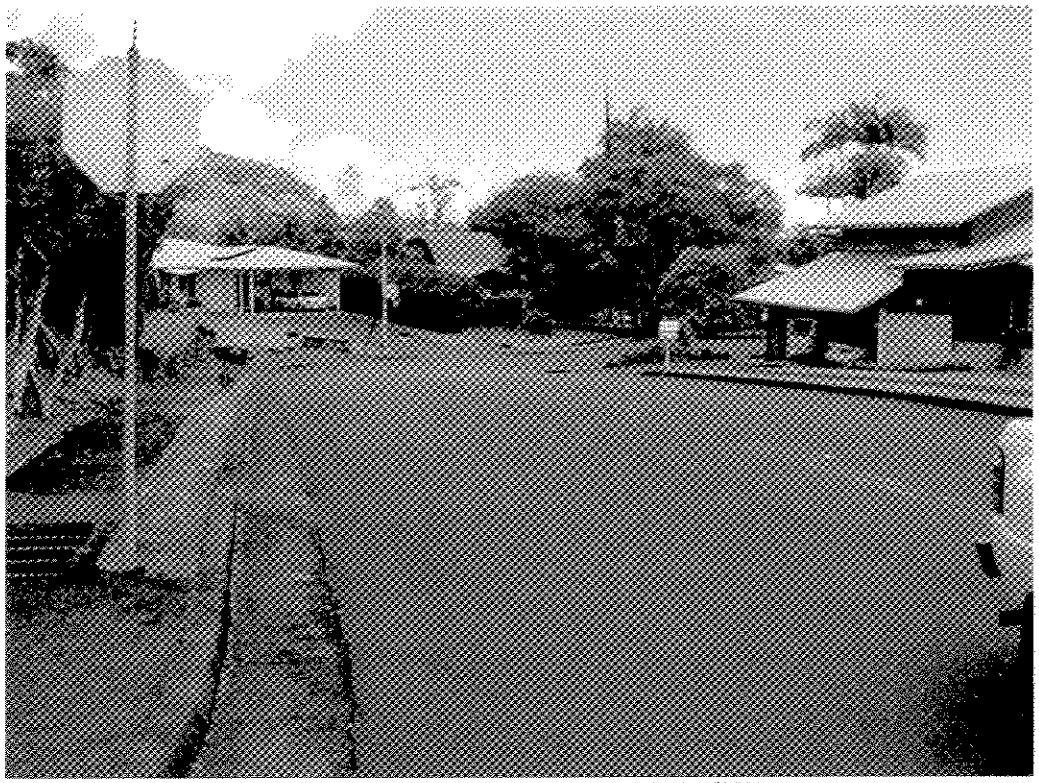

Photo 4 – Huali Place Looking Towards Huali Way

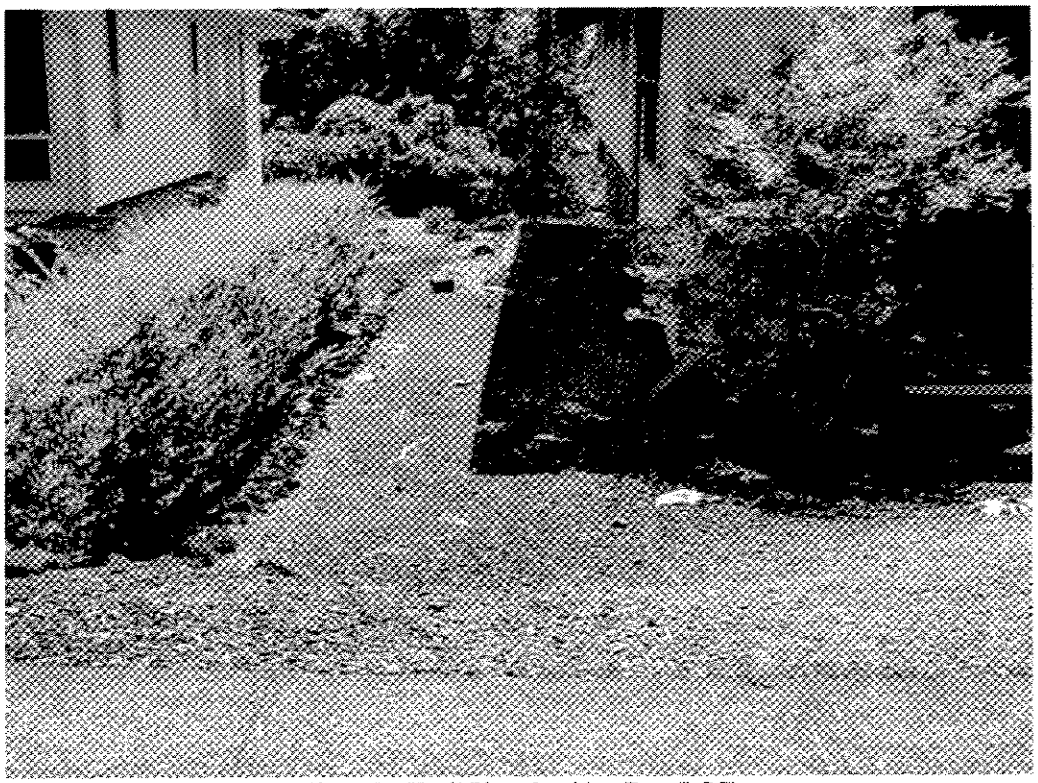

Photo 5 – Huali Place Looking East (LCC)

Photo 6 – Huali Place Looking Across Komohana Street

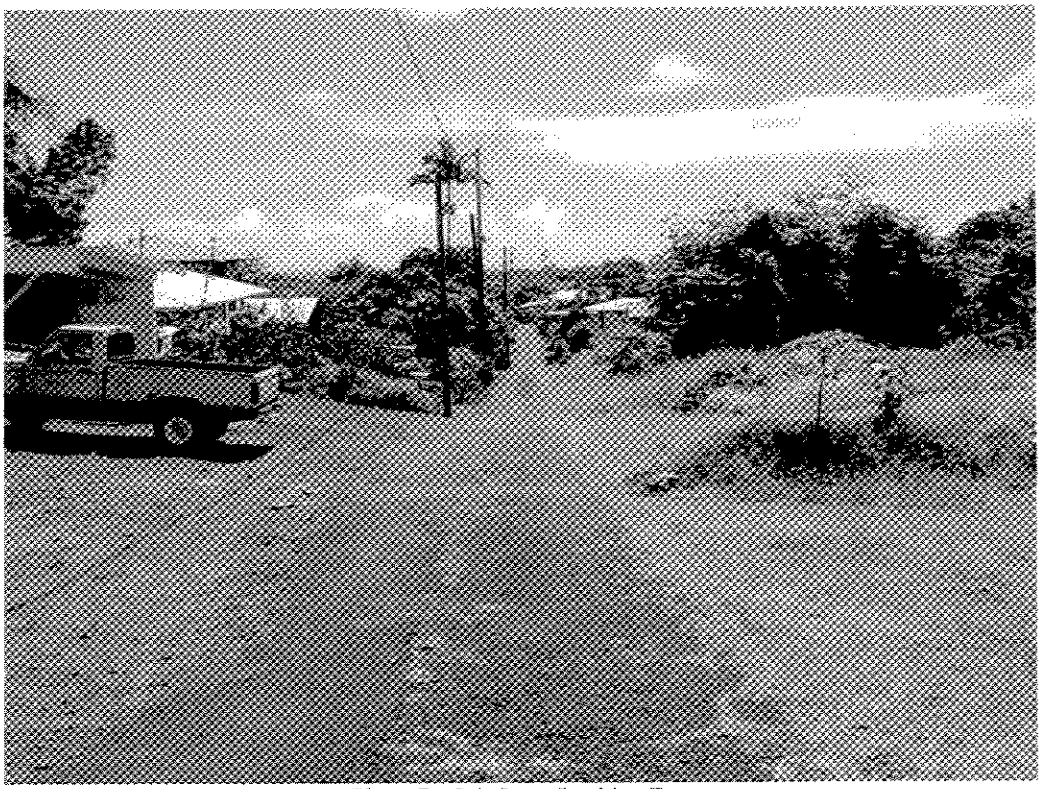

Photo 7 – Inia Lane Looking East

Photo 8 – Inia Lane/Ilima Lane Intersection Looking West

Photo 9 – Inia Lane/Ilima Lane Intersection Drainage Manhole

Photo 10 – Ilima Lane Looking South

APPENDIX C

EPA CONSENT AGREEMENT AND FINAL ORDER

M&E Pacific, Inc.

March 12, 2007

Genevieve Salmonson, Director
Department of Health, Office of Environmental Quality Control
236 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Subject: **Draft Environmental Assessment (DEA) for Komohana Heights Large Capacity Cesspool Replacement Project, Hilo, Hawai'i Island, TMK (3) 2-3-042, 043, 048 & 050.**

Dear Ms. Salmonson,

I would like to thank you for taking time to review and comment on the DEA, for the above referenced project.

Your comments are appreciated and have been noted regarding the EPA Consent Agreement and clarification on the Nature and Extent of the Project.

In regards to your review comments the following actions have been taken.

1. A copy of the EPA consent agreement will be included in the Final EA.

2. The specified sentence will be added to Section 2.1 of the final EA.

If you have any questions or concerns, please contact me at (808) 521-3051. Thank you.

Sincerely,

Bruce Wade
Project Manager

CC: County of Hawaii Department of Environmental Management

LINDA LINGLE
GOVERNOR OF HAWAII

GENEVIEVE K. Y. SALMONSON
DIRECTOR OF OEQC

STATE OF HAWAI'I
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
DEPARTMENT OF HEALTH

LEIOPAPA A KAMEHAMEHA
235 SOUTH BERETANIA STREET, SUITE 702
HONOLULU, HAWAI'I 96813

TELEPHONE (808) 586-4185

In reply, please refer to:
File:

July 22, 2005

Ms. Dora Beck, P.E.
Department of Environmental Management
County of Hawai'i
25 Aupuni Street
Hilo, HI 96720

Mr. Paul Inouye, P.E.
M & E Pacific, Inc.
841 Bishop Street, Suite 1900
Honolulu, Hawai'i 96813

Dear Ms. Beck and Mr. Inouye:

The Office of Environmental Quality Control has reviewed your draft environmental assessment for the Komohana Heights Large Capacity Cesspool Replacement, Tax Map Key No. 3rd 2-3-42, 43 and 48, situated at Hilo, in the judicial district of South Hilo, and offers the following comments for your consideration and response.

1. ***Terms of the Consent Agreement with Region IX of the U.S. Environmental Protection Agency***: In Section 2.1, the basis for the proposed project is an agreement on consent with Region IX of the U.S. Environmental Protection Agency, pursuant to the April 5, 2005, ban on large capacity cesspools. Please include a copy of the agreement in the environmental assessment.
2. ***Clarification on the the Nature and Extent of the Project***: Despite the provision of structural details in Section 2.1 for the proposed action, the ultimate fate of the wastewater is not disclosed until Section 3.3.2 where it states: "Instead of collecting sewage in large capacity cesspoll injection wells, new gravity sewer lines will convey sewage to existing sewer lines and eventually flow to the Hilo Wastewater Treament Plant." Please include the cited sentence in Section 2.1 for clarifying for the reader of the document, the nature and extent of the project from wastewater collection to its ultimate treatment and disposal.

Thank you for the opportunity to comment. If there are any questions, please call Mr. Leslie Segundo, Environmental Health Specialist, at (808) 586-4185.

Sincerely,

GENEVIEVE SALMONSON
Director

METCALF & EDDY | AECOM

M&E Pacific, Inc.
841 Bishop Street, Suite 1900, Honolulu, Hawaii 96813
T 808 521 3051 F 808 524 0249 www.me-aecom.com

12 March 200706

Mr. Harold Yee, Branch Chief
State Of Hawai'I, Department Of Health
Wastewater Branch
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

Subject: **Draft Environmental Assessment (DEA) for Komohana Heights Large Capacity Cesspool Replacement Project, Hilo, Hawai'i Island, TMK (3) 2-3-042, 043, 048 & 050.**

Dear Mr. Yee,

I would like to thank you for taking time to review and comment on the DEA, for the above referenced project.

We are pleased to have your support in our effort to eliminate the large capacity cesspools in the project area per EPA regulations.

We submitted construction plans for review and comment to your office on July 1, 2005. These plans were signed by your office in October 2005.

If you have any questions or concerns, please contact me at (808) 521-3051. Thank you.

Sincerely,

Bruce Wade
Project Manager

CC: County of Hawaii Department of Environmental Management

M&E Pacific, Inc

12 March 2007

Ms. June F. Harrigan-Lum, Manager
State Of Hawai'i, Department Of Health
Environmental Planning Office
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

Subject: **Draft Environmental Assessment (DEA) for Komohana Heights Large Capacity Cesspool Replacement Project, Hilo, Hawai'i Island, TMK (3) 2-3-042, 043, 048 & 050.**

Dear Ms. Harrigan-Lum,

I would like to thank you for taking time to review and comment on the DEA, for the above referenced project.

Your website was reviewed for general comments in regards to the Environmental Assessment. All general comments have been addressed by the subject EA.

Comments from the Wastewater Branch were addressed and a copy of the response letter is attached for your files.

If you have any questions or concerns please contact me at (808) 521-3051. Thank you.

Sincerely,

Bruce Wade
Project Manager

CC: County of Hawaii Department of Environmental Management

36802813. File 502

FILE COPY

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-05-058

July 18, 2005

RECEIVED
JUL 20 2005
M & E PACIFIC, INC.

Mr. Paul Inouye, P.E.
M & E Pacific, Inc.
Davies Pacific Center
841 Bishop Street, Suite 1900
Honolulu, Hawaii 96813

Dear Mr. Inouye:

SUBJECT: **Draft Environmental Assessment for Komohana Heights Large Capacity Cesspool Replacement, Hilo, Big Island, Hawaii**
TMK: (3) 2-3: 042, 043, and 050

Thank you for allowing us to review and comment on the subject document. Please find the enclosed comments from our Waste Water Branch. Also, please refer to our website for the Standard Comments (http:// www.state.hi.us/health/environmental/env-planning/landuse/landuse.html). If there are any questions about these standard comments please contact Jiacai Liu with the Environmental Planning Office at 586-4346.

Sincerely,

June F Harrigan-Lum

JUNE F. HARRIGAN-LUM, MANAGER
Environmental Planning Office

Enclosure

c: EPO
WWB

6. Laboratory Work: Laboratory analyses of non-burial related finds, if any, will include standard artifact and midden recording as follows: Artifacts will be documented as to provenance, weight, length, width, type of material and presumed function. Midden will be sorted down to species, when possible, then tabulated by provenance and presented in table form. Radiocarbon analysis will be conducted if sufficient quantities of datable material are available from the field samples.

7. Burial Treatment: If human remains are encountered SHPD, the County of Hawaii and the Hawaii Island Burial Council will decide the appropriate treatment measures. If removal is deemed appropriate, the remains will be stored temporarily at the SHPD Hawaii office until reburial mitigation is established.

8. Archiving of any Finds: All burial materials will be given to SHPD for storage. Materials not associated with burials will be temporarily stored at the contracted archaeologist's facilities until an appropriate curation facility is selected in consultation with the County of Hawaii and the SHPD.

9. Report: Should any cultural deposits of any kind be found a report shall be prepared by the archaeologist. One of the primary objectives of the report will be to present a stratigraphic overview of the project area which will allow for predictive assessments of adjacent properties which may be subject to future development. The report will contain a section on stratigraphy, description of archaeological findings including burials, monitoring methods, results of laboratory investigations and recommendations for future work in the area. A draft report will be submitted within two months after the completion of construction activity.

ARCHAEOLOGICAL MONITORING PLAN

The following nine provisions are recommended for archaeological monitoring of the Komohana Large Capacity Cesspool Replacement project.

1. Extent of Archaeological Monitoring: Due to the presence of previously disturbed soils in the project vicinity and the minimal nature of the project, geotechnical testing (i.e., borings) is not warranted. All ground disturbance associated with subsurface demolition and excavation will be monitored by an on-call qualified archaeologist.

2. Potential Location of Finds: Intact burials and cultural methods may be present within soil matrices which have not undergone modern disturbance due to infrastructure improvements. Disturbed partial burials may be present within soils that have been previously reworked by construction activities.

3. Treatment of Finds:

    1. If burials are found, work will be stopped immediately in that area. The on-call archaeologist will notify the State Historic Preservation Division (SHPD) Hawaii archeologist and the SHPD Burial Program staff immediately. No remains will be removed without a SHPD determination. Burial finds will be treated according to HRS6E Burial law and Administrative Rules Chapter 13-300. Once likely ethnicity is established, appropriate treatment may move forward.

    2. If deposits are found, the on-call and SHPD Hawaii archaeologist must be contacted immediately in order to determine the significance of finds ands o that mitigation needs may be agreed upon. If intact cultural layers, charcoal, artifacts, midden deposits or any disturbed objects are encountered, then select sorted samples of charcoal and bulk samples of midden material will be collected and standard documentation conducted (i.e., scale maps, photographs, detailed descriptions and interpretation). Subsurface features, if found, will be documented by stratigraphic profiles and photographs with collection fo appropriate samples, especially charcoal for subsequent dating analysis. The standard stratigraphic sequence will be documented for the trenching where the open trenches may be easily observed. Where cultural layers are present, stratigraphic profiles the entire length of exposed cultural layers shall be made.

4. Archaeologist's Role and Coordination Meeting: The on-call archaeologist will have the authority to stop work immediately in the area of any findings so that documentary work may be conducted and appropriate treatment may be determined. Before work commences on the project the on-call archaeologist shall contact the County of Hawaii Department of Environmental Management Technical Services and keep them apprised of progress and any significant finds. Before work commences on the project, the on-call archaeologist shall emphasize that all historic finds, including objects such as bottles, are the property of the landowner and may not be taken or otherwise disposed of without written consent of the landowner and the State Historic Preservation Division.

5. Anticipated Finds: No finds are anticipated within the project area, however traditional agricultural and burial features are reported to lie approximately one-half mile upslope. There is the possibility that subsurface excavations could expose additional remains. These could be traditional Hawaiian interments, modern period coffin interments or agricultural features. In addition, other traditional or historic period cultural deposits may be present.

M&E Pacific, Inc

12 March 2007

Mr. Clyde W. Namu'o
State Of Hawai'i
Office Of Hawaiian Affairs
711 Kapi'Olani Blvd, Suite 500
Honolulu, Hawai'i 96813

Subject: **Draft Environmental Assessment (DEA) for Komohana Heights Large Capacity Cesspool Replacement Project, Hilo, Hawai'i Island, TMK (3) 2-3-042, 043, 048 & 050.**

Dear Mr. Namu'o,

I would like to thank you for taking time to review and comment on the DEA, for the above referenced project.

A. A Cultural Impact Statement will be included in the final EA, as required by Act 50, Session Laws of 2000 (amending Section 343-2, HRS). Community consultation was conducted for this project; see Section 3.3.1, *Cultural Resources of the EA*, for community consultation summary.

B. An Archeological Monitoring Plan will be prepared and included with the Final Construction Plans For this project. Attached to this letter, please find an example Summary of an Archeological Monitoring Plan.

C. Grubbing will not occur on this project. Vegetation removed by trenching on private property will be replanted to match existing conditions.

D. Plans and Specifications require the temporary cessation of work and consultation with SHPD should historic properties, iwi, or cultural/traditional deposits be uncovered during the course of the project. Refer to Section 3.3.1, *Cultural Resources of the EA*, for a discussion of these requirements. Final Construction Plans and Specifications also require the stoppage of work should historic properties, iwi, or cultural/traditional deposits be unearthed.

If you have any questions or concerns please contact me at (808) 521-3051. Thank you.

Sincerely,

Bruce Wade
Project Manager

attach

CC: County of Hawaii Department of Environmental Management

OHA further requests your assurances that if the project goes forward, should iwi or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse Yorck at (808) 594-0239 or jessey@oha.org.

'O wau iho nō,

Clyde W. Nāmu'o
Administrator

PHONE (808) 594-1888

FAX (808) 594-1865

File 2027 502

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

HRD05/1907

July 5, 2005

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

RE: Environmental Assessment for the Komohana Heights Large Capacity Cesspool Replacement Project, Hilo, Hawai'i Island, TMK: (3)-2-3-042, 043, 048 & 050.

Dear Mr. Inouye,

The Office of Hawaiian Affairs (OHA) is in receipt of your June 14, 2005 request for comment on the above listed proposed project, TMK: (3)-2-3-042, 043, 048 & 050. OHA offers the following comments:

A Cultural Impact Statement (CIS), as required by Act 50, Session Laws of 2000 (amending Section 343-2, HRS) should be prepared for the Environmental Assessment. The Draft Environmental Assessment contains a brief summary of previous archaeological studies in the area, one of which indicates the presence of human burials and agricultural features in the vicinity of the subdivision. Community consultation is warranted for the proposed project and should be incorporated into the Environmental Assessment.

Although the proposed project area, located on neighborhood roads and various portions of private property, is not suited for an Archaeological Inventory Survey, some form of archaeological study is warranted for this project. The most reasonable alternative is to have an Archaeological Monitoring Plan drafted in support of this project. The plan would include recommendations for "on-site" and "on-call" monitoring and can properly mitigate potential affects to historic properties within the bounds of proposed construction.

OHA also recommends that if any grubbing occurs during the course of the project, native plants will be used in re-vegetating the landscape. This will help to reintroduce native flora to the immediate area and promote a native ecosystem.

M&E Pacific, Inc.

12 March 2007

Mr. Harold Yee, Branch Chief
State Of Hawai'I, Department Of Health
Wastewater Branch
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

Subject: **Draft Environmental Assessment (DEA) for Komohana Heights Large Capacity Cesspool Replacement Project, Hilo, Hawai'i Island, TMK (3) 2-3-042, 043, 048 & 050.**

Dear Mr. Yee,

I would like to thank you for taking time to review and comment on the DEA, for the above referenced project.

We are pleased to have your support in our effort to eliminate the large capacity cesspools in the project area per EPA regulations.

We submitted construction plans for review and comment to your office on July 1, 2005. These plans were signed by your office in October 2005.

If you have any questions or concerns, please contact me at (808) 521-3051. Thank you.

Sincerely,

Bruce Wade
Project Manager

CC: County of Hawaii Department of Environmental Management

JUL 15 2005

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME LEINAALA 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:
File:

July 11, 2005

H2 3 042 etc
D:W13 wb050569
Ref # EPO 05-058

To: Jiacai Liu, Staff, Environmental Planning Office
email: jliu@eha.health.state.hi.us

From: Harold Yee, Branch Chief, Wastewater Branch

Subject: **Draft Environmental Assessment for Komohana Heights Large Capacity Cesspool Replacement, Hilo, Big Island**
TMK: (3) 2-3-042, 043, 048 and 050

We have reviewed the subject draft assessment in which the County of Hawaii proposes to install new 8-inch gravity collector sewers, 6-inch laterals, and manholes in the Komohana Hts. Subdivision (KHS) and Sunrise Ridge Subdivision (SRS) in order to abandon the large capacity cesspools in KHS in accordance with the EPA's consent agreement. An existing pump station and a 4-inch force main will also be abandoned.

We are pleased that the County of Hawaii is taking positive steps to eliminate the large capacity cesspools in the project area as well as providing sewer service to other areas of these subdivisions. Therefore, we have no objections to the project.

All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." 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 586-4294.

LNKM:erm

M&E Pacific Inc.

12 March 2007

Mr. Milton D. Pavao, Manager
Department Of Water Supply
345 Kekuanao'a Street, Suite 20
Hilo, Hawai'i 96720

Dear Mr. Pavao

Subject: **Draft Environmental Assesment (DEA) for Komohana Heights Large Capacity Cesspool Replacement Project, Hilo, Hawai'i Island, TMK (3) 2-3-042, 043, 048 & 050.**

I would like to thank you for taking time to review and comment on the DEA, for the above referenced project.

The Department Of Water Supply is included in the construction plan review and approval process for this project. The plans will require your signature prior to construction.

If you have any questions or concerns please contact me at (808) 521-3051. Thank you.

Sincerely,

Bruce Wade
Project Manager

CC: County of Hawaii Department of Environmental Management

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAÓ'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

June 21, 2005

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

KOMOHANA HEIGHTS LARGE CAPACITYY CESSPOOL REPLACEMENT
DRAFT ENVIRONMENTAL ASSESSMENT

We ask to be included in the construction plan review and approval process of the subject project.

If you have any questions, please contact Mr. Keith Okamoto of our Engineering Division at 961-8070, extension 260.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

KKO:sco

METCALF & EDDY

12 March 2007

Mr. Christopher J. Yuen, Director
County Of Hawai'I, Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720-3043

Subject: **Draft Environmental Assessment (DEA) for Komohana Heights Large Capacity Cesspool Replacement Project, Hilo, Hawai'i Island, TMK (3) 2-3-042, 043, 048 & 050.**

Dear Mr. Yuen,

I would like to thank you for taking time to review and comment on the DEA, for the above referenced project.

Your comments are appreciated and have been noted regarding zoning, general plan designation, TMK's and Special Management areas.

In regards to your review comments the following actions have been taken.

1. Pages 1-1 and 3-21 TMK: 2-3-50:13 will be revised to indicate County Zoning is Residential, Single Family, 10,000 sf (RS-10)

2. Page 3-19 will be revised to indicate "Medium Density Urban"

3. Page 3-20, TMK: 2-3-42:33 will be added to the existing table.

4. A line for Special Management Area was added to Section 1.1, Project Information Summary.

If you have any questions or concerns, please contact me at (808) 521-3051. Thank you.

Sincerely,

Bruce Wade
Project Manager

CC: County of Hawaii Department of Environmental Management

4. The project is not located within the County's Special Management Area.

If you have questions, please feel free to contact Esther Imamura or Larry Brown of this office at 961-8288.

Sincerely,

CHRISTOPHER J. YUEN
Planning Department

ETI: je

P:\WPWIN60\ETI\EAdraftPre-consul\Inouye Komohana-Sunrise Ridge Cesspool Repl 2-3-42,43,48,50.doc

cc: Planning Department – Kona

Harry Kim
Mayor

FILE COPY 36802813 FILE 502

Christopher J. Yuen
Director

Roy R. Takemoto
Deputy Director

County of Hawaii

PLANNING DEPARTMENT

101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720-3043
(808) 961-8288 • Fax (808) 961-8742

June 24, 2005

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

Dear Mr. Inouye:

Subject: Draft Environmental Assessment
Applicant: County of Hawaii, Department of Environmental Management
Project: Komohana Heights Large Capacity Cesspool Replacement
TMK: 2-3-42, 43, 48 and 50, Kukuau 2nd, South Hilo, Hawaii

This is in response to your request for comments on the above-referenced project.

Because of the U.S. Environmental Protection Agency (EPA) ban on large capacity cesspools, the County proposed to improve the existing sewerage systems in the Komohana Heights and Sunrise Ridge Subdivisions. The proposed action involves the extension of gravity sewer lines, the abandonment and demolition of large capacity cesspools, and the abandonment of a sewage pump station.

Please note the following:

1. Page 1-1 and Page 3-21: County zoning for TMK: 2-3-50:13 is Single-Family Residential (RS-10).

2. Page 3-19: The General Plan designation is Medium Density Urban.

3. Page 3-20: TMK: 2-3-42:**33** was not included in the table.

APPENDIX B

DRAFT ENVIRONMENTAL COMMENT AND RESPONSE LETTERS

Photo 11 – End of Inia Lane Looking Towards Kukuau Street

Photo 12 – End of Inia Lane Looking West

APPENDICES

LIST OF APPENDICES

APPENDIX A

NHPA SECTION 106 INVESTIGATORY LETTERS AND RESPONSES