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**DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII**

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

June 14, 2007

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

OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
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**FINAL ENVIRONMENTAL ASSESSMENT/FINDING OF NO SIGNIFICANT IMPACT  
QUEEN KA'AHUMANU HIGHWAY WATERLINE CROSSING  
SOUTH KOHALA DISTRICT, COUNTY OF HAWAII**

The County of Hawai'i, Department of Water Supply (DWS), has reviewed the comments received during the public review period, which began on May 8, 2007. Based on our review, we have affirmed our determination that this project will not have significant environmental effects. Consequently, we have issued a Finding of No Significant Impact (FONSI). Please publish this notice in the next available OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form, four copies of the Final Environmental Assessment (FEA), and the project summary on disk. If you have any questions or would like additional information, please call Planning Solutions, Inc., the consultant, at 808-550-4483, and speak with Ms. Melissa White.

Sincerely yours,



Milton D. Pavao, P.E.  
Manager

KYI:dms

Enclosures:

- (1) Draft EA, 4 copies
- (2) OEQC Publication Form
- (3) Electronic version of Project Summary on disk

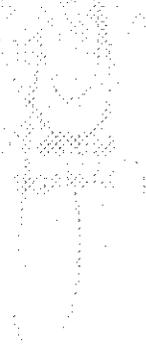
*... Water brings progress...*

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*Final Environmental Assessment &  
Finding of No Significant Impact*

**QUEEN KA‘AHUMANU HIGHWAY  
WATERLINE CROSSING**

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PREPARED FOR:  
**Department of Water Supply  
County of Hawai‘i**



**JUNE 2007**



## PROJECT SUMMARY

<b>Project:</b>	<b>Queen Ka‘ahumanu Highway Waterline Crossing</b>
<b>Applicant/Approving Agency</b>	Department of Water Supply (DWS) County of Hawai‘i Contact: Milton Pavao (808-961-8050) 345 Kekūanaō‘a Street., Suite 20, Hilo, HI 96720
<b>Location</b>	South Kohala District; Island of Hawai‘i
<b>Tax Map Key</b>	None (State Highway Right-of-Way)
<b>Parcel Area</b>	Not Applicable
<b>Project Site Area</b>	0.246 acres
<b>State Land Use District</b>	Agriculture
<b>County Zoning</b>	Road (surrounded by Ag-5)
<b>Proposed Action</b>	The project involves the installation of a new 20-inch waterline to connect Mauna Lani Resort area to the existing DWS Lālāmilo water system. The new waterline would connect existing waterlines on either side of the highway with one another. The highway crossing would occur within an existing DWS utility corridor that includes an existing 18-inch waterline. The waterline crossing is being installed in accordance with an agreement between DWS, Mauna Lani Service, Inc., and Mauna Kea Properties, Inc. to provide necessary potable water infrastructure to the area. All funding is being provided by the developer.
<b>Associated Actions Requiring Environmental Assessment</b>	Proposed use of State land.
<b>Consultation</b>	DWS consulted the Office of Environmental Quality Control and the Department of Transportation during preparation of this document. In addition, the parties listed in Table 7.1 were sent copies of the <i>Draft EA</i> for review and comment.
<b>Required Permits and Approvals</b>	<ul style="list-style-type: none"> <li>• Construction Permit, State Highway Division</li> </ul>
<b>Determination</b>	Finding of No Significant Impact
<b>Consultant</b>	Planning Solutions, Inc. 210 Ward Avenue, Suite 330 Honolulu, HI 96814 Contact: Perry White (808)-550-4483



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## 1.0 PURPOSE & NEED

### 1.1 INTRODUCTION

The proposed Lālāmilo water system Queen Ka'ahumanu Highway waterline crossing is located in the South Kohala District of the Island of Hawai'i (see Figure 1.1). Queen Ka'ahumanu Highway is a State-owned highway under the jurisdiction of the Department of Transportation (DOT). An existing DWS 18-inch waterline lies parallel to the proposed waterline route.

The proposed action consists of adding a second, 20-inch waterline under the highway to allow additional potable water from the Department of Water Supply's (DWS) Lālāmilo water system to be delivered to DWS customers in the Mauna Lani subdivision on the *makai* side of the highway. The section of waterline to be emplaced within the highway right-of-way (ROW) is 482 feet long and would connect to existing waterlines on the *mauka* and *makai* sides of the highway. The area affected by the project is less than a quarter of an acre.

### 1.2 PURPOSE AND NEED FOR THE PROJECT

The Lālāmilo water system is DWS' third largest in terms of water production. Nearly half of this system's water demands are in the Mauna Lani area. Water for the system is supplied from six wells, the Lālāmilo and Parker wells, which are located at the *mauka* portion of the water system. Water is delivered to customers by gravity (DWS 20-year Water Master Plan 2006).

DWS is proposing the 20-inch waterline in fulfillment of a three-party agreement it made with the principals of Mauna Lani Services, Inc. (MLS) and Mauna Kea Properties, Inc. (MKP) to provide potable water supply and infrastructure to those areas. The agreement commits MLS to funding, among other things:

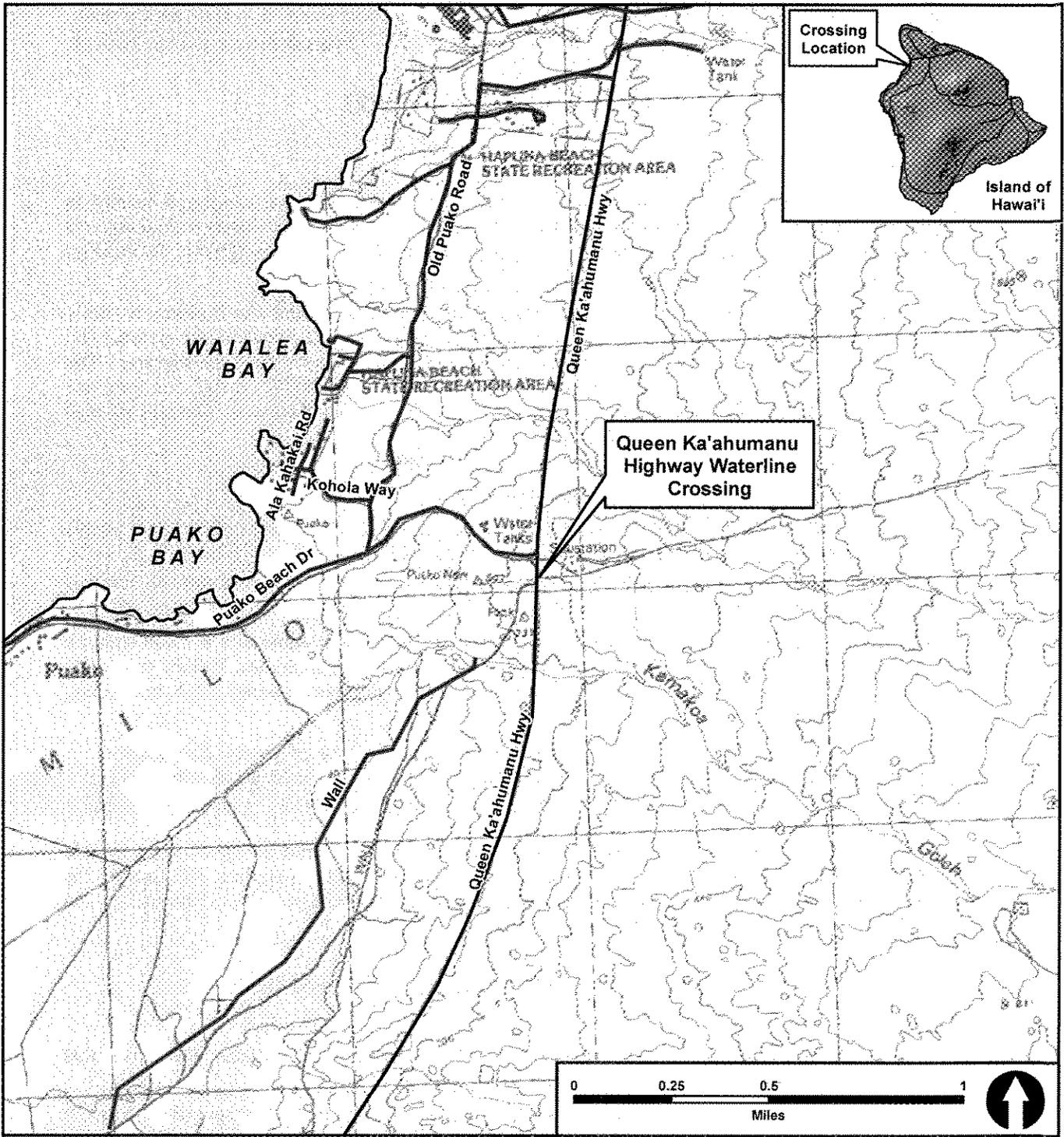
*"A parallel pipeline from the 319-foot tank to the makai side of Queen Kaahumanu Highway, sized to meet the maximum use of Lālāmilo Wells and Parker Wells in accordance with DWS standards."*

The proposed highway crossing is the last portion of work needed to provide the agreed-upon potable water infrastructure to the Mauna Lani subdivision. The new 20-inch waterline will connect the subdivision to the existing DWS reservoir serving the 319-foot pressure zone (see Figure 1.2). The developer (MLS) will entirely fund the work.

### 1.3 ORGANIZATION OF THE ENVIRONMENTAL ASSESSMENT

This EA is divided into the following parts:

- Chapter 2 outlines the alternatives analyzed in this EA, as well as several other alternatives that DWS considered and rejected during earlier planning phases.
- Chapter 3 describes the location, design, construction, and operation of the proposed waterline in detail.
- Chapter 4 describes the existing environment and analyzes the potential for impacts on environmental, cultural, and socioeconomic resources caused by the proposed project and alternatives. It also outlines strategies for minimizing and mitigating unavoidable adverse effects.
- Chapter 5 discusses the consistency of the proposed project with relevant plans, policies, and controls at local, regional, state, and federal levels.
- Chapter 6 considers the overall impacts of the project by evaluating the proposed well with respect to each individual significance criterion.
- Chapters 7 and 8, respectively, list the consulted parties and the references.



Prepared For:  
 Department of Water Supply,  
 County of Hawai'i

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Prepared By:  
 **PLANNING SOLUTIONS**

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Source:  
 -State of Hawaii GIS  
 -USGS Quad Map Kohala

Figure 1.1:  
**Location Map**

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Queen Ka'ahumanu Highway  
 Waterline Crossing Project

Figure 1.1 Location Map 2007-04-02.mxd

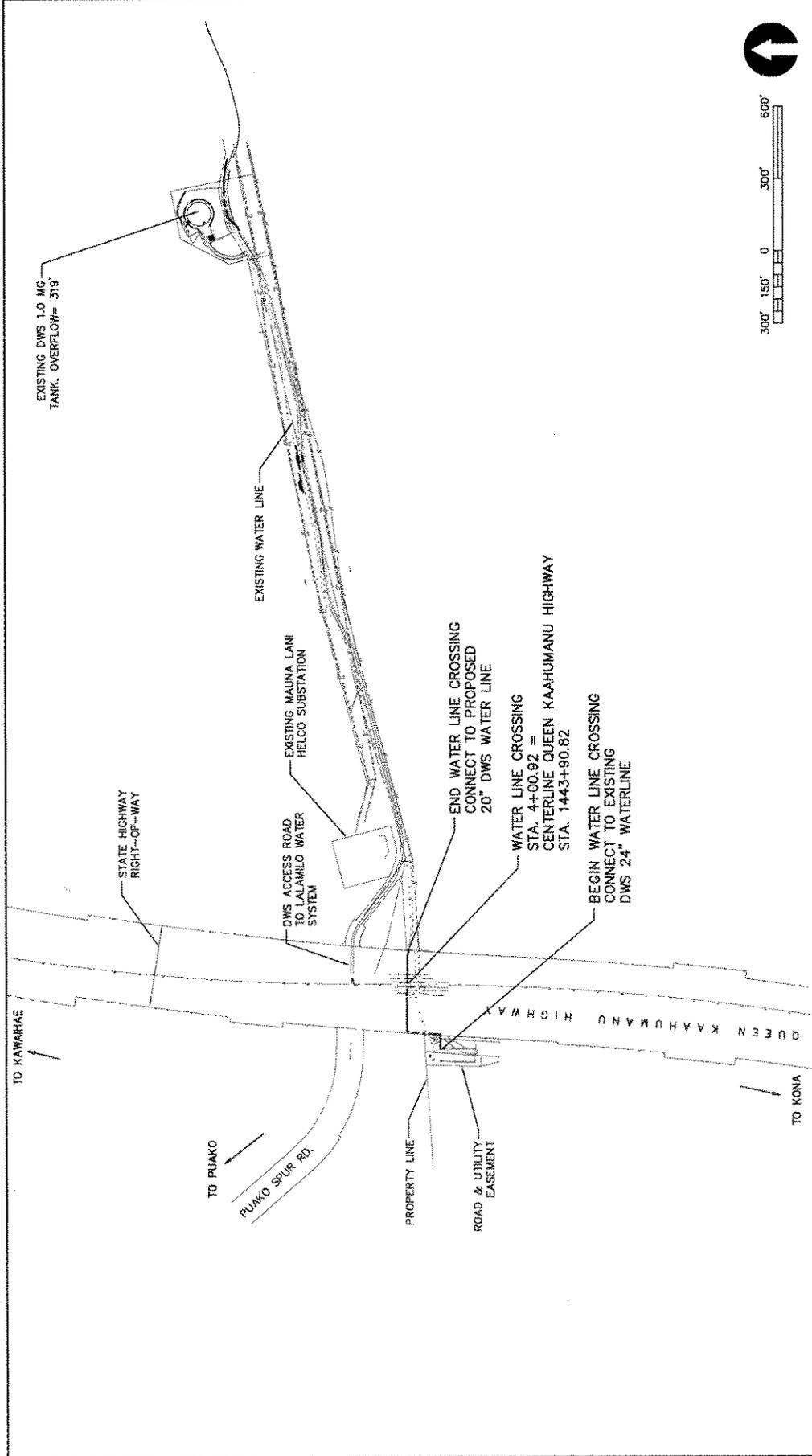


Figure 1.2:

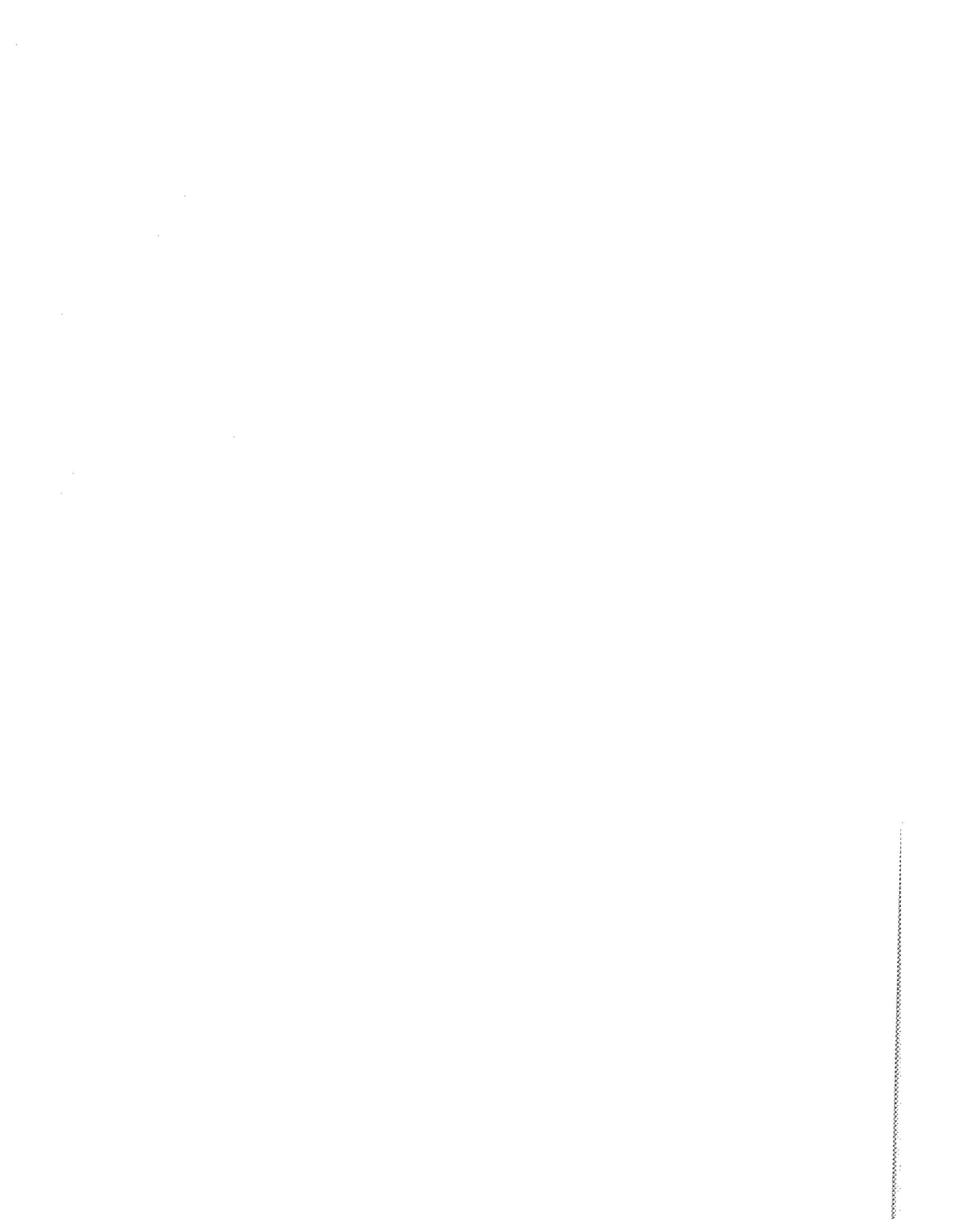
## Relationship With Existing Facilities

Queen Ka'ahumanu Highway  
Waterline Crossing Project

Prepared For:  
Department of Water Supply,  
County of Hawaii

Prepared By:  
  
 P L A N N I N G  
 S O L U T I O N S

Source:  
Tom Nance Water Resource  
Engineering, Inc. (Sheet C-1)



## 2.0 PROPOSED ACTION & ALTERNATIVES CONSIDERED

### 2.1 DESCRIPTION OF THE PROPOSED ACTION

The proposed action involves installing a new, 20-inch waterline across Queen Ka'ahumanu Highway and connecting it to existing waterlines on either side of the highway. Figure 2.1 contains a site plan of the crossing, and Figure 2.2 shows a vertical profile. Figure 2.3 includes a photograph of the proposed crossing. The contractor will install a tapping gate valve to facilitate the connection to the existing 24-inch waterline on the *makai* side. On the *mauka* side, the new line will be joined to the existing 20-inch line using a solid body sleeve.<sup>1</sup>

Section 2.1.1 describes the activities that would be undertaken during construction of the waterline. Section 2.1.2 describes aspects of its operation and maintenance. Sections 2.1.4 and 2.1.4 describe the anticipated timeline and project costs, respectively.

#### 2.1.1 CONSTRUCTION ACTIVITIES

Construction will involve the following activities:

- Surveying to locate existing utility and waterlines in the vicinity of the proposed highway crossing;
- Trench excavation for waterline;
- Emplacement of waterline;
- Connection of new waterline to existing lines on either side of the right-of-way;
- In-situ pressure testing of new waterline;
- Backfilling and grading over waterline;
- Restoring the road surface and shoulder to its previous condition.

A total of approximately ¼ acre will be affected by these activities.

#### 2.1.2 OPERATION & MAINTENANCE

Once in place, the waterline will require no regular maintenance. In the event that repairs are required, the contractor will be subject to County Department of Water Supply Design Standards and Specifications and to State Department of Transportation rules and regulations for Utility Work in State Highway Right of Ways.

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<sup>1</sup> All work will be done in accordance with the County of Hawai'i Department of Public Works "Standard Specifications for Public Works Construction," dated September 1986 and "Standard Details for Public Works Construction," dated September 1984, and the State standard specifications cited in "Notes for Construction within State Right-of-Way."

Prepared For:  
Department of Water Supply,  
County of Hawaii

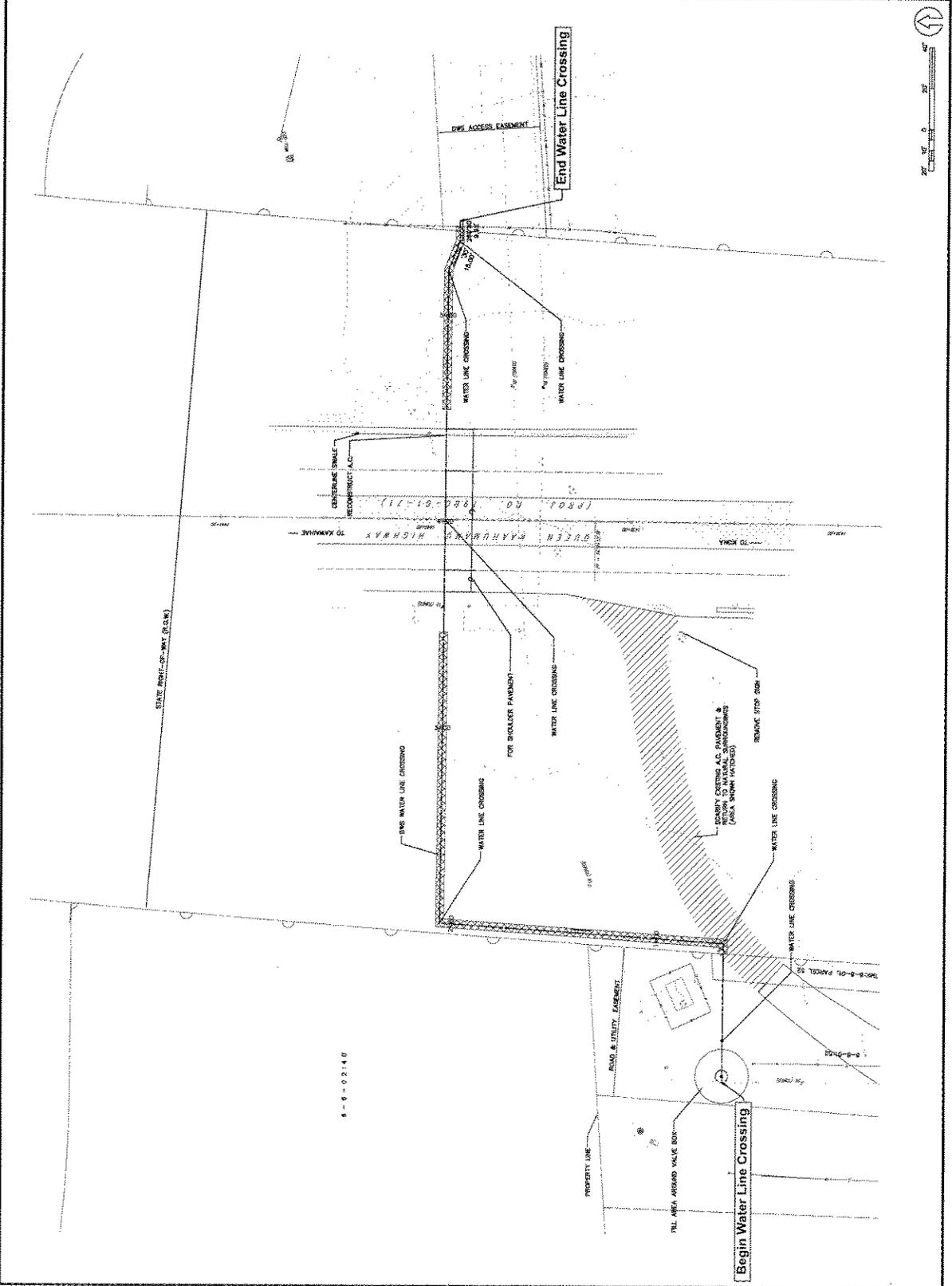
Prepared By:  
 P.L.A.N.N.I.N.G.  
SOLUTIONS

Source:  
Tom Nance Water Resource  
Engineering, Inc. (Sheet C-3)

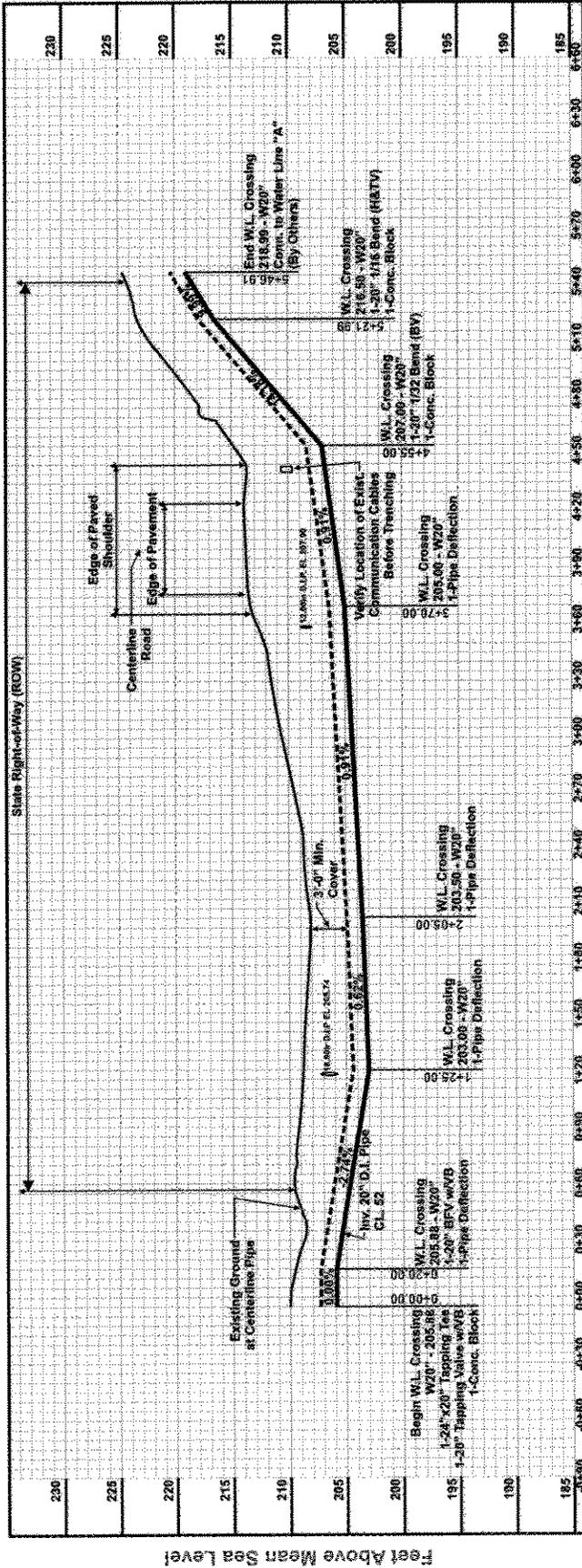
Figure 2.1:

# Site Plan

Queen Ka'ahumanu  
Highway Waterline  
Crossing Project



A-6-02140



† Feet Above Mean Sea Level

Figure 2.2:

# Waterline Profile

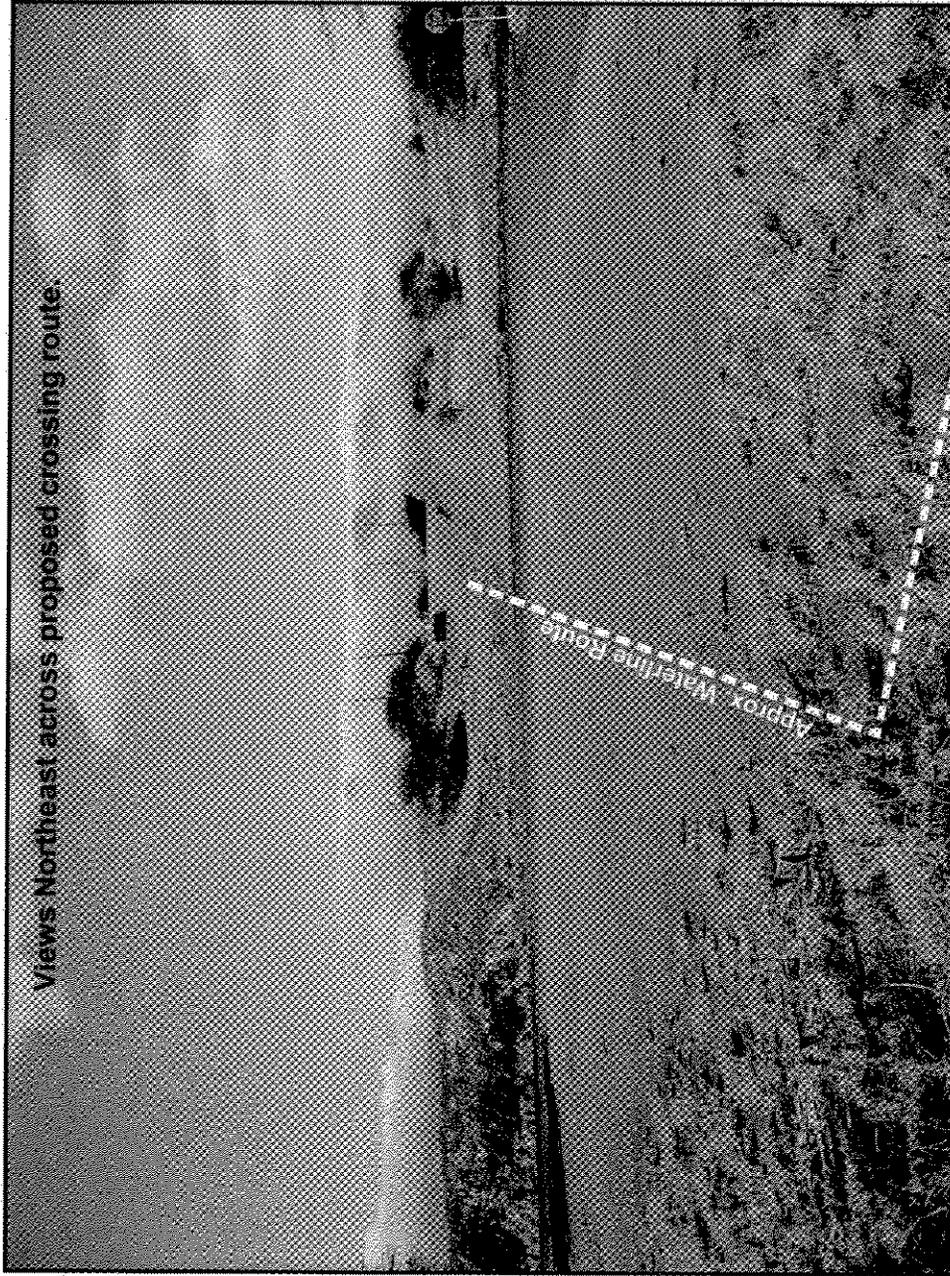
Queen Ka'ahumanu Highway  
Waterline Crossing Project

Prepared For:  
Department of Water Supply,  
County of Hawaii

Prepared By:  


Source:  
Tom Nance Water Resource  
Engineering, Inc. (Sheet C-5)

Views Northeast across proposed crossing route.



Prepared For:  
Department of Water Supply,  
County of Hawai'i

Prepared By:  
 PLANNING  
SOLUTIONS

Source:  
Planning Solutions, Inc.  
(April 20, 2007)

Figure 2.3:

## View of the Waterline Crossing Route

Queen Ka'ahumanu Highway  
Waterline Crossing Project

### 2.1.3 CONSTRUCTION SCHEDULE

The DWS schedule for the project (see Table 2.1) calls for the facility to be completed by the end of 2007.

**Table 2.1. Preliminary Project Schedule**

<i>Task</i>	<i>Approximate Duration</i>
Final Design	Completed
Design Review	Completed
Bid Solicitation	Completed
Bid Evaluation, Contracting, Notice-to-Proceed	Completed, pending EA approval
Construction Period	2 months

### 2.1.4 PROJECT COSTS

The project will be funded entirely by Mauna Lani Service, Inc., pursuant to its 2006 agreement with DWS. Table 2.2 presents the estimated costs of the project.

**Table 2.2 Preliminary Project Costs**

<i>Item</i>	<i>Estimated Cost</i>
Roadway Work	100,000
Traffic Control	29,000
Erosion Control	16,000
Waterline Work	166,000
<b>Subtotal</b>	<b>311,000</b>
<b>Contingency (20%)</b>	<b>62,000</b>
<b>Total</b>	<b>373,000</b>
Source: Tom Nance Water Resource Engineering	

## 2.2 FRAMEWORK FOR CONSIDERATION OF ALTERNATIVES

Title 11, Chapter 200 of the Hawai'i Administrative Rules (HAR §11-200) contains the Department of Health's Environmental Impact Statement Rules. HAR §11-200-5 deals with "agency actions" such as the one that DWS is proposing. It requires that, for all agency actions that are not exempt as defined in HAR §11-200-8, the agency consider environmental factors and available alternatives and disclose these in an environmental assessment or environmental impact statement. HAR §11-200-9 requires the proposing agency to analyze alternatives, in addition to the proposed action in the environmental assessment. HAR §11-200-10 establishes the required contents of environmental assessments. Among the requirements listed, HAR §11-200-10 (6) calls for an identification and summary of impacts and alternatives considered (emphasis added).

In accordance with these requirements, a number of alternatives were considered before determining that the proposed project is the best course of action. These included "No Action", smaller or larger

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**PROPOSED ACTION & ALTERNATIVES CONSIDERED**

waterline size, installation of the waterline using tunneling, and delayed action. DWS concluded that only two of these alternatives merit consideration in the impact analysis portion of this EA. They are "No Action" (as required by Chapter 343), and the proposed action of constructing the waterline as designed. The following two subsections describe the alternatives considered in preparation of this EA and the criteria that were used to decide whether to include them in the impact analysis presented in Chapter 4.

## **2.3 ALTERNATIVES ADDRESSED IN DETAIL IN THE EA**

### **2.3.1 PROPOSED ACTION**

This alternative consists of the proposed action as described in detail in Section 2.1 above. DWS believes that constructing the waterline crossing at the proposed site would best enable it to continue to provide adequate potable water to its customers, and thus it represents their preferred course of action.

### **2.3.2 NO ACTION ALTERNATIVE**

The "No Action" Alternative consists of not installing the proposed waterline, and therefore not providing the agreed-upon water transport infrastructure to serve Mauna Lani. This would deny DWS customers in the Mauna Lani Resort area the additional water supply that DWS has agreed to provide, and that Mauna Lani Services has agreed to fund.

Not only would this violate the terms of the three-party agreement between DWS, MLS, and MKP, it could make users and residents of the Mauna Lani Resort area vulnerable to a water supply shortage. DWS is committed to providing adequate potable water supply to serve County-approved and master-planned development such as Mauna Lani. Thus, DWS does not consider "No Action" an acceptable alternative. It is included in this EA primarily to fulfill the legal requirements of NEPA, Chapter 343 Hawai'i Revised Statutes, and HAR §11-200. It also provides a baseline against which to measure the environmental and social impacts of the proposed action.

## **2.4 ALTERNATIVES ELIMINATED FROM DETAILED ANALYSIS**

### **2.4.1 DIFFERENT SIZE WATERLINE**

The proposed waterline was sized to match the capacity of the existing pipes to which it will connect. Making it a larger would not increase the delivery capacity, which would be limited by other parts of the system. A smaller diameter pipe would prevent full utilization of other parts of the system, thereby unnecessarily increasing costs. Consequently, this alternative was eliminated early in the design phase.

### **2.4.2 ALTERNATE CONSTRUCTION METHOD: TUNNELING**

The new waterline could be installed by tunneling underneath the highway rather than open-trench construction. This would reduce construction-related impacts to traffic along Queen Ka'ahumanu Highway. However, the costs would be substantially more due to the fact that most of the highway crossing is within an existing cut and a good deal of the crossing would occur in solid rock. As discussed in Section 3.11.2, both lanes of the highway will be kept open and flowing during construction, and minor delays associated with slowed traffic will be limited to a few weeks time. The marginal reduction in traffic delay that tunneling would provide does not justify the significant financial burden associated with it. Consequently, this was not pursued as an alternative.

### **2.4.3 DELAYED ACTION**

Construction of the waterline is scheduled to allow the timely extension of water service within the Lālāmilo water system. This will help minimize construction-related impacts to the area by reducing the duration that construction vehicles are present. It would also reduce costs by avoiding the need for a completely new mobilization of contractors and construction equipment. It is in DWS' interest to act quickly to minimize construction-related impacts and ensure that it maintains reliable service to its customers in the Mauna Lani area. Therefore, delayed action is not a desirable alternative.

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## 3.0 EXISTING ENVIRONMENT & PROBABLE IMPACTS

### 3.1 GEOLOGY

#### 3.1.1 EXISTING CONDITIONS

The proposed highway crossing is located at an elevation of about 210 feet above mean sea level (MSL) on the western flank of Mauna Kea. Volcanism at Mauna Kea may have started about one million years ago, but most of the mountain above sea level was formed by eruptions from 200,000 to 65,000 years ago. These eruptions have formed a shield volcano made up of tholeitic alkali basalt (the Hamakua Volcanics); flows from these overlap lavas laid down by eruptions from the older Kohala Mountain. The rock near the surface are thought to date from about 10,000 years ago.

#### 3.1.2 PROBABLE IMPACTS

The project site does not contain any significant geological features or landmarks. As discussed in Section 3.9, the proposed project would not substantially change exposure to geological hazards. Neither would it bar the use of significant geological resources (such as minerals) if they are discovered. Consequently, no significant impacts are anticipated.

### 3.2 TOPOGRAPHY AND SOILS

#### 3.2.1 EXISTING CONDITIONS

A profile of the topography at the location of the proposed waterline crossing is provided in Figure 2.2. As shown in the drawing, the land slopes relatively steeply down to the highway on the *mauka* side, and on the *makai* side the topography is nearly flat.

The soil type in the area is classified as Kawaihae extremely stony very fine sandy loam, 6 to 12 percent slopes (Foote et al., 1973). This soil type is ubiquitous on the leeward coastal plains of Mauna Kea where the project site lies. The depth to pāhoehoe lava bedrock ranges from 20 to 40 inches. Permeability of this soil type is moderate, runoff is medium, and the erosion hazard is moderate. This soil type is used mostly for pasture, wildlife habitat, and recreation areas.

#### 3.2.2 PROBABLE IMPACTS

An estimated 550 cubic yards of soil will be excavated for the waterline, and grading will occur over approximately 0.12 acres (Tom Nance Water Resource Engineering 2006). The trench will be backfilled with clean select fill and native material. After construction is completed, the contractor will restore the right-of-way to its present grade and will return all existing road and shoulder surfaces to their present condition. Consequently, there will be no significant impacts to topography or soils.

### 3.3 HYDROLOGY

#### 3.3.1 EXISTING CONDITIONS

##### 3.3.1.1 Surface Water

The highway is crowned so that it slopes gently away from the centerline in order to guide stormwater off the road surface. An asphalt swale exists on the *mauka* side and the shoulder and on the *makai* side the land is vegetated and sloped away from the road. Runoff sheet flows over the pavement and when it reaches the shoulder areas, it travels a short distance before percolating into the ground. There are no wetlands, streams or other waterbodies near the proposed highway crossing.

## EXISTING ENVIRONMENT &amp; PROBABLE IMPACTS

**3.3.1.2 Groundwater**

The highway crossing is located above the Waimea Aquifer system of the West Mauna Kea Sector. The project is not located within a CWRM-designated Groundwater Management Area. Water running off the highway percolates into the ground and recharges the underlying aquifer. The groundwater beneath the crossing site is brackish, with chlorides on the order of 600 MG/L. There is no known contamination in the area.

**3.3.2 PROBABLE IMPACTS****3.3.2.1 Surface Water**

*Construction Phase.* The contractor will use best management practices (BMPs) as necessary during construction to prevent contaminants such as sediment, petroleum products, and debris from leaving the site via stormwater runoff. Proposed BMPs will include:

- Installing and maintaining silt fencing around the work area;
- Providing temporary concrete stabilization of road shoulder;
- Placing sediment traps in the existing concrete drainage swale;
- Implementing good housekeeping practices for materials storage and spill cleanup;
- Prohibiting on-site vehicle maintenance and fueling;
- Avoiding excessive watering for dust control;
- Covering trenches during non-working hours;
- Covering stockpiled materials that are not used within one day; and
- Installing a stabilized construction site entrance.

The contractor will also attempt to schedule work for periods of minimal rainfall and will place permanent erosion control measures on lands as quickly as possible.<sup>2</sup> At present, water from pressure testing of the waterline is not expected to be discharged into State waters. Should this change, the contractor will submit an NOI-F application form for NPDES General Permit Coverage at least 30 days prior to commencing construction.

*Operational Phase.* Once construction is completed, the road surface and drainage swales will be restored to their present condition. There will be no net change in impermeable surface at the project site, and thus no long-term impacts to surface water will result from the project's operation.

**3.3.2.2 Groundwater**

The waterline is located at an elevation of approximately 210 feet MSL; this is approximately 208 feet above the groundwater table in the area, which occurs as a thin basal lens. Installation of the waterline will not affect recharge to the aquifer and will not require dewatering. Hence, it does not have the potential to affect groundwater volumes or quality.

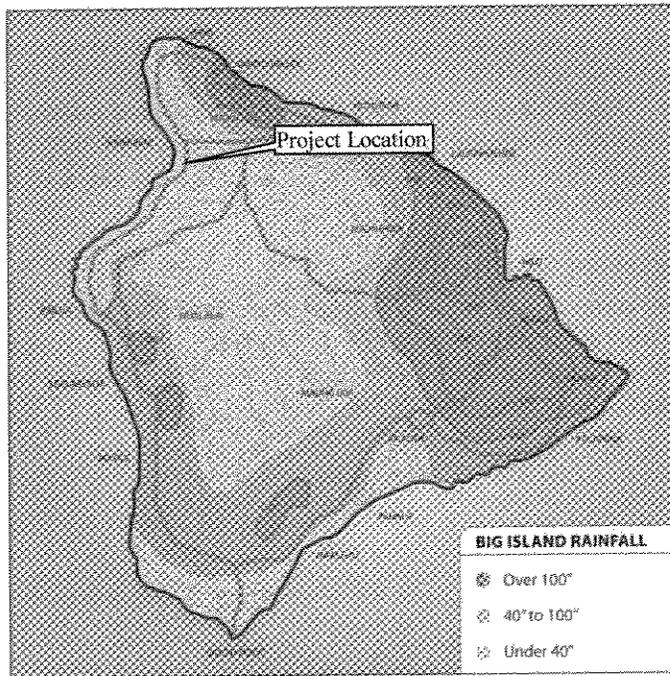
**3.4 CLIMATE AND AIR QUALITY****3.4.1 EXISTING CONDITIONS**

Temperatures in the area are moderate. Daily low temperatures are typically 58-59° F between December and March and 63-64° between June and November. Normal daily high temperatures are 76-77° between December and May and 79-80° between August and November.

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<sup>2</sup> The waterline is covered under an existing NPDES General permit for construction-related stormwater discharges (File No. HI R10C535, issued on May 3, 2006). (National Pollutant Discharge Elimination System administered through the Clean Water Branch of the State Department of Health (Hawai'i Administrative Rules, 11-55, Appendix C))

No site-specific wind data are available from the waterline crossing location. However, the project area in general is on the leeward side of the island relative to the prevailing trade winds. The wind



Source: DWS 20-Year Water Master Plan (2006).

rose for Kawaihae, which is located a few miles to the north of the project site, shows a pronounced onshore-offshore pattern, blowing from either the east or the west over 80 percent of the time. They are relatively gentle the majority of the time, but wind speeds in excess of 13 miles per hour occur relatively frequently, particularly in the afternoon. Kona storms, which usually occur in the winter, bring stronger southerly winds to the site (Juvik, Juvik & Paradise 1998).

Being in the leeward shadow of Mauna Kea and the Kohala Mountain, the project site is one of the driest areas on the island, with an average of less than 10 inches of rainfall a year (see illustration at left).

Traffic along Queen Ka'ahumanu Highway and Puakō Beach Drive is the only significant source of anthropogenic air emissions near the project site. The winds sometimes carry emissions from eruptions of Kīlauea volcano around the island and can occasionally impair air quality in the area, but this happens much less frequently here than it does in more southerly parts of the island.

### 3.4.2 PROBABLE IMPACTS

#### 3.4.2.1 Construction Phase

As previously mentioned, installation of the proposed waterline crossing will disturb about ¼ acre of land. No more than a few pieces of construction equipment would operate on the site at any one time. Moreover, work would be limited to period of a few months. The site will be watered as needed during construction to control fugitive dust, and exposed areas will be stabilized, covered, and replanted as soon as possible after being disturbed. The contractor will ensure that the work conforms with the State Department of Health's guidelines for controlling fugitive dust as outlined in Hawai'i Administrative Rules §11-60.1. Consequently, pollutant emissions from construction activities do not have the potential to affect the local or regional air quality substantially.

#### 3.4.2.2 Operational Phase

Normal operation of the proposed waterline will not produce on-site air emissions, will not alter airflow in the vicinity, and will have no other measurable effect on the area's microclimate. The waterline will not consume any electrical power; the water will be gravity-fed through the existing line from DWS' 319-foot reservoir.

## EXISTING ENVIRONMENT &amp; PROBABLE IMPACTS

**3.5 TERRESTRIAL FLORA AND FAUNA****3.5.1 EXISTING CONDITIONS**

The majority of the area to be disturbed by the waterline is a paved road surface. The unpaved areas within the highway right-of-way are vegetated with grass and weedy dryland species typical of roadsides in Hawai'i. The State of Hawai'i Department of Transportation limits vegetation within the right-of-way by applying herbicides and manually cutting as necessary in order to maintain safety and visibility. No rare, threatened, or endangered plant or animal species are known or likely to be present due to the high level of disturbance and lack of suitable habitat.

**3.5.2 PROBABLE IMPACTS & MITIGATION MEASURES**

Construction of the proposed facilities will affect only ¼ acre of land, most of which is unvegetated. The plants that are present in the affected area are introduced and invasive species. The affected area is not habitat for any rare, threatened or endangered species. Consequently, the proposed action will not have any substantial direct impacts on terrestrial flora or fauna.

**3.6 AQUATIC BIOTA****3.6.1 EXISTING CONDITIONS**

There are no streams, wetlands, irrigation ditches, or other water bodies nearby with the potential to host significant aquatic communities.

**3.6.2 PROBABLE IMPACTS**

Due to the absence of aquatic habitat in the project area, the proposed waterline crossing will not adversely affect aquatic biota.

**3.7 NOISE****3.7.1 EXISTING CONDITIONS**

Existing noise levels at the site of the proposed waterline crossing are dominated by vehicular traffic. Lesser sources include birds, insects, and wind in the foliage. Based on spot measurements made near the crossing in the afternoon of April 20, 2007, ambient noise levels just off the paved portion of the road tend to range between 45 and 55 decibels (dB) when no traffic is present. When vehicles pass, noise levels increase to as high as 80 dB.

**3.7.2 PROBABLE IMPACTS & MITIGATION MEASURES****3.7.2.1 Environmental Noise Guidelines, Standards, and Criteria**

Hawai'i Administrative Rules (HAR) §11-46 defines three classes of zoning districts and specifies corresponding maximum permissible sound levels due to (i) stationary noise sources and (ii) equipment related to agricultural, construction, and industrial activities. Those limits, applicable at the property boundary of the parcels containing the affected land use, are shown in Table 3.1. The noise limit for "Class C Districts" [which §11-46-3(3) defines as "...all areas equivalent to lands zoned agriculture, country, industrial, or similar type."] is 70 dBA at all times.

**3.7.2.2 Construction Phase Impacts**

Demolition and construction will involve the operation of diesel-powered equipment for a period of up to 8 weeks. Noise from loudest un-muffled equipment of this sort can be as high as 80 to 85 dBA measured at a distance of 50 feet. Currently, the nearest noise-sensitive land use (a residence) is approximately 3,300 feet from the proposed work area.

Depending upon the construction equipment that is used, demolition and construction activities associated with the proposed project could exceed the 70 dBA daytime property line noise limit for agricultural areas (as the location is zoned). Because of this, a construction noise permit may be needed from the State Department of Health.

HAR §11-46-7 gives the Director of Health the authority to issue permits that allow the limits shown in the table to be exceeded so long as:

- the best available control technology is used;
- the granting of the permit is in the public interest;
- the services or activities for which the permit is sought are temporary and cannot be delayed, postponed, or rescheduled to a time period in which they are permitted;
- additional time is needed to alter or modify the activity or operation to comply with the regulation;
- the applicant has disclosed any possible impact from noises created by any proposed nighttime activity which may affect the immediate surrounding; and
- The applicant plans to notify the people in the surrounding area of planned nighttime activity.

The regulations prohibit issuance of a construction noise permit for construction activities which:

- emit noise in excess of the maximum permissible sound levels for the hours before 7:00 a.m. and after 6:00 p.m. of the same day, Monday through Friday;
- emit noise in excess of the maximum permissible sound levels for hours before 9:00 a.m. and after 6:00 p.m. on Saturday; and
- emit noise in excess of the maximum permissible sound levels on Sundays and on holidays.

HAR §11-46-8 also provides for variances in situations where it is not possible to meet all of the conditions required for permits. At present it is anticipated that construction of the proposed waterline crossing would qualify for a noise permit if required; hence, it is not anticipated that a variance will be needed.

### **3.7.2.3 Operational Phase Noise Impacts**

Once in place, the waterline will not be a source of noise.

**Table 3.1. Maximum Permissible Sounds Levels in dBA (HAR §11-46).**

<i>Zoning Districts</i>	<i>Daytime (7 a.m. to 10 p.m.)</i>	<i>Nighttime (10 p.m. to 7a.m.)</i>
Class A	55	45
Class B	60	50
Class C	70	70

Notes:

(a) The maximum permissible sound levels apply to any excessive noise source emanating within the specified zoning district, and at any point at or beyond (past) the property line.

(b) Noise levels may not exceed the maximum permissible sound levels for more than ten per cent of the time within any twenty-minute period, except by permit or variance issued under sections 11-46-7 and 11-46-8.

(c) For mixed zoning districts, the primary land use designation shall be used to determine the applicable zoning district class and the maximum permissible sound level.

(d) Measurements values are for "A" weighting network and "slow" meter response unless otherwise stated. Sound level meters and calibrators must conform to American National Standard, ANSI S1.4-1983, specifications. The maximum permissible sound level for impulsive noise is ten dBA above the maximum permissible sound levels shown and is measured using the "Fast" meter response.

(e) The limits do not apply to the operation of emergency generators, provided the best available control technology is implemented.

(f) For the purpose of the regulations, the following definitions apply:  
 "Construction activities" means any or all activities, including but not limited to those activities necessary or incidental to the erection, demolition, assembling, renovating, installing, or equipping of buildings, public or private highways, roadways, premises, and parks.  
 "Construction equipment" means any device designed and intended for use in construction, including but not limited to any air compressor, pile driver, bulldozer, pneumatic hammer, steam shovel, derrick, crane, tractor, grader, loader, power saw, pump, pneumatic drill, compactor, on-site vehicle, and power hand tool.  
 "Construction site" means any or all areas, necessary or incidental for the purpose of conducting construction activities.

(g) Class A zoning districts include all areas equivalent to lands zoned residential, conservation, preservation, public space, open space, or similar type.  
Class B zoning districts include all areas equivalent to lands zoned for multi-family dwellings, apartment, business, commercial, hotel, resort, or similar type.  
Class C zoning districts include all areas equivalent to lands zoned agriculture, country, industrial, or similar type.

Source: Hawai'i Administrative Rules, Title 11, Department of Health, Chapter 46, Community Noise Control

### 3.8 ARCHAEOLOGICAL, HISTORIC AND CULTURAL FEATURES

#### 3.8.1 EXISTING CONDITIONS

Extensive grading and filling has occurred along the entire length of the Queen Ka'ahumanu Highway right-of-way. The Department of Transportation commissioned an archaeological study along the length of the right-of-way as part of the *Environmental Impact Statement* for the highway to ensure that historic and archaeological sites were identified and that data recovery, mitigation, or preservation measures were implemented as appropriate. No features were identified in the vicinity of the proposed pipeline crossing. No artifacts or burials were encountered during trenching for an existing 18-inch DWS waterline that crosses the highway only 20 feet away. There are no known or

likely cultural uses of the site, since it is entirely within a State highway right-of-way and no unique or historic features exist there.

### **3.8.2 PROBABLE IMPACTS & MITIGATION MEASURES**

Based on the existing conditions at the site described above, it is extremely unlikely that any historic or archaeological features will be encountered during construction. Nonetheless, the construction contract for work on the parcel will stipulate that, should any new artifact or burial site be encountered during construction, all activities would halt and SHPD would be notified in accordance with Section 6E, Hawaii Revised Statutes and Chapter 13-300, Hawaii Administrative Rules. It will provide that work may be resumed only after consultation with the SHPD is completed and a monitoring program is in place.

There is no evidence that the area affected by the proposed waterline crossing is valued for traditional cultural purposes. It does not contain unique or valuable landmarks or resources, and none are anticipated to be affected. Except for brief periods during construction, it will not affect public access to the area. Consequently, it will have no effect on the ability of native Hawaiian practitioners and others to access cultural resources in nearby areas.

## **3.9 NATURAL HAZARD RISKS**

### **3.9.1 EXISTING CONDITIONS**

#### **3.9.1.1 Volcanic Hazards**

Mauna Kea is considered dormant, having last erupted about 4,500 years ago (McDonald, Abbott, and Peterson 1983, USGS 1997). The U.S. Geological Survey has divided the island into zones based on the probability of coverage by future lava flows; Zone 1 represents the greatest hazard and Zone 9 the least. The western flank of Mauna Kea where the project site is located is in Zone 8; most of this area has not been affected by lava flows for the past 10,000 years (USGS 1997).

#### **3.9.1.2 Seismic Hazards**

As can be seen by the U.S. Geological Survey's plot of the location and size of the larger earthquakes that occurred on the Island of Hawai'i between 1962 and 1985 (Figure 3.1), the majority of the earthquakes are centered near Kīlauea, but no part of the island is completely free of them. Figure 3.2, another U.S. Geological Survey drawing, shows the generalized locations of damaging earthquakes of magnitude 6 or greater that occurred on the Island between 1868 and 1997. None of these larger earthquakes were centered near the project site.

On October 15, 2006, a magnitude 6.7 earthquake centered near the shoreline about halfway between Keahole Point and Kawaihae Harbor affected the area. The earthquake is probably not directly related to future volcanic eruptions; instead, it likely was the release of lithospheric stresses accumulated over a long period. The earthquake caused minor injuries to numerous people, damaged nearly 1,200 buildings, and caused landslides that blocked roads. Power outages occurred throughout the Hawaiian Islands. Damage was estimated at 73 million dollars. It also produced a small tsunami with a wave height of 10 cm at Kawaihae Harbor.

Table 3.2 provides more information about earthquakes, including the October 15, 2006, event, which had an epicenter only a few kilometers from the crossing site. For the purposes of structural design, most of the Island of Hawai'i, including the waterline crossing site, is classified as Seismic Zone 3 by the Uniform Building Code adopted by the County of Hawai'i in 1993 (USGS 1994).

**Table 3.2 Damaging Earthquakes of Magnitude 6 or Greater Since 1868 on the Island of Hawai'i.**

Year	Date	Region	Magnitude	Depth (Miles)
1868	Mar. 28	Mauna Loa south flank	6.5-7.0*	No data
1868	Apr. 2	Mauna Loa south flank	7.5-8.1*	No data
1929	Oct. 5	Hualalai	6.5*	No data
1941	Sept. 25	Ka'oiki	6.0*	No data
1950	May 29	Mauna Loa southwest rift	6.2	No data
1951	Apr. 22	Kīlauea	6.3	20
1951	Aug. 21	Kona	6.9	5
1952	May 23	Kona	6.0	5
1954	Mar. 30	Kīlauea south flank	6.5	5
1962	June 27	Ka'oiki	6.1	6
1973	Apr. 26	Honomu	6.2	25
1975	Nov. 29	Kīlauea south flank	7.2	6
1983	Nov. 16	Ka'oiki	6.6	7
1989	June 25	Kīlauea south flank	6.1	9
2006 <sup>1</sup>	Oct. 15	Kona	6.7	24

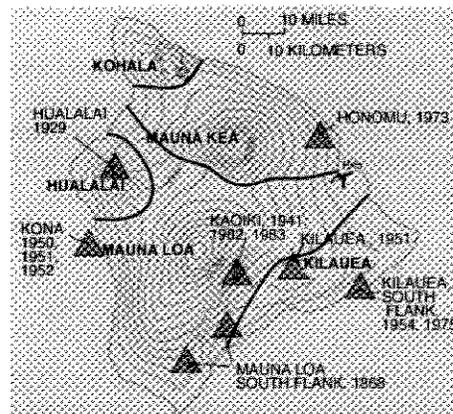
<sup>1</sup> USGS Earthquake Hazards Program website: <http://earthquake.usgs.gov/eqcenter/> (2006).

Source: *Volcanic and Seismic Hazards on the Island of Hawai'i*. Updated July 18, 1997

**Figure 3.1 Earthquakes on and Near the Island of Hawai'i, 1962-1985.**



**Figure 3.2 Generalized Locations of Damaging Earthquakes of Magnitude 6 or Greater on the Island of Hawai'i: 1868-1997.**



Note: Does not include 2006 event.

Source: Volcanic and Seismic Hazards on the Island of Hawai'i. Updated July 18, 1997

### 3.9.1.3 Flood and Tsunami Hazards

The proposed waterline crossing site is not located within a 100-year or 500-year floodplain or within a Tsunami Evacuation area (State of Hawai'i 2002).

## 3.9.2 PROBABLE IMPACTS

### 3.9.2.1 Lava Flows

As noted above, the U.S. Geological Survey (1987) has designated the area in which the project site is located as Volcanic Lava Flow Hazard Level 8, which is the second lowest risk scale. This is among the safest locations on the island in terms of potential lava flows, and the proposed project will not affect this designation.

### 3.9.2.2 Earthquakes

The proposed waterline crossing will be built to comply with the Uniform Building Codes for Seismic Zone 3. Existing waterlines in the area that were built to these standards were not damaged by the sizeable October 15, 2006, event. This suggests that the proposed pipeline is not susceptible to damage by reasonably expected seismic events and will not exacerbate existing earthquake hazards in the area.

### 3.9.2.3 Flooding from Streams or Tsunami

As discussed above, the project site is not subject to flooding or tsunami. Neither will it increase runoff in a way that might increase hazards on other properties. Hence, there is no natural hazard risk from that source.

## 3.10 SCENIC AND RECREATIONAL RESOURCES

### 3.10.1 EXISTING CONDITIONS

No unique or outstanding viewpoints exist at the site. There are no parks, beaches or recreational facilities in the area to be affected by the project, and the construction of the waterline will not impair

EXISTING ENVIRONMENT & PROBABLE IMPACTS

access to existing recreational areas. The construction contract stipulates that work be scheduled around the annual Ironman triathlon race and other permitted races traversing the area.

**3.10.2 PROBABLE IMPACTS & MITIGATION MEASURES**

During the construction phase, the presence of construction equipment and workers will affect the appearance of the area, but once in place, the proposed waterline will not be visible. The short duration of the construction phase and lack of aboveground structures means that there will be no substantial impacts on scenic and aesthetic resources. The project will likewise not affect recreational activities in the area once in place.

**3.11 TRAFFIC**

**3.11.1 EXISTING CONDITIONS**

Queen Ka'ahumanu Highway (State Route 19) is a busy 2-lane highway that serves as the major coastal roadway between Kailua-Kona and Kawaihae. The proposed waterline would cross the highway near mile marker 73, approximately 100 feet north of its intersection with Puakō Beach Drive. Peak traffic hours on the highway are from 6:00 to 7:00 am and 3:00 pm to 4:00 pm on weekdays. Table 3.3 provides recent traffic count data from the two nearest traffic count stations north and south of the proposed highway crossing. No traffic counts have been conducted recently for the Queen Ka'ahumanu Highway-Puakō Beach Drive intersection.

**Table 3.3. Traffic Count Data for Queen Ka'ahumanu Highway**

Station	AM Peak			PM Peak			24-Hour Count			
	Date	N	S	Total	N	S	Total	N	S	Total
B71001906797 Milepost 72 north of project	5/30- 31/06	329	696	1,025	554	516	1,070	5,333	6,511	11,844
	5/31- 6/1/06	363	700	1,063	668	532	1,200	5,399	6,497	11,896
B71001907334 Milepost 74 south of project	10/10- 11/06	906	436	1,342	553	876	1,429	8,804	8,623	17,427
	10/11- 12/06	913	491	1,404	607	849	1,456	9,206	8,480	17,686

Source: DOT Highway Planning Branch (2007).

**3.11.2 PROBABLE IMPACTS & MITIGATION MEASURES**

Construction of the waterline will take place entirely within the highway right of way and a portion of the waterline will be installed underneath the roadway itself. The work is planned such that both highway lanes will remain open and flowing 24 hours a day.<sup>3</sup> When trenching is occurring in the traffic lanes, lane diversions will be set up using cones and signage; adequate space exists along the road shoulder to permit this. Hence, the only effect will be to narrow the shoulder on one side.

In order to maintain free-flowing traffic in both directions, maximize safety, and minimize construction related delays, the traffic plan for the project specifies that the contractor must:

<sup>3</sup> All traffic control devices will be in conformance with the "Manual of Uniform Traffic Control Devices for Streets and Highways."

- Install signage to alert approaching traffic along Queen Ka'ahumanu Highway and Puakō Beach Road of construction activity, possible delays, reduced construction speed limits, and lane diversions;
- Install coning at the intersection with Puakō Beach Road to direct traffic into appropriate lanes;
- Place flaggers at the intersection to direct side road traffic during lane diversions;
- Park construction vehicles and equipment to allow adequate room for lane diversions and continued shoulder use by bicycles and pedestrians.
- Cover all trenches with non-skid steel and/or concrete covers during off-work hours.
- Restore the road to its original, drivable condition and replace all signage, posts, road markings, and pavement in kind.

Construction will occur over a period of 8 weeks, and work requiring lane diversions will only occur for about a third of that time. During lane diversions, it is likely that delays of up to several minutes could occur as traffic slows through the area and flaggers direct cars into and out of Puakō Beach Road. The delays will be less when work is occurring outside the active lanes and during off-work hours, although construction speed limits will still be in effect. Due to the short duration of the construction period, the proposed mitigation measures, and the fact that both lanes will remain open at all times, impacts to vehicular traffic are expected to be minor. Since the traffic control plan requires that the contractor maintain sufficient space on the shoulder to allow the passage of bicycles and pedestrians at all times, the only effect will be to slow their passage through the approximately 500 feet of roadway that flagmen will control at any one time.

### **3.12 LAND USE & SOCIOECONOMIC ENVIRONMENT**

#### **3.12.1 EXISTING CONDITIONS**

The parcel on which the proposed waterline would be placed is a State highway right-of-way. The right-of-way is not presently used for any other productive purpose. The land to the east and southwest of the highway crossing is in the State Agricultural District. The land immediately to the west and northwest of the Puakō Beach Road intersection is in the State Conservation District. The nearest urban development is approximately a half mile away within the community of Puakō.

Tourism is the leading economic industry in the South Kohala District. The Mauna Kea Beach Hotel, which began operations in 1965, opened the door to resort development of this area. The three large resort complexes in the district, Mauna Kea Resort, Mauna Lani Resort, and the Waikoloa Beach Resort, currently account for 40 per cent of the hotel rooms within the County. As a result of the jobs created by resort development, South Kohala has one of the lowest unemployment rates and highest median household incomes in the County. Due to the growth in tourism within the district, the population of South Kohala has increased dramatically over the past 30 years (see Table 3.4).

Cattle ranching and other forms of agriculture are also well established in South Kohala. Waimea is one of the most productive areas for vegetable crops on the Island. Crops include cabbages, celery, lettuce, daikon, peppers, broccoli and carrots. The cattle ranching industry utilizes most of the land area within the district with pastures situated on the higher slopes of the mountains and extending down to the sea. The district also includes the Hawai'i Preparatory Academy and several astronomical observatories located on the summit of Mauna Kea.

EXISTING ENVIRONMENT & PROBABLE IMPACTS

**Table 3.4. Population Growth in South Kohala**

Population	1980	1990	2000	1980-90 % Change	1990-00 % Change
South Kohala	4,607	9,140	13,131	98.4	43.7

Economic Assessment, PKF Hawaii, January 2000  
 U.S. Census, 2000  
 Hawaii County Department of Research and Development

**3.12.2 PROBABLE IMPACTS**

The highway has existed in its present location for more than 35 years. The areas around the highway in South Kohala have experienced extensive resort and residential development, which continues today and is consistent with the vision expressed in the Hawai'i County General Plan (2005).

The proposed waterline will not change the land use, as the highway will be restored to present conditions after construction. Aside from the construction employment and expenditures that it would create, which are both small in magnitude and temporary, the project will not in and of itself stimulate or otherwise promote population growth or economic activity. Rather, it will allow the Department to serve development that is occurring in accordance with County-approved plans.

## 4.0 RELATIONSHIPS TO RELEVANT PLANS, POLICIES & CONTROLS

### 4.1 COUNTY AND STATE REGULATIONS

#### 4.1.1 COUNTY OF HAWAI‘I GENERAL PLAN

##### 4.1.1.1 Applicable Goals, Policies, and Recommended Actions

The 2005 *Hawai‘i County General Plan* contains goals and policies concerning the development and operation of essential water supply facilities. The *General Plan* recognizes that water supply facilities are needed to support the patterns of development which the *General Plan* seeks to achieve. It makes planning for the location of utility facilities such as wells, reservoirs, waterlines, and pumping stations an integral part of the land planning process.

The 2005 *General Plan* identifies the following County policies with regards to public water systems that are relevant to the proposed project:

*(a) Water system improvements shall correlate with the County's desired land use development pattern.*

*(b) All water systems shall be designed and built to Department of Water Supply standards.*

*(e) Water system improvements should be first installed in areas that have established needs and characteristics, such as occupied dwellings, agricultural operations and other uses, or in areas adjacent to them if there is need for urban expansion.*

The 2005 *Hawai‘i County General Plan* identifies a number of actions to implement these policies in the South Kohala District.

Specifically, it directs DWS to:

- Seek alternative sources of water for the Lālāmilo system.
- Improve and replace inadequate distribution mains and steel tanks.
- Continue to seek additional groundwater sources for the Waimea System.

##### 4.1.1.2 Conformance with the 2005 *Hawai‘i County General Plan*

The proposed waterline would serve Mauna Lani, a master-planned development that has been approved by the County and is thus consistent with the County’s land use development pattern. In addition, the Mauna Lani area has an established need for water transport infrastructure. Finally, the waterline will be designed and built to all applicable DWS standards.

A waterline connection beneath the highway will allow DWS to fulfill its commitment to serving County-approved development and ensure that its customers in the Mauna Lani area continue to have access to an adequate supply of potable water supply. The proposed waterline will be placed within an existing DWS utility easement. It does not constitute a significant change in land use or visual disruption to surrounding areas. The proposed use is allowable under existing State and County zoning and development regulations. Operation of the waterline will not produce substantial air or noise emissions that would disturb existing uses on adjacent properties. Consequently, it is consistent with the intent of the General Plan.

#### 4.1.2 COUNTY OF HAWAI‘I ZONING ORDINANCE

Queen Ka‘ahumanu Highway itself is designated “Road” on the County Zoning layer of the Hawai‘i State GIS. The zoning designation in the surrounding areas is Agriculture (Ag-5a), as is the majority

of the zoned land in the South Kohala District. The Hawai'i County Code (2000 Edition), Section 25-4-11(a) states:

*Communication, transmission, and power lines of public and private utilities and governmental agencies are permitted uses within any district.*

The proposed waterline is a transmission line that would furnish water for the Mauna Lani area and would thus qualify as a permitted use under this regulation.

#### **4.1.3 COUNTY OF HAWAI'I SPECIAL MANAGEMENT AREA**

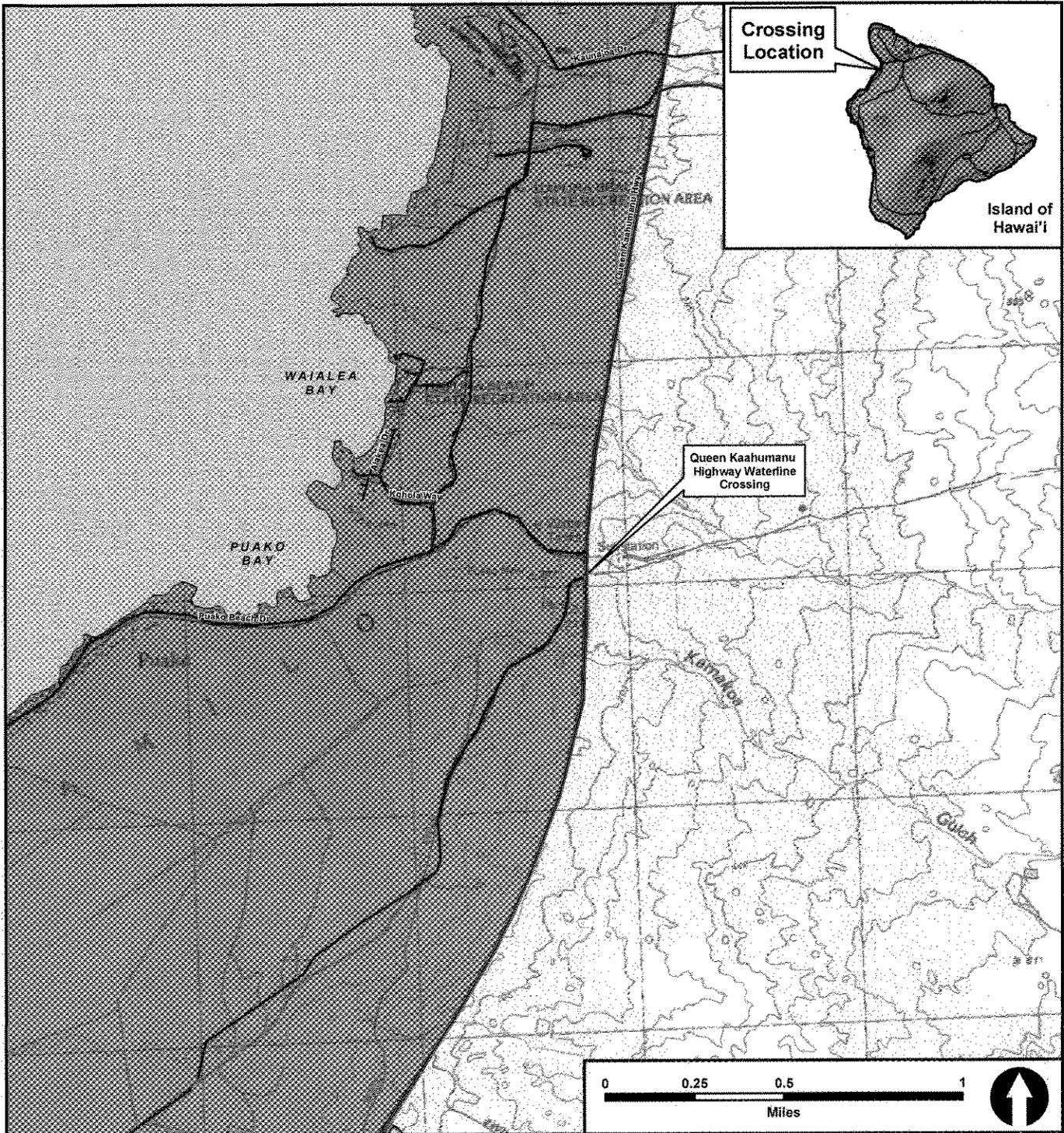
The County of Hawai'i's Special Management Area (SMA) boundary extends down the center of the highway right of way at the location of the proposed waterline (see Figure 4.1). According to the Hawai'i County Planning Commission SMA Rules, utility lines such as the proposed waterline are not considered "development" which would require the issuance of an SMA use permit.<sup>4</sup>

#### **4.1.4 STATE OF HAWAI'I LAND USE**

As discussed in Section 3.12 and shown on Figure 4.2, the highway crossing is in the State Agricultural District. HRS Chapter 205 §205-4.5 (7) lists public utility lines as a permissible use within this district.

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<sup>4</sup> According to Hawai'i County Planning Commission Rules 9-4(10)(B)(xiv), "Development" does not include "(xiv) Installation of underground utility lines and appurtenant aboveground fixtures less than four feet in height along existing corridors."



**Prepared For:**  
 Department of Water Supply,  
 County of Hawai'i

**Prepared By:**  
 **PLANNING SOLUTIONS**

**Source:**  
 -State of Hawaii GIS  
 -USGS Quad Map Kohala

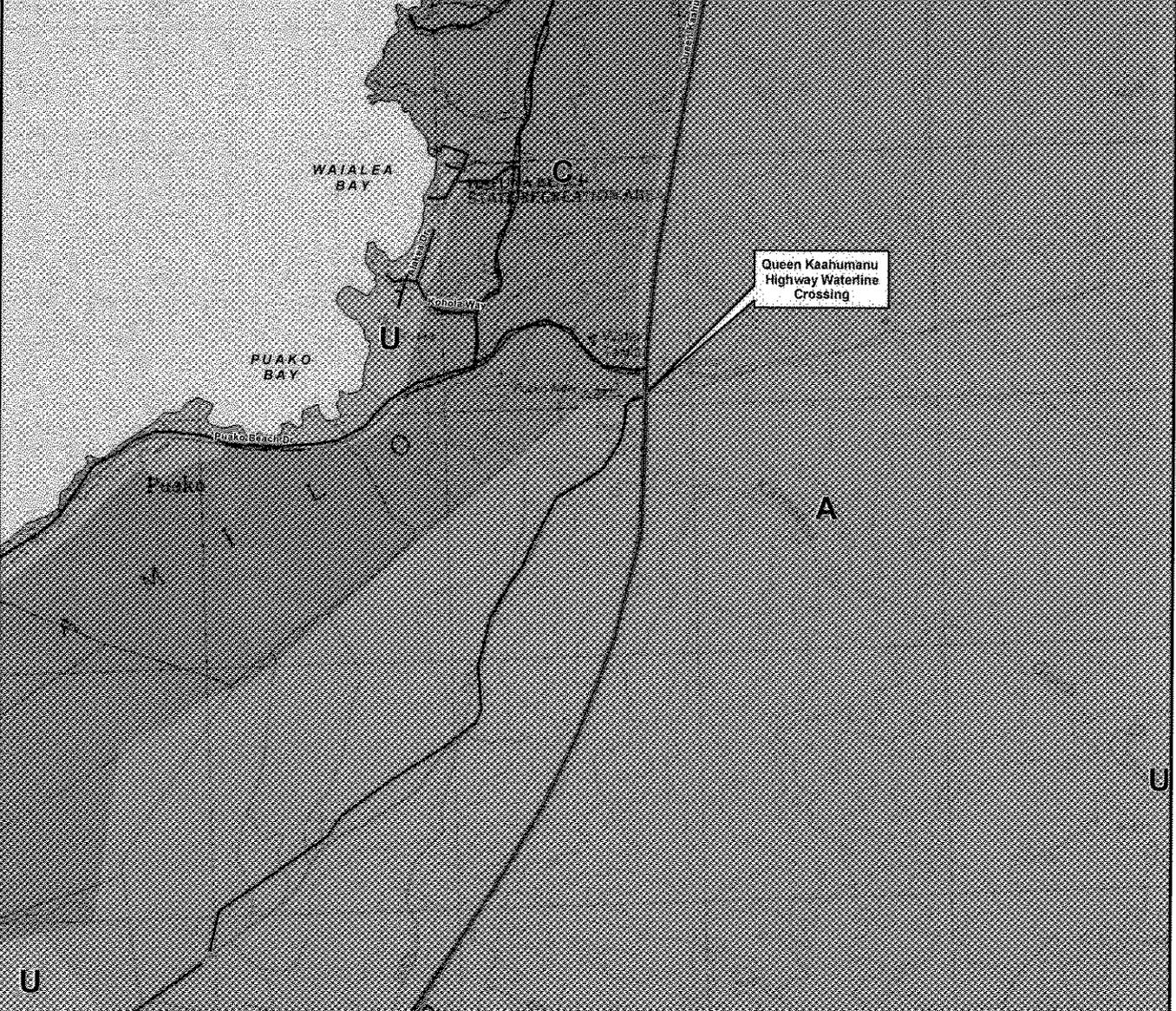
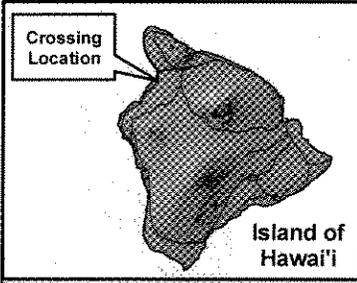
**Legend:**

-  Special Management Area (SMA)
-  Highways
-  Roadways

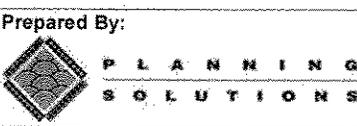
**Figure 4.1:**

## County of Hawai'i Special Management Area

Queen Ka'ahumanu Highway Waterline Crossing Project



Prepared For:  
 Department of Water Supply,  
 County of Hawai'i



Source:  
 -State of Hawaii GIS  
 -USGS Quad Map Kohala

State Land Use Designation:

- Agriculture
- Conservation
- Rural
- Urban

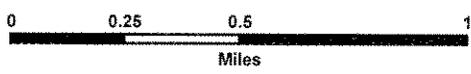


Figure 4.2:  
**State Land Use Districts**

Queen Ka'ahumanu Highway Pipeline Crossing Project

## 4.2 FEDERAL REGULATIONS

### 4.2.1 ARCHEOLOGICAL AND HISTORIC PRESERVATION ACTS

The discussion included in Section 3.8 of this document shows that the proposed waterline is consistent with the Archeological and Historic Preservation Act (16 U.S.C. § 469a-1) and the National Historic Preservation Act (16 U.S.C. § 470(f)). It is also consistent with all applicable State historic preservation requirements, including Hawai'i Revised Statutes Chapter 6E - Historic Preservation and Hawai'i Administrative Rules §13-198 and §13-300.

### 4.2.2 CLEAN AIR ACT (42 U.S.C. § 7506(C))

As discussed in Section 3.4, existing air quality at the waterline crossing site is good. It is in an air quality attainment area as defined by the State of Hawai'i Department of Health in its EPA-approved air quality program. Construction and operation of the proposed waterline will not change that.

Grading and excavation will disturb only ¼ acre of land during construction of the project. This and the dust control measures that will be implemented during construction will ensure that fugitive dust is not a problem. The traffic control measures that will be instituted during the brief construction period will maintain traffic flow through the roadway segment, eliminating the potential for traffic congestion that could adversely affect air quality. Operation of the proposed waterline will not produce on-site air emissions, use electricity, alter airflow in the vicinity, or have any other measurable effect on the area's microclimate.

### 4.2.3 COASTAL ZONE MANAGEMENT ACT (16 U.S.C. § 1456(C) (1))

The Hawai'i Coastal Zone Management (CZM) Program (HRS Chapter 205A) was promulgated in 1977 in response to the Federal Coastal Zone Management Act of 1972. The CZM area encompasses the entire state, including all marine waters seaward to the extent of the state's police power and management authority. It also includes the 12-mile U.S. territorial sea and all archipelagic waters.

The Hawai'i Coastal Zone Management Program focuses on ten policy objectives:

- Recreational Resources. To provide coastal recreational opportunities accessible to the public and protect coastal resources uniquely suited for recreational activities that cannot be provided elsewhere.
- Historic Resources. To protect, preserve, and where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.
- Scenic and Open Space Resources. To protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources.
- Coastal Ecosystems. To protect valuable coastal ecosystems, including reefs, from disruption and to minimize adverse impacts on all coastal ecosystems.
- Economic Uses. To provide public or private facilities and improvements important to the state's economy in suitable locations; and ensure that coastal dependent development such as harbors and ports, energy facilities, and visitor facilities, are located, designed, and constructed to minimize adverse impacts in the coastal zone area.
- Coastal Hazards. To reduce hazard to life and property from tsunamis, storm waves, stream flooding, erosion, subsidence, and pollution.
- Managing Development. To improve the development review process, communication, and public participation in the management of coastal resources and hazards.

- Public Participation. To stimulate public awareness, education, and participation in coastal management; and maintain a public advisory body to identify coastal management problems and provide policy advice and assistance to the CZM program.
- Beach Protection. To protect beaches for public use and recreation; locate new structures inland from the shoreline setback to conserve open space and to minimize loss of improvements due to erosion.
- Marine Resources. To implement the state's ocean resources management plan.

Other key areas of the CZM program include: a permit system to control development within a Special Management Area (SMA) managed by the Counties and the Office of Planning; a Shoreline Setback Area which serves as a buffer against coastal hazards and erosion, and protects view-planes; and the Marine and Coastal Affairs. Finally, a Federal Consistency provision requires that federal activities, permits and financial assistance be consistent with the Hawai'i CZM program.

The proposed waterline crossing is located approximately 3/4 mile from the coast. It does not involve the placement, erection, or removal of materials near the coastline. As documented in this environmental assessment, the type and scale of the activities that it involves do not have the potential to affect coastal resources significantly. Finally, it is consistent with the CZM objectives that are relevant to a project of this sort. A copy of the *Draft EA* was sent to the Office of Coastal Zone Management at the State of Hawai'i Department of Business, Economic Development, and Tourism.

#### **4.2.4 ENDANGERED SPECIES ACT (16 U.S.C. 1536(A)(2) AND (4))**

The Endangered Species Act (16 U.S.C. §§ 1531-1544, December 28, 1973, as amended 1976-1982, 1984 and 1988) provides broad protection for species of fish, wildlife, and plants that are listed as threatened or endangered in the U.S. or elsewhere. The Act mandates that federal agencies seek to conserve endangered and threatened species and use their authorities in furtherance of the Act's purposes. It provides for listing species, as well as for recovery plans and the designation of critical habitat for listed species. The Act, which outlines procedures for federal agencies to follow when taking actions that may jeopardize listed species, allows exceptions and exemptions.

Sections 3.5 and 3.6 of this environmental assessment discuss biota and habitat in the project area. The discussion documents that there are no known rare or endangered species on or immediately adjacent to the project site. Copies of the *Draft EA* were provided to the U.S. Fish and Wildlife Service and to the State Department of Land and Natural Resources for review and comment.

#### **4.2.5 FLOODPLAIN MANAGEMENT (42 U.S.C. § 4321)**

Based on the Flood Insurance Rate Map for the area, the site proposed for the Queen Ka'ahumanu waterline crossing lies outside a defined floodplain. The project does not involve property acquisition, management, or construction within a 100-year flood plain (Zones A or V), and it does not involve a "critical action" within a 500-year flood plain. Consequently, it is consistent with applicable regulations and guidance relating to floodplain management.

#### **4.2.6 SAFE DRINKING WATER ACT (42 U.S.C. § 300H-3(E))**

The Safe Drinking Water Act (SDWA) is the principal federal law that ensures the quality of drinking water. Under SDWA, the U.S. Environmental Protection Agency sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.

As discussed in Section 1.2, the proposed waterline will permit the Department of Water Supply to provide agreed-upon potable water infrastructure to serve the needs of the Mauna Lani development. The waterline will convey water from tested and approved sources. All materials used in the construction of the waterline will conform to National Sanitation Foundation Standards for potable water infrastructure, and no toxic materials will be employed.

## 5.0 DETERMINATION

### 5.1 SIGNIFICANCE CRITERIA

Hawai'i Administrative Rules (HAR) §11-200-11.2 establishes procedures for determining if an environmental impact statement (EIS) should be prepared or if a finding of no significant impact is warranted. HAR §11-200-11.2 (1) provides that proposing agencies should issue an environmental impact statement preparation notice (EISPN) for actions that it determines may have a significant effect on the environment. HAR §11-200-12 lists the following criteria to be used in making that determination:

*In most instances, an action shall be determined to have a significant effect on the environment if it:*

- 1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;*
- 2. Curtails the range of beneficial uses of the environment;*
- 3. Conflicts with the State's long-term environmental policies or goals as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;*
- 4. Substantially affects the economic or social welfare of the community or State;*
- 5. Substantially affects public health;*
- 6. Involves substantial secondary impacts, such as population changes or effects on public facilities;*
- 7. Involves a substantial degradation of environmental quality;*
- 8. Is individually limited but cumulatively has considerable effect on the environment or involves a commitment for larger actions;*
- 9. Substantially affects a rare, threatened, or endangered species, or its habitat;*
- 10. Detrimentally affects air or water quality or ambient noise levels;*
- 11. Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;*
- 12. Substantially affects scenic vistas and view planes identified in county or state plans or studies; or,*
- 13. Requires substantial energy consumption.*

### 5.2 FINDINGS

The DWS evaluated the potential effects of the proposed project described earlier in this document using these significance criteria. The findings with respect to each criterion are summarized below:

#### 5.2.1 IRREVOCABLE LOSS OR DESTRUCTION OF VALUABLE RESOURCE

The proposed project would be constructed on previously disturbed land within an existing highway right-of-way and utility corridor. It does not involve the loss of any significant cultural or natural resources.

### **5.2.2 CURTAILS BENEFICIAL USES**

Construction and operation will not curtail beneficial uses of the site. Once the waterline is installed, the highway will be returned to its present condition.

### **5.2.3 CONFLICTS WITH LONG-TERM ENVIRONMENTAL POLICIES OR GOALS**

The proposed project is consistent with the *County of Hawai'i's General Plan* and with the State's long-term environmental policies and goals as expressed in Chapter 344, Hawai'i Revised statutes and elsewhere in State law (see Section 4.1).

### **5.2.4 SUBSTANTIALLY AFFECTS ECONOMIC OR SOCIAL WELFARE**

The proposed waterline will convey potable water from wells that are *mauka* of Queen Ka'ahumanu Highway to areas on the *makai* side of the roadway in accordance with a County-approved master plan. It will not have a substantial adverse effect on economic or social welfare; it will benefit the region's residents and businesses by allowing DWS to assure its customers an adequate potable water supply.

### **5.2.5 PUBLIC HEALTH EFFECTS**

The proposed project will not adversely affect air or water quality. Neither will it generate solid waste or produce other emissions that will have a significant adverse effect on public health. Construction noise has the potential to exceed noise standards at the property line, but the potential adverse effects of this will be mitigated by the complete absence of nearby noise-sensitive uses and by the construction contractor's adherence to HAR §11-46.

### **5.2.6 PRODUCE SUBSTANTIAL SECONDARY IMPACTS**

The proposed project will not produce significant secondary impacts. It is not designed to foster population growth or to promote economic development. Instead, it will only support development already recognized by the *County of Hawai'i General Plan*.

### **5.2.7 SUBSTANTIALLY DEGRADE ENVIRONMENTAL QUALITY**

As discussed in detail in Chapter 3, the proposed project will not have substantial long-term environmental effects.

### **5.2.8 CUMULATIVE EFFECTS OR COMMITMENT TO A LARGER ACTION**

Development of the proposed well and reservoir is not a commitment to a larger action. Neither will it produce effects which, in concert with other actions, will have a significant cumulative adverse effect on the environment.

### **5.2.9 AFFECTS ON RARE, THREATENED, OR ENDANGERED SPECIES**

The proposed project will be constructed within an existing highway right-of-way that has already been extensively disturbed. It will not adversely affect a habitat on which rare, threatened, or endangered species rely.

### **5.2.10 AFFECTS AIR OR WATER QUALITY OR AMBIENT NOISE LEVELS**

Construction and operation of the proposed waterline will not have a permanent effect on air or water quality. Neither will it have a long-term effect on noise levels. The project does have the potential to increase noise levels during the construction phase, and will create an opportunity for increased erosion that could affect water quality. Adequate mitigation measures will be taken to limit these to reasonable levels.

**5.2.11 ENVIRONMENTALLY SENSITIVE AREAS**

No environmentally sensitive areas or resources would be disturbed by construction of the proposed water line. The Island of Hawai'i as a whole is subject to certain geologic hazards, such as earthquakes and lava flows. The project site is outside the tsunami evacuation zone and is not at high risk for lava flows. The waterline will be constructed consistent with the Hawai'i Uniform Building Code for Earthquake Zone 8.

**5.2.12 AFFECTS SCENIC VISTAS AND VIEWPLANES**

Construction activity will affect the appearance of the immediate area for a period of several weeks. Once installed, the proposed waterline will be underground and hidden from view.

**5.2.13 REQUIRES SUBSTANTIAL ENERGY CONSUMPTION**

Operation of the waterline requires no energy consumption. The water is delivered through it by gravity.

**5.3 DETERMINATION**

In view of the foregoing, DWS concludes that the proposed project will not have a significant adverse impact on the environment. Consequently, it has issued a Finding of No Significant Impact for the proposed action.



## 6.0 BIBLIOGRAPHY

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## 7.0 PARTIES CONSULTED

### 7.1 DRAFT EA DISTRIBUTION

Copies of the *Draft EA* were mailed to the recipients listed in Table 7.1 below. Notice of the *Draft EA* appeared in the May 8, 2007 *Environmental Notice* published by the State Office of Environmental Quality Control.

**Table 7.1 Draft EA Distribution List**

<b>Federal Agencies</b>	
Environmental Protection Agency, Pacific Islands Contact Office	District Engineer, U.S. Army Engineer District, Honolulu
U.S. Department of Agriculture, Natural Resources Conservation Service	U.S. Fish & Wildlife Service, Pacific Island Eco-Region
District Chief, Geological Survey, Department of the Interior	
<b>State Agencies</b>	
Office of Environmental Quality Control (4 copies)	Department of Business and Economic Development & Tourism, Planning Office
Department of Hawaiian Home Lands	Department of Health, Clean Water Branch
Office of Hawaiian Affairs	Department of Health, Environmental Planning Office
Department of Accounting and General Services	Department of Health, Safe Drinking Water Branch
Department of Agriculture	Department of Land and Natural Resources (5 copies)
Commission on Water Resource Management	DLNR Historic Preservation Division
Department of Transportation, Highways Division	Environmental Center, University of Hawai'i
	Water Resources Center, University of Hawai'i
<b>County of Hawai'i</b>	
Planning Department	Fire Department
Department of Public Works	Police Department
Department of Parks and Recreation	Department of Environmental Management, Solid Waste Division
<b>Utilities</b>	
Hawaiian Electric Light Company	Hawaiian Telcom
<b>Libraries and Depositories</b>	
Hawai'i State Library Hawai'i Documents Center (2)	Kailua-Kona Regional Library
University of Hawai'i, Hilo Campus Library	Bond Memorial Public Library

## BIBLIOGRAPHY

**7.2 COMMENTS & RESPONSES ON THE DRAFT EA**

The comment period for the Draft EA ended on June 7, 2007. Table 7.2 below lists the parties that submitted written comments on the project. Their comments and DWS's responses to them are reproduced at the end of this section.

**Table 7.2 Written Comments on the Draft EA**

<i>No.</i>	<i>Name &amp; Title of Commenter</i>	<i>Organization</i>
1	Alec Wong, P.E., Chief	Clean Water Branch, State Department of Health
2	Darryl Oliveira, Chief	Hawai'i County Fire Department
3	Lawrence K. Mahuna, Chief	Hawai'i County Police Department
4	Bobby Jean Leithead-Todd, Director	Hawai'i County Dept of Environmental Management
5	Gordon Tribble, Director	Pacific Islands Water Science Center, USGS
6	Ernest Lau, Public Works Administrator	State Department of Accounting & General Services
7	Russell Y. Tsuji, Administrator	Land Division, Department of Land and Natural Resources
8	Christopher J. Yuen, Planning Director	Hawai'i County Planning Department
9	Clyde W. Nāmu'o, Administrator	Office of Hawaiian Affairs

Source: Compiled by Planning Solutions, Inc. (2007)



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. BOX 5078  
HONOLULU, HAWAII 96801-5078

#1

CHRISTOPHER L. FORD, M.D.  
DIRECTOR OF HEALTH

[www.doh.state.hi.us](http://www.doh.state.hi.us)  
DIR-528

05047PKP-07

May 15, 2007

Mr. Perry J. White  
Planning Solutions  
210 Ward Avenue, Suite 330  
Honolulu, Hawaii 96814-4012

Dear Mr. White:

**Subject: Queen Kaahumanu Highway Water Line Crossing  
Draft Environmental Assessment/Anticipated Finding of No Significant Impact**

The Department of Health, Clean Water Branch (CWB), has reviewed the subject document and offers these comments on your project. Please note that our review is based solely on the information provided in the subject document and its compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at <http://www.hawaii.gov/health/environmental/cwb-planning/landuse/cwb-standardcomment.pdf>.

1. You are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting a Notice of Intent (NOI) form:
  - a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. **An NPDES permit is required before the start of the construction activities.**

Mr. Perry J. White  
May 15, 2007  
Page 2

b. Hydrotesting water.

You must submit a separate NOI form for each type of discharge at least 30 days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 days before to the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at: <http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html>.

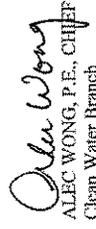
2. If the types of discharges listed above discharges into the Pacific Ocean in that area (Class AA waters), you must obtain an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html>.

3. You must also submit a copy of the NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the CWB that SHPD has or is in the process of evaluating your project. Please submit a copy of your request for review by SHPD or SHPD's determination letter for the project along with your NOI or NPDES permit application, as applicable.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

If you have any questions, please visit our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>, or contact the Engineering Section, CWB, at 586-4309.

Sincerely,

  
ALEC WONG, P.E., CHIEF  
Clean Water Branch

KP:mp



P L A N N I N G  
S O L U T I O N S

May 30, 2007  
2007-0005-001

Mr. Alec Wong, P.E., Chief  
Clean Water Branch  
Department of Health  
State of Hawaii  
P.O. Box 3378  
Honolulu, HI 96801-3378

**Subject: Queen Ka'ahumanu Highway Waterline Crossing, South Kohala, Hawaii  
Draft Environmental Assessment**

Dear Mr. Wong:

Thank you for your May 15, 2007 letter [your reference 65047PKP-07] commenting on the Hawaii County Department of Water Supply's *Draft Environmental Assessment (DEA): Queen Ka'ahumanu Highway Waterline Crossing Project*. We appreciate the time you and your staff spent reviewing the document and providing written comments.

We have reviewed your Department's standard comments and will comply with all those that are applicable to the proposed project. Construction of the proposed waterline crossing would disturb well under an acre of land. Further, construction is not anticipated to require a Department of the Army permit or to result in discharges into any State Waters. Consequently, DWS is not applying for NPDES General Permit coverage or for a Section 401 Water Quality Certification.

The contractor will be held responsible for ensuring that State Water Quality Standards are met at all times during construction.

Thank you again for your comments. If you have any further questions, please call me at (808) 550-4483.

Sincerely,

*Theresa White*  
Theresa White

407 Perry J. White

cc: Mr. Kurt Inaba, Department of Water Supply  
Office of Environmental Quality Control  
Mr. Greg Fukumitsu, TNWRE

Harry Kim  
Mayor



Darryl J. Oliveira  
Fire Chief  
Glen P.L. Honda  
Honolulu Fire Chief

#2

County of Hawaii  
HAWAII FIRE DEPARTMENT  
25 Aupuni Street • Suite 103 • Hilo, Hawaii 96720  
(808) 984-8394 • Fax: (808) 984-2037

May 16, 2007

Mr. Perry White  
Planning Solutions  
210 Ward Avenue  
Suite 330  
Honolulu, Hawaii 96814-4012

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT  
QUEEN KAAHUMANU HIGHWAY WATERLINE CROSSING  
DEPARTMENT OF WATER SUPPLY  
SOUTH KOHALA DISTRICT

We have no comments to offer at this time in reference to the above-mentioned Draft Environmental Assessment.

DARRYL OLIVEIRA  
Fire Chief

PBW:ipc



Hawaii's County is an Equal Opportunity Provider and Employer.



P L A N N I N G  
S O L U T I O N S

May 29, 2007  
2007-0005-001

Mr. Darryl Oliveira, Fire Chief  
Hawaii's Fire Department  
County of Hawaii  
25 Aupuni Street, Suite 103  
Hilo, HI 96720

Subject: Queen Ka'ahumanu Highway Waterline Crossing, South Kohala, Hawaii's  
Draft Environmental Assessment

Dear Chief Oliveira

Thank you for your May 16, 2007 letter regarding the Hawaii's County Department of Water Supply's  
Draft Environmental Assessment (DEA), Queen Ka'ahumanu Highway Waterline Crossing Project.  
We appreciate the time you and your staff spent reviewing the document and preparing your letter.

We understand that your Department has no comments to offer on the project at this time. If you  
have any questions in the future, please call me at (808) 550-4483.

Sincerely,

Mr. Kurt Inaba

Mr. Perry J. White

cc: Mr. Kurt Inaba, Department of Water Supply  
Office of Environmental Quality Control  
Mr. Greg Fukumitsu, TNWRE

Ward Plaza, Suite 330 • 210 Ward Avenue • Honolulu, Hawaii 96814-4012  
Phone: 808 550-4483 • Fax: 808 550-4548 • www.psl-hi.com

Harry Kim  
Mayor



**County of Hawaii**  
POLICE DEPARTMENT  
349 Kapiolani Street • Hilo, Hawaii 96720-3998  
(808) 934-3111 • Fax (808) 964-2389

Lawrence K. Mahuna  
Police Chief

Harry S. Kubojiri  
Deputy Police Chief

#3

May 22, 2007

Mr. Perry J. White  
Planning Solutions  
210 Ward Street, Suite 330  
Honolulu, HI 96814

Dear Mr. White:

This responds to your letter of May 4, 2007, regarding the Queen Ka'ahumanu Highway Waterline Crossing project.

Staff has reviewed the Draft Environmental Assessment (DEA) and submits the following comments.

The DEA reads that two lanes of traffic will remain open at all times and that impact to traffic is expected to be minor. Staff comments that due to the high density of traffic in the area, any delay to traffic will have a large impact on traffic congestion in the area. As such, staff recommends the following:

- Traffic display boards alerting motorists of construction dates and times are posted on the Queen Ka'ahumanu Highway on both sides of the construction area.
- Construction on the Queen Ka'ahumanu Highway begins after peak morning traffic and ends before peak afternoon traffic.
- Proper public notification through the media.
- Proper marking, signage and traffic control provided to minimize delays.

Thank you for providing us with the opportunity to comment. Should you have any questions, please contact Captain Randy Apele, Commander of the Kona Patrol Division, at 326-4646, extension 249.

Sincerely,

LAWRENCE K. MAHUNA  
POLICE CHIEF

DEREK D. PACHECO  
ASSISTANT POLICE CHIEF  
AREA II OPERATIONS

\*Hawaii County is an Equal Opportunity Provider and Employer\*



P L A N N I N G  
S O L U T I O N S

May 30, 2007  
2007-0005-001

Mr. Lawrence K. Mahuna, Police Chief  
Police Department  
County of Hawai'i  
349 Kapiolani Street  
Hilo, HI 96720-3998

**Subject:** Queen Ka'ahumanu Highway Waterline Crossing, South Kohala, Hawai'i  
Draft Environmental Assessment

Dear Chief Mahuna:

Thank you for your May 22, 2007 letter commenting on the Hawai'i County Department of Water Supply's *Draft Environmental Assessment (DEA): Queen Ka'ahumanu Highway Waterline Crossing Project*. We appreciate the time you and your staff spent reviewing the document and providing written comments. Your comments are reproduced for your convenience in italics below, followed by our response.

**Comments:**

*The DEA reads that two lanes of traffic will remain open at all times and that impact to traffic is expected to be minor. Staff comments that due to the high density of traffic in the area, any delay to traffic will have a large impact on traffic congestion in the area. As such, staff recommends the following:*

- *Traffic display boards alerting motorists of construction dates and times are posted on the Queen Ka'ahumanu Highway on both sides of the construction area.*
- *Construction on the Queen Ka'ahumanu Highway begins after peak morning traffic and ends before peak afternoon traffic.*
- *Proper public notification through the media.*
- *Proper marking, signage and traffic control provided to minimize delays.*

**Response:** The traffic control plan included in the bid package for the project stipulates that: 1) signs be posted on both sides of the construction area to alert motorists of the dates and times of the planned work; 2) construction occur only during off-peak hours; 3) the public is notified of the work through the local media; and 4) proper marking, signage, and traffic control measures be provided to minimize delays. The Department of Transportation reviewed and approved the traffic control plan.

Thank you again for your comments. If you have any further questions, please call me at (808) 550-4483.

Sincerely,

*Lawrence Mahuna*  
for Perry J. White

cc: Mr. Kurt Inabe, Department of Water Supply  
Office of Environmental Quality Control  
Mr. Greg Fukumitsu, TNWRE

Word Plaza, Suite 330 • 710 Ward Avenue • Honolulu, Hawaii 96814-4012  
Phone: 808 550-4483 • Fax: 808 550 4546 • www.pst-ki.com

Harry Kim  
Mayor

#4



Bobby Jean Leithhead-Todd  
Director  
Nelson Ho  
Deputy Director

County of Hawaii

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
25 August Street • Hilo, Hawaii 96720-4252  
(808) 961-8083 • Fax: (808) 961-4084  
email: esh@em@co.hawaii.hi.us

May 21, 2007

Mr. Perry J. White  
Planning Solutions  
Ward Plaza, Suite 330  
210 Ward Avenue  
Honolulu, HI 96814-4012

Re: Queen Ka'ahumanu Highway Waterline Crossing  
Draft EA/Anticipated FONSI

Dear Mr. White,

Thank you for allowing us the opportunity to review the subject Draft EA. We have no comments to offer at this time.

Bobby Jean Leithhead-Todd  
DIRECTOR

Hawaii County is an equal opportunity provider and employer.

4487A



P L A N N I N G  
S O L U T I O N S

May 29, 2007  
2007-0005-001

Ms. Bobby Jean Leithhead-Todd, Director  
Department of Environmental Management  
County of Hawaii  
25 August Street  
Hilo, HI 96720-4252

Subject: Queen Ka'ahumanu Highway Waterline Crossing, South Kohala, Hawaii  
Draft Environmental Assessment

Dear Ms. Leithhead-Todd:

Thank you for your May 21, 2007 letter regarding the Hawaii County Department of Water Supply's Draft Environmental Assessment (DEA), Queen Ka'ahumanu Highway Waterline Crossing Project. We appreciate the time you and your staff spent reviewing the document and preparing your letter.

We understand that your Department has no comments to offer on the project at this time. If you have any questions in the future, please call me at (808) 550-4483.

Sincerely,

Perry J. White

cc: Mr. Kurt Inaba, Department of Water Supply  
Office of Environmental Quality Control  
Mr. Greg Fukumitsu, TNWRRE

Ward Plaza, Suite 330 • 210 Ward Avenue • Honolulu, Hawaii 96814-4012  
Phone: 808-550-4483 • Fax: 808-550-4484 • www.psi-hi.com



United States Department of the Interior

#5

U.S. GEOLOGICAL SURVEY  
Pacific Islands Water Science Center  
677 Ala Moana Blvd., Suite 415  
Honolulu, HI 96813  
Phone: (808) 587-2400/Fax: (808) 587-2401

June 1, 2007

Mr. Perry J. White  
Planning Solutions  
Ward Plaza, Suite 330  
210 Ward Avenue  
Honolulu, Hawaii 96814-4012

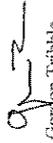
Dear Mr. White:

Subject: Queen Ka'ahumanu Highway Waterline Crossing  
Draft Environmental Assessment/Anticipated Finding of No Significant Impact

Thank you for forwarding the subject Draft Environment Assessment/Anticipated Finding of No Significant impact for review and comment by the staff of the U.S. Geological Survey, Pacific Islands Water Science Center. We regret however, that due to prior commitments and lack of available staff, we are unable to review this document.

We appreciate the opportunity to participate in the review process.

Sincerely,

  
Gordon Tribble  
Center Director



P L A N N I N G  
S O L U T I O N S

June 5, 2007  
2007-0005-001

Mr. Gordon Tribble, Center Director  
Pacific Islands Water Science Center  
U.S. Geological Survey  
United States Department of the Interior  
677 Ala Moana Blvd., Suite 415  
Honolulu, HI 96813

Subject: Queen Ka'ahumanu Highway Waterline Crossing, South Kohala, Hawaii  
Draft Environmental Assessment

Dear Mr. Tribble:

Thank you for your June 1, 2007 letter regarding the Hawai'i County Department of Water Supply's *Draft Environmental Assessment (DEA): Queen Ka'ahumanu Highway Waterline Crossing Project*. We appreciate the time spent preparing your letter.

We understand that the Pacific Islands Water Science Center is unable to review the document due to prior commitments and lack of available staff. If you have any questions regarding the project in the future, please call me at (808) 550-4483.

Sincerely,

  
Perry J. White

cc: Mr. Kurt Inaba, Department of Water Supply  
Office of Environmental Quality Control  
Mr. Greg Fukumitsu, TNWRE

LINDA LINDLE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P.O. BOX 119, HONOLULU, HAWAII 96810

#6

RUSS K. SAITO  
COMPTROLLER

(P)1125.7

JUN - 4 2007

Mr. Perry J. White  
Planning Solutions, Inc.  
210 Ward Avenue, Suite 330  
Honolulu, Hawaii 96814

Dear Mr. White:

Subject: Queen Kaahumanu Highway Waterline Crossing  
Draft Environmental Assessment/Anticipated Finding of No Significant Impact  
South Kona District, Island of Hawaii

The project does not impact any of the Department of Accounting and General Services' projects or existing facilities and we have no comments to offer.

If you have any questions regarding the above, please have your staff call Mr. David DePonte of the Planning Branch at 586-0492.

Sincerely,

ERNEST Y. W. LAU  
Public Works Administrator

DD:vea  
c: Ms. Genevieve Salmonson, OFOC  
Mr. Glenn Okada, Hawaii District Office, DACS



P L A N N I N G  
S O L U T I O N S

June 5, 2007  
2007-0005-001

Mr. Ernest Y. W. Lau, Public Works Administrator  
Department of Accounting and General Services  
State of Hawaii  
P.O. Box 119  
Honolulu, HI 96810

Subject: Queen Ka'ahumanu Highway Waterline Crossing, South Kohala, Hawaii  
Draft Environmental Assessment

Dear Mr. Lau:

Thank you for your June 4, 2007 letter regarding the Hawaii County Department of Water Supply's Draft Environmental Assessment (DEA): Queen Ka'ahumanu Highway Waterline Crossing Project. We appreciate the time you and your staff spent reviewing the document and preparing your letter.

We are pleased that the project does not impact any of your Department's projects or existing facilities and we understand you have no comments to offer at this time. If you have any questions in the future, please call me at (808) 550-4483.

Sincerely,

Perry J. Whittle

cc: Mr. Kurt Inaba, Department of Water Supply  
Office of Environmental Quality Control  
Mr. Greg Pikamitsa, TNWRE

Ward Plaza, Suite 330 • 210 Ward Avenue • Honolulu, Hawaii 96814-4012  
Phone: 808 950-4483 • Fax: 808 550-4549 • www.psl-hi.com



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

#7



June 4, 2007

Planning Solutions  
Ward Plaza Suite 330  
210 Ward Avenue  
Honolulu, Hawaii 96814

Attention: Mr. Perry J. White

Gentlemen:

Subject: Draft Environmental Assessment for Queen Kaahumanu Highway  
waterline crossing, Kohala, Hawaii, Tax Map Key: (3) 6-6-1:portion 2,  
Queen Kaahumanu Highway and 6-8-1:portion 52

Thank you for the opportunity to review and comment on the subject matter. The  
Department of Land and Natural Resources' (DLNR) Land Division distributed or made  
available a copy of your report pertaining to the subject matter to DLNR Divisions for their  
review and comment.

Other than the comments from Engineering Division, Commission on Water Resource  
Management, the Department of Land and Natural Resources has no other comments to offer on  
the subject matter. Should you have any questions, please feel free to call our office at 587-  
0433. Thank you.

Sincerely,  
  
Russell Y. Tsuji  
Administrator



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809



May 8, 2007

MEMORANDUM

TO: DLNR Agencies:  
— Div. of Aquatic Resources  
— Div. of Boating & Ocean Recreation  
 Engineering Division  
— Div. of Forestry & Wildlife  
— Div. of State Parks  
 Div. of Water Resource Management  
— Office of Conservation & Coastal Lands  
 Land Division - Hawaii District

FROM: Russell Y. Tsuji  
SUBJECT: Draft Environmental Assessment for Queen Kaahumanu Highway waterline  
crossing  
LOCATION: Kohala, Hawaii, Tax Map Keys: (3) 6-6-1:portion 2; Queen Kaahumanu Highway  
and 6-8-1:portion 52  
APPLICANT: Planning Solutions on behalf of County of Hawaii, Department of Water Supply

Transmitted for your review and comment on the above referenced document. We would  
appreciate your comments on this document. Please submit any comments by June 1, 2007.

If no response is received by this date, we will assume your agency has no comments. If  
you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed:   
Date: 5/8/07

RECEIVED  
MAY 10 2007  
LAND DIVISION

ALLAN A. SMITH  
DIRECTOR OF LAND AND NATURAL RESOURCES  
DEPARTMENT OF LAND AND NATURAL RESOURCES



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

May 8, 2007

LINDA LINGLE  
GOVERNOR OF HAWAII



MEMORANDUM

TO: DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Div. of Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Div. of Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division - Hawaii District

FROM: Russell Y. Tsuji

SUBJECT: Draft Environmental Assessment for Queen Kaahumanu Highway waterline crossing Kohala, Hawaii, Tax Map Keys: (3) 6-6-1; portion 2; Queen Kaahumanu Highway and 6-8-1; portion 52

LOCATION: Planning Solutions on behalf of County of Hawaii, Department of Water Supply

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by June 1, 2007.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- ( ) We have no objections.
- We have no comments.
- ( ) Comments are attached.

Signed: *Russell Y. Tsuji*  
Date: 5/8/07

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

LD/R/Tsuji  
REF: DE/Lnr/QueenKaahumanuHwyWaterlineCrossing  
Hawaii-001

COMMENTS

- ( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X.
- (X) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The National Flood Insurance Program does not have any regulations for developments within Zone X.
- ( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is X.
- ( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.
- ( ) Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinances may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:
  - ( ) Mr. Robert Sumimoto at (808) 523-4254 or Mr. Mario Sin Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.
  - ( ) Mr. Kelly Gomes at (808) 961-4327 (Hilo) or Mr. Kiran Emier at (808) 327-5550 (Kona) of the County of Hawaii, Department of Public Works.
  - ( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
  - ( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.

The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter. The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

Additional Comments: \_\_\_\_\_  
Other: \_\_\_\_\_

Should you have any questions, please call: Mr. Carty Chang of the Planning Branch at 587-0227.

Signed: *Eric T. Hirano*  
ERIC T. HIRANO, CHIEF ENGINEER

Date: 5/8/07



**P L A N N I N G  
S O L U T I O N S**

June 6, 2007  
2007-0005-001

Mr. Russell Y. Tsuji, Administrator  
Land Division  
Department of Land and Natural Resources  
State of Hawai'i  
P.O. Box 621  
Honolulu, HI 96809

**Subject: Queen Ka'ahumanu Highway Waterline Crossing, South Kohala, Hawai'i  
Draft Environmental Assessment**

Dear Mr. Tsuji:

Thank you for your June 4, 2007 letter concerning the Hawai'i County Department of Water Supply's *Draft Environmental Assessment (DEA)*: *Queen Ka'ahumanu Highway Waterline Crossing Project*. We appreciate the time you and your staff spent reviewing the document and circulating it to DLNR's various Divisions for review and comment.

Our response to the comment provided by the DLNR Engineering Division is below. The comment is reproduced in italics before the response.

**Comment 1:**

*Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The National Flood Insurance Program does not have any regulations for developments within Zone X.*

**Response:** Thank you for confirming that the project site is within Flood Zone X and is not regulated by the National Flood Insurance Program.

We understand that the Department of Land and Natural Resources has no further comments on the proposed project. Should you have any questions in the future, please call me at (808) 550-4483.

Sincerely,

Percy J. White

cc: Mr. Kurt Inaba, Department of Water Supply  
Office of Environmental Quality Control  
Mr. Greg Fukumitsu, TNWRE

Harry Kim  
Mayor



**County of Hawaii**  
**PLANNING DEPARTMENT**

101 Punch Street, Suite 3 • 4th, Hawaii 96720-3043  
(808) 961-8288 • FAX (808) 961-8742

#8

Christopher J. Yuen  
Director  
Brad Kurokawa, ASLA  
LEED® AP  
Deputy Director

June 6, 2007

Mr. Perry J. White  
Planning Solutions, Inc.  
Ward Plaza, Suite 330  
210 Ward Avenue  
Honolulu HI 96814-4012

Dear Mr. White:

**SUBJECT:** Draft Environmental Assessment  
**Applicant:** Hawaii County Department of Water Supply  
**Project:** Queen Ka'ahumanu Highway Waterline Crossing  
**Location:** Highway Between TMK: 6-6-2-40 and TMK: 6-6-1-2  
Lahaina, South Kohala, Hawaii

This to acknowledge receipt of your submittal on May 7, 2007 requesting our comments on a Draft Environmental Assessment for the proposed Queen Ka'ahumanu Highway waterline crossing project.

The Department of Water Supply proposes to install a 20-inch diameter waterline across the Queen Ka'ahumanu Highway to provide potable water from its Lalamilo water system to customers on the makai side of the highway. The proposed water line is 482 feet long and would connect to existing waterlines on the mauka and makai sides of the highway. The project area is located approximately 100 feet south of the highway's intersection with Puako Beach Drive.

The project area is designated Open by the Land Use Pattern Allocation Guide Map. We confirm that the County zoning is Agricultural (A-5a) and that the makai half of the project area is within the Special Management Area.

According to the Hawaii County Code, Section 25-4-1(6), "Communication, transmission, and power lines of public and private utilities and governmental agencies are permitted uses within any district." Therefore, the proposed project is considered a permitted use.

Thank you for the opportunity to provide comments.

*Hawaii County is an Equal Opportunity Provider and Employer.*

Mr. Perry J. White  
Planning Solutions, Inc.  
Page 2  
June 6, 2007

If you have questions, please feel free to contact Esther Imamura at 961-6238, extension 257.

Sincerely,

CHRISTOPHER J. YUEN  
Planning Director

ETJ:cd  
Proposed:06/07/2007 06:39:5618742

cc: Director  
Office of Environmental Quality Control  
235 South Beretania Street, Suite 702  
Honolulu HI 96813

Planning Department, Kona



P L A N N I N G  
S O L U T I O N S

June 7, 2007  
2007-0605-001

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

**Subject: Queen Ka'ahumanu Highway Waterline Crossing, South Kohala, Hawaii  
Draft Environmental Assessment**

Dear Mr. Yuen:

Thank you for your June 6, 2007 letter regarding the Hawaii County Department of Water Supply's *Draft Environmental Assessment (DEA)*, *Queen Ka'ahumanu Highway Waterline Crossing Project*. We appreciate the time you and your staff spent reviewing the document and preparing your letter.

We appreciate your confirmation that the project area is designated Open by the Land Use Pattern Allocation Guide Map, that the County zoning is Agricultural (Ag-5a), and that the *makai* half of the project area is within the Special Management Area. We also appreciate your confirmation that the proposed project is a permitted use within the above districts.

We understand that the Planning Department has no further comments on the project at this time. If you have any questions in the future, please call me at (808) 550-4483.

Sincerely,

Perry J. White

cc: Mr. Kurt Inaba, Department of Water Supply  
Office of Environmental Quality Control  
Mr. Greg Fukumitsu, TNWRE

PHONE (808) 594-1888



STATE OF HAWAII  
OFFICE OF HAWAIIAN AFFAIRS  
711 KAPIOLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

#9

FAX (808) 594-1865

June 4, 2007

HRD07/3030

Perry White  
Planning Solutions  
210 Ward Avenue, Suite 300  
Honolulu, HI 96814-4012

RE: Draft Environmental Assessment for the Proposed Queen Ka'ahumanu Highway Waterline Crossing Project, South Kohala, Hawaii Island.

Dear Mr. White,

The Office of Hawaiian Affairs (OHA) is in receipt of your May 8, 2007 submission and offers the following comments:

Our staff has no immediate concerns regarding the above-listed proposed project at this time. Thank you for your continued correspondence.

OHA asks that, in accordance with Section 6E-46.6, Hawaii Revised Statutes and Chapter 13-300, Hawaii Administrative Rules, if the project moves forward, and if any significant cultural deposits or human skeletal remains are encountered, work shall stop in the immediate vicinity and the State Historic Preservation Division (SHIP/DLNR) shall be contacted.

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse Yorek, Native Rights Policy Advocate, at (808) 594-0239 or [jesscy@oha.org](mailto:jesscy@oha.org).

Aloha,

Clyde W. Nani'o  
Administrator

C: Ruby McDonald  
OHA Community Affairs Coordinator (Kailua-Kona)  
75-5706 Hanama Pl., Suite 107  
Kailua-Kona, HI 96740



P L A N N I N G  
S O L U T I O N S

June 12, 2007  
2007-0005-001

Mr. Clyde W. Nani'o, Administrator  
Office of Hawaiian Affairs  
State of Hawaii  
711 Kapi'olani Blvd., Suite 500  
Honolulu, HI 96813

Subject: Queen Ka'ahumanu Highway Waterline Crossing, South Kohala, Hawaii  
Draft Environmental Assessment

Dear Mr. Nani'o:

Thank you for your June 4, 2007 letter [your reference HRD07/3030] regarding the Hawaii County Department of Water Supply's *Draft Environmental Assessment (DEA): Queen Ka'ahumanu Highway Waterline Crossing Project*. We appreciate the time you and your staff spent reviewing the document and preparing your letter.

We are pleased that your Department has no immediate concerns regarding the proposed project. If any significant cultural deposits or human skeletal remains are encountered during construction, the contractor will stop work in the immediate vicinity and contact the State Historic Preservation Division.

Thank you again for your comments. If you have any questions in the future, please call me at (808) 550-4483.

Sincerely,

Perry J. White

cc: Mr. Kurt Inaba, Department of Water Supply  
Office of Environmental Quality Control  
Mr. Greg Fukumitsu, TNWRE

Word Plaza, Suite 330 • 210 Ward Avenue • Honolulu, Hawaii 96814-4012  
Phone: 808-550-4483 • Fax: 808-550-4549 • [www.psl-hi.com](http://www.psl-hi.com)

