

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAII 96720

TELEPHONE (808) 961-8050 • FAX (808) 961-8657

October 19, 2004

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

RECEIVED  
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OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

**FINAL ENVIRONMENTAL ASSESSMENT (FEA)  
FINDING OF NO SIGNIFICANT IMPACT (FONSI)  
KUAKINI HIGHWAY 16-INCH WATERLINE IMPROVEMENTS  
TAX MAP KEY 3<sup>RD</sup> DIVISION 7-5-008:009, 018, 019, AND 020  
NORTH KONA DISTRICT, ISLAND OF HAWAII**

The County of Hawai'i, Department of Water Supply (DWS), has reviewed and responded to comments received during the 30-day public comment period which began on July 8, 2004. The DWS has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the November 8, 2004, OEQC Environmental Notice.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the Final Environmental Assessment for your use.

If there are any questions, please contact Mr. William Atkins of our Water Resources and Planning Branch at (808) 961-8070, extension 254.

Sincerely yours,

Milton D. Pavao, P.E.  
Manager

WA:dms

Encs.

*... Water brings progress...*

2004-11-08 FONSI

NOV 8 2004

**KUAKINI HWY 16"  
WATERLINE IMPROVEMENTS FILE COPY**

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**FINAL ENVIRONMENTAL ASSESSMENT**

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**Finding of No Significant Impact (FONSI)**

**KUAKINI HIGHWAY  
16-INCH WATERLINE IMPROVEMENTS  
DWS JOB No. 2003-821**

**District of North Kona  
Island of Hawaii  
State of Hawaii**

**October 2004**

*Prepared For:*

**DEPARTMENT OF WATER SUPPLY  
County of Hawaii  
345 Kekuanaoa Street, Suite 20  
Hilo, Hawaii 96720**

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*Prepared By:*

**Inaba Engineering, Inc.  
273 Waianuenue Avenue • Hilo, Hawaii 96720  
Ph. 808.961.3727 • Fx. 808.935.8033**

***FINAL ENVIRONMENTAL ASSESSMENT***

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## SUMMARY SHEET

**Project:** KUAKINI HIGHWAY  
16-INCH WATERLINE IMPROVEMENTS

**Applicant:** Department of Water Supply  
County of Hawaii  
345 Kekuaanoa St., Suite 20  
Hilo, Hawaii 96720

**Land Owner:** Water Board of the County of Hawaii  
County of Hawaii  
345 Kekuaanoa St., Suite 20  
Hilo, Hawaii 96720

**Proposing Agency:** Department of Water Supply  
County of Hawaii

**Project Location:** North Kona District  
County of Hawaii, Island of Hawaii

**Tax Map Key:** 3<sup>rd</sup> Div. 7-5-8, 9, 18, 19, 20

**Land Area:** Water Line Alignment Approximately 9,000 L.F.  
Within Kuakini Highway Road Right-of-Way

**Existing Use:** Roadway, Utility Corridor

**State Land Use Designation:** Urban & Agricultural

**County General Plan:** Varies Along Route.

**Existing Zoning:** Varies Along Route.

**SMA:** No SMA permit required.

**Contact Person:** Mr. William Atkins  
Department of Water Supply  
County of Hawaii  
345 Kekuaanoa St., Suite 20  
Hilo, Hawaii 96720  
Phone: 808.961.8070 Ext. 254  
Fax:808.961.8080

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- Figure 3. Typical Pipeline Location in Roadway Section
- Figure 4. Flood Rate Insurance Map (FIRM)
- Figure 5. Soil Survey Map

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- APPENDIX B Photographs of Site
- APPENDIX C Additional Public Notification  
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## **PART 1**

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### **DESCRIPTION OF PROPOSED ACTION**

#### **A. Project Location**

The proposed activity is located in Kailua-Kona, within the Kuakini Highway right-of-way which traverses the lands of Honualua, Hienaloli, Auhaukeac, Puaa, Waiaha, Kahului, and Puapuaa, North Kona District, Island of Hawaii (See Figure 1, 2). The new 16-inch waterline will start at the Kuakini Hwy/Hualalai Road intersection and proceed south along Kuakini Highway to the Puapuaa 2.0 MG reservoir effluent pipeline ending just past Nakukui Drive .

#### **B. Project Description, Purpose and Objectives of Project**

The County of Hawaii Department of Water Supply (DWS) plans to install a new 16-inch diameter distribution waterline for current and future customers along Kuakini Highway and the Kailua area. Currently within Kuakini Highway right-of-way there is a 20" transmission line on the mauka side and an 8" distribution line on the makai side. The new 16" line is proposed to run along side the existing 8" line and will interconnect at several locations along the alignment to support the existing 8" line. The 20" transmission line supplies the Palani 0.30 MG 325 tank on Palani Road. The recently completed 2.0 MG Puapuaa reservoir will feed the new 16" distribution line. The Puapuaa tank and the Palani tank services the Kailua area. With the new 16" line, the larger Puapuaa tank will be able to service higher demands and balance flows from the two tanks, thus relieving stress on the smaller Palani tank.

At its northern terminus, the new 16" waterline will tie in to an existing 12" line at the intersection of Hualalai Road and Kuakini Highway. The existing 12" line services Alii Drive to the north and south. The 16" line will proceed south along Kuakini Highway and tie in to the Puapuaa effluent line just south of Nakukui Drive, a distance of approximately 10,000 lineal feet. Within this alignment, a private developer for the Kona Hawaiian Village Time Share Project will be installing approximately 1,000 lineal feet of 16" waterline which will be constructed before this project. The net length of 16" pipeline installed related to this project therefore will

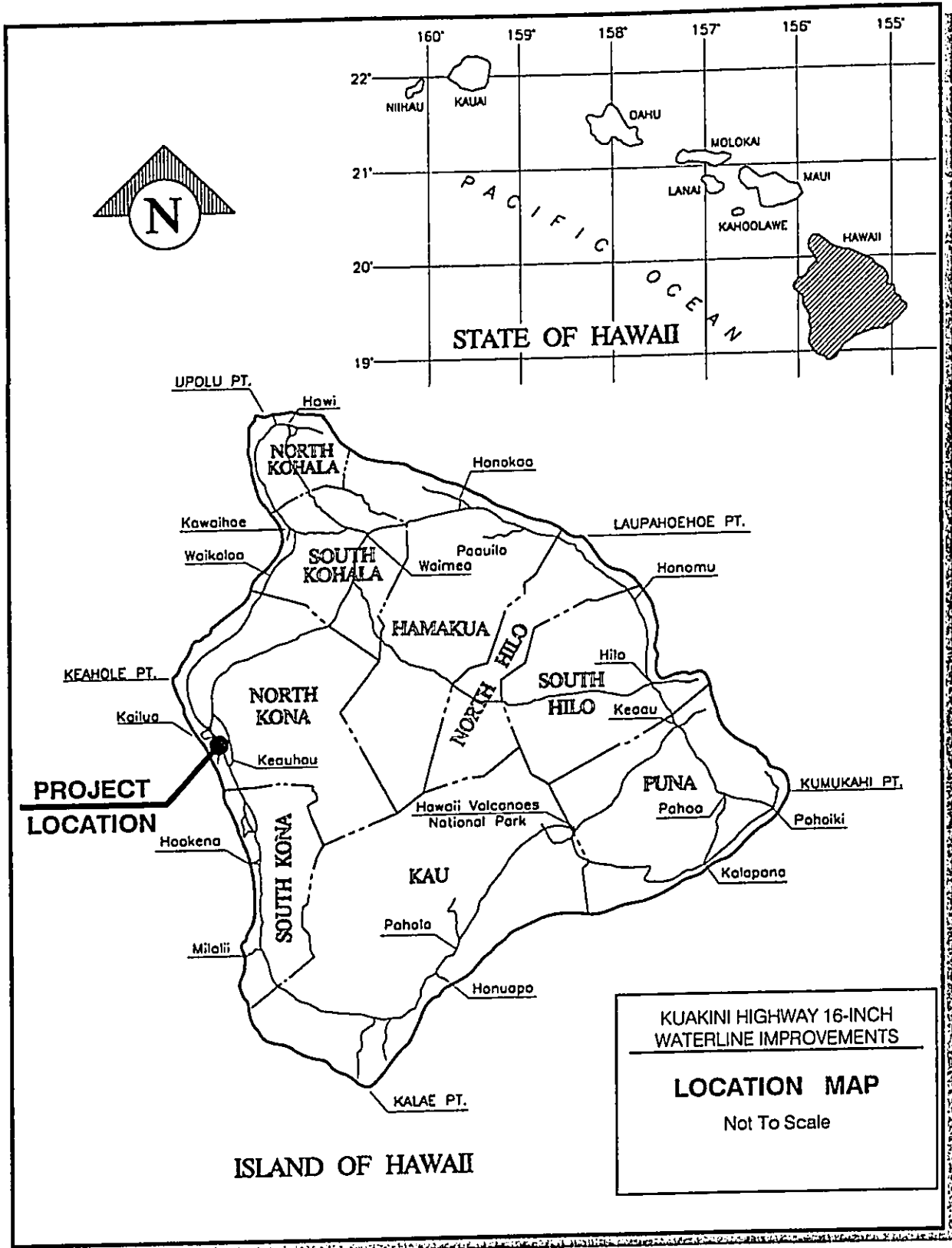


Figure 1 - Island Location Map

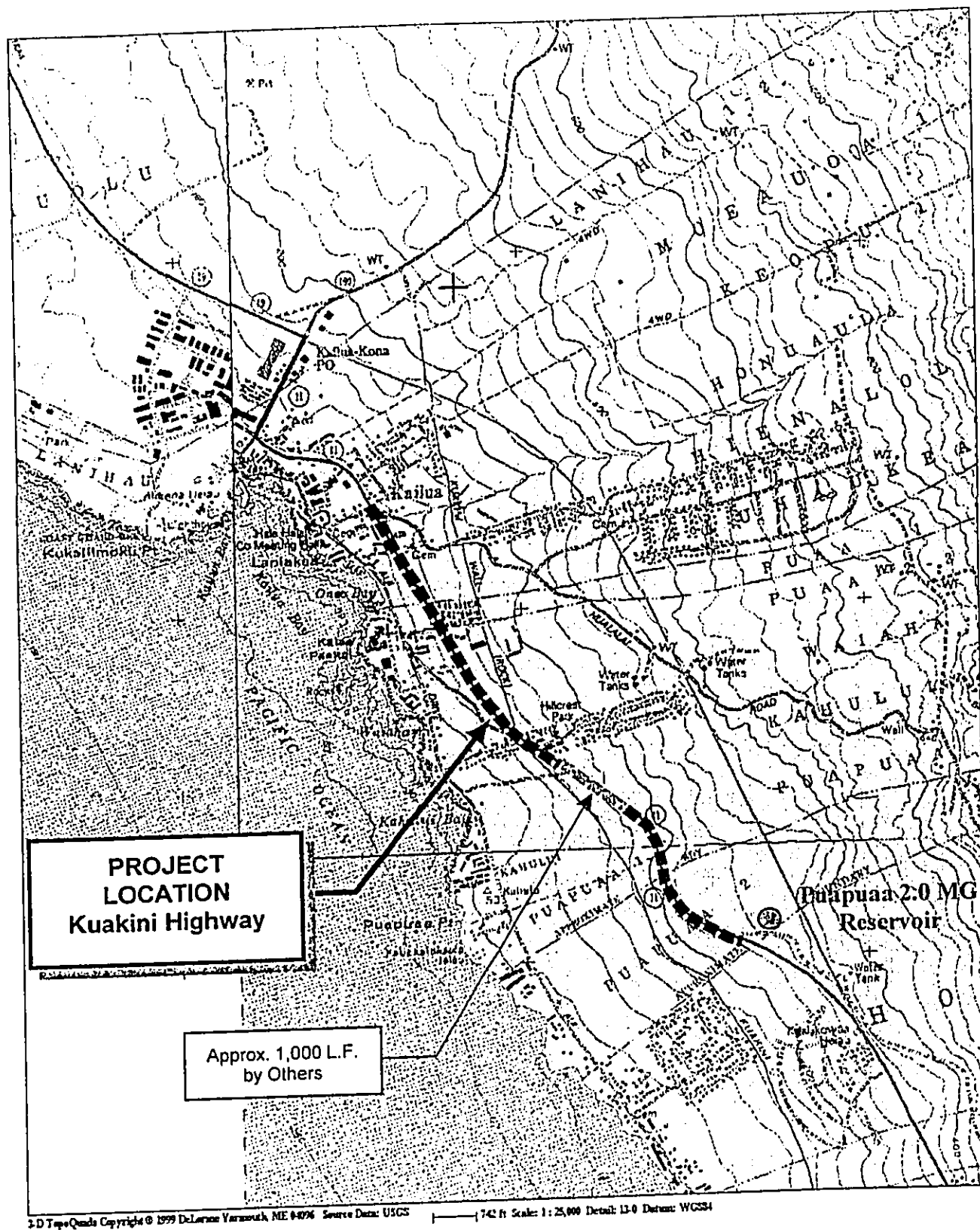


Figure 2 - USGS Vicinity Map



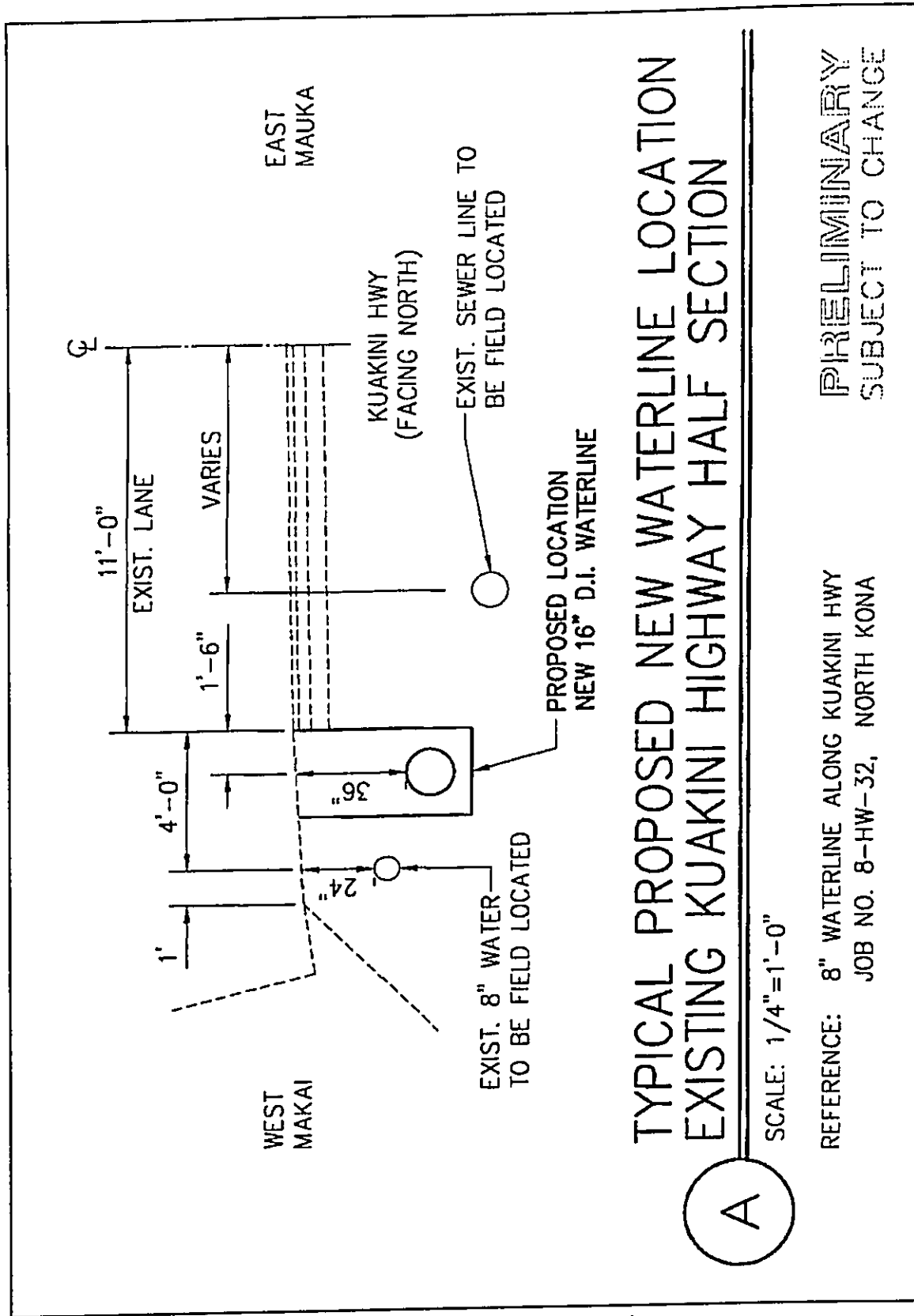


Figure 3 - Typical Waterline Location  
Kuakini Highway Road Section

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

be approximately 9,000 lineal feet and will tie in to either end of the privately installed waterline.

The purpose of this project is to provide additional distribution capacity for the North Kona water system from the lands of Puapuaa and north to Kailua in the service zone below elevation 225'. This zone represents a large portion of the urban core of the Kailua Kona area which includes beach resorts, commercial, light industrial areas, condominiums and residential areas. Recent increases in population growth and development has fueled demand for additional water service. With the completion of the Puapuaa tank storage capacity for the system has been increased and the construction of this new 16-inch distribution line will enable the DWS to provide adequate water delivery.

The objectives of this project are to address the distribution limitations for this system. Benefits gained will be the ability of the DWS to increase distribution capacity to meet demands for the system service area.

#### **C. Ownership**

The 16" waterline and appurtenances will be owned by the Department of Water Supply, County of Hawaii. The waterline will be installed in the road rights of ways which are owned by the County of Hawaii.

#### **D. Project Schedule and Cost**

The proposed project schedule which is subject to change is as follows:

##### **Proposed Project Schedule:**

Public Process:	May 2004 - October 2004
Field Survey:	June- August 2004
Engineering Design and Review:	August 2004 - December 2004
Bid Process	January 2005
Award & Execution of Contract:	February 2005 - March 2005
Construction:	April 2005 - October 2005

The estimated preliminary construction cost of the project is approximately Two Million Dollars (\$ 2,000,000.00). Funding for this project will come from the Department of Water Supply Capital Improvement Project (CIP) monies.

**E. Consultation with Agencies, Organizations and Individuals**

The following have been contacted during the preparation of this environmental assessment and during the review period.

County Department of Water Supply	County Department of Public Works
County Planning Department	County of Hawaii Police Department
State DLNR Historic Preservation Division	United States Fish & Wildlife Service
Curtis Tyler, III, Councilman	Hawaii Leeward Planning Conference
Kona Traffic Safety Committee	Kona-Kohala Chamber of Commerce
Kona Outdoor Circle	Kailua-Kona Public Library
West Hawaii Today Newspaper	
Peter Hendricks, Deputy Managing Director, Kona Mayors Office	

A public informational meeting for the Kuakini Highway 16-Inch Waterline Improvements was advertised for in the local newspapers and held on August 31, 2004 at 6:00 p.m. at the Kealahou Intermediate School Cafeteria. See Appendix C for information and handouts given at the meeting.

This draft environmental assessment was prepared using information gathered from previously published documents (See Reference Listing) and formal and informal contacts with the agencies, committees, organizations and individuals listed above.

The Department of Water Supply also has plans to maintain updates on the status of this project on its internet website located at <http://www.hawaiidws.org>.

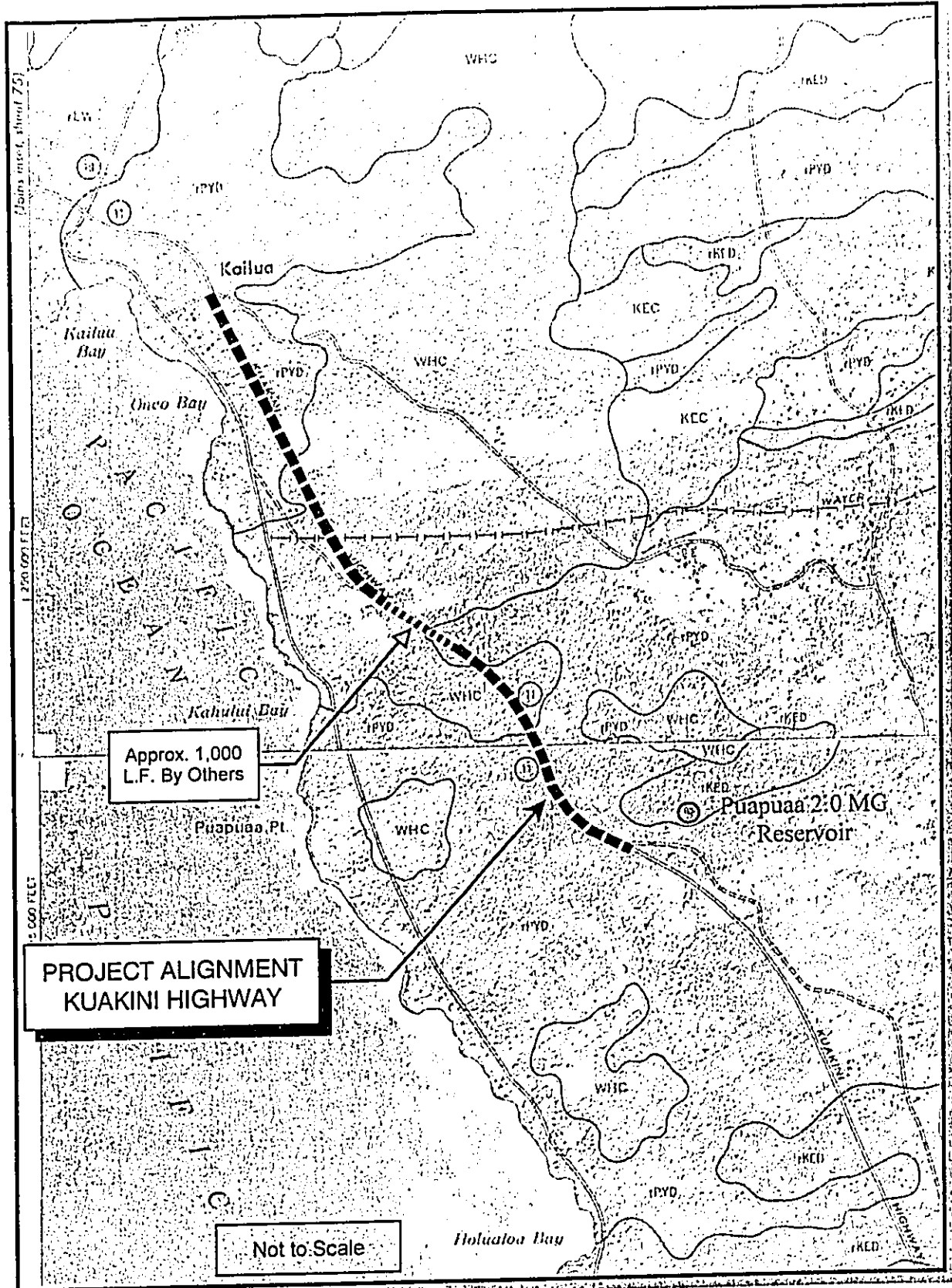


Figure 4 - Portion Soil Survey Map  
 Sheet 85 & 93, Soil Survey of Island of Hawaii

## PART 2

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### ENVIRONMENTAL SETTING

#### Physical Environment Characteristics

##### A. Soils

Soils in the area along the alignment are classified as *rPYD*, *WHC* & *rKED* per the "Soil Survey of Island of Hawaii, State of Hawaii," by the Soil Conservation Service. See Figure 4.

Symbol *rPYD* represents "Punaluu extremely rocky peat, 6 to 20 percent slopes" soil series, with erosion factor  $K=0.02$ , and falls in hydrologic group "D." The Punaluu series consists of well-drained thin organic soils over pahoehoe lava bedrock. These soils are gently sloping to moderately steep. They are generally at an elevation ranging from near sea level to 1,000 feet and may receive 20" to 50" of rainfall annually. These areas are characterized by rock outcrops occupying 40 to 50 percent of the surface of this soil. This soil is low on the leeward side of Mauna Loa. The peat is rapidly permeable whereas the pahoehoe is very slowly permeable. Runoff is slow and the erosion hazard is slight. These soils are generally used for pasture. The natural vegetation might consist of koa haole, Christmas berry, guinea grass, natal redtop, and sand bur.

Symbol *WHC* represents "Waiaha extremely stony silt loam, 6 to 12 percent slopes," soil series, with erosion factor  $K=0.10$ , and falls in hydrologic group "D". The Waiaha Series consists of shallow, well drained silt loams that formed in volcanic ash. These soils are nearly level to moderately steep and most areas are extremely stony. They are on uplands at an elevation ranging from near sea level to 1,000 feet. They receive from 20 to 40 inches of rainfall annually, most of which falls during the summer months. The natural vegetation consists of kiawe, koa haole, natal redtop, lantana, guinea grass, and bermuda grass. This soil is low on the leeward side of Hualalai and Mauna Loa. Permeability is moderately rapid, runoff is slow, and the erosion hazard is slight. This soil is generally used for pasture and orchards.

Symbol *rKED* represents "Kaimu extremely stony peat, 6 to 20 percent slopes," soil series, with erosion factor  $K=0.02$ , and falls in hydrologic group "A.". The Kaimu series consists of well-drained thin organic soils over Aa lava. These soils are gently sloping to moderately steep. They are generally at an elevation ranging from near sea

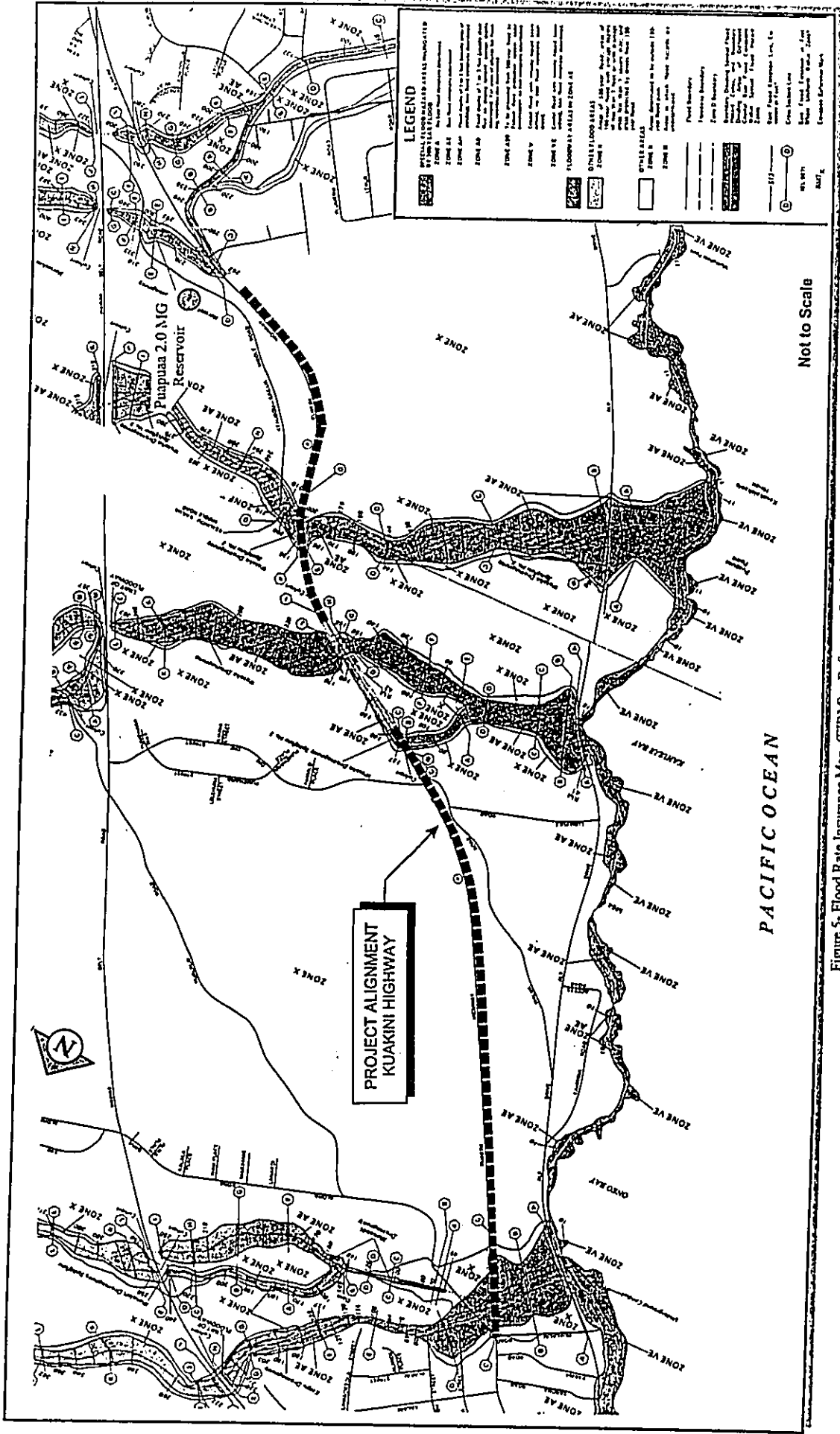


Figure 5- Flood Rate Insurance Map, (FIRM); Reference: Panel 0713D & 0926D

Draft Engineering Assessment  
 Kuakini Highway 16-Inch Waterline Improvements

level to 1,000 feet and receive 40 to 60" of rainfall annually. Permeability is rapid, runoff is slow, and the erosion hazard is slight. This soil is not suited for cultivation. Small areas are used for pasture. The natural vegetation might consist of Christmas berry, guava, guinea grass and lantana.

**B. General Climate**

Average annual rainfall ranges from 20 to 50 inches and with temperatures ranging in the 60's to the 80's Fahrenheit. Winds are light and variable generally from the south west. The ground elevation at the tank site is about 325 feet above sea level.

**C. Flood Hazards**

Federal Insurance Rate Maps (FIRM), indicates the project alignment to cross three drainage ways. Kuakini Highway traverses the Keopu/Hienaloli, Waiaha and Waiaha Split flow No.2 drainage ways. See Figure 5.

Since the pipeline will be buried within the roadway prism, installation of the proposed improvements will not present a flood hazard to surrounding areas, nor will it be susceptible to flooding damage from the surrounding area. The pipeline will not interfere with any culverts or crossings and thus will not alter or impede flood flows nor is it anticipated to be affected by flood flows.

**D. Volcanic and Seismic Hazard**

The Kuakini Highway alignment is located on the lower southern slopes of Hualalai Mountain which is one of five major volcanoes forming the island of Hawaii. The slopes of Hualalai are located in Volcanic Hazard Zone 4. The island of Hawaii is divided into zones according to the degree of hazard from lava flows. Zone 1 is the area of greatest hazard and Zone 9 is of the least hazard.

Per the Uniform Building Code, the entire Island of Hawaii has been classified to be in Seismic Zone 4. Design of buildings and structures must comply with seismic Zone 4 criteria.

**E. Flora and Fauna**

The alignment of the waterline will be under and along existing roadway pavement and connecting to existing waterlines and therefore should have no effect to flora or fauna along the new pipeline. Some sections of the line will be within unpaved areas of the roadway shoulder.

Mongoose, rats, mice, wild cats, and common birds might be expected to traverse the roadway and possibly inhabit unpaved or unimproved areas within the right of way.

Per the United States Fish and Wildlife Service (USFWS), the project site is within an area where the Newell's shearwater (*Puffinus auricularis newelli*), a federally listed threatened species, is known to fly. Newell's shearwaters become confused by bright lights at night and may circle around the lights until they become exhausted and fall to the ground where they may be injured or killed by vehicles or predators. Flyover by the shearwaters occurs during the nesting season which runs from mid-April through November. USFWS indicates that if during the nesting season work is limited to daylight hours without the use of bright lights for night work, the project will likely avoid detrimental effects to the shearwaters.

**F. Historic Sites**

SHPD indicates that a burial site is situated in the County right-of-way within TMK: (3) 7-5-009. There is a burial monument in the sidewalk near the south entrance/exit of the Coconut Groove Marketplace parking area. SHPD requests that DWS provide an opportunity to review construction plans in order to evaluate what protective measures, if warranted, are appropriate.

In addition, SHPD is concerned that excavations could possibly puncture existing lava tubes in the area of the burial. If this should happen, the lava tubes need to be examined by an archeologist and recommendations be made for mitigative measures if warranted.

**G. Existing Land Use**

Existing land use abutting the Kuakini Highway right-of-way varies. Typical uses



include resort, commercial, residential, agricultural and vacant lands. Some of the vacant lands are used as pasture and others are in construction as a time share and/or residential developments.

The project alignment traverses several different County of Hawaii zoning districts. Zoning along the alignment include V-7.5, CV-7.5, OPEN, V-1.25, RM-1, RM-2, RM-1.25, V-1, RS-15, RM-4, CV-10, RD-3.75, A-1a, RM-4, RM-7, and U.

The County of Hawaii General Plan land use allocation map designates the following along the alignment: *Resort, Medium Density, Flood Plain, Alternate Urban Expansion, and Low Density.*

State Land Use District classification system designates the area as *Urban and Agricultural.*

#### **H. Cultural Resources**

In terms of cultural resources, this project is not expected to significantly affect traditional native Hawaiian cultural practices or other traditional cultural practices that might be occurring in the surrounding areas.

This project would not restrict access to surrounding areas which may be used for cultural practices. This project will also not restrict access to makai shoreline areas or mauka mountain areas which might be used for cultural practices.

#### **I. Scenic Resources**

Since the entire length of pipeline will be buried underground, there will be no effect to scenic resources when constructed.

## PART 3

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### SUMMARY POTENTIAL IMPACTS AND MITIGATION MEASURES

#### A. Short Term Construction Impacts

Construction activity related to the proposed waterline and appurtenances will create short term impacts on the surrounding environment such as noise, dust, and traffic impacts. These impacts would occur only during the construction phase of the project and is temporary in nature.

Heavy equipment noise may be mitigated by allowing work only during normal working hours. The contractor shall also be required to maintain his equipment with appropriate mufflers and noise suppressors in accordance with state regulations.

Ambient air quality will be affected by equipment emissions and construction generated dust. Dust can be managed by the Contractor using water sprinkling, limiting exposed areas, and covering the exposed trench areas with trench plates as soon as practicable. Equipment must be properly maintained to assure efficient operation in terms of fuel combustion to assure the cleanest possible exhaust emissions.

To minimize soil erosion, runoff, and sedimentation, the Contractor shall employ necessary measures to insure compliance with the County of Hawaii Grading Ordinance, and the applicable State Department of Health Pollution Control Standards. If construction dewatering is to be done, the contractor shall obtain necessary permits for the discharge of construction dewatering. The Contractor shall also be required to implement a Best Management Practices Plan as prescribed by the National Pollution Discharge Elimination System (NPDES) permit as administered by the State Department of Health, if required.

Traffic impacts will be mitigated by instituting a traffic control plan approved by the County of Hawaii Department of Public Works. Construction road work and material deliveries shall be scheduled to minimize the disruption to traffic.

**B. LONG TERM IMPACTS**

No long term major negative impacts are expected as a result of this project. This project will benefit the local community by increasing the dependability of the North Kona water system.

**C. PERMITS AND APPROVALS**

Construction plans will be submitted to the following agencies for review and approval signatures:

- Department of Water Supply
- Department of Public Works
- Planning Department
- State Department of Health

The following is a list of permits that may be required:

- State of Hawaii Dept. Of Health
  - NPDES General Permit Coverage:
  - Hydro Testing Water
  - Community Noise Permit for Construction.
- County Grading Permit

No Land Use Permits are required for the proposed project.  
No Review against the SMA guidelines is required.

## **PART 4**

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### **ALTERNATIVES TO THE PROPOSED ACTION**

#### **A. No Action**

The "No Action" alternative will not allow the objectives of the proposed project to be achieved. This alternative will result in no physical change to the water system and surrounding area and have no impacts. The Department of Water Supply will not be able to provide dependable water service to the public.

There will be no benefits realized by the community.

#### **B. Alternate Action**

No alternate action was considered for this project.

## **PART 5**

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### **RELATIONSHIP TO PLANS AND POLICIES**

#### **A. The General Plan Hawaii County, November 1989:**

Some of the listings under Section 4. Goals, Policies and Standards, Public Utilities, WATER, POLICIES, are as follows:

- Water system improvements and extensions shall promote the County's desired land use development pattern.
- All water systems shall be designed and built to Department of Water Supply standards
- Improve and replace inadequate systems.
- Water system improvements should be first installed in areas which have established needs and characteristics, such as occupied dwellings and other uses, or in areas adjacent to them if there is need for urban expansion, or to further the expansion of the agricultural industry.

- The fire prevention systems shall be coordinated with water distribution systems in order to ensure water supplies for fire protection purposes.

Under STANDARDS, the following:

- Water Systems shall meet the requirements of the Department of Water Supply and the Subdivision Control Code.

And under G. SOUTH KONA, (5) PUBLIC UTILITIES, (a) WATER, Courses of Action, the following:

- Increase the capacity of the booster pump stations as required.
- Improve the system along Alii Drive. Reservoirs to serve this area should be balanced with the Kailua and Keauhou reservoirs.
- Improve the size of the water line and provide an additional reservoir in the Keauhou area.
- Construct new reservoirs as needed.

Under (8) LAND USE, Courses of Action, the following:

(e) SINGLE FAMILY DEVELOPMENT

- Improve and develop roadways, water and sewerage systems, and other basic facilities necessary to encourage development of lands suitable for residential use.

(g) RESORT

- Improve and provide adequate roadways, sewer and water systems, and other basic amenities in all areas where higher density uses are allowed.

Implementation of this project would comply with many objectives of the General Plan Goals, Policies and Standards listed above.

**B. Kona Regional Plan (1982):**

Some of the goals and policies of the Kona Regional Plan for Water Infrastructure, Chapter V, include the following:

- Ensure that adequate, efficient and dependable public utility services will be available to users.
- Maximize efficiency and economy in the provision of utility services.
- Improve and replace inadequate systems.
- The fire prevention distribution system shall be coordinated with water distribution systems in order to ensure water supplied for fire-fighting systems.

Recommendations of the plan included:

- Implement the improvements proposed for Kona by the Water Master Plan, dated December 1980, and
- The location and timing of major water system improvement should be coordinated with other infrastructural improvement and with overall community priorities.

Implementation of this project meets objectives of the Kona Regional Plan Goals, Policies and Standards listed above. Construction of this 16-inch waterline and appurtenances will ensure that adequate, efficient and dependable utility services such as water will be available to users.

**C. Master Plan for Kailua-Kona (April 1994)**

Under Section 3.5 INFRASTRUCTURE, 3.5.2 Recommended Water System Upgrades, the following was noted:

“The required fire flows and the high demand of water usage from the designated resort areas of the proposed Master Plan will dictate that ultimately new water storage facilities be built. .... In the ultimate development phase the water lines that currently serve the resort area will become undersized and new 12-inch lines will be required to maintain demand and fire flows. An additional line will be required to be built parallel to Queen Kaahumanu Highway to complete a looped system for the Master Plan Area”

With the recent completion of the Puapuaa 2.0 MG reservoir recommendations for water storage facilities are being addressed, and now with the proposed construction of the 16-inch waterline along Kuakini Highway, the requirement for larger distribution waterlines will be addressed as well. Therefore, implementation of this project meets the general goals and objectives for infrastructure as outlined in the Master Plan for Kailua-Kona.

## PART 6

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### DETERMINATION

The proposed project is intended to benefit residents, farmers, tourists, agricultural and commercial activities for North Kona and is not expected to significantly impact the surrounding environment. Any impacts will likely be short term and minimal, and generally be related to the construction activity. Therefore, it is determined that the issuance of a Finding of No Significant Impact (FONSI) declaration is appropriate for this project.

## PART 7

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### FINDINGS AND REASONS

In determining the issuance of a Negative Declaration and Finding of No Significant Impact (FONSI), the proposed action was reviewed and found to have no significant impact on the following significance criteria.

- ▶ Involves the loss or destruction of any natural or cultural resource;  
*The proposed project is not anticipated to involve any loss or destruction of archaeological sites or cultural resources. While there is a burial in the vicinity of the right-of-way, determination will be made during the design stage regarding any effects to the burial site. SHPD will assist during the survey and design stage regarding the waterline alignment and possible impacts to the burial site.*
- ▶ Curtails the range of beneficial uses of the environment.  
*This project will not curtail beneficial use of the environment.*
- ▶ Conflict with the State's long-term goals or guidelines and expressed in Chapter 344 HRS.  
*This proposed project is consistent with the Environmental Policies, goals, and guidelines established in Chapter 344 HRS.*
- ▶ Substantially affect the economic or social welfare of the community or state.  
*Short term economic benefits will be realized by construction employment and spending in the area. Long term effects would be to allow normal economic growth to proceed without delay due to substandard water system.*
- ▶ Substantially affects public health.  
*This project will not substantially affect public health. Any probable public health effects would be related to construction activity which is temporary and short term in nature. The contractor will be required to comply with all Department of Health rules and regulations related to his actions.*
- ▶ Involves substantial secondary effects such as population changes or infrastructure demands.  
*The proposed waterline upgrade is intended to provide adequate uninterrupted water flow and fire protection because the existing system distribution is undersized. These improvements are intended to satisfy existing and planned future water usage demands and to accommodate planned economic growth patterns of the area. Thus, this project will not result in substantial secondary effects.*



- ▶ Involves substantial degradation of environmental quality.  
*Once completed, the waterline will not affect environmental quality. Any effects on environmental quality will be short term and related to construction activity and will generally be confined to the improved right of way. The contractor will be required to comply with all State of Hawaii Department of Health environmental and pollution control rules and regulations.*
- ▶ Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment to larger actions.  
*The proposed project does not involve a commitment to larger action. The proposed waterline replacement is intended to upgrade portions of the existing system. The Department of Water Supply is constantly upgrading and expanding the water system as demand requirements dictate. Planning, design and construction of future improvements depends upon DWS capital improvement program priorities and funding availability.*
- ▶ Substantially affects a rare, threatened or endangered species or its habitat.  
*Following the recommendations of the US Fish & Wildlife Service, any effect to the Newell's shearwater, which flies over the project area during nesting season will be mitigated.*
- ▶ Detrimentially affects air or water quality or ambient noise levels.  
*Once completed, the reservoir and waterline will not detrimentially affect air or water quality or ambient noise levels. Any effects to be noted will be short term and related to construction activity. During construction the contractor is required to comply with all state and county regulations related to air and water quality and to mitigate noise levels related to his construction equipment and activity.*
- ▶ Affects an environmentally sensitive area, such as a flood plain, tsunami zone or erosion prone area, geologically hazardous land, estuary, freshwater area, or coastal waters.  
*The improvements will not affect any environmentally sensitive area. The Alignment crosses three flood ways but will not cause any negative effects since the pipeline will be installed within the existing roadway.*
- ▶ Substantially affects scenic vistas and view planes identified in county or state plans or studies.  
*This project will not affect scenic vistas or view planes since it will not be visible once completed.*
- ▶ Requires substantial energy consumption.  
*This project will not require substantial energy consumption.*

## REFERENCES

*Atlas of Hawaii*, Second Edition, 1983, Department of Geography, University of Hawaii

*The General Plan Hawaii County*, November, 1989, County of Hawaii

*Kona Regional Plan*, 1982, Prepared by County of Hawaii, Department of Planning, Hilo, Hawaii.

*Kuakini Highway Improvements Between Palani and Hualalai Roads*, April 1998, Final Environmental Assessment, prepared by U.S. DOT ,FHA, State of Hawaii DOT, & County of Hawaii Department of Public Works.

*Master Plan for Kailua-Kona*, Final, April 1994, Prepared for County of Hawaii Planning Department, Prepared by R.M. Towill Corporation.

*Puapuaa 2.0-M.G. Concrete Reservoir and Supporting Facilities, Final Environmental Assessment (FONSI)*, November 2001, Prepared for Department of Water Supply, Prepared by Inaba Engineering, Inc.

*Soil Survey of Island of Hawaii, State of Hawaii*, December 1973, United States Department of Agriculture Soil Conservation Service, In Cooperation with University of Hawaii Agricultural Experiment Station.

*Staff, Department of Water Supply*, County of Hawaii, Hilo, Hawaii

*Staff, Planning Department*, County of Hawaii, Hilo, Hawaii

*Volcanic and Seismic Hazards on the Island of Hawaii*, U.S. Department of the Interior, U.S. Geological Survey, Christina Heliker.

*APPENDIX A*

Pre-Assessment Comment Letters

Draft EA Comment Letters

Harry Kim  
Mayor



County of Hawaii

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

April 8, 2004

Jason K. Inaba, P.E.  
Inaba Engineering, Inc.  
273 Waiuanue Avenue  
Hilo, Hawaii 96720

Dear Mr. Inaba:

**SUBJECT:** Pre-Environmental Assessment Consultation Comments  
Kuaikini Highway 16-inch Waterline Improvements  
Department of Water Supply Job No. 2003-821  
North Kona, Island and County of Hawaii  
Tax Map Key: 7-5-008, 009, 017, 019, 020

We are in receipt of your letter, dated March 29, 2004, requesting our pre-consultation comments in connection with your preparation of a draft Environmental Assessment for the proposed Department of Water Supply project.

We understand the project to include the construction of a 16-inch ductile iron pipeline within the Kuaikini Highway right-of-way. The approximately 9,000 lineal feet pipeline will run from the Puapuaa Tank Site to the Hualalai road intersection. The purpose of the project is to upgrade the existing 8-inch pipeline and improve water distribution from the recently completed Puapuaa 2.0 million-gallon reservoir and to balance flows with the Palani Road 16-inch waterline.

The project area, between the centerline of the Kuaikini Highway right-of-way and the makai right-of-way boundary is in the Hawaii County Special Management Area (SMA). The project area traverses through several different zoning districts and both the State Land Use Agricultural and Urban districts.

Rule 9-4(10)B of the Planning Commission Rules of Practice and Procedure lists the various uses, activities, or operations that have been determined to be exempt from the definition of "development." Subsection (xiv) provides that the installation of underground utility lines and appurtenant aboveground fixtures less than four feet in height along existing corridors is among

Jason K. Inaba, P.E.  
Inaba Engineering, Inc.  
Page 2  
April 8, 2004

the list of exempt uses, activities, or operations. Therefore, no review of the project, as described, against the SMA guidelines is required.

Pursuant to §25-4-11, Hawaii County Zoning Code and §205-4.5, Hawaii Revised Statutes, public and private utilities are permitted in any district. Therefore, no land use permits are required for the proposed project.

Thank you for the opportunity to comment on the proposed project. Should you have questions, please feel welcome to contact Larry Brown or Esther Imanura of my staff at 961-8288.

Sincerely,

CHRISTOPHER J. YUEN  
Planning Director

LMB:pak  
P:\WP74\560\Larry\EA-ES Comments\Inaba-DWS Kuaikini Hwy DE\cmnt1.doc

cc: Mr. Glenn Ahuna, DWS  
Planning Dept. - West Hawaii Office

RECEIVED  
APR 26 2004

INABA ENGINEERING, INC.

FACSIMILE:  
808.935.8033

TELEPHONE:  
808.961.3727

Bruce C. McClure  
Director

INABA ENGINEERING, INC.  
CIVIL ENGINEERING • STRUCTURAL ENGINEERING • LAND SURVEYING  
273 WAIAWAE AVENUE  
HILO, HAWAII 96720

County of Hawaii

DEPARTMENT OF PUBLIC WORKS  
101 Pauahi Street, Suite 7 • Hilo, Hawaii 96720-4214  
(808) 961-4211 • Fax: (808) 961-4630

Ronald K. Takahashi  
Deputy Director

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APR 14 2004

INABA ENGINEERING, INC.

Harry Kim  
Mayor

Dixie Kartus  
Managing Director

April 12, 2004

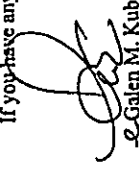
Jason K. Inaba, P.E.  
Inaba Engineering, Inc.  
273 Waianuenu Avenue  
Hilo, HI 96720

Subject: Pre-environmental Assessment Consultation  
Kuaikini Highway 16-inch Waterline Improvements  
Department of Water Supply Job No. 2003-821  
North Kona, Hawaii  
TMK: 7-5-008, 009, 017, 019, 020

We received your request dated March 29, 2004 and have the following comments:

1. Trench patching of paved areas shall be allowed only if the pavement outside the trench has not been damaged and was in need of resurfacing prior to the project. The entire trenched lane shall otherwise be re-paved after removing the old pavement by cold planing.
2. Traffic disruptions shall be minimized.
3. All earthwork and grading shall conform to Chapter 10, Erosion and Sediment Control, of Hawaii County Code.
4. The applicant shall comply with chapter 11-55, Water Pollution Control, Hawaii Administrative Rules, Department of Health, which requires an NPDES permit for certain construction activity.

If you have any questions, please contact Kiran Emler of our Kona office at 327-3530.

  
Galen M. Kuba, Division Chief  
Engineering Division

KE

c: ENG-HILO/KONA

May 5, 2004

Mr. Bruce C. McClure, P.E., Director  
Department of Public Works  
County Of Hawaii  
101 Pauahi Street, Suite 7  
Hilo, Hawaii 96720

Subject: PRE-ENVIRONMENTAL ASSESSMENT CONSULTATION for  
Kuaikini Highway 16-Inch Waterline Improvements  
Department of Water Supply Job No. 2003-821  
North Kona, Hawaii  
TMK: 3<sup>rd</sup> Div. 7-5-008, 009, 017, 019, 020

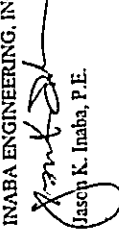
Dear Mr. McClure,

Thank you for your letter dated April 12, 2004 regarding the environmental review for the subject project. We offer the following responses to DPW comments.

1. Trench patch requirements will be coordinated with the DPW during the design phase of the project and will be incorporated into the design documents as needed.
2. Traffic control considerations will be coordinated with the DPW during the design phase of the project and traffic control plans will be included in the design documents.
3. The contractor will be required to conform to Chapter 10, Erosion and Sediment Control, of the Hawaii County Code.
4. This project will comply with Chapter 11-55, Water Pollution Control, Hawaii Administrative Rules, Department of Health, which may require an NPDES permit for certain construction activity.

Your comment letter and responses will be included in the environmental assessment documents. Should you have any questions or require additional information, please feel free to call this office at 961-3727.

Very truly yours,

INABA ENGINEERING, INC.  
  
Jason K. Inaba, P.E.

copy: Glenn Ahuna, DWS

F:\wp\DWS\Kuaikini\SEA\sea-hi-dpw1.rpt

IE104706

LEIOLA LINGLE  
COMMISSIONER



PETER J. ISLAND  
COMMISSIONER  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSIONER FOR WATER RESOURCE MANAGEMENT

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DEPUTY DIRECTOR - LAND  
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AGRICULTURE  
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CONSERVATION AND RESTORATION  
CONSERVATION AND RESTORATION ENFORCEMENT  
CULTURAL PRACTICES  
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LAND USE AND PLANNING  
LAND USE AND PLANNING ENFORCEMENT  
LAND USE AND PLANNING ENFORCEMENT

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
KAKULIHEWA BUILDING, ROOM 555  
601 KAMOKILA BOULEVARD  
KAPOLEI, HAWAII 96707

RECEIVED  
MAY 13 2004

May 10, 2004

INABA ENGINEERING, INC.

Mr. Jason Inaba  
Inaba Engineering, Inc.  
273 Waiuanu Avenue  
Hilo, Hawaii 96720

LOG NO: 2004.1488  
DOC NO: 0405MM08

Dear Mr. Inaba:

**SUBJECT: Chapter 6E-8 Historic Preservation Review [County/Department of Water Supply] Pre-Environmental Assessment Consultation, Job No. 2003-821, Kuakini Highway 16-Inch Waterline Improvements North Kona District, Hawaii TMK: (3) 7-5-008, 009, 017, 019, 020**

Thank you for your letter dated March 29, 2004 with your request for our comments on this proposed project. We understand the Hawaii County Department of Water Supply plans to construct 6000 lineal feet of pipeline from the Puaupua Tank site to the Hualalai Road Intersection, within the existing paved roadway or shoulders.

Our records indicate that a burial site is situated in the County right-of-way within TMK (3) 7-5-009. We are unsure, based on the maps provided, whether the proposed waterline construction will have an adverse effect on this site. We would therefore welcome an opportunity to review your specific plans and evaluate what protective measures, if warranted, are appropriate.

In addition to the matter described above, if the excavations for this waterline exceed the depth previously graded for construction of the Kuakini Highway or its shoulders, lava tubes could be punctured. If this occurs we ask that you have an on-call qualified archaeologist to examine any such tubes in proximity to the affected area, and recommend mitigative measures if needed. A monitoring plan outlining the details of this arrangement should be submitted for review and approval prior to beginning construction.

If you have questions or concerns, please contact MaryAnne Maignret, Hawaii Island Assistant Archaeologist (808-327-3690), or Dr. Patrick McCoy, Hawaii Island Archaeologist, (808-692-8029).

Aloha,  
*P. Holly McEldowney*  
P. Holly McEldowney, Administrator  
State Historic Preservation Division  
MM:jen

c. Kaiana Markell, Burial Sites Program  
Ruby MacDonald, Hawaii Island Burial Council  
Christopher J. Yuen, Director, Historic Planning, 601 Kamokila Blvd, Suite 3, Hilo HI 96720, 949-204-2177

TELEPHONE:  
808.841.3727

FACSIMILE:  
808.838.9033

**INABA ENGINEERING, INC.**  
CIVIL ENGINEERING • STRUCTURAL ENGINEERING • LAND SURVEYING  
273 WAIANUENUE AVENUE  
HILO, HAWAII 96720

May 24, 2004

P. Holly McEldowney, Administrator  
May 24, 2004  
Page 2 of 2

P. Holly McEldowney, Administrator  
Department of Land and Natural Resources  
State Historic Preservation Division  
Kakuhewa Building, Room 555  
601 Kamohila Boulevard  
Kapolei, Hawaii 96707

Subject: Historic Preservation Review for  
Kuakini Highway 16-inch Waterline Improvements  
Department of Water Supply Job No. 2003-821  
North Kona, Hawaii  
TMK: 3<sup>rd</sup> Div. 7-5-008.009.017.019.020

Dear Ms. McEldowney,

Thank you for your review and comments letter dated May 10, 2004. (Log No: 2004.1468, Doc No: 0405MM06). In consultation with, and on behalf of the Department of Water Supply, we offer the following response to your comments.

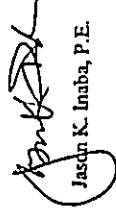
Regarding the burial site situated in the County right-of-way within TMK 7-5-009: We will coordinate with your Hawaii Island Assistant Archeologist during the field survey stage to locate the burial site monument. During the design stage, we will submit plans to your office for comments regarding the location of the waterline in relation to the burial monument.

Regarding depth of excavations for waterline: Currently, there are existing 8" & 20" waterlines and a sewer main which runs along the length of Kuakini Highway Right of Way. Typically, the new 16" waterline will not be placed as deep as the existing sewer main and will be placed at a similar depth of the 20" waterline. The DWS also does not recall having any information regarding previous construction of the existing water lines impacting any lava tubes.

If during the construction of this project the contractor encounters any lava tube, bones or artifacts, the contractor will be required to stop work immediately in the area and to notify the DWS and Historic Preservation Division for mitigative measures. At this time, the DWS will implement it's emergency procurement process to hire an archeologist to recommend mitigative measures if needed.

Should you need any further information or have any questions, please call me at 961-3727 or contact Mr. Glenn Ahuna of the Department of Water Supply at 961-8070.

Very truly yours,

  
Jasdn K. Inaba, P.E.

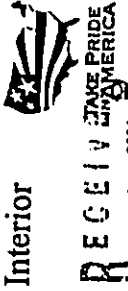
Attach

copy: Mr. Glenn Ahuna, DWS  
Christopher Yuen, Planning



United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Pacific Islands Fish and Wildlife Office  
300 Ala Moana Boulevard, Room 3-122  
Box 30038  
Honolulu, Hawaii 96850



TELEPHONE:  
808.981.3727

FACSIMILE:  
808.935.8033

INABA ENGINEERING, INC.  
CIVIL ENGINEERING • STRUCTURAL ENGINEERING • LAND SURVEYING  
273 WAIANUENUE AVENUE  
HILO, HAWAII 96720

In Reply Refer to:  
PN-04-163

Jason K. Inaba  
Inaba Engineering, Incorporated  
273 Waiannuenu Avenue  
Hilo, Hawaii 96720

MAY 21 2004

INABA ENGINEERING, INC.

May 24, 2004

Dear Mr. Inaba:

Thank you for your March 29, 2004, letter requesting information on federally listed or proposed threatened or endangered species or critical habitat that may be present near the Kuakini Highway 16-inch waterline improvement project in North Kona, Hawaii (TMK (3) 7-5-008, 009, 017, 019, and 020). This proposed project will upgrade the existing waterline by installing 9,000 feet of pipeline in paved portions of the roadway or within the shoulder areas of the highway. Your letter was received in our office on March 31, 2004.

Based on our review of the information contained in your project summary and in our files, including maps prepared by the Hawaii Natural Heritage Program, the proposed project site is in an area through which the Newell's shearwater (*Puffinus auricularis newelli*), a federally listed threatened species, is known to fly. Newell's shearwaters become confused by bright lights at night and may circle around the lights until they become exhausted and fall to the ground where they are injured or killed by vehicles or predators. However, if the project is constructed during the daytime (i.e., no use of bright lights at night) in the nesting season (mid-April through November), we maintain the project would likely avoid take (that includes harming, harassing, wounding, and/or killing).

We appreciate the opportunity to comment on the proposed project. If you would like to further discuss our recommendation for avoiding take of endangered species, please contact Fish and Wildlife Biologist Elizabeth Sharpe by telephone at (808) 792-9400.

Sincerely,

*Christa Russek for*

Jeff M. Newman  
Acting Field Supervisor

Jeff M. Newman, Acting Field Supervisor  
United States Department of the Interior  
Fish and Wildlife Service  
Pacific Islands Ecoregion  
300 Ala Moana Boulevard, Room 3-122  
Honolulu, Hawaii 96850

Subject: Reference: PN-04-163  
PRE-ENVIRONMENTAL ASSESSMENT CONSULTATION for  
Kuakini Highway 16-inch Waterline Improvements  
Department of Water Supply Job No. 2003-821  
North Kona, Hawaii  
TMK: 3<sup>d</sup> Div. 7-5-008, 009, 017, 019, 020

Gentlemen,

Thank you for your letter dated May 21, 2004 regarding U.S. Fish and Wildlife Service (USFWS) concerns for the subject project. We note that USFWS indicates the project is in an area where the federally listed threatened species Newell's shearwater is known to fly during its nesting season which runs from mid-April through November. During this period, the shearwaters' normal behavior may be negatively affected at night by bright lights.

To minimize adverse project related impacts, the Department of Water Supply will specify in contract documents and plans that the contractor is to perform all work activities during daylight hours. If during the course of the project the contractor determines that night work is necessary, the DWS would only allow night work during the non-nesting season of December through March.

Should you need any further information or have any questions, please call me at 961-3727 or contact Mr. Glenn Ahuna of the Department of Water Supply at 961-3070.

Very truly yours,

*Jason K. Inaba*  
Jason K. Inaba, P.E.

copy: Mr. Glenn Ahuna, DWS



Harry Kim  
Mayor



County of Hawaii  
DEPARTMENT OF PUBLIC WORKS

Apparel Center  
101 Paiahi Street, Suite 7 • Hilo, Hawaii 96720-4224  
(808) 941-4321 • Fax (808) 941-4636

Brett C. McClure  
Director

Reesaji K. Takahashi  
Deputy Director

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JUL 12 2004

INABA ENGINEERING, INC.

July 6, 2004

Jason K. Inaba, P.E.  
Inaba Engineering, Inc.  
273 Wai'anaeue Ave.  
Hilo, HI 96720

Subject: Draft Environmental Assessment  
Kuakini Highway 16-Inch Waterline Improvements  
DWS Job No. 2003-821  
North Kona, HI

We reviewed the subject dated June 2004. We have been experiencing problems with storm runoff flowing through a fill section in Kuakini Highway south of the Waiaha Splitflow at TMK 7-4-040:008. Mitigation is under consideration and we appreciate the opportunity to inform you that the existing condition may be affect the new pipeline construction and maintenance.

If you have any questions, please contact Kiran Emler of our Kona office at 327-3530.

Galen M. Kuba, Division Chief  
Engineering Division

KE

c: ENG-HILO/KONA

TELEPHONE:  
808.981.3727

FACSIMILE:  
808.935.8033

INABA ENGINEERING, INC.  
CIVIL ENGINEERING • STRUCTURAL ENGINEERING • LAND SURVEYING  
273 WAI'ANAEUUE AVENUE  
HILO, HAWAII 96720

July 13, 2004

Mr. Galen M. Kuba, P.E., Division Chief  
Engineering Division  
Department of Public Works  
County Of Hawaii  
101 Paiahi Street, Suite 7  
Hilo, Hawaii 96720

Subject: DRAFT ENVIRONMENTAL ASSESSMENT  
Kuakini Highway 16-Inch Waterline Improvements  
Department of Water Supply Job No. 2003-821  
North Kona, Hawaii  
TMK: 3\* Div. 7-5-008.009.017.019.020

Dear Mr. Kuba,

Thank you for your letter dated July 6, 2004 regarding the Draft Environmental Assessment review for the subject project. On behalf of the Department of Water Supply, we offer the following response to your comments.

1. Installation of the new 16" waterline will take into consideration storm runoff in the vicinity of the Waiaha Splitflow. The pipeline in that area will be designed for flood and erosion resistance and will be coordinated with the Department of Public Works.

Your comment letter and this response will be included in the final environmental assessment document. Should you have any questions or require additional information, please feel free to call Mr. William Atkins of the DWS at 961-8070 ext. 254, or this office at 961-3727.

Very truly yours,

INABA ENGINEERING, INC.

Jason K. Inaba, P.E.

JKI

copy: William Atkins, DWS

808 586 4185

OFFICE OF ENVIRONMENTAL QUALITY CONTROL

LANDA LANGE  
DIRECTOR OF PUBLIC AFFAIRS



STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
151 SOUTH BERETANIA STREET  
HONOLULU, HAWAII 96813  
TELEPHONE: 808-586-4185  
FACSIMILE: 808-586-4186

July 12, 2004

Milton Pavao  
Department of Water Supply  
345 Kekuaaoa Street, #20  
Hilo, Hawaii 96720

Attn: William Atkins

Dear Mr. Pavao:

Subject: Draft environmental assessment (EA)  
Kuaikini Highway 16-Inch Waterline Improvements

We have the following comments to offer:

**Two-sided pages:** In order to reduce bulk and save on paper, please print on both sides of the pages in the final document.

**Contacts:** Community consultation is an important element of the review process. Your pre-consultation and EA distribution list did not mention any community groups. Notify the nearest neighbors, neighboring landowners, and any business or community groups that will be directly affected by the proposed project, allowing them sufficient time to review the draft EA and submit comments. Document all contacts in the final EA and include copies of any correspondence.

**Determination:** A determination stating that an environmental impact statement will not be required is listed in the draft EA. The EIS law prohibits a determination of significant impact or lack of significant impact before the end of the 30-day public comment period and prior to receipt, response and analysis of all written comments. For a draft EA the proper determination is *anticipated FONSI*.

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

Sincerely,

*Genevieve Salmons*  
GENEVIEVE SALMONSON  
Director

c: Jason Inaba

TELEPHONE:  
808.961.3737

INABA ENGINEERING, INC.  
CIVIL ENGINEERING & STRUCTURAL ENGINEERING & LAND SURVEYING  
273 WAIAKULU AVENUE  
HILO, HAWAII 96720

July 13, 2004

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

Subject: DRAFT ENVIRONMENTAL ASSESSMENT  
Kuaikini Highway 16-Inch Waterline Improvements  
North Kona, Hawaii  
TMK: 3<sup>rd</sup> Div. 7-5-008-009-017-019-020

Dear Ms. Salmons,

Thank you for your letter dated July 12, 2004 regarding the Draft Environmental Assessment review for the subject project. On behalf of the Department of Water Supply, we offer the following response to your comments.

1. The final document will be printed on both sides.
2. Community consultation will be addressed in the draft review process. To date, the following have been notified; Councilman Curtis Tyler, Kona-Kohala Chamber of Commerce, Kona Outdoor Circle, Hawaii Leeward Planning Conference, Kona Traffic Safety Committee, West Hawaii Today newspaper.
3. It is noted that the proper draft EA determination is an "anticipated FONSI".

Your comment letter and this response will be included in the final environmental assessment document. Should you have any questions or require additional information, please feel free to call Mr. William Atkins of the DWS at 961-8070 ext. 254, or this office at 961-3727.

Very truly yours,

INABA ENGINEERING, INC.  
*Jason K. Inaba*  
Jason K. Inaba, P.E.

JKI  
copy: William Atkins, DWS

Harry Kim  
Mayor



**County of Hawaii**  
POLICE DEPARTMENT  
349 Kapiolani Street • Hilo, Hawaii 96720-3993  
(808) 935-3311 • Fax (808) 961-2339

July 26, 2004

Mr. Jason K. Inaba, P.E.  
Inaba Engineering, Inc.  
273 Waiānuenuē Avenue  
Hilo, Hawaii 96720

Dear Mr. Inaba:

**SUBJECT: ENVIRONMENTAL ASSESSMENT CONSULTATION for  
Kuaikini Highway 16-Inch Waterline Improvements  
Department of Water Supply Job No. 2003-821  
North Kona, Hawaii  
TMK: 3<sup>rd</sup> Div. 7-5-008, 009, 017, 019, 020**

Our staff has reviewed the above-referenced Environmental Assessment Consultation and recommends that during construction, at least one lane of roadway be left open for vehicular traffic.

Sincerely,

LAWRENCE K. MAHUNA  
POLICE CHIEF

*Thomas J. Hickcox*  
THOMAS J. HICKCOX  
ASSISTANT POLICE CHIEF  
AREA II OPERATIONS

TJH:dmv

Lawrence K. Mahuna  
Police Chief

Harry S. Kabejiri  
Deputy Police Chief

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JUL 30 2004

INABA ENGINEERING, INC.

TELEPHONE:  
808.881.3727

FACSIMILE:  
808.935.8033

**INABA ENGINEERING, INC.**  
CIVIL ENGINEERING • STRUCTURAL ENGINEERING • LAND SURVEYING  
273 WAIANUENUĒ AVENUE  
HILO, HAWAII 96720

August 2, 2004

Lawrence Mahuna, Chief of Police  
Hawaii Police Department  
County of Hawaii  
349 Kapiolani Street  
Hilo, Hawaii 96720

**Subject: ENVIRONMENTAL ASSESSMENT CONSULTATION for  
Kuaikini Highway 16-Inch Waterline Improvements  
Department of Water Supply Job No. 2003-821  
North Kona, Hawaii**

Gentlemen:

Thank you for your comment letter dated July 26, 2004 regarding the subject project. The Police Department recommends that at least one lane of vehicular traffic be left open during construction. On behalf of the Department of Water Supply, the following response to your comments are noted.

During the construction phase, the project contractor will be required to provide at least one lane for traffic movement at all times during working hours per the Department of Public Works requirements for work within the County right of way. Should any lane closures be necessary, a "Public Notice" will be provided in an island newspaper to inform the public.

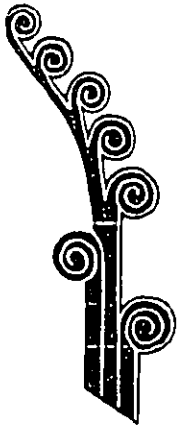
Should you have any questions or require additional information, please feel free to call William Atkins of the Dept. Of Water Supply at 961-8070, ext. 254 or this office at 961-3727.

Very truly yours,

INABA ENGINEERING, INC.

*Jason K. Inaba*  
Jason K. Inaba, P.E.

Enc.  
c: William Atkins, DWS



## KONA OUTDOOR CIRCLE

76-6280 Kuakini Highway  
Kailua-Kona, Hawaii 96740-2286  
Phone: (808) 329-7286 • Fax: (808) 334-9646  
Email: [konaoutdoorcircle@konacoast.com](mailto:konaoutdoorcircle@konacoast.com)  
[www.konaoutdoorcircle.org](http://www.konaoutdoorcircle.org)

RECEIVED  
AUG 5 2004

INABA ENGINEERING, INC.

August 3, 2004

Jason K. Inaba, P.E.  
Inaba Engineering, Inc.  
273 Waianuenue Avenue  
Hilo, Hawai'i 96720

Dear Mr. Inaba,

Re: Waterline Improvements along Kuakini Highway (Job No. 2003-821)

Thank you for the opportunity to review the environmental assessment for the proposed waterline upgrade along Kuakini Highway. The Kona Outdoor Circle's comments and suggestions are as follows:

1. Determine if any other work could be completed while the road is torn-up and coordinate that work. *(Note: Waterline improvements closed this road just a couple years ago, if this project could have been anticipated, perhaps we would not be facing another road closure.)*
2. Review the impacts on the lava tubes and burial site and distribute the report to those included in the distribution of this EA for further discussion. Since this is an "improvement" project we do not recommend proceeding with this project until these concerns are mitigated.
3. The Newell's shearwater's nesting season runs from April through November. Please insure that the project does not coincide with the nesting season to avoid any detrimental effect to this threatened species.
4. The recent rain has given us a taste of what a mauka flood could do to the makai lands. Was this project examined with recent flood data considering all the landscape changes that have occurred on the slopes of Hualalai in the past few years? If not, please reevaluate the project using current information.
5. When the project begins, please restrict the work to off-peak hours to reduce the project's impact on traffic.

Thank you for your time in review of these comments.

Sincerely

Betty Meyerson  
President

Ann C. Peterson  
VP - Public Affairs



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TELEPHONE:  
808.961.3727

FACSIMILE:  
808.335.8033

**INABA ENGINEERING, INC.**  
CIVIL ENGINEERING • STRUCTURAL ENGINEERING • LAND SURVEYING  
273 WAIANUENUE AVENUE  
HILO, HAWAII 96720

August 10, 2004

Betty Meyerson, President  
KONA OUTDOOR CIRCLE  
76-6280 Kuakini Highway  
Kailua-Kona, Hawaii 96740-2286

Subject: Kuakini Highway 16-Inch Waterline Improvements  
Department of Water Supply Job No. 2003-821  
North Kona, Hawaii

Dear Ms. Meyerson,

Thank you for your letter of August 3, 2004 regarding the subject project. On behalf of the Department of Water Supply, we offer the following response to your comments and suggestions.

1. Department of Water Supply (DWS) is coordinating this project with the Department of Public Works. The DWS does note that a sewerline was installed a couple of years ago by a private developer and that this project was not necessary at that time. This project will not involve road closure as the contractor will be required to provide at least one lane of through traffic during construction.
2. The State of Hawaii Department of Land and Natural Resources State Historic Preservation Division is included in the review of the EA. The DWS is coordinating with SHPD regarding notification and requirements for addressing potential lava tubes and burial sites.
3. The United States Department of the Interior Fish and Wildlife Service is included in the review of the EA. Comments and recommendations from the USFWS regarding avoiding take of endangered species such as Newell's shearwater have been reviewed by the DWS and will be incorporated into the project process.
4. As indicated in the EA, Part 2, Section C. Flood Hazards, the wateline will be buried in the existing roadway prism and will not interfere with any culverts or crossings and thus will not alter the existing condition of flood facilities and will not affect or contribute to flooding after construction is complete. In addition, construction plans will be

Betty Meyerson, President  
August 10, 2004  
Page 2 of 2

reviewed by the Department of Public Works for compliance with codes and ordinances.

5. Work will be scheduled and coordinated to minimize impacts to traffic as much as possible.

Should you have any questions or require additional information, please feel free to call William Atkins of the Dept. Of Water Supply at 961-8070, ext. 254 or this office at 961-3727.

Very truly yours,

INABA ENGINEERING, INC.



Jason K. Inaba, P.E.

c: William Atkins, DWS

# KONA TRAFFIC SAFETY COMMITTEE

75-344 Nani Kailua Dr., Kailua-Kona, HI 96740 (808) 331-0441

August 7, 2004

Mr. William Atkins  
Department of Water Supply  
County of Hawaii  
345 Kekuanaoa St., Suite 20  
Hilo, HI 96720

Re: Kuakini Highway 16-Inch Waterline Improvements

Dear Mr. Atkins:

The Kona Traffic Safety Committee, following careful consideration of the subject matter at its recent meeting, agreed to urge the importance of minimizing traffic congestion in the area while avoiding adverse effects on the threatened Newell's shearwater by: 1) scheduling work during non-peak, including nighttime hours; and 2) avoiding work during the nesting season (April through November).

We believe especially that nighttime work on those portions of the project not near residential areas will benefit the community by minimizing daytime traffic congestion and shortening the time needed to complete the work.

We also urge that sufficient personnel, devices, including warning signs, and public notices be required to help minimize traffic congestion by advising motorists of the work schedule and directing them to alternate routes if available.

In addition, due to recent flooding and the effect of additional development in the project area, please review the effectiveness of flood plain drainage to make any necessary corrections to drainage deficits while the road is under construction.

Sincerely yours,

Joel E. Gimpel, Chair,  
Public Affairs

Cc: Office of Environmental Quality Control  
Jason K. Inaba, P.E.  
Members, Kona Traffic Safety Committee

TELEPHONE:  
808.961-3727

FACSIMILE:  
808.938.8033

INABA ENGINEERING, INC.  
CIVIL ENGINEERING • STRUCTURAL ENGINEERING • LAND SURVEYING  
273 WAIANUENUE AVENUE  
HILO, HAWAII 96720

Joel E. Gimpel, Chair  
August 10, 2004  
Page 2 of 2

August 10, 2004

Joel E. Gimpel, Chair  
Public Affairs  
KONA TRAFFIC SAFETY COMMITTEE  
75-344 Nani Kaihua Drive  
Kailua-Kona, Hawaii 96740

Subject: Kuakini Highway 16-inch Waterline Improvements  
Department of Water Supply Job No. 2003-821  
North Kona, Hawaii

Dear Mr. Gimpel,

Thank you for your letter of August 7, 2004 regarding the subject project. On behalf of the Department of Water Supply, we offer the following response to your comments and suggestions.

1. This project is anticipated to be constructed from April 2005 to October 2005. DWS is coordinating schedules with DPW regarding the Kuakini Highway Improvements Project from Palani Road to Hualalai Road. Since this period is during the shearwater nesting season, no night time work is contemplated. Work will be scheduled to reduce the inconvenience to traffic and the overall duration of the project as much as practicable.
2. The window of opportunity to construct this project and avoid going head on with the Kuakini Highway Improvements from Palani Road to Hualalai Road is from April to October of 2005. Completion prior to October is desired due to the Ironman Triathlon event.
3. The contractor will be required to comply with the Manual on Uniform Traffic Control Devices (MUTCD) and necessary safety requirements for traffic control during the duration of construction.
4. As indicated in the DEA, Part 2, Section C. Flood Hazards, the waterline will be buried in the existing roadway prism and will not interfere with any culverts or crossings and thus will not alter the existing condition of flood facilities and will not affect or

contribute to flooding after construction is complete. In addition, construction plans will be reviewed by the Department of Public Works for compliance with codes and ordinances. Unfortunately, effectiveness of flood plain drainage and corrections to drainage deficits do not fall under the jurisdiction of the Department of Water Supply nor the scope and purpose of this project.

Should you have any questions or require additional information, please feel free to call William Atkins of the Dept. Of Water Supply at 961-8070, ext. 254 or this office at 961-3727.

Very truly yours,

INABA ENGINEERING, INC.

  
Jason K. Inaba, P.E.

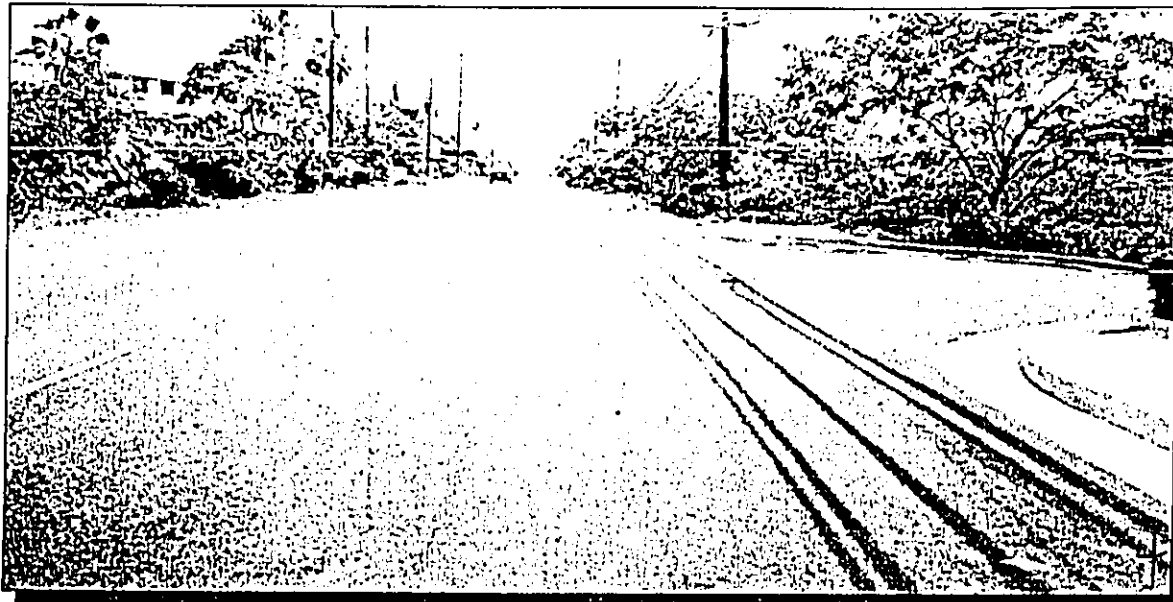
c: William Atkins, DWS

*APPENDIX B*

Photographs of Site



**RECEIVED AS FOLLOWS**



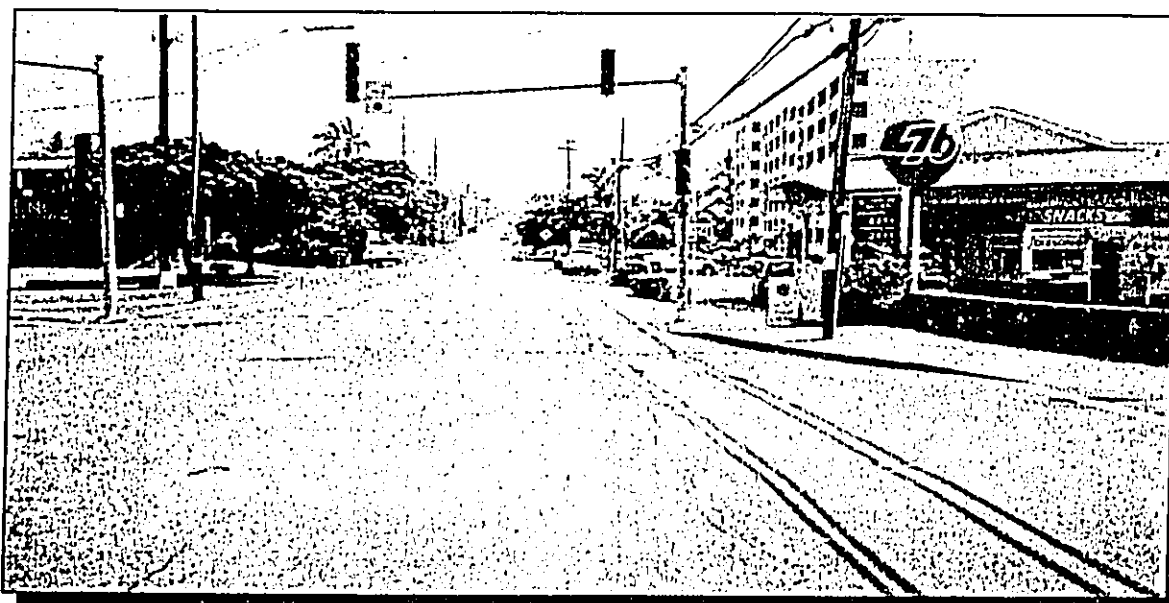
KUAKINI HIGHWAY  
P-3

Coconut Grove  
Looking South



KUAKINI HIGHWAY  
P-2

Kona Alii Condo  
Looking South



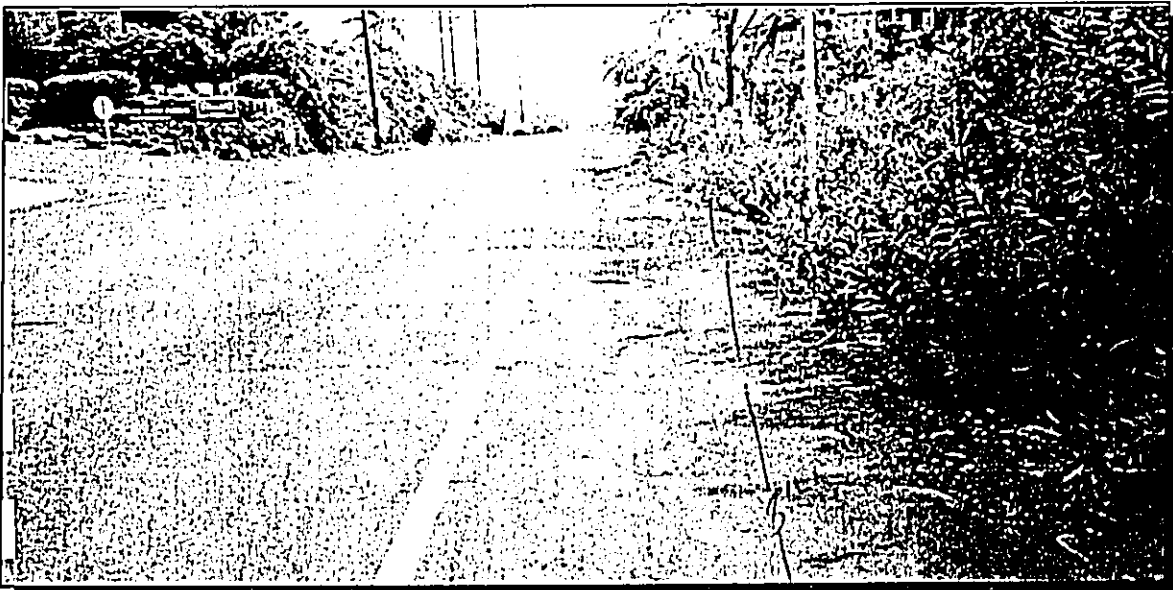
KUAKINI HIGHWAY  
P-1

Hualalai Road  
Intersection  
Looking South

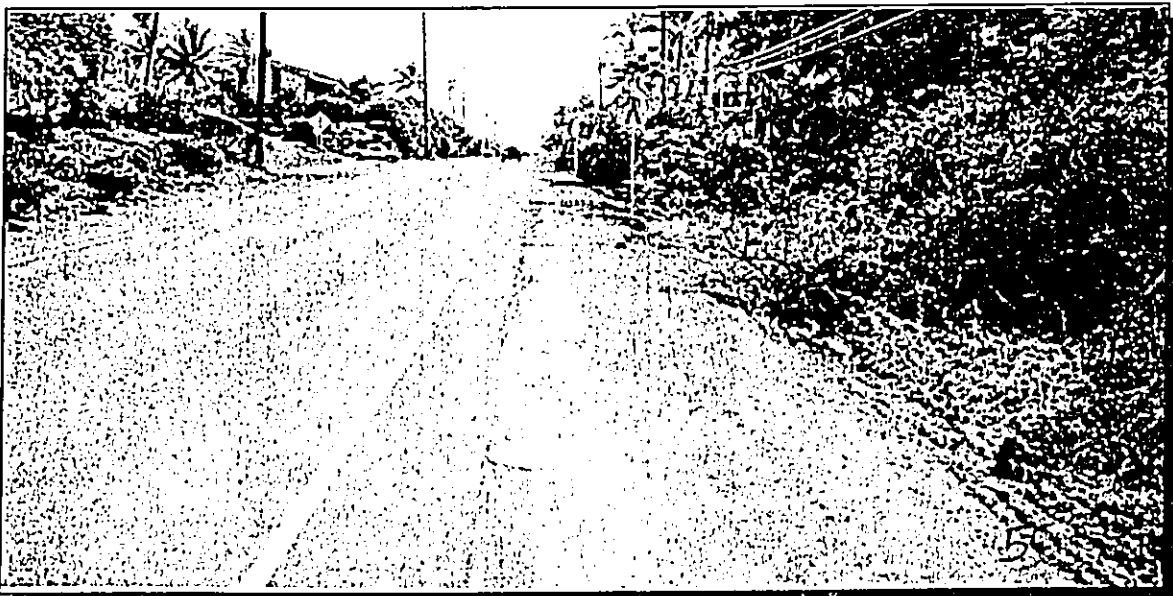
RECEIVED AS FOLLOWS



KUAKINI HIGHWAY  
P-6  
Looking South

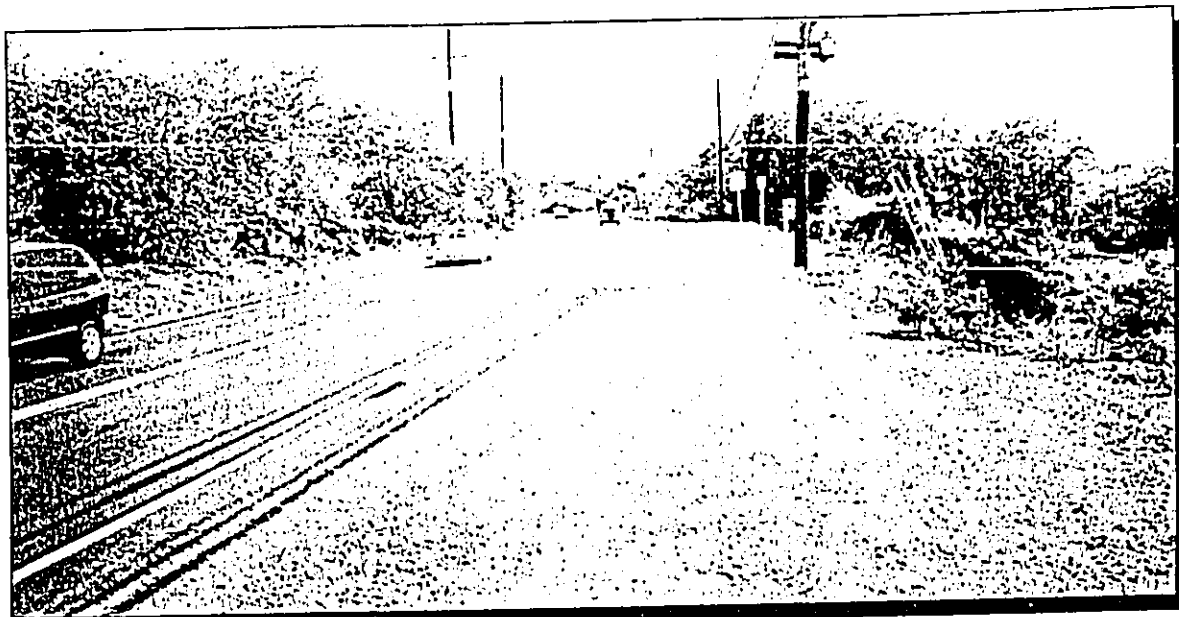


KUAKINI HIGHWAY  
P-5  
Looking South



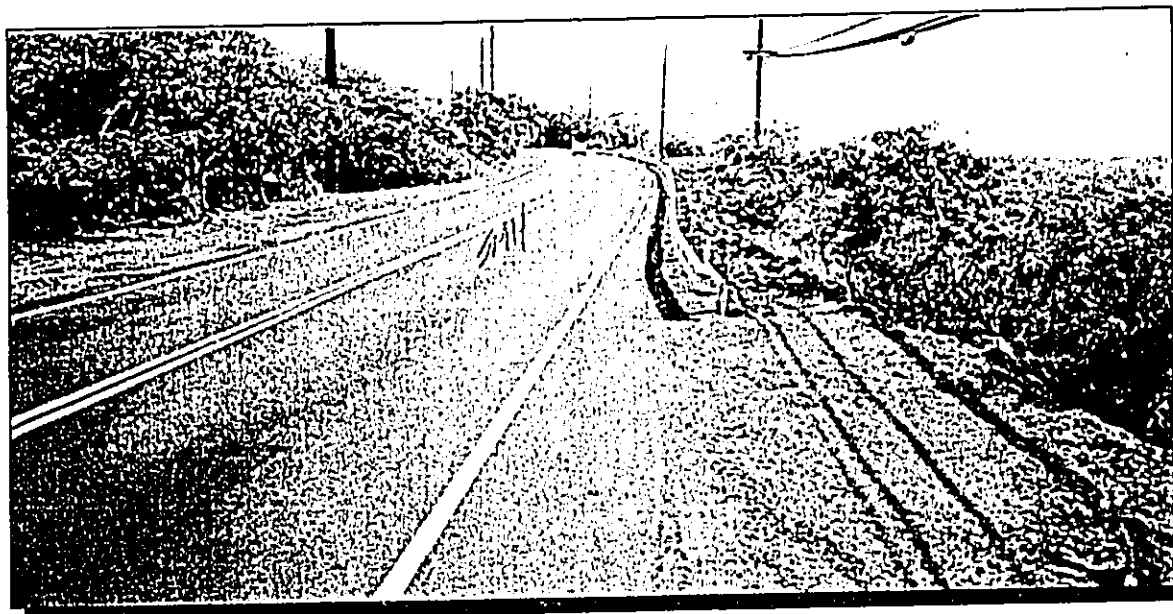
KUAKINI HIGHWAY  
P-4  
Looking South

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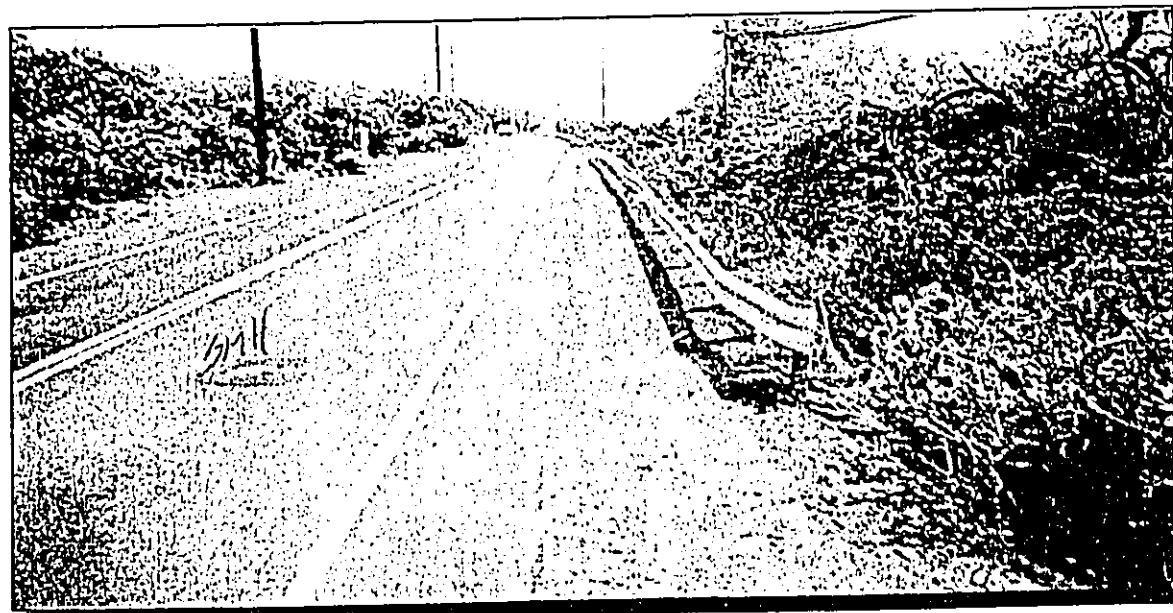
KUAKINI HIGHWAY  
P-9

Looking South



KUAKINI HIGHWAY  
P-8

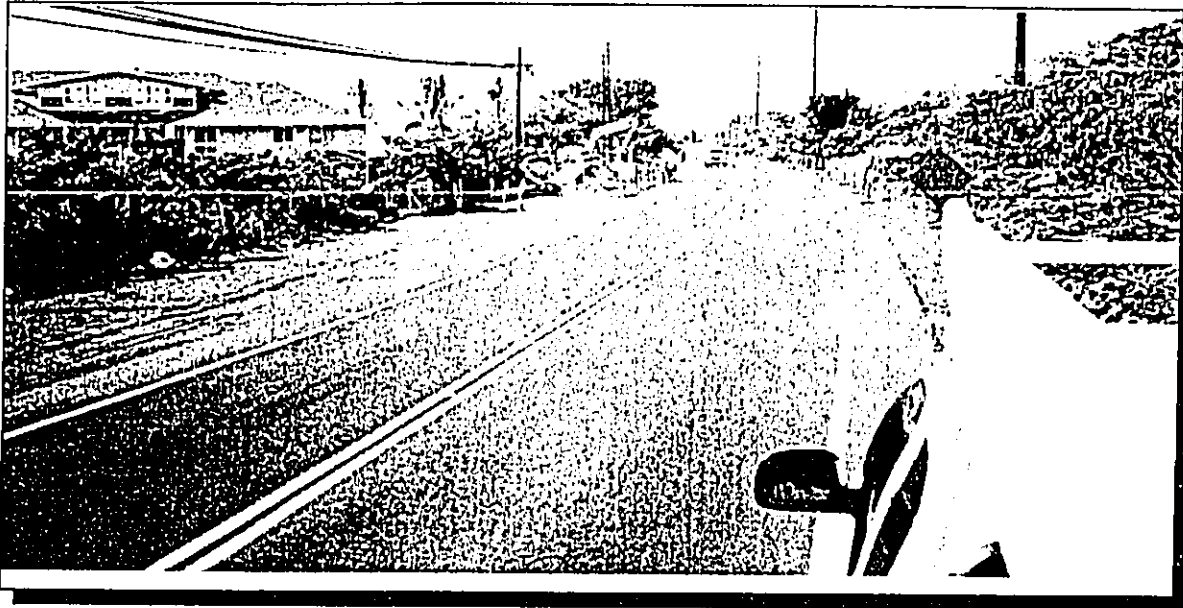
Looking South



KUAKINI HIGHWAY  
P-7

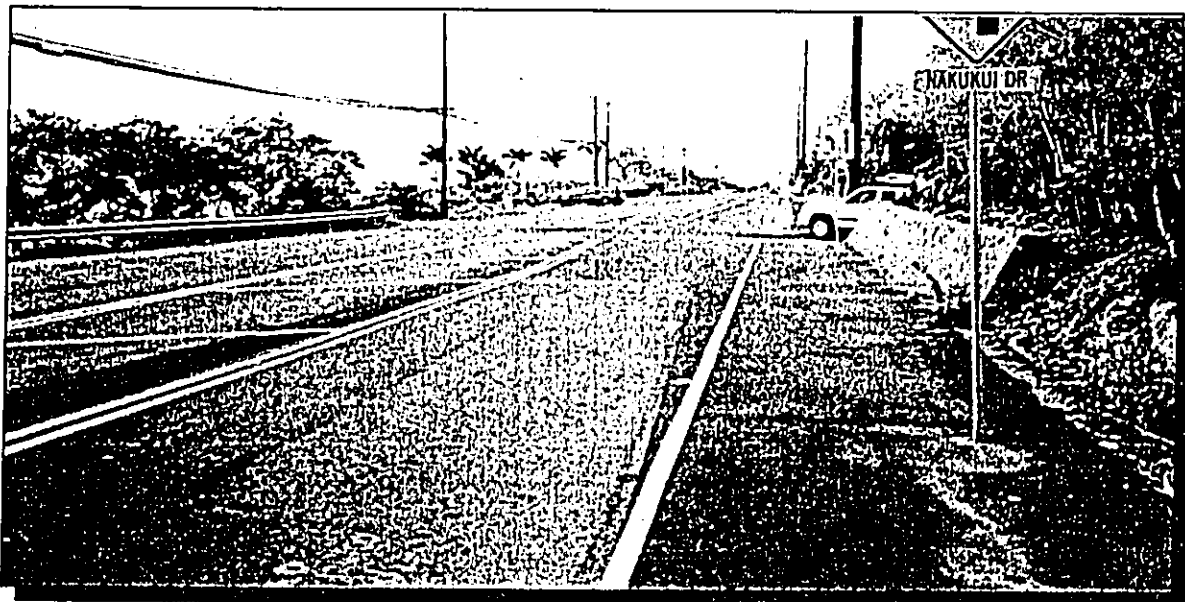
Looking South

RECEIVED AS FOLLOWS



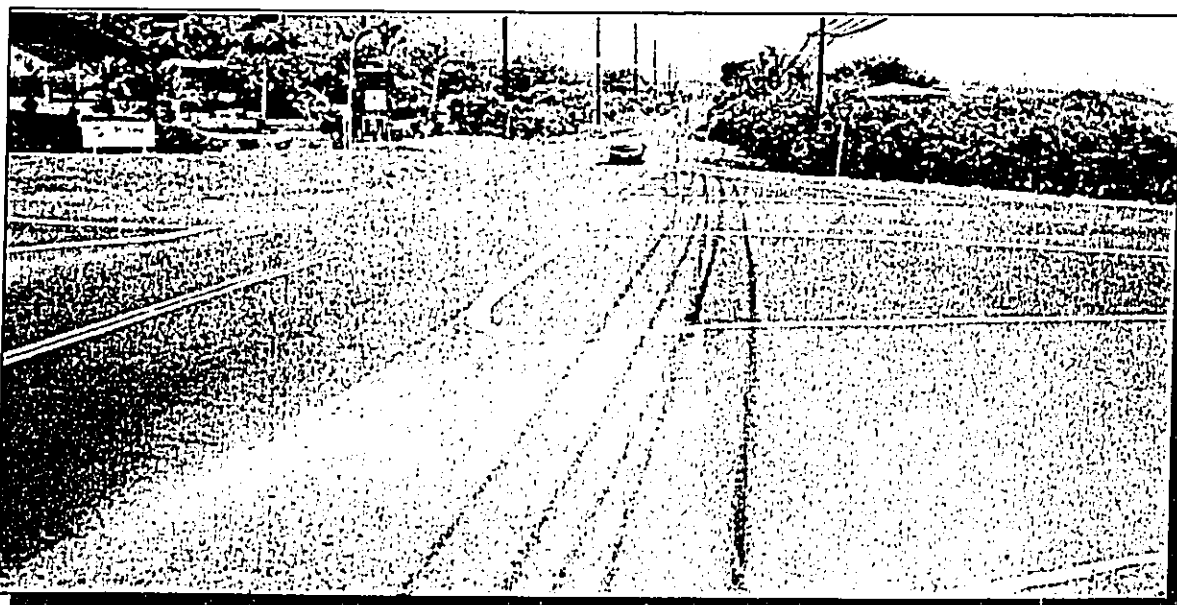
KUAKINI HIGHWAY  
P-12

Looking North



KUAKINI HIGHWAY  
P-11

Puapuaa Tank.  
Connection to Effluent  
Line at Highway  
Looking North



KUAKINI HIGHWAY  
P-10

Onioni Drive/Walua  
Road Intersection  
Looking South

**RECEIVED AS FOLLOWS**

*APPENDIX C*

Newspaper Article  
Public Meeting Information

LOCAL

# Waterline could disrupt traffic

## PROPOSAL CALLS FOR KUAKINI HIGHWAY CONSTRUCTION

BY BOBBY COMMAND  
WEST HAWAII TODAY  
bcommand@westhawaii.com

Kuakini Highway could become a construction maze for at least six months if an improvement plan by the Water Department is implemented on time.

The county Department of Water Supply has issued a draft environmental assessment for the \$2 million Kuakini Highway 16-inch waterline improvement.

With construction scheduled to begin in April and last through October 2005, the nearly two-mile project would coincide with the 18- to 24-month widening of Kuakini Highway between Palani and Hualalai Roads, set to begin as soon as September.

The purpose of the publicly funded water distribution line is to provide adequate water service to subdivisions being developed makai of Kuakini Highway. Water for the area, which now comes from the stressed 300,000-gallon Palani tank reservoir, would come mostly from the new two-million-gallon Puapua tank.

William Atkins, project engineer for the Water Department, said possible traffic issues have been discussed during meetings.

"We're trying to keep the line along the side of the road," Atkins said. "We're going to try to keep one lane open at all times, and work during non-peak traffic hours."

However, Atkins said night work has not been considered. "It's my experience that you don't get the efficiency you get during the day."

The Water Department would install 9,000 feet of pipeline, from the newly created Nakuiki Street about 3,000 feet north, and then from 500 feet south of Oni Oni Street to the intersection with Hualalai Road. Water line in the 1,000-foot gap would be installed by the developer of the Kona Hawaiian Village time share project.

If work takes place as scheduled, it would also mark the second time in three years that Kuakini Highway south of Pottery Terrace would be excavated for laying pipe. Last year, Schuler Homes laid a sewer line to service its Pualani

▶ SEE WATER PAGE 4A

## ▶ WATER: Construction would be from April to October 2005

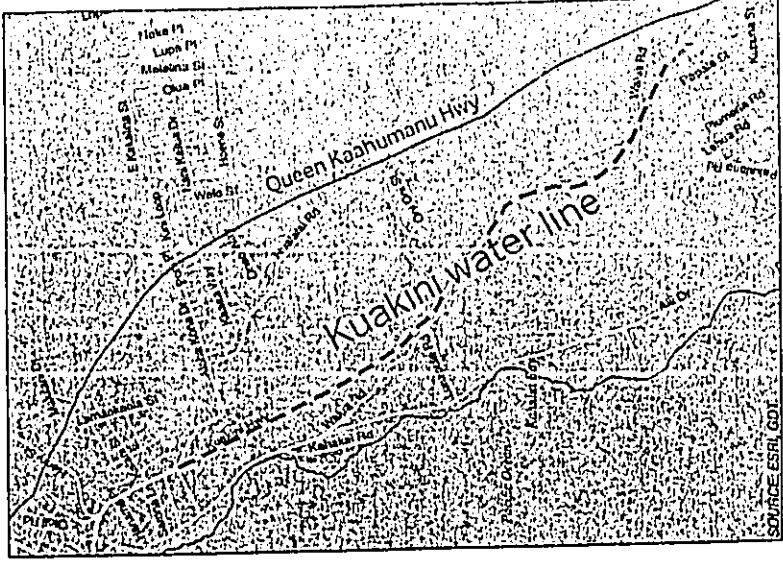
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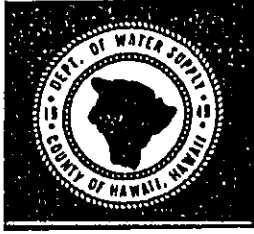
Estates project. It would also mark the third time in 15 years that the portion of Kuakini Highway near the intersection of Oni Oni and Waiua Roads has been excavated for laying pipe. The original Kailua-Kona sewage system was installed along Kuakini between 1987 and 1992.

Atkins said it is not always easy to time projects to coincide with each other. He added doing them at the same time would probably have required both lanes of the highway to be closed. "We try to keep water lines and sewer lines as far apart as possible," he said.

The deadline to comment on the proposed 16-inch waterline along Kuakini Highway is Aug. 7.

Draft environmental assessments are available at the Kailua-Kona Regional Library, the Department of Water Supply's Kona office in Keauhou Mauka or main office in Hilo, or the Office of Environmental Quality Control.





DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

345 KEKOAŌA STREET, SUITE 20 • HILO, HAWAII 96720  
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

August 16, 2004 (corrected notice)

NOTICE OF INFORMATIONAL MEETING  
FOR THE KUAKINI HIGHWAY 16-INCH WATERLINE IMPROVEMENTS,  
DWS JOB NO. 2003-821  
AND THE  
CONSTRUCTION OF KUAKINI HIGHWAY IMPROVEMENTS,  
PALANI ROAD TO HUALALAI ROAD, F.A.P. NO. STP-0110(1)

NOTICE IS HEREBY GIVEN that the Department of Water Supply and the Department of Public Works, County of Hawai'i, will hold a joint informational meeting in the Kealakehe Intermediate School Cafeteria located at 75-5062 Onipaa Street, Kailua-Kona, Hawai'i. This meeting is scheduled for August 31, 2004, at 6:00 p.m.

The meeting is being held to inform and accept comments from the public concerning the upcoming construction of a new 16-inch waterline and roadway improvements along Kuakini Highway.

The 16-inch waterline installation by the Department of Water Supply will extend from Hualalai Road, along Kuakini Highway, to Nakukui Drive.

The Kuakini Highway road improvements by the Department of Public Works will extend from Palani Road to Hualalai Road. Kuakini Highway will be widened to two lanes in each direction with appropriate pockets for left turns and bicycle lanes through most of the project. This roadway work also includes the installation of concrete curb, gutter, sidewalks, curb ramps, landscaping, and a synchronized traffic signal system.

Should there be any questions, the public may contact Mr. Peter Hendricks, Deputy Managing Director, in Kona at (808) 329-5226.

DEPARTMENT OF WATER SUPPLY  
COUNTY OF HAWAII

*The Department of Water Supply is an Equal Opportunity Provider and Employer.*

Posted on the Internet at:  
<http://www.hawaiidws.org>

Hawaii Tribune Herald  
August 22 and 29, 2004

West Hawaii Today  
August 22 and 29, 2004

*... Water brings progress...*

The Department of Water Supply is an Equal Opportunity provider and employer. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington DC 20250-9410. Or call (202) 720-5964 (voice and TDD)

**MEETING AGENDA**

**KUAKINI HIGHWAY 16-INCH WATERLINE IMPROVEMENTS AND THE  
CONSTRUCTION OF THE KUAKINI HIGHWAY IMPROVEMENTS, PALANI  
ROAD TO HUALALI ROAD INFORMATIONAL**

---

**Kealakehe Intermediate School Cafeteria  
75-5062 Onipaa Street  
Kailua-Kona, Hawaii  
6:00 p.m, August 31, 2004, Tuesday**

**INTRODUCTION, :**

**Mr. Peter Hendricks, Deputy Managing Director, Kona Mayor's Office**

**PRESENTATION OF INFORMATION**

**Mr. Allan Simeon , Civil Engineer V, Department of Public Works, County of  
Hawaii**

**Mr. Glenn Ahuna, Engineering Division Head, Department of Water Supply,  
County of Hawaii**

**COMMENTS BY THE PUBLIC**

**QUESTIONS AND ANSWERS**



8  **KUAKINI HIGHWAY 16-INCH WATERLINE IMPROVEMENTS**

Department of Water Supply  
DWS Job No. 2003-821

9  **Project Description and Location**

Approximately 9,000 lineal feet of 16-inch DI pipe to replace existing 8-inch waterline  
Extends along Kuakini Highway from Nakukui Drive to Hualalai Road

10  **Project Location Overview**

11  **Project Goals**

- Replace undersized existing 8-inch pipeline
- Improve hydraulics to fully utilize 2.0 mg reservoir
- Improve domestic and fire flow

12  **New Puapuaa 2.0 MG Reservoir**

13  **Mitigative Measures**

- Controlled Low Strength Material (CLSM) for trench backfill
- Maintain all existing access at all times
- Coordination of DPW and DWS projects
- Weekly status posted on DWS website
- Work hours from 8:30 am to 3:00 pm
- One-lane, two-way traffic always open; with two-lane traffic when possible
- No night work planned

14  **Status and Proposed Schedule**

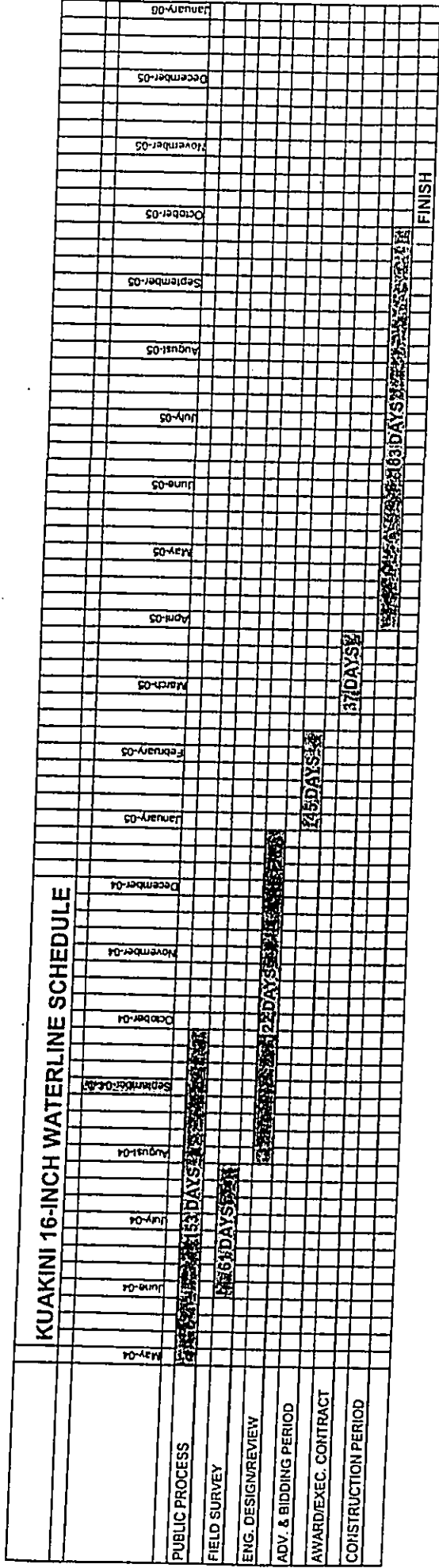
- Currently under design with EA under review
- Anticipated construction start date:
- Anticipated completion date:

April 1, 2005  
October 1, 2005

15  **Project Completion**

16  **Contacts**

- Engineering Consultant
  - Inaba Engineering Inc.
  - Jason Inaba
  - Ph: 961-3727
  - email: inabaeng@gte.net
- Department of Water Supply
  - William Atkins, Project Engineer
  - Ph: 961-8070, ext. 254
  - email: watkins@hawaiiidws.org



JASON

ATTENDANCE SIGN IN-FORM  
 FOR  
 THE INFORMATIONAL MEETING  
 KUAKINI HIGHWAY 16-INCH WATERLINE IMPROVEMENTS AND KUAK  
 IMPROVEMENTS

AUGUST 31, 2004  
 (Meeting Date)

NAME (PRINT)	TELEPHONE NO.	E MAIL ADDRESS	AFFILIATION
LARRY BECK	960 3925	lbeck@hawaiiidws.org	
William Atkins			SW3
Pete Hendricks	3295226	@INTERPAC.NET COHDMD	MAYOR'S OFFICE
Bryce Bastian	896-7671	bbastian2002@yahoo.com	
SUSIE K Kim	937-5256	SUKI1013@AOL	Island Beach LLC
Talisa Chai	—	TCC18@hotmail.com	"
Jason Inaba	961-3727		Inaba Engineering, Inc.
NAROLD KUOATA	389-5428	jarleyake@msn.com	Self
LORELEI LEAN	326-9358	lojanlolo@hawaii.com	Self
Catherine Coakley	329-8988	Cjcoakley@aol.com	Bougainville Plaza
Robert Clyde Coakley	334-1752		Bougainville Plaza
Robert Bruce	329-5410		Wasa bit
Akiyoshi Yamasaki	329-2383	surveys@outahawaii.com	
Ross Wilson Jr.	326-7820	ross@curiut-events.com	
Everett Duke Sweet	327-0449	Dukeofbi@aol.com	Self
NICOLAS YAMASAKI	329-2353	—	WES THOMAS
BRUCE McCLORE	961-8324	bruce@co-newhawaii.hi.us	COUNTY DPW
Sandy Kirschman	329-1536	chapele.kir <sup>net</sup>	Territorial City
Michael D. Leggett	329-3703	McDonald's	McDonald's
DAVID STUBBS	327-1463	david@KONA RENTAL.com	Self
Kevin Whitener	327-0501	KWhitene@HET.com	HELCO

AUGUST 31, 2004  
(Meeting Date)

NAME (PRINT)	TELEPHONE NO.	EMAIL ADDRESS	AFFILIATION
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Barbara Kossow	324-5226	cohkona@interpac.net	Mayor's office
Jim Lyon	1-216-3124	jim@lyonassociates.com	Lyon Associates, Inc.
Ed Yoshida	1-375-9040	ey@verizon.net	Lyon Assoc.
James Day	326-4646 ext 246	jday@co.hawaii.hires	HPD
Pam McLaughlin	326-1007	Mc2CAN Du@	AOL.COM
L. McLaughlin	326-1007	- / /	"/
Raymond Ball	327-0513	rballens@hei.com	HELCO
Tim Bates	328-2650	TimKona@AOL.COM	