Draft Environmental Assessment

PROPOSED OMAOPIO ROAD TANK REPLACEMENTS AND RELATED IMPROVEMENTS
(TMK (2)2-3-003:006 (POR.), 101, AND 130 (POR.))

Prepared for:

County of Maui,
Department of Water Supply

July 2010

MUNEKIYO & HIRAGA, INC.

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Executive Summary

Project Name:	Omaopio Road Tank Replacements Project
Type of Document:	Draft Environmental Assessment
Legal Authority:	Chapter 343, Hawaii Revised Statutes
Agency Determination:	Anticipated Finding of No Significant Impact
Applicable Environmental Assessment Review "Trigger":	Use of County funds Use of County and State lands
Location:	Omaopio Road, Kula, Maui TMK (2)2-3-003:101 and 130(por.) and TMK (2) 2-3-003:006 (por.)
Applicant:	County of Maui Department of Water Supply 200 South High Street Wailuku, Hawaii 96793 Contact: Herb Chang Telephone: (808) 270-7835
Approving Agency:	County of Maui Department of Water Supply 200 South High Street Wailuku, Hawaii 96793 Contact: Herb Chang Telephone: (808) 270-7835
Consultant:	Munekiyo & Hiraga, Inc. 305 High Street, Suite 104 Wailuku, Hawaii 96793 Contact: Erin Mukai, Planner Telephone: (808) 244-2015
Project Summary:	The County of Maui, Department of Water Supply proposes to construct two (2) new replacement water tanks along Omaopio Road in Kula, Maui, Hawaii. The two (2) new proposed water tanks (also referred to as the Upper Tank and the Lower Tank) will be located approximately 1.5 miles apart along Omaopio Road. The Upper Tank will be located on a portion of property identified as TMK (2) 2-3-003:130

(por.) (Parcel 130). Parcel 130 is approximately 0.4 acre in size and is owned by County of Maui. The Lower Tank will be located on TMK (2) 2-3-003:101 (Parcel 101). Parcel 101 is approximately 0.114 acre and is owned by the State of Hawaii and under control by the County of Maui by Executive Order.

A 200,000 gallon reservoir will replace an existing 12,000 gallon tank at the Upper Tank site. Related improvements include the installation of a paved service road, new chainlink fence, retaining wall at the west property line, and the necessary fittings to connect to existing utilities.

A 40,000 gallon steel tank will be installed at the Lower Tank site. The 40,000 gallon tank will replace an old 12,000 gallon tank that has been previously removed. Related improvements at the Lower Tank site include the construction of a gravel service road surrounding the lower tank, and the replacement of an existing driveway with a new A.C. paved driveway. In order to accommodate the new tank, a portion of the adjacent lot, identified as TMK (2) 2-3-003:006, will also be graded. The additional area is approximately 4,400 square feet in size. Currently, the Department of Water Supply is in negotiation with the landowner (State of Hawaii) to obtain a grading easement.

The properties upon which the tank replacements are proposed are classified as "Agricultural" by the State Land Use Commission, designated "Agricultural" by the Makawao-Pukalani-Kula Community Plan, and zoned "AG, Agricultural District" by the County of Maui.

The proposed action is not intended to extend services in the region but is intended to expand water storage capacity to better meet the existing water needs, as well as provide additional fire protection measures for residents living along Omaopio Road in Kula, Maui. The proposed project will provide more consistent water pressure flow along Omaopio Road.

I. PROJECT OVERVIEW

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A. PROJECT LOCATION, CURRENT LAND USE, AND OWNERSHIP

The applicant (the County of Maui, Department of Water Supply (DWS)) proposes to construct two (2) replacement water tanks along Omaopio Road, in Kula, Maui, Hawaii. See **Figure 1**. The Upper Tank Site is located on a portion of property at TMK (2) 2-3-003:130 (por.) and is approximately 0.4 acre in size. The Lower Tank site is located at TMK (2) 2-3-003:101 and is approximately 0.114 acre in size. Additionally, a portion of TMK (2) 2-3-003:006 (Parcel 6) which is located directly adjacent to the Lower Tank site, will be graded to accommodate the new tank. The portion of Parcel 6 that will be graded is approximately 4,400 square feet (sf). See **Figure 2**. The properties upon which the two (2) proposed water tanks will be constructed, hereafter referred to as the "Upper Tank site", the "Lower Tank site", and portion of Parcel 6, and collectively as the "project sites", will be located approximately 1.5 miles apart along Omaopio Road. Refer to **Figure 2**.

The project sites are surrounded by farming and agricultural lands. Single-family homes are located in the immediate vicinity of the project sites, along Omaopio Road, which connects to Kula Highway at its eastern terminus.

The lands underlying both the Upper Tank site and the Lower Tank site are classified as "Agricultural" by the State Land Use Commission, designated "Agricultural" by the Pukalani-Makawao-Kula Community Plan, and zoned "AG, Agricultural District" by the County of Maui.

The Upper Tank site is currently owned by the County of Maui. The Lower Tank site is currently owned by the State of Hawaii and under the control of the County of Maui by Executive Order.

B. PROPOSED ACTION

As noted above, the proposed project involves the construction of two (2) replacement water tanks and related improvements (hereafter referred to as the proposed action or proposed project). Access to the Upper Tank site is provided via Omaopio Road, which connects to Kula Highway, while the Lower Tank site is accessed via Piliwale Road. Piliwale Road intersects with Omaopio Road at its western terminus. Refer to **Figure 2**.

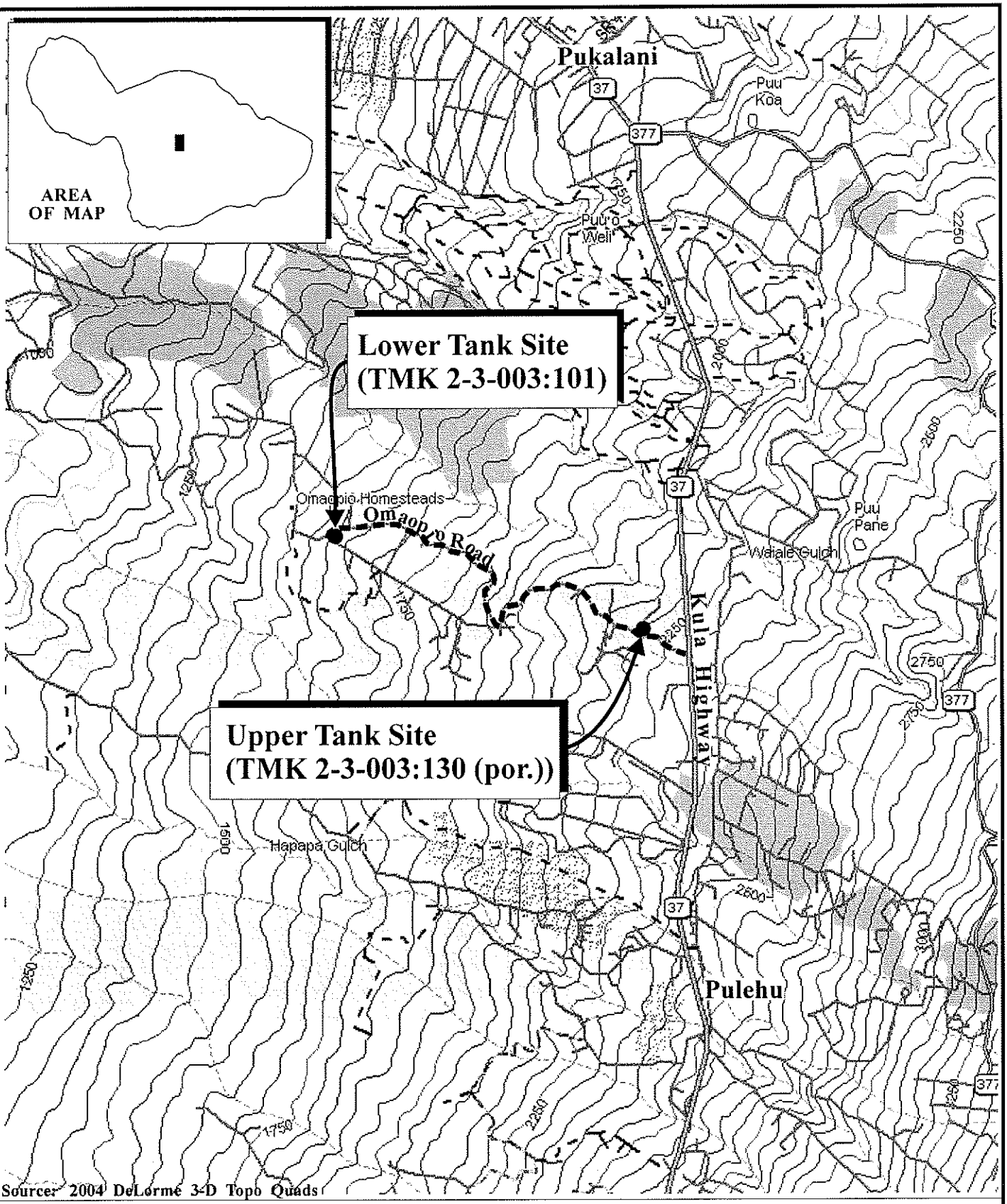

Figure 1 Proposed Omaopio Road Tank Replacements

Regional Location Map

0 0.35 Mile
0.175 0.7

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Prepared for: County of Maui, Department of Water Supply

Sato/OmaopioTank/regionalloca

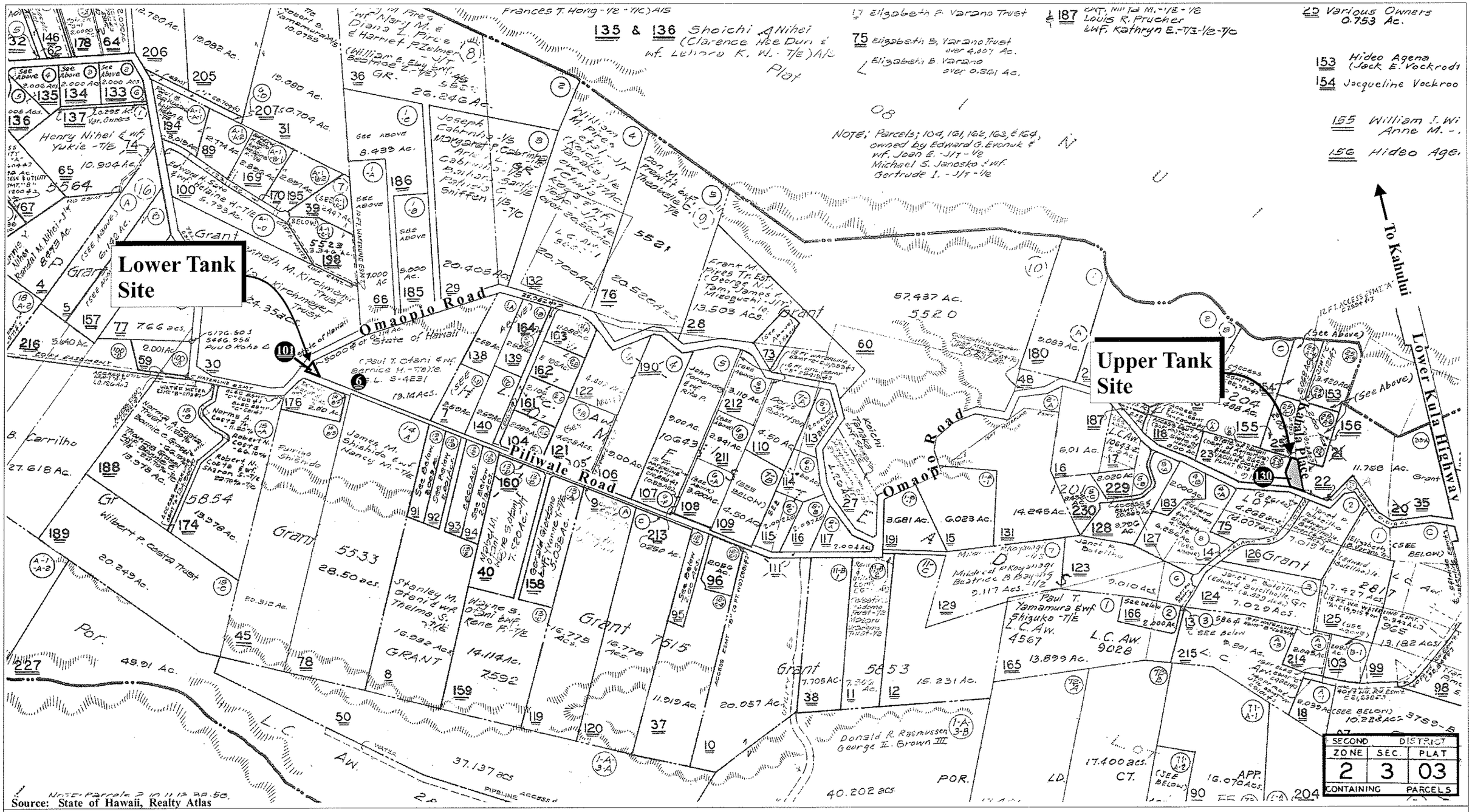

Figure 2

Proposed Omaopio Road Tank Replacements

Property Location Map

NOT TO SCALE

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Prepared for: County of Maui, Department of Water Supply

Sato/omaopio tank/propertylocation

At the Upper Tank site, a 200,000 gallon reservoir will replace an existing 12,000 gallon tank. Related improvements include the installation of a paved service road, new chainlink fence, retaining wall at the west property line, and the necessary fittings to connect to existing utilities. See **Figure 3** and **Figure 4**.

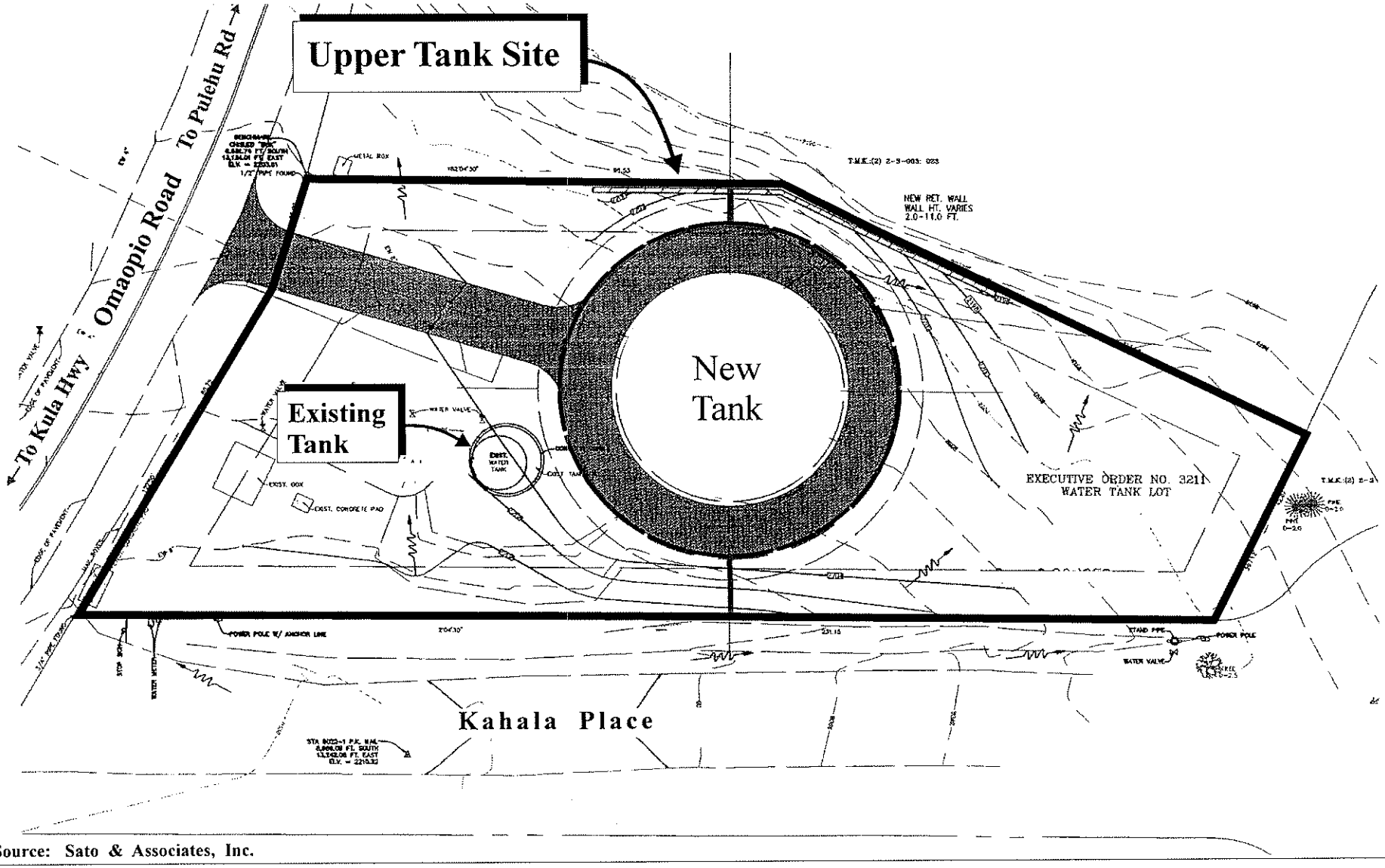
At the Lower Tank site, a 40,000 gallon steel tank will be installed. The 40,000 gallon tank will replace an old 12,000 gallon tank that was previously removed. Related improvements at the Lower Tank site include the construction of a gravel service road surrounding the lower tank, and the replacement of an existing driveway with a new A.C. paved driveway. In order to accommodate the new tank, a portion of the adjacent lot, Parcel 6, will also be graded. The additional area is approximately 4,400 square feet in size and is not currently utilized for farming operations. Currently, the Department of Water Supply is in negotiation with the landowner, the State of Hawaii, to obtain a grading easement. See **Figure 5** and **Figure 6**.

C. PROJECT NEED

Currently, residents living along Omaopio Road in Kula, Maui have a limited storage capacity of potable water for their domestic and agricultural use. The proposed action is intended to significantly increase storage capacity of potable water in the area to better accommodate the water needs of the existing residents for their uses as well as increase water storage capacity to provide for additional fire protection measures in the event of a fire hazard in the area.

D. CHAPTER 343, HAWAII REVISED STATUTES REQUIREMENTS

The proposed project involves the use of County and State of Hawaii funds to construct two (2) replacement water tanks and related improvements on lands owned by the State of Hawaii and County of Maui. As such, the proposed actions are triggers for the preparation and processing of an Environmental Assessment (EA) pursuant to Chapter 343, Hawaii Revised Statutes (HRS). Based on the scope of the proposed project, this EA is being prepared in accordance with Chapter 200 of Title 11, Department of Health Administrative Rules, Environmental Impact Statement Rules. Accordingly, this document addresses the project's technical characteristics, environmental impacts and alternatives, and advances findings and conclusions relative to the significance of the proposed action. The approving agency for the EA is the County of Maui, Department of Water Supply.



Source: Sato & Associates, Inc.

Figure 3 Proposed Omaopio Road Tank Replacements

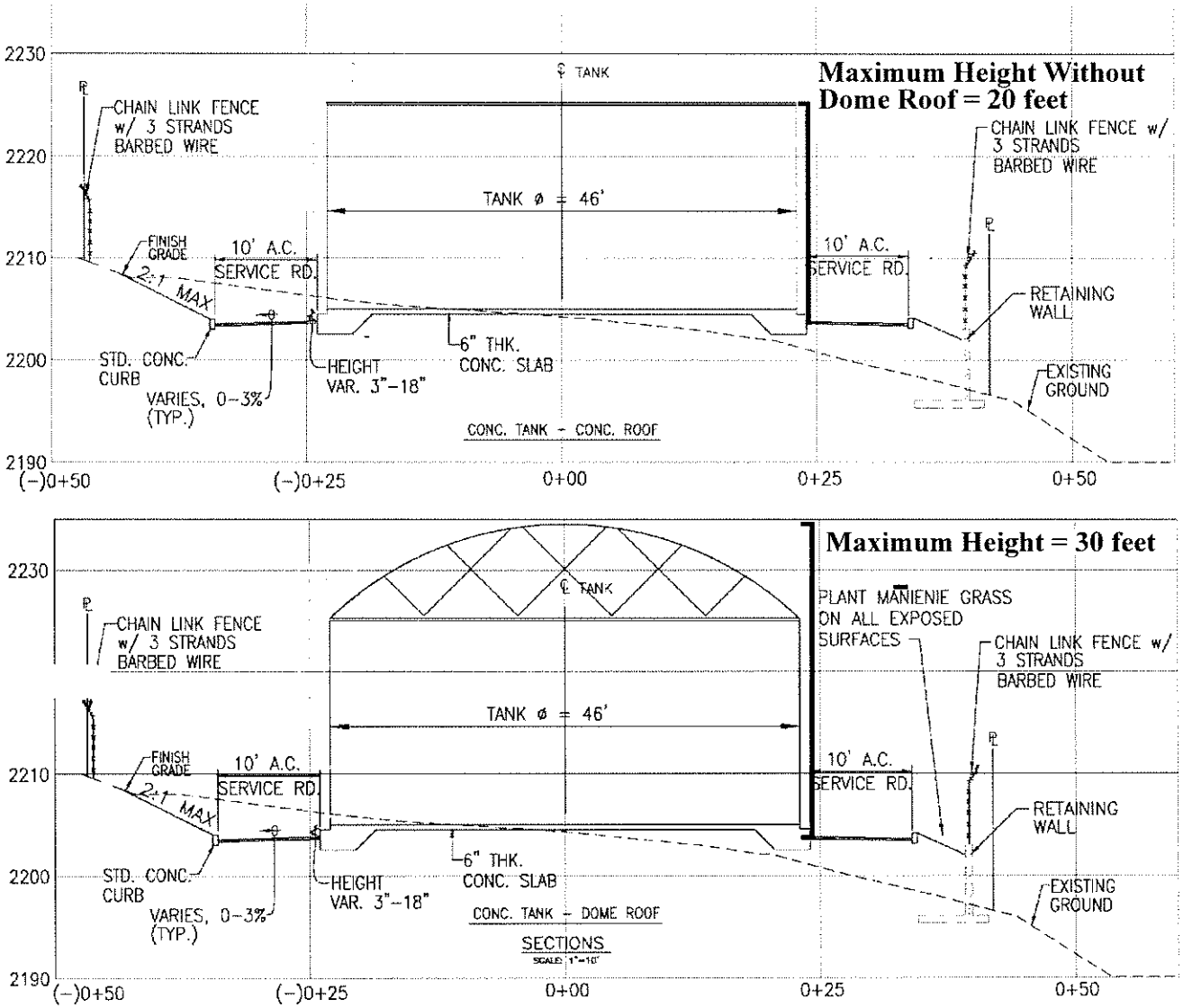
NOT TO SCALE

Upper Tank Site Plan

Prepared for: County of Maui, Department of Water Supply

MUNEKIYO & HIRAGA, INC.

Sato/omaopiotank/Upper Site Plan



Source: Sato & Associates, Inc.

Figure 4 Proposed Omaopio Road Tank Replacements

Upper Tank Site Section Plan

NOT TO SCALE

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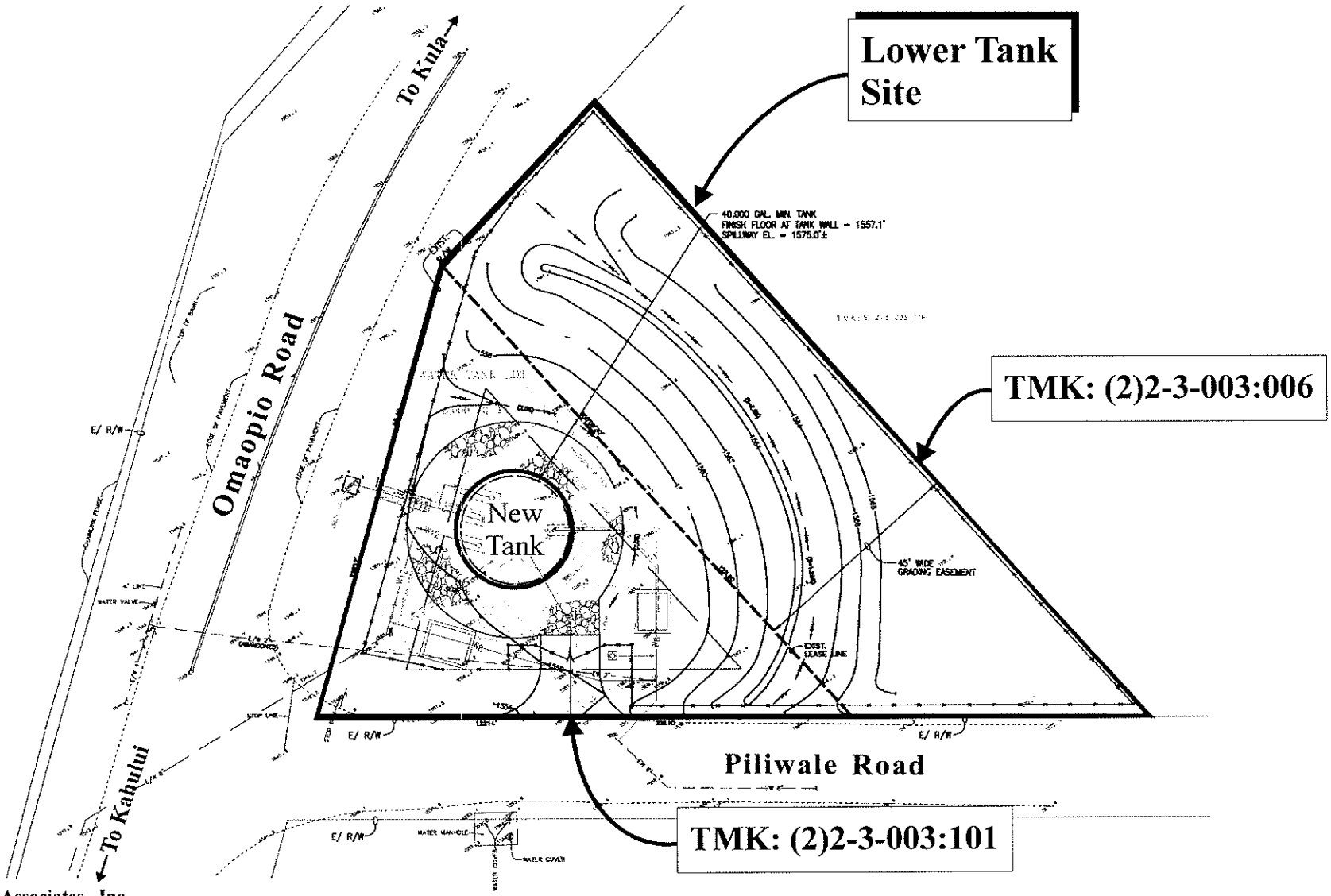
Prepared for: County of Maui, Department of Water Supply

Sato/omaopiotank/uppersectionplan



Source: Sato & Associates, Inc.

Figure 5 Proposed Omaopio Road Tank Replacements

Lower Tank Site Plan

NOT TO SCALE

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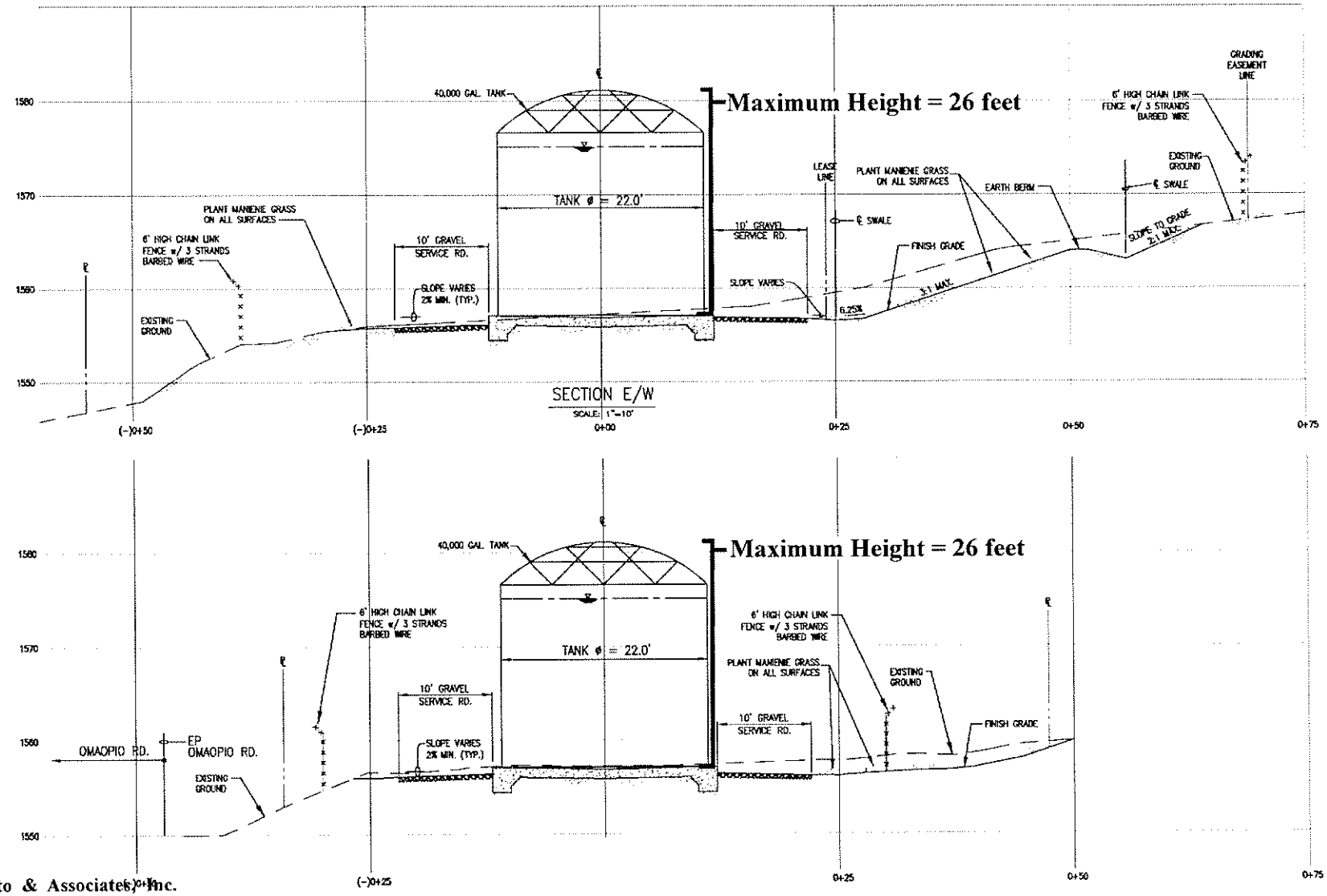
Prepared for: County of Maui, Department of Water Supply

Sato/omaopiotank/Lower Site Plan



Source: Sato & Associates, Inc.

Figure 6 Proposed Omaopio Road Tank Replacements

Lower Tank Site Section Plan

NOT TO SCALE

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Prepared for: County of Maui, Department of Water Supply

Sato/omaopiotank/lowersectionplan

E. PROJECT COSTS AND SCHEDULE

The estimated cost for the Omaopio Road Tank Replacements Project, including related improvements, is approximately $1.5 million. The implementation of the Omaopio Road Tank Replacements Project will commence after the required construction plan approvals and permits are secured. Assuming all necessary approvals are obtained, construction is expected to begin in October 2010 and take between 12 to 18 months to complete. Annual operation and maintenance costs for the Upper and Lower Tanks are anticipated to be $3,000.00.

II. DESCRIPTION OF EXISTING CONDITIONS, POTENTIAL IMPACTS, AND PROPOSED MITIGATION MEASURES

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A. PHYSICAL ENVIRONMENT

1. Surrounding Land Uses

a. Existing Conditions

The Omaopio Road Tank Replacements project sites are located in the Omaopio, Kula region on the southwestern slope of Haleakala. The Kula area is characterized by a combination of rural and agricultural uses. The produce and flowers grown in Kula are exported to domestic, mainland, and international markets.

The project sites are located approximately 1.5 miles apart from each other along Omaopio Road, consisting of an Upper Tank site, a Lower Tank site and adjacent Parcel 6. Omaopio Road connects to Kula Highway to the east and Pulehu Road to the west.

The project sites are surrounded by farming and agricultural lands. Several miles to the north of the tank sites are Pukalani Town, King Kekaulike High School, and Kamehameha Schools Maui Campus. A dairy farm, Surfing Goat Dairy, is located approximately one (1) mile west of the Lower Tank site. Directly west of the Upper Tank site on an adjacent parcel is the Kula Vacuum Cooling Plant that provides farmers a location to wash and package their produce to comply with food safety laws. Single-family homes on agricultural parcels are located in the immediate vicinity of the project sites, along Omaopio Road.

The Upper Tank site currently contains an existing 12,000 gallon water tank. Vegetation covers about 60 percent of the site, with the remainder of the land occupied by dirt, a paved driveway, and a concrete base-pad for the tank. See **Appendix "A"** and **Appendix "B"**.

The Lower Tank site has similar conditions to the Upper Tank site and previously contained a 12,000 gallon water tank which has since been removed due to leaks and corrosion of the old tank. Vegetation covers about 75 percent of the site, with the remainder of the land occupied by dirt, tank slab, and a paved driveway. Refer to **Appendix "A"** and **Appendix "B"**.

b. Potential Impacts and Proposed Mitigation Measures

The proposed action is intended to expand water storage capacity to better meet the water needs, as well as provide additional fire protection measures for residents living along Omaopio Road in Kula, Maui. The project sites are located along Omaopio Road in Kula, in the immediate vicinity of single-family homes on agricultural lots.

The continued use of the project sites for the construction of replacement water tanks is deemed appropriate as all of the proposed improvements will be contained within the perimeters of each existing site. The use of the project sites for the proposed tank replacements project would be functionally compatible with surrounding uses.

2. Climate

a. Existing Conditions

Kula's climate is typical of most mountainous areas in Hawaii, with conditions varying by altitude and wind direction. Low land areas are generally typified by arid to semi-tropical climate, while higher elevations are characterized by more temperate conditions.

The Kula region is relatively dry; the total rainfall recorded in 2008 was approximately 17 inches. December is typically the region's wettest month, while March is typically the driest month. Due to its elevation, temperatures are relatively cool for the Kula region, with average monthly temperatures ranging from 59 degrees in January to approximately 67 degrees in July (County of Maui, 2010).

b. Potential Impacts and Proposed Mitigation Measures

The proposed project is not anticipated to affect climatic conditions in the area.

3. Topography and Soil Characteristics

a. Existing Conditions

The Upper Tank site has an average slope of seven (7) percent with an elevation of approximately 2,198 to 2,210 feet above mean sea level (amsl). The Lower Tank site has an average slope of five (5) percent with an elevation of approximately 1,546, to 1,566 feet above mean sea level. Refer to **Appendix "A"** and **Appendix "B"**.

Underlying the project sites for the proposed water tanks and surrounding lands is soil belonging to the Waiakoa-Keahua-Molokai association. See **Figure 7**. The Waiakoa-Keahua-Molokai soil association is found on the low uplands of Central Maui, and consists of nearly level to moderately steep, well-drained, moderately fine textured soils. This association is especially used for sugar cane, pineapple, pasture, wildlife habitat, and homesites.

Soil underlying the Upper Tank site consists of Keahua Silty Clay with 7 to 15 percent slopes (KncC). See **Figure 8**. Runoff on this soil is slow to medium with an erosion hazard that is slight to moderate.

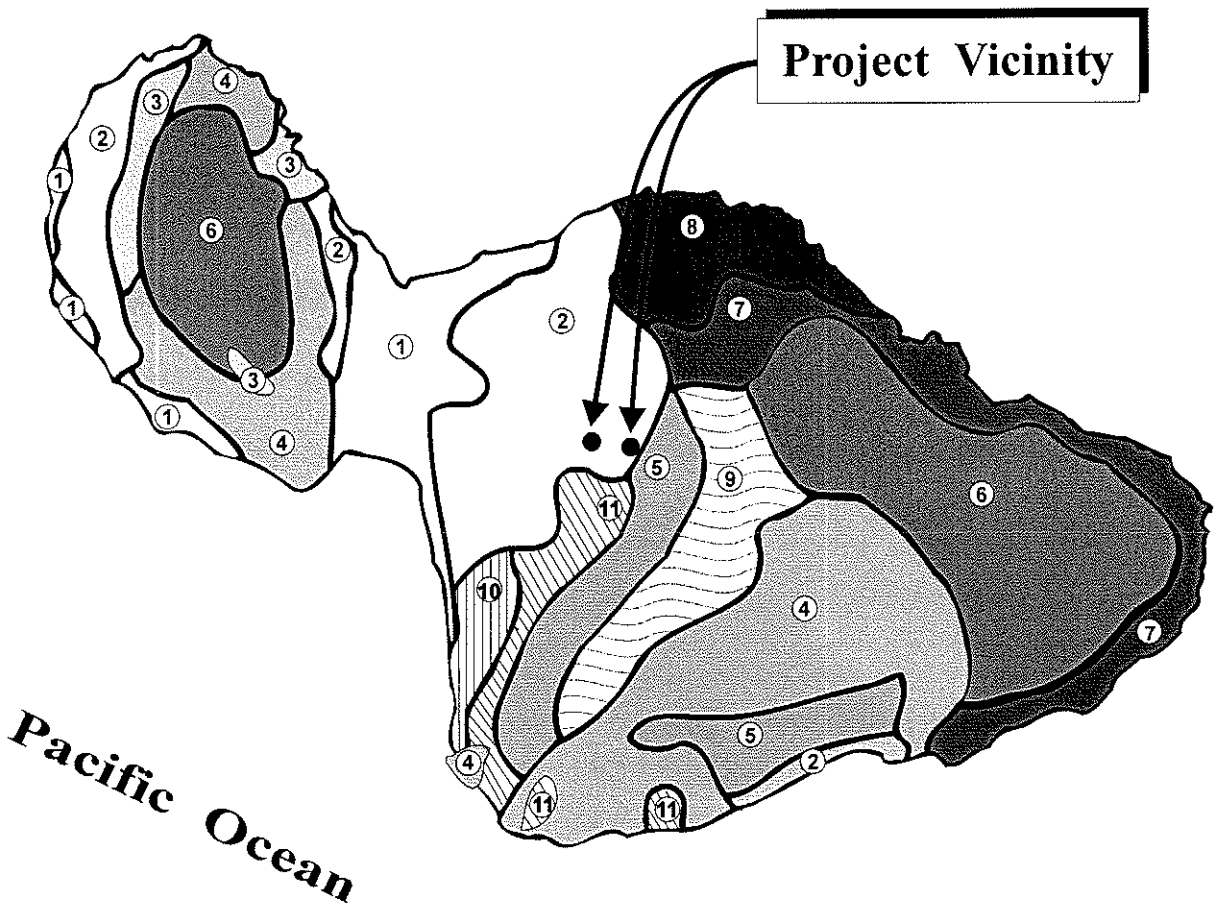
Soil underlying the Lower Tank site consists of Keahua Silty Clay Loam with 7 to 15 percent slopes (KnC). See **Figure 9**. Runoff on this soil is slow to medium with an erosion hazard that is slight to moderate. Additionally, it is noted that the portion of Parcel 6 that is adjacent to the Lower Tank site also contains the same KnC soil.

b. Potential Impacts and Proposed Mitigation Measures

To prevent soil erosion during site work, the applicant will implement Best Management Practices (BMPs), such as construction of drainage basins prior to mass grading for use as temporary sediment catchments; installation of a dust control fence, silt fence, gravel bag berms or other sediment-trapping devices downstream; diversion of storm runoff from graded areas through use of sand bag berms or lined temporary swales; and paving and grassing of exposed areas and permanently landscaping as soon as grading is completed. To minimize soil erosion, the contractor will be required to submit a soil erosion control plan in connection with the issuance of a grubbing and

LEGEND

- ① Pulehu-Ewa-Jaucas association
- ② Waiakoa-Keahua-Molokai association
- ③ Honolua-Olelo association
- ④ Rock land-Rough mountainous land association
- ⑤ Puu Pa-Kula-Pane association
- ⑥ Hydrandepts-Tropaquods association
- ⑦ Hana-Makaalae-Kailua association
- ⑧ Pauwela-Haiku association
- ⑨ Laumaia-Kaipoipoi-Olinda association
- ⑩ Keawakapu-Makena association
- ⑪ Kamaole-Oanapuka association



Source: USDA, Soil Conservation Service

Figure 7

Proposed Omaopio Road Tank Replacements
Soil Association Map

NOT TO SCALE

Prepared for: County of Maui, Department of Water Supply

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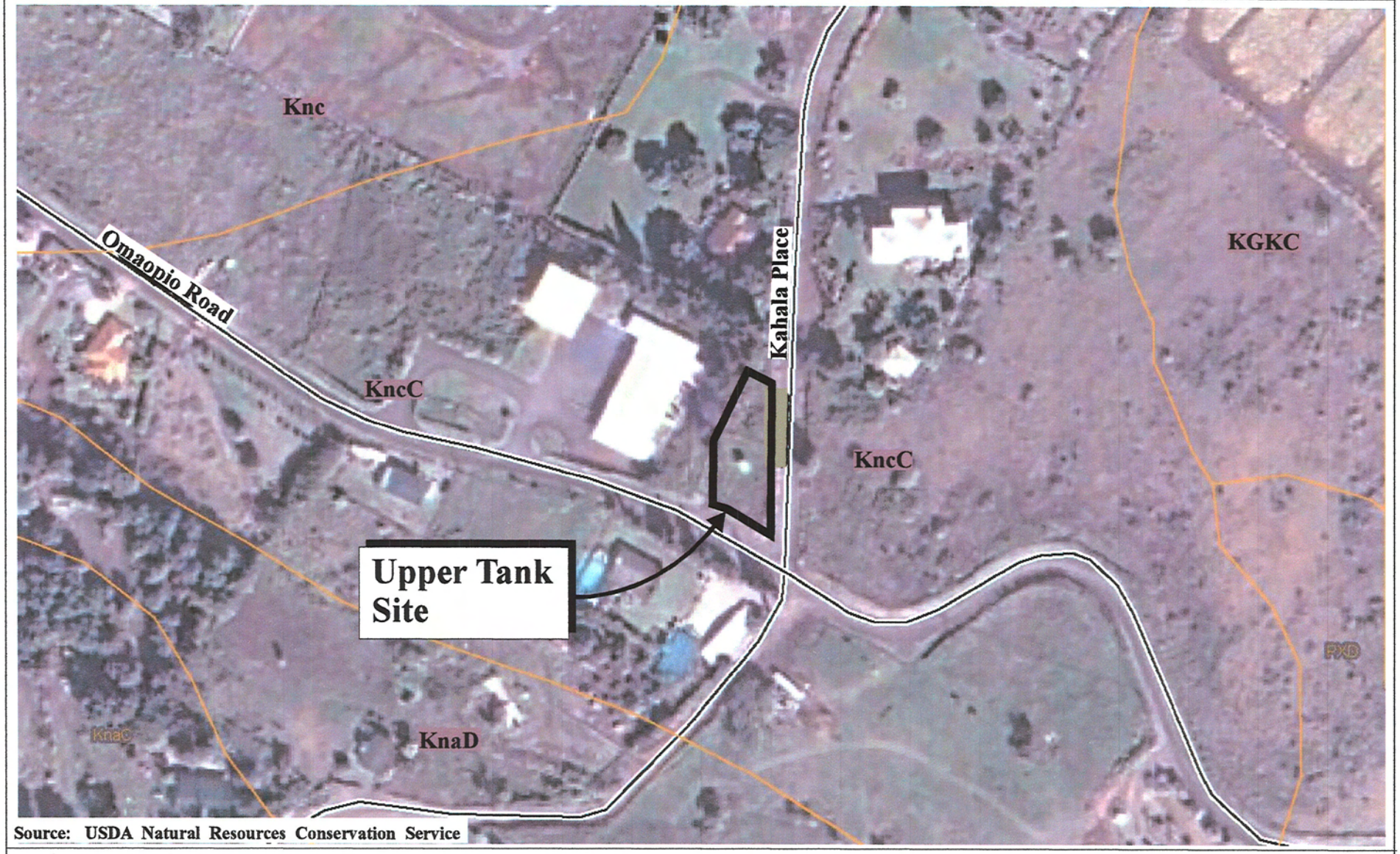
Sato\OmaopioTank\SOILS



Source: USDA Natural Resources Conservation Service

Figure 8

Proposed Omaopio Road Tank Replacements

NOT TO SCALE

Soil Classifications Map - Upper Tank Site

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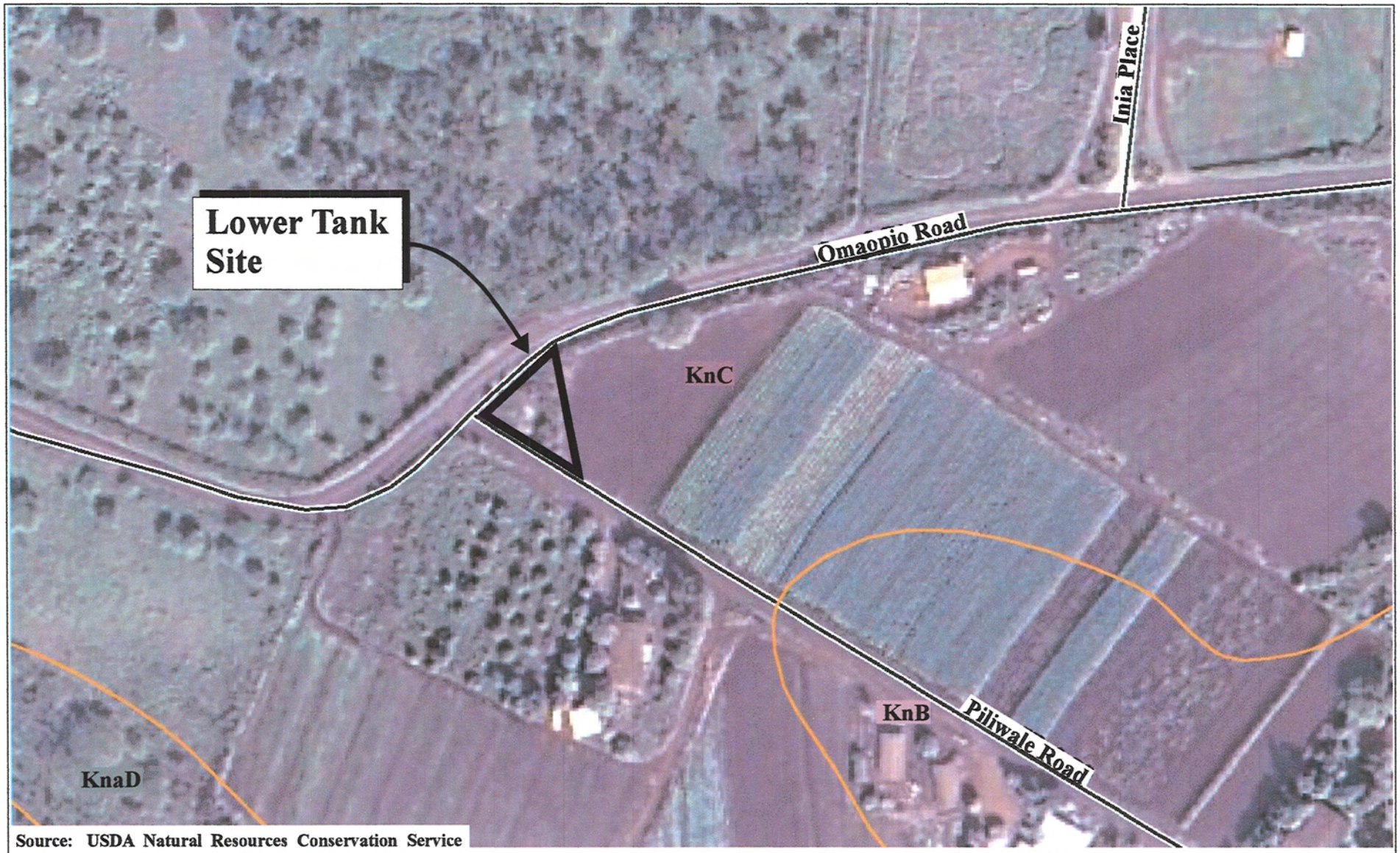
Prepared for: County of Maui, Department of Water Supply

Sato/omaopiotank/SoilsClassUpperTank



Source: USDA Natural Resources Conservation Service

Figure 9

Proposed Omaopio Road Tank Replacements

Soil Classifications Map - Lower Tank Site

NOT TO SCALE

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Prepared for: County of Maui, Department of Water Supply

Sato/omaopiotank/SoilsClassLowerTank

grading permit.

While terrain will be locally modified to meet site design requirements, the proposed improvements are not anticipated to adversely alter topographic characteristics in the vicinity.

4. Agriculture

a. Existing Conditions

The following summary provides a review of the agricultural designations for the project sites.

(1) Land Capability Grouping (Natural Resources Conservation Service Rating)

The 1972 Land Capability Grouping by the U.S. Department of Agriculture NRCS rates soils according to eight (8) levels, ranging from the highest classification level "I" to the lowest "VIII".

Soils underlying both project sites, as well as the adjacent Parcel 6 are rated Class IIIe and IVe. Class III soils have severe limitations that reduce the choice of plans or require special conservation practices, or both. Class IV soils have very severe limitations that restrict the choice of plans, require very careful management, or both. The subclassification "e" indicates that the soils are subject to severe erosion if they are cultivated and not protected.

(2) Agricultural Lands of Importance in the State of Hawaii (ALISH)

In 1977, the State Department of Agriculture developed a classification system to identify Agricultural Lands of Importance to the State of Hawaii (ALISH), based primarily, though not exclusively, on their soil characteristics. The three (3) classes of ALISH lands are: "Prime", "Unique", and "Other Important" agricultural land, with the remaining non-classified lands termed "Unclassified". When utilized with modern farming methods, "Prime" agricultural lands have a soil quality, growing season, and moisture supply needed to produce

sustained crop yields economically; while "Unique" agricultural lands possess a combination of soil quality, growing season, and moisture supply to produce sustained high yields of a specific crop. "Other Important" agricultural lands include those that have not been rated as "Prime" or "Unique".

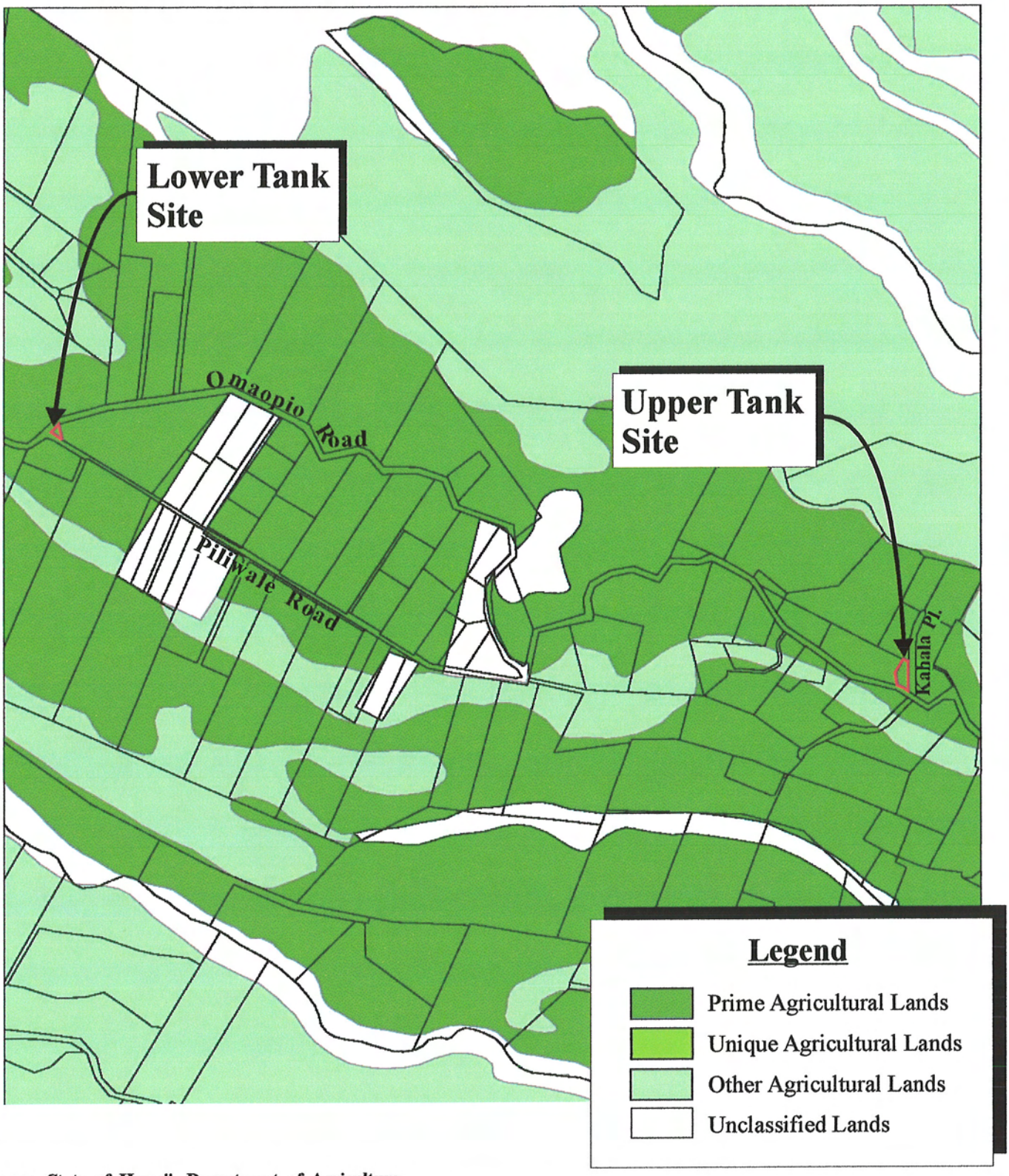
As reflected by the ALISH map for the Kula region, the proposed project, including the portion of Parcel 6, is comprised of lands that have been defined as "Prime" agricultural lands. See **Figure 10**.

(3) Overall Productivity Rating

The University of Hawaii, Land Study Bureau (LSB) developed the Overall Productivity Rating, which classifies soils according to five (5) levels, with "A" representing the class of highest productivity and "E" representing the lowest. The letters are followed by numbers which further classify the soil types by conveying such information as texture, drainage, and stoniness. Lands underlying the Lower Tank site and the adjacent Parcel 6 have been designated a "D" rating. Lands underlying the Upper Tank site have been designated a "C" rating. See **Figure 11**.

b. Potential Impacts and Proposed Mitigation Measures

The proposed action involves the replacement of existing water tanks for the Upper Tank site and the Lower Tank site. There are no active crop production activities on the project sites as the lots have been previously developed for water storage facility use by the DWS for over 40 years. Additionally, the portion of Parcel 6 that will be graded is not actively used for agriculture production. The proposed action is intended to increase water storage capacity for the Omaopio Road/Piliwale Road area to better accommodate residential and agricultural demands of the area. The provision of replacement water tanks at the project sites is consistent with existing agricultural uses in the area. There are no adverse impacts to agricultural productivity anticipated as a result of the proposed action.



Source: State of Hawaii, Department of Agriculture

Figure 10

Proposed Omaopio Road Tank Replacements

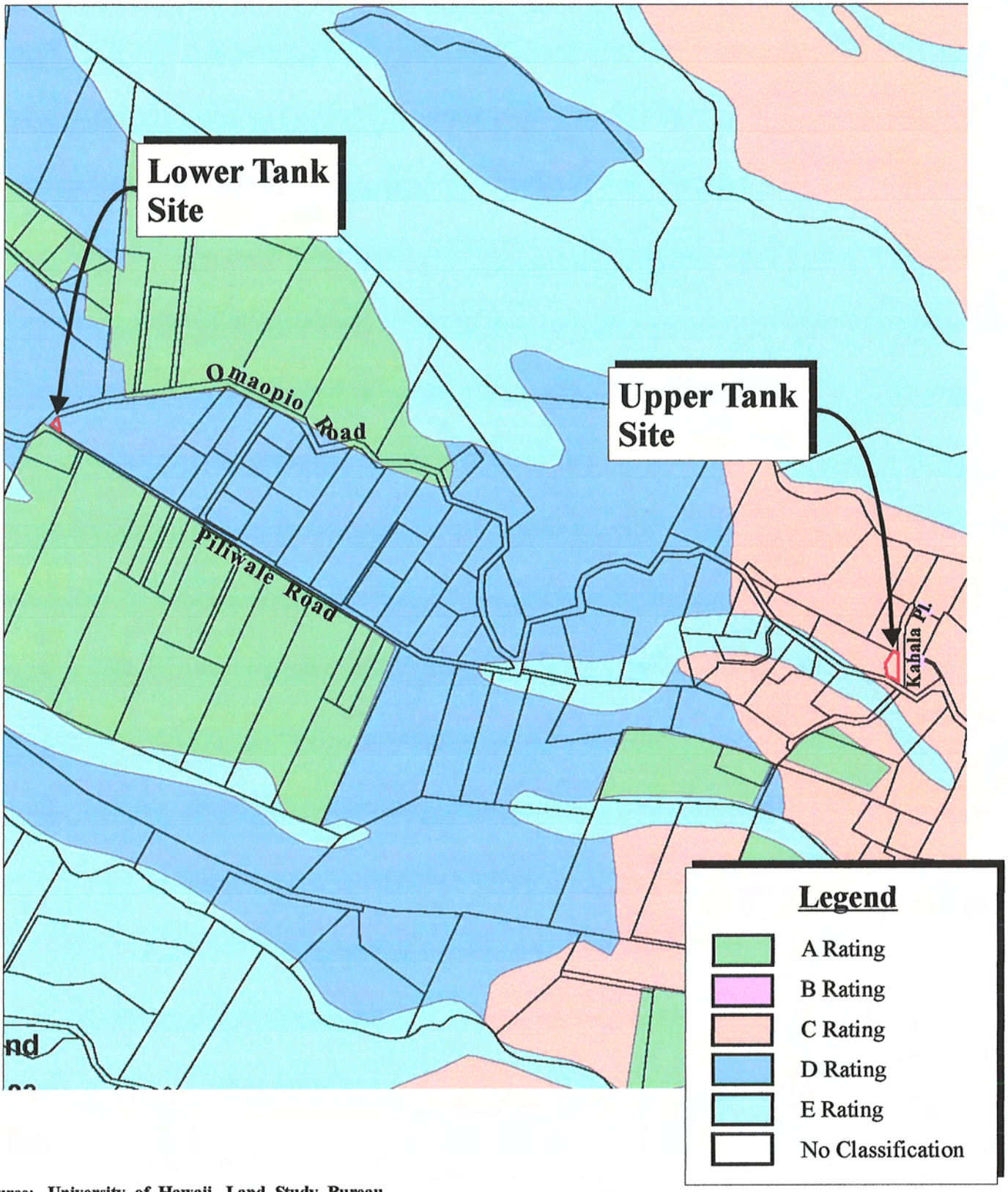
Agricultural Lands of Importance to the State of Hawaii

0 0.055 0.11 0.22 Mile

Prepared for: County of Maui, Department of Water Supply

MUNEKIYO & HIRAGA, INC.

Sato/OmaopioTank/ALISH



Source: University of Hawaii, Land Study Bureau

Figure 11 Proposed Omaopio Road Tank Replacements
Soil Productivity Map

0 0.055 0.11 0.22 Mile

MUNEKIYO & HIRAGA, INC.

Prepared for: County of Maui, Department of Water Supply

Sato/OmaopioTank/SoilProductivity

5. Flood and Tsunami Hazards

a. Existing Conditions

As indicated by the Flood Insurance Rate Map (FIRM) for the area, the project sites and the portion of the adjacent Parcel 6 are located in Zone X (unshaded), which denotes an area of minimal flooding and low flood risk. See **Figure 12**. Specifically, the Federal Emergency Management Agency (FEMA) describes areas in Flood Zone X as follows.

> *Areas outside the 1-percent annual chance floodplain, areas of 1% annual chance sheet flow flooding where average depths are less than 1 foot, areas of 1% annual chance stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 1% annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.*

In addition, the project sites are situated in locations which are outside of designated tsunami evacuation area.

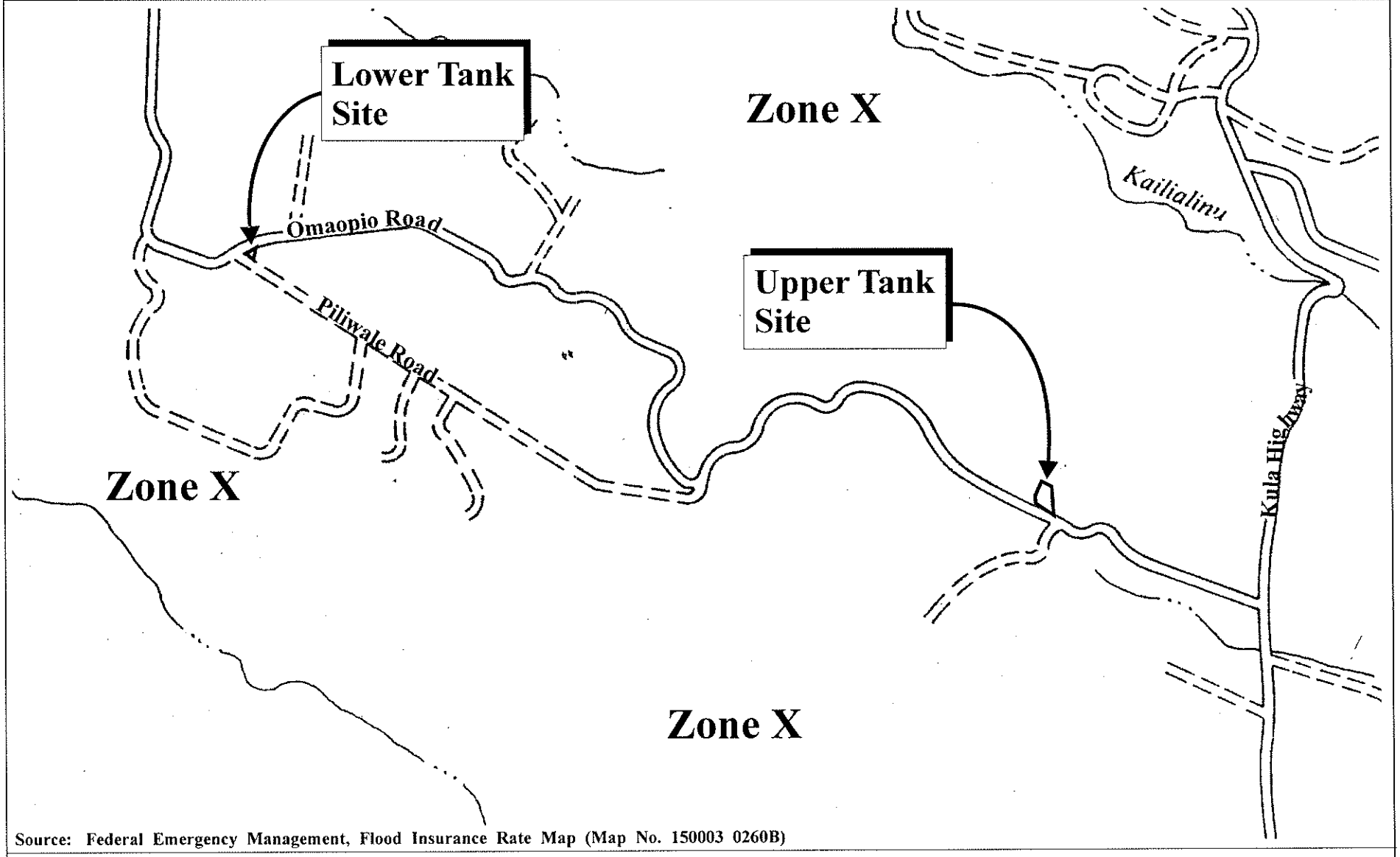
b. Potential Impacts and Proposed Mitigation Measures

The proposed Omaopio Tank Replacements project is not located within a special flood hazard district. Moreover, because the project is located outside of designated tsunami evacuation zones, there are no threats from coastal wave action. No adverse impacts with regards to flood and tsunami hazards are anticipated with implementation of the proposed action.

6. Flora and Fauna

a. Existing Conditions

A site assessment of the Upper and Lower Tank sites was conducted by DWS personnel in May 2010 to specifically review the types of flora and fauna located at the project sites. At the Upper Tank site, existing flora at the site included bougainvilleas, pine trees and Silky Oak and Castor Bean trees. There were no fauna observed at the site. At the Lower Tank site, observed species included native and non-native grasses, as well as Haole Koa trees. No fauna were observed at the Lower Tank site as well. See **Appendix "C"**.



Source: Federal Emergency Management, Flood Insurance Rate Map (Map No. 150003 0260B)

Figure 12 Proposed Omaopio Road Tank Replacements

Flood Zone Designation Map

NOT TO SCALE

Prepared for: County of Maui, Department of Water Supply

MUNEKIYO & HIRAGA, INC.

Sato/Omaopiotank/FZDM

Although no fauna were observed at either site, typical species anticipated would be feral cats, mice and rats.

b. Potential Impacts and Proposed Mitigation Measures

As previously noted, the site assessment conducted in May 2010 did not observe any rare, federally threatened or endangered species at the project sites. Further, no fauna were observed. While a limited amount of grading work will occur at both project sites, the sites have been previously developed and utilized as water tank sites by DWS. As such, the proposed Omaopio Tank Replacements project is not anticipated to have significant adverse impacts on biological resources.

7. Wetlands and Streams

a. Existing Conditions

There are no existing wetlands or streams in the immediate vicinity of the project sites.

b. Potential Impacts and Proposed Mitigation Measures

Given the absence of wetlands and streams in the area, no adverse impacts to these environmental parameters are anticipated.

8. Archaeological and Historical Resources

a. Existing Conditions

The proposed project will involve the construction of two (2) replacement water tanks at sites that have been previously improved. While the tank at the Lower Tank site has been demolished, the area had been previously graded and foundations constructed for the tank. An assessment of the Upper Tank Site and Lower Tank Site, relative to archaeological concerns, was undertaken by the DWS with the State Historic Preservation Division (SHPD). As a result, the SHPD has issued letters with "no effect on historic properties" for both the Upper and Lower Tank sites as previous grubbing and grading has altered the land and proposed excavations are minimal. See **Appendix "D"**.

b. Potential Impacts and Proposed Mitigation Measures

As previously noted, consultation with the SHPD was sought for both tank sites and SHPD has issued letters of "no effect". However, should any historical or cultural remains be inadvertently discovered during ground altering activities for the project, work will stop in the immediate area of the find and SHPD and the Office of Hawaiian Affairs (OHA) will be contacted for identification of appropriate mitigation procedures in accordance with Chapter 6E, Hawaii Revised Statutes.

9. Cultural Resources

a. Existing Conditions

During the pre-contact and early contact periods, Kula was primarily an area for farming. Dryland taro patches grew in elevations up to 3,000 feet. Farmers were reliant on growth of sweet potatoes and when crops failed due to caterpillars, blight, frost or sun, people in Makawao and Kula suffered from famine.

The arrival of whalers in the 1840s stimulated great demand for Irish and sweet potatoes. Potatoes were taken to Lahaina and sold aboard ships. The California gold rush also resulted in great demand from prospectors for potatoes, other vegetables, sugar, molasses and coffee. Farmers were doing so well that many Hawaiians were going into business for themselves, shipping their goods to San Francisco. Maui fields were referred to as "Nu Caliponi" or "New California." However, prices began to drop and the popularity of growing potatoes began to decline.

In the 1840s, many Chinese from Honolulu, Kohala and China moved to the Kula region and acquired land by lease or deed from Caucasian ranchers or Hawaiian homesteaders for farming. The Territorial government leased the land to ranchers who then subleased to the Chinese. In addition to Irish potatoes, they planted corn, beans, onions, Chinese cabbage, round cabbage, sweet potatoes, wheat and other grains, and cotton. Farmers often bartered their farm produce for payment on leases, in lieu of monetary transactions. Bartering was a common practice during this period. In the Kula area, there were three (3) stores that often bartered for goods on other islands.

During the mid-19th century, the Chinese population further expanded. Kula consisted of Chinese and English schools, Christian churches, a Chinese society, gambling houses, opium dens, general stores, farms and cattle ranches. Keokea was often referred to as "Chinatown" and many would travel to the area on Sundays and holidays from the outlying areas of Kanaio, Ulupalakua and Waiakoa.

In the 1880s, large sections of crown land in lower Kula were leased for grazing for the booming cattle industry. Around the end of World War I, the Territorial government released a large amount of land to the public for purchase. Homestead lands were available to all American citizens at least 21 years old. As a result of this policy, the Chinese population began to decline. In addition to loss of land to parceling, the Chinese population left the area due to a severe drought that devastated crops and livestock, soil depletion due to years of harvesting and tilling and a lack of educational opportunities (Munekiyo & Hiraga, Inc., 2008).

b. Potential Impacts and Proposed Mitigation Measures

In order to obtain a depth in cultural perspectives for the proposed project area, interviews with two (2) knowledgeable informants were conducted during the preparation of the Draft Environmental Assessment. For personal reasons, one (1) informant wished to remain anonymous. Summaries of the interviews are provided below.

Masaru Uradomo

Masaru Uradomo was born and raised in Waipoli, Maui, on a farm run by his parents. After graduating from Maui High School in Hamakuapoko, Mr. Uradomo enrolled in vocational classes at Maui Technical School. After that, he enlisted in the army, then worked in construction for about ten (10) years. During this time, he began his foray into commercial farming, which he described as his "first love". Eventually he left the construction industry and since 1969 worked as a farmer full-time. He is now retired, but his farming enterprise, M. Uradomo Farms, continues to operate and is run by his sons.

Because Mr. Uradomo was born and raised in Kula, he is very familiar with the Upcountry area. Mr. Uradomo recalls that when he was younger, the

Upcountry area was abundant with cactus, and there were several active pineapple farms in operation. He explained that most of the land in Kula was agricultural farmlands, as well as land owned by Costa Ranch. Furthermore, he remembered that Kula residents experienced frequent droughts and water shortages back then, same as they do now.

Regarding cultural sites, Mr. Uradomo described a birthing stone that is located near a rock wall along Omaopio Road, located outside of the project areas, approximately midway between the Upper Tank site and the Lower Tank site. It was presumably built and used by the native Hawaiians who used to reside in the area. Mr. Uradomo noted that the birthing stone still exists. He also recalled that officials from the Bishop Museum once came to inspect the stone.

Mr. Uradomo also explained that a native Hawaiian village was located in the general vicinity but also outside of the project areas, between the Upper Tank site and the Lower Tank site. He described encounters that his family had with the spirit of an ancient Hawaiian chief who had once lived near their home. He also described encounters that his family had with other spirits of the deceased, including an old Japanese man and a Hawaiian woman. Mr. Uradomo also heard reports of Hawaiian petroglyphs in the area, though their exact whereabouts are unknown.

Mr. Uradomo supports the project as it will provide much needed water storage for Omaopio Road residents.

Participant

The participant was born and raised in Kamaole, Kula, where his family owned land and operated a farm. The participant's grandparents and immediate family have roots in the Omaopio area. He attended elementary and intermediate schools on Maui before moving to Oahu where he attended Farrington High School. During this time, the participant worked at an agricultural produce store, under the guidance of an experienced farmer. After graduating from Farrington, the participant enlisted in the military. After that, he joined the National Guard and worked as a radar technician on Kauai.

In 1969, the participant returned home to Maui to work for his father's farm. Eventually he acquired a lease for State lands for farming, located in the vicinity of the Lower Tank site, and grew cabbage, onions, and other greens. His lease on the land lasted for 25 years. The participant continues to stay active in farming, helping his son with his operation.

When he was younger, the participant explained that the area in the vicinity of the project sites was composed of pineapple farms and ranches. There were a number of Portuguese ranchers and Japanese farmers who resided there. Water was also scarce then as it is now, which is why the construction of the Piliwale waterline at the time was instrumental in improving farming conditions in the area.

The participant was not aware of any cultural or archaeological sites in the vicinity of the project sites. He was also unaware of any cultural practices that occurred in the area or of any Hawaiian families who may reside there.

The participant offered his support for the water tank replacements project as it would benefit the needs of Omaopio farmers. However, he asked that the community be involved through the development process, as community participation is critical to properly address the needs of the people.

Based on the information gathered during the cultural assessment, the proposed project is not anticipated to have an adverse impact upon Native Hawaiian cultural resources within the immediate vicinity. The properties are not currently used for traditional cultural gathering, access, or religious practices. Furthermore, the proposed project involves the replacement of water tanks on lands that have been previously developed and utilized for water storage purposes. Should any cultural remains be encountered during construction and excavation, activity work in the vicinity of the find will be stopped and the SHPD and OHA will be contacted to establish appropriate mitigation measures in accordance with Chapter 6E, Hawaii Revised Statutes.

10. Air and Noise Quality

a. Existing Conditions

There are no point sources of airborne emission in the immediate vicinity of

the project sites. The air in the Kula region is of good quality, with existing airborne pollutants attributable to automobile exhaust from the region's roadways. Other sources of airborne pollutants typically include dust and equipment emissions resulting from the agricultural activities and smoke generated from sugar cane harvesting operations occurring in the Central Maui Plant. These sources are intermittent and the generated particulates are quickly dispersed by the prevailing tradewinds. Noise generated in the vicinity of the project sites may be attributable to natural (e.g. wind) conditions, traffic along Omaopio Road and other local roadways, agricultural-related activity involving the intermittent operation of equipment, such as tractors and trucks.

b. Potential Impacts and Proposed Mitigation Measures

Airborne particulates, including dust, may be generated during site preparation and construction of the tank replacement improvements. To minimize dust generation, dust fences, sprinklers and/or water wagons will be utilized during site preparation and construction. As soon as grading is complete, exposed areas will also be paved, grassed or permanently landscaped.

Ambient noise conditions will be temporarily affected by construction activities. Material-transport vehicles and power tools are anticipated to be the dominant noise-generating source during construction. As with air emissions, construction noise will be minimized through use of applicable Best Management Practices (BMPs). Construction work will be limited to daylight work hours.

Once operational, the proposed project is not anticipated to adversely impact air or noise quality in the vicinity.

11. Scenic and Open Space Resources

a. Existing Conditions

Scenic resources in the area include Haleakala to the east and the West Maui Mountains and central valley area of Maui to the west. Both the Upper and Lower tank sites are located along Omaopio Road in Kula. The Upper Tank

Site is located adjacent to the existing agricultural cooling plant, while the Lower Tank Site is located at the intersection of Omaopio Road and Piliwale Road. The Lower Tank site sits at a lower elevation than the adjoining agricultural use property to the east.

b. **Potential Impacts and Proposed Mitigation Measures**

The proposed project involves the replacement of water tanks on lands that have been previously developed and utilized for water storage purposes. The elevations of the tanks will not exceed 30 feet in height, in compliance with Chapter 19.30A.030, Maui County Code (MCC) relating to Agricultural District Standards. The project sites are not part of scenic corridors and will not affect views from inland vantage points. The proposed project is not anticipated to generate significant impacts to the visual character of the surrounding area as the intent of the project is to replace an existing tank at the Upper Tank site and a previously removed tank at the Lower Tank site.

12. **Traditional Beach and Mountain Access**

a. **Existing Conditions**

There are no known traditional beach and mountain access trails with or in the immediate vicinity of the project sites.

b. **Potential Impacts and Proposed Mitigation Measures**

The proposed project will not adversely impact traditional beach or mountain trails.

B. SOCIO-ECONOMIC ENVIRONMENT

1. **Regional Setting**

a. **Existing Conditions**

The project area is located in the Omaopio, Kula region on the southwestern slope of Haleakala. The Kula area is characterized by a combination of rural and agricultural uses. The project sites are surrounded by various farming and agricultural properties, including Surfing Goat Dairy farm, and a vacuum

cooling plant that provides farmers a venue to wash and package their produce. Single-family residences on agricultural parcels are located in the immediate vicinity of the project sites, along Omaopio Road.

b. Potential Impacts and Proposed Mitigation Measures

The proposed project is considered compatible with surrounding land uses. The regional character of Kula will not be adversely impacted by the provision of the two (2) proposed replacement water storage tanks.

2. Population

a. Existing Conditions

The population of the County of Maui has exhibited relatively strong growth over the past decade. Between 1990 and 2000, according to the U.S. Census, the State of Hawaii population increased from 1,108,229 to 1,211,537, a nine (9) percent growth over ten (10) years. Maui County population, however, has grown from 100,374 in 1990 to 128,241 in 2000, which represents a 28 percent growth over ten (10) years (U.S. Census 2000).

In 2000, the population of the island of Maui was 117,644 with 21,571 residents of the island's population living in the Makawao-Pukalani-Kula area (Maui County Planning Department, June 2006). Growth in Maui County is expected to continue as baseline population forecasts for the year 2015 reflect a Makawao-Pukalani-Kula population of 26,098, as well as an island-wide and County-wide population of 151,011 and 162,600, respectively (Maui County Planning Department, June 2006).

b. Potential Impacts and Proposed Mitigation Measures

The Omaopio Road Tank Replacements Project involves the construction of two (2) replacement water tanks and related improvements along Omaopio Road in Kula. The proposed project is not a direct population generator and will have no foreseeable impacts on the resident population of Maui County.

3. Economy and Labor Force

a. Existing Conditions

The Kula region, with its fertile soil and cool climate conditions, has resulted in successful produce and flower cultivation for export to domestic and international markets. The vast lands of pasture grass has also enabled cattle ranching and alternative ranching activities, such as sheep and llama herding, which contribute to the economy.

b. Potential Impacts and Proposed Mitigation Measures

On a short-term basis, the project will support construction and construction-related employment. Accordingly, the project will have a beneficial impact on the local economy during the period of construction.

From a long-term perspective, the proposed action is intended to provide water system reliability for the Omaopio Road/Piliwale Road area to better accommodate existing residential needs.

4. Housing

a. Existing Conditions

In 2000, Maui County's housing supply totaled 56,377 housing units, representing a 31 percent increase from 1990. The Makawao-Pukalani-Kula area's housing supply in 2000 totaled 4,761 units, representing a 57% increase from 1990.

Countywide, owners lived in 44 percent of the occupied homes. Owner occupancy tended to be slightly higher in the Makawao-Pukalani-Kula region with 59 percent of the units being owner-occupied.

Housing values in Kula-Ulupalakua-Kanaio are noticeably higher than most of the Countywide housing supply. As of June 2010, the price median in the Kula-Ulupalakua-Kanaio area was approximately $495,000.00, while the Countywide price median was $469,000.00 (Realtor Association of Maui, July 2010).

b. Potential Impacts and Proposed Mitigation Measures

The Omaopio Road Tank Replacements project involves the construction of two (2) water tanks along Omaopio Road in Kula. A 200,000 gallon water tank will replace an existing 12,000 gallon water tank at the Upper Tank site. A 40,000 gallon water tank will replace a previously removed 12,000 gallon water tank at the Lower Tank site. The proposed project is not a population generator and is not anticipated to impact housing supply for Maui County.

C. PUBLIC SERVICES

1. Police

a. Existing Conditions

The County of Maui's Police Department is headquartered in Wailuku. The Maui Police Department (MPD) consists of several patrol, investigative and administrative divisions. The Wailuku or Central station, which serves the Haiku, Paia, Makawao, Pukalani and Kula regions, is situated approximately 14.9 miles northwest of the project sites. A police substation is located in Pukalani, about 3.3 miles north of the project sites. A new police community service center is located in the Kulamalu Town Center, approximately 2.4 miles north of the project sites.

b. Potential Impacts and Proposed Mitigation Measures

The proposed project will not extend the existing service area limits for police service. As a water infrastructure project, it is not anticipated to have any impact on police service in the area.

2. Fire

a. Existing Conditions

Fire prevention, suppression and protection services are provided by the County Department of Fire and Public Safety. The Kula Station, which serves the region, is located off Kula Highway, approximately 3.1 miles south of the project sites. The Makawao and Paia fire stations lend additional firefighting support to the Kula region and are situated approximately 3.2

miles and 14.2 miles away from the project site, respectively.

b. Potential Impacts and Proposed Mitigation Measures

The construction of a new 200,000 gallon water tank at the Upper Tank site and a 40,000 gallon water tank at the Lower Tank site will improve water system reliability for properties along Omaopio Road. This project will benefit fire protection coverage of the area, as it will provide an increased water storage capacity to be utilized by the Fire Department in the event of a fire hazard.

3. Medical Services

a. Existing Conditions

Maui Memorial Medical Center, the only major medical facility on the island, is approximately 15.3 miles to the northwest of the project sites. Licensed for 201 beds, this facility provides acute, emergency, general, and obstetric care services. Several medical and dental care facilities are located in Makawao and Pukalani to serve Upcountry residents.

Kula Hospital is situated about 7.6 miles south of the project sites. The hospital serves as a long-term care facility, that provides Alzheimers and dementia care services. An out-patient clinic for the area's residents operates from 8:00 a.m. to 4:30 p.m. on weekdays.

b. Potential Impacts and Proposed Mitigation Measures

The proposed action is not anticipated to affect the service capabilities of medical service operations. The project will not extend the existing service area limits for emergency services.

4. Solid Waste

a. Existing Conditions

Residential solid waste collection and disposal is provided on a weekly basis by the County's Department of Environmental Management's Solid Waste Division. Solid waste generated in the Upcountry region is transported to the

Central Maui Landfill off of Pulehu Road, approximately 12.2 miles northwest of the project sites. Other than the Hana Landfill, the Central Maui Landfill is the only disposal site on the island of Maui which accepts County-hauled residential waste, commercially-hauled commercial waste, and self-hauled waste.

Privately owned facilities, such as the Maui Demolition and Construction Landfill and the Pohakulepo Concrete Recycling Facility, accept solid waste and concrete from demolition and construction activities. These facilities are located at Maalaea, northwest of the project sites, near Honoapiilani Highway's junction with North Kihei Road and Kuihelani Highway. A green waste recycling facility is present at the Central Maui Landfill.

b. Potential Impacts and Proposed Mitigation Measures

As may be required, a solid waste management plan will be developed in coordination with the Solid Waste Division of the County Department of Environmental Management (DEM) for the disposal of clearing, grubbing and demolition-related material during construction. The plan will incorporate strategies for effective construction waste management to reduce, reuse, and recycle solid waste materials. Such strategies involve the use of efficient design to promote waste reduction, salvaging of material to be used by other businesses or local organizations, and by separating recyclable and non-recyclable materials for proper recycling and disposal. All materials deemed unfit for reuse or recycling will be disposed at an approved construction waste disposal site. Once completed, the proposed project is not anticipated to require solid waste collection and disposal services. The proposed project will, therefore, not impact the capacity of the Central Maui Landfill.

5. Education

a. Existing Conditions

The State Department of Education (DOE) operates three (3) public schools in the Upcountry region. They are: King Kekaulike High School for grades 9 to 12, Kalama Intermediate School for grades 6 to 8, and Kula Elementary School for grades K to 5. There is also an elementary, middle and high

school primarily for persons of native Hawaiian ancestry, operated by Kamehameha Schools, located approximately 2.5 miles north of the project sites at Kulamalu. The region is also served by privately operated facilities, such as Haleakala Waldorf School (Grades K to 8) and Seabury Hall (Grades 6 to 12).

b. Potential Impacts and Proposed Mitigation Measures

The proposed project is not anticipated to affect educational facilities in the region as it is limited to water infrastructure improvements.

6. Recreational Facilities

a. Existing Conditions

Kula Park is located approximately 3.3 miles south of the project sites, adjacent to Kula Elementary School. The park consists of the 10.3-acre Kula Ball Field, two (2) soccer fields, playground equipment, two (2) picnic tables, a restroom and two (2) parking areas.

Other neighborhood parks and facilities in close proximity include the Kula Community Center located approximately 1.9 miles south of the project sites, across Kula Highway. The Kula Community Center is an approximate 2,800 square foot building on seven (7) acres of land. Behind the community center is the Old Kula Center where Boy Scouts meetings and Dance Society classes are held. The Maui Farm Bureau is also located in this building. Recreational facilities on the property include two (2) tennis courts and a gateball court. The gateball court has a field house and a storage shed.

Harold Rice Park is located approximately 4.3 miles south of the project sites. The 3.8-acre park contains a paved parking lot with 18 parking stalls, a restroom facility, picnic tables and a barbecue grill. Access to the Rice Park is located off of Lower Kula Road.

Situated along the higher elevations of Haleakala, Polipoli State Park, and Haleakala National Park offers camping, hiking, and sight-seeing opportunities.

b. Potential Impacts and Proposed Mitigation Measures

The proposed project is not anticipated to affect recreational facilities or demands for such facilities in the Kula region as it is limited to the replacement of two (2) water tanks.

D. INFRASTRUCTURE

1. Roadways

a. Existing Conditions

Access to the project sites will be provided via Omaopio Road off of Lower Kula Highway. Kula Highway is a predominantly two-way, two-lane State of Hawaii roadway, generally oriented in the north-south direction that serves as the primary access road through Upcountry Maui between Pukalani and Ulupalakua.

The Upper Tank site is located at the intersection of Omaopio Road and Kahala Place. The Lower Tank site is located at the intersection of Omaopio Road and Piliwale Road. Omaopio Road and Kahala Place are two-lane, two-way County of Maui roadways. The speed limit on both Omaopio Road and Kahala Place in the vicinity of the Upper Tank Site is 20 miles per hour (mph).

Piliwale Road is a two-lane, two-way County of Maui roadway. The speed limit on Piliwale Road in the vicinity of the Lower Tank Site 30 mph.

b. Potential Impacts and Proposed Mitigation Measures

The proposed project is not anticipated to generate significant volumes of incoming or outgoing traffic and will not affect existing traffic conditions in the area. The number of DWS personnel who would visit the project sites for routine monitoring and/or service activities would be limited to approximately two (2) employee(s), two (2) times a month.

During the construction of the replacement tanks, the DWS and the project's contractor will develop an appropriate construction traffic control plan to ensure the smooth and safe traffic operation along adjacent public roadways.

2. Water

a. Existing Conditions

Water service to the Makawao-Pukalani-Kula Community Plan region is provided by the County Department of Water Supply (DWS). The Kula system consists of an upper and lower system, with the upper system located at the 4,000 foot elevation, and the lower system originating at the 3,000 foot elevation. The Lower Kula System serves the Omaopio, lower Olinda, and lower Kula communities, while the Upper Kula System serves the remaining communities. The upper system collects water from Haipuaena, Puohakamoa, and Waiakamoi Streams, while the lower system diverts water from the Haipuaena, Puokakamoa, Waiakamoi, and Honomanu Streams.

The DWS provides potable water to the Upcountry residents and users via two (2) raw water treatment plant (WTP) facilities. These WTP facilities consist of the Piiholo WTP and Olinda Road WTP, which have the treatment capacities of 6.0 million gallons per day (MGD) and 1.7 MGD, respectively. Major storage reservoirs supporting the Upper Kula System include a 10 million gallon (MG) upper Waiakamoi dam/reservoir, a lower Waiakamoi concrete dam, two (2) 15 MG Waiakamoi concrete tanks, and a 3 MG Olinda steel tank. The recently constructed Kahakapao Reservoirs, consisting of two (2) 50 MG reservoirs in the vicinity of the Waiakamoi Reservoirs, also provide additional storage capacity for the upper system. The Piiholo WTP supports the Lower Kula System, from which the proposed Omaopio Tank Replacements will be filled. This water source comes from the Honomanu Intake and waterline, and a 50 MG raw water storage reservoir. From this WTP, the potable water is distributed among numerous water storage tanks ranging from 200,000 gallons to 2.0 MG for service to Upcountry residents and users.

A 12,000 gallon water tank at the Upper Tank site currently services properties along Omaopio Road in the Kula region. It connects with an existing 8-inch waterline that runs along Omaopio Road.

b. Potential Impacts and Proposed Mitigation Measures

As previously noted, a new 200,000 gallon water tank will be constructed at

the Upper Tank site, while a new 40,000 gallon water tank will be constructed at the Lower Tank site. The tanks will connect to the existing 8-inch waterline that runs along Omaopio Road. Pressure valves will also be installed in both tanks. These valves will be utilized to control pressure, should the tank need to be shut down for maintenance. The water tanks will provide increased water capacity and fire protection for properties located along Omaopio Road.

3. Wastewater

a. Existing Conditions

There are no public sewer facilities in this part of Maui. Wastewater in the Kula region is treated, processed and filtered through individually owned and operated cesspools or septic systems. The County of Maui does not serve the area.

b. Potential Impacts and Proposed Mitigation Measures

The proposed project will not generate any wastewater and will not affect existing wastewater collection and treatment systems in the area.

4. Drainage

a. Existing Conditions

Preliminary Drainage Reports (PDR) were prepared for the project in June, 2010 by Sato & Associates, Inc. Refer to **Appendix "A"** and **Appendix "B"**.

At present, the Upper Tank site is located on a mound, and offsite runoff flowing from the east is directed away from the site by a bank between the east property line and gravel dirt road (Kahala Place). Water flows down this private road in northerly and southerly directions due to the high point at the existing tank location. On site surface runoff flows in a west, northwest, and southwest direction. The Upper Tank site generates the total runoff at a rate of approximately 0.67 cubic feet per second (cfs) during a 10 year recurrence, 1-hour storm.

At the Lower Tank site, runoff currently flows in from the east at a total rate of 0.50 cfs during a 10 year recurrence, 1-hour storm. Offsite runoff from the east sheet flows through the site and across Omaopio Road into an undeveloped 24.35-acre lot. Refer to **Appendix "A"**.

b. Potential Impacts and Proposed Mitigation Measures

After completion of the improvements at the Upper Tank site, it is estimated that a 10-year, 1-hour storm event will create a net increase of 0.47 cfs of runoff from the site, resulting in a post development total runoff rate of 1.14 cfs. A new concrete drain inlet and subsurface drainage system will be built to handle the additional runoff (post-construction) and allow excess onsite runoff to percolate underground. The remaining storm water will be allowed to sheet flow off the site as it does under in existing conditions.

After completion of the improvements at the Lower Tank site, it is expected that runoff will flow at a rate of approximately 0.31 cfs, which is about 0.19 cfs less than existing rates at the site. A new berm and swale will be constructed at the Lower Tank site to direct approximately 0.38 cfs of existing runoff around the tank site to follow the existing drainage pattern. The high infiltration rate of the new gravel service road at the Lower Tank site will assist in the onsite runoff retention.

The proposed drainage improvements will be designed to accommodate any changes in surface runoff at the project sites. Drainage design criteria to minimize alterations will be in accordance with the drainage standards for the County of Maui. Refer to **Appendix "A"** and **Appendix "B"**.

5. Electrical and Telephone Services

a. Existing Conditions

Electrical and telephone services for the Kula region are provided by Maui Electric Company, Ltd. and Hawaiian Telcom, respectively. Developed properties within the vicinity of the project sites are served by overhead electrical and telephone distribution systems along Omaopio Road.

b. Potential Impacts and Proposed Mitigation Measures

The proposed project is not anticipated to affect electrical and telephone services in the Kula region.

Electrical improvements are proposed for the Upper Tank Site only, however, the electrical requirements are minimal and will be utilized for the operation of a new SCADA system for the tank.

E. CUMULATIVE AND SECONDARY IMPACTS

Cumulative impacts are defined as the impact on the environment which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions.

The proposed project is not part of a larger action, nor would it occur within the context of such actions. As such, there are no cumulative impacts associated with the proposed project.

Secondary impacts are those which have the potential to occur later in time or farther in distance, but are still reasonably foreseeable. They can be viewed as actions of others that are taken because of the presence of the project. Secondary impacts from highway projects, for example, can occur because they can induce development by removing one of the impediments to growth-transportation access.

Aside from the direct development impacts discussed in the previous sections of this chapter, secondary impacts are not anticipated as the project serves to replace an existing water tank and one that has previously been removed.

The project is not anticipated to have a significant adverse impact on the physical environment. Consequently, the proposed action is not anticipated to result in significant adverse secondary impacts.

III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS

III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS

This section discusses the relationship of the proposed Omaopio Tank Replacements and Related Improvements Project to applicable State and County land use plans, policies, and controls.

A. STATE LAND USE DISTRICTS

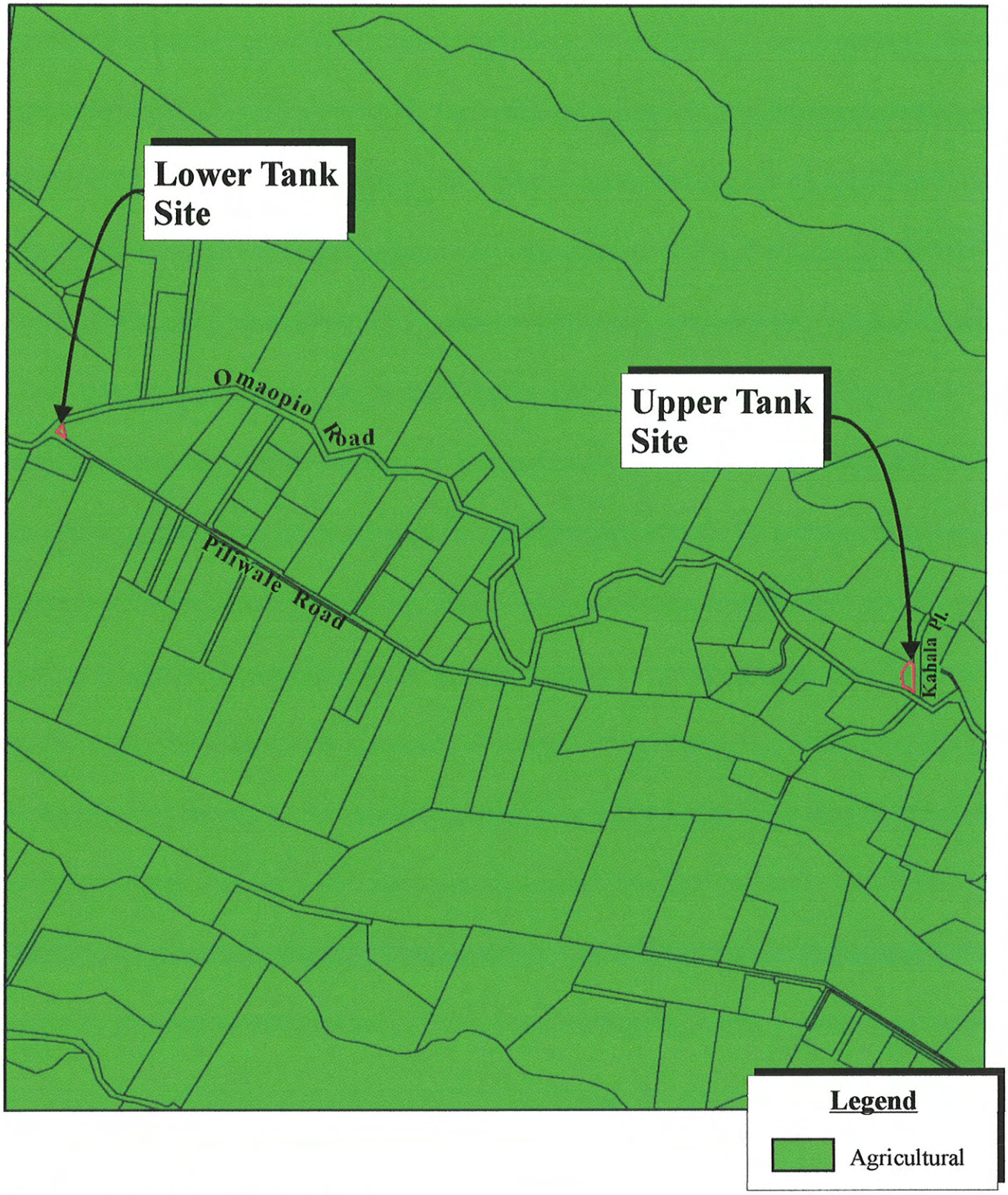
Pursuant to Chapter 205, Hawaii Revised Statues, all lands in the State have been placed into one (1) of four (4) major land use districts by the State Land Use Commission. These land use districts are designated "Urban", "Rural", "Agricultural", and "Conservation". The project sites and the portion of Parcel 6 are classified "Agricultural". See **Figure 13**. The proposed use of the property for the proposed water system improvements is consistent with "Agricultural" district provisions.

B. MAUI COUNTY GENERAL PLAN

As indicated by the Maui County Charter, the purpose of the general plan shall be to:

> *... indicate desired population and physical development patterns for each island and region within the county; shall address the unique problems and needs of each island and region; shall explain opportunities and the social, economic, and environmental consequences related to potential developments; and shall set forth the desired sequence, patterns and characteristics of future developments. The general plan shall identify objectives to be achieved, and priorities, policies, and implementing actions to be pursued with respect to population density; land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design, and other matters related to development.*

Chapter 2.80B of the Maui County Code, relating to the General Plan and Community Plans, implements the foregoing Charter provision through enabling legislation which calls for a Countywide Policy Plan and a Maui Island Plan. The Countywide Policy Plan was adopted as Ordinance No. 3732 on March 24, 2010. The Maui Island Plan is currently in the process of review and formulation by the Maui County Council.



Source: State of Hawaii, Land Use Commission

Figure 13

Proposed Omaopio Road Tank Replacements

State Land Use District Map

0 0.055 0.11 0.22 Mile

Prepared for: County of Maui, Department of Water Supply

MUNEKIYO & HIRAGA, INC.

Sato/OmaopioTank/SLUD

With regard to the Countywide Policy Plan, Section 2.80B.030 of the Maui County Code states the following.

> *The countywide policy plan shall provide broad policies and objectives which portray the desired direction of the County's future. The countywide policy plan shall include:*
>
> *1. A vision for the County;*
> *2. A statement of core themes or principles for the County; and*
> *3. A list of countywide objectives and policies for population, land use, the environment, the economy, and housing.*

Core principles set forth in the Countywide Policy Plan are listed as follows:

1. Excellence in the stewardship of the natural environment and cultural resources;
2. Compassion for and understanding of others;
3. Respect for diversity;
4. Engagement and empowerment of Maui County residents;
5. Honor for all cultural traditions and histories;
6. Consideration of the contributions of past generations as well as the needs of future generations;
7. Commitment to self-sufficiency;
8. Wisdom and balance in decision making;
9. Thoughtful, island appropriate innovation; and
10. Nurturance of the health and well-being of our families and our communities.

Congruent with these core principles, the Countywide Policy Plan identifies goals objectives, policies and implementing actions for pertinent functional planning categories, which are identified as follows:

1. Natural environment
2. Local cultures and traditions

3. Education

4. Social and healthcare services

5. Housing opportunities for residents

6. Local economy

7. Parks and public facilities

8. Transportation options

9. Physical infrastructure

10. Sustainable land use and growth management

11. Good governance

With respect to the Omaopio Tank Replacements Project the following goals, objectives, policies and implementing actions are illustrative of the project's compliance with the Countywide Policy Plan.

IMPROVE PHYSICAL INFRASTRUCTURE

Goal: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.

Objective:

1. Improve water systems to assure access to sustainable, clean, reliable, and affordable sources of water.

Policies:

b. Develop and fund improved water-delivery systems.

c. Ensure a reliable and affordable supply of water for productive agricultural uses.

In summary, the Omaopio Tank Replacements project is consistent with the themes and principles of the Countywide Policy Plan.

C. MAKAWAO-PUKALANI-KULA COMMUNITY PLAN

Within Maui County, there are nine (9) community plan regions. From a General Plan implementation standpoint, each region is governed by a Community Plan which sets forth desired land use patterns, as well as goals, objectives, policies, and implementing actions for a number of functional areas, including infrastructure-related parameters.

Land use guidelines are set forth by the Makawao-Pukalani-Kula Community Plan Land Use Map. As shown in **Figure 14**, the lands underlying the Upper Tank site and the Lower Tank site, as well as Parcel 6, are designated "AG, Agricultural".

The proposed project is consistent with the following goals, policies, and objectives of the Community Plan:

ECONOMIC ACTIVITY

Goal

A stable and diverse economic environment which supports a level of community prosperity in order to provide social services and environmental amenities and which respects the region's rural and agricultural lifestyle, open space and natural resources.

Objectives and Policies

- Provide for the preservation and enhancement of agricultural lands and operations, emphasizing the importance of promoting diversified agriculture to the region's economic base and lifestyle.

- Support programs and plans to develop adequate water systems for agricultural use.

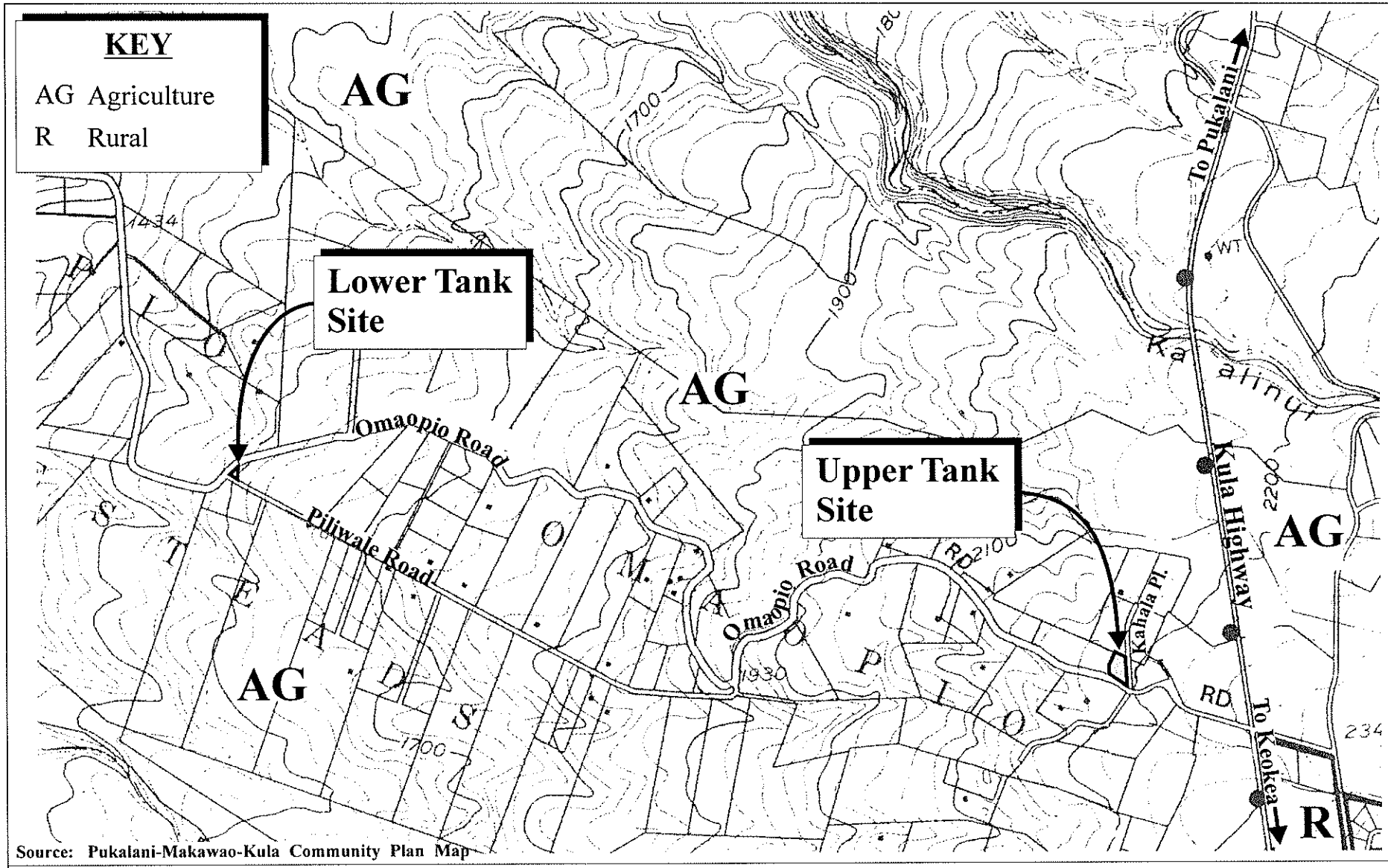
LAND USE

Goal

The maintenance and enhancement of Upcountry's unique and diverse rural land use character with sensitivity to existing land use patterns, natural resource values, and economic and social needs of the region's residents.

Objectives and Policies

- Establish water resource availability as a major criteria in establishing land uses.



Source: Pukalani-Makawao-Kula Community Plan Map

Figure 14 Proposed Omaopio Road Tank Replacements

Community Plan Map

NOT TO SCALE

Prepared for: County of Maui, Department of Water Supply

MUNEKIYO & HIRAGA, INC.

Sato/omaopiotank/CPLU

PHYSICAL INFRASTRUCTURE

Goal

The timely and environmentally sensitive development and maintenance of infrastructure systems which protect and enhance the safety and health of Upcountry's residents and visitors, including the provision of domestic water, utility and waste disposal services, and effective transportation systems which meet the needs of residents and visitors while maintaining the region's rural character.

WATER

Objectives and Policies

- Prioritize the allocation of water as new resources and system improvements become available as follows: (a) for maintenance and expansion of diversified agricultural pursuits and for the Department of Hawaiian Homes projects; and then (b) for other uses including development of new housing, commercial and public/quasi-public uses.

- Encourage a flexible and comprehensive water management approach that recognizes the various collection and delivery improvements as one cohesive system.

- The Department of Water Supply shall expand water supply and distribution systems, including catchment systems, in accordance with the directions set forth in the Makawao-Pukalani-Kula Community Plan.

D. COUNTY ZONING

The proposed Omaopio Tank Replacements project sites, as well as the adjacent Parcel 6, are zoned "Agricultural" by the County of Maui. The proposed water tank replacements are permitted within the "Agricultural" zoning district.

E. COASTAL ZONE MANAGEMENT OBJECTIVES AND POLICIES

The project sites and the adjacent Parcel 6 are located in the Kula region and, as such are not located within the County of Maui's Special Management Area (SMA). However, this section analyzes the proposed project relative to coastal zone management considerations, as set forth in Chapter 205A, HRS.

1. Recreational Resources

Objective: Provide coastal recreational opportunities accessible to the public.

Policies:

(A) Improve coordination and funding of coastal recreational planning and management; and

(B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

(i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;

(ii) Requiring replacement of coastal resources having significant recreational value, including but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;

(iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;

(iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;

(v) Ensuring public recreational use of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;

(vi) Adopting water quality standards and regulating point and non-point sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;

(vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and

(viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or

permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of Section 46-6.

Response: The project area does not abut the shoreline, but is located inland on the slopes of Haleakala and away from shoreline resources. The proposed actions will, therefore, not affect coastal recreational opportunities.

2. **Historic Resources**

Objective: Protect, preserve and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Policies:

(A) Identify and analyze significant archeological resources;

(B) Maximize information retention through preservation of remains and artifacts or salvage operations; and

(C) Support state goals for protection, restoration, interpretation, and display of historic resources.

Response: As stated previously, consultation with SHPD for both project sites has been undertaken. SHPD has issued letters of "no effect" for both sites. Refer to **Appendix "D"**. Should there be an inadvertent discovery during ground altering work, work will stop in the immediate area of the find and the SHPD and OHA contacted to establish the appropriate level of mitigation measures.

3. **Scenic and Open Space Resources**

Objective: Protect, preserve and, where desirable, restore or improve the quality of coastal scenic and open space resources.

Policies:

(A) Identify valued scenic resources in the coastal zone management area;

(B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of

natural landforms and existing public views to and along the shoreline;

(C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and

(D) Encourage those developments which are not coastal dependent to locate in inland areas.

Response: The proposed improvements at the project sites will not have a significant adverse impact upon scenic or open space resources. The proposed actions involve the construction of replacement water tanks, which are not located in designated scenic corridors.

4. Coastal Ecosystems

Objective: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

(A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;

(B) Improve the technical basis for natural resource management;

(C) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;

(D) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and

(E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.

Response: The proposed project is not anticipated to result in any adverse impacts to coastal ecosystems as the project sites are located over 10 miles away from the ocean. Applicable Best Management Practices (BMPs) and erosion-control measures will be implemented to mitigate runoff during construction-related activities.

5. Economic Uses

Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Policies:

(A) Concentrate coastal dependent development in appropriate areas;

(B) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and

(C) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:

(i) Use of presently designated locations is not feasible;

(ii) Adverse environmental effects are minimized; and

(iii) The development is important to the State's economy.

Response: The proposed improvements are in keeping with the agricultural and residential uses in the area. The proposed actions are in keeping with the objective and policies for economic uses in terms of supporting the existing agricultural character of the area.

6. Coastal Hazards

Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence and pollution.

Policies:

(A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;

(B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution

hazards;

(C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and

(D) Prevent coastal flooding from inland projects.

Response: Both the Upper and Lower Tank sites are located in Flood Zone X, areas outside of the 1 percent annual chance floodplain. Appropriate drainage measures will be implemented to ensure downstream and adjacent properties will not be adversely impacted.

7. Managing Development

Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

Policies:

(A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;

(B) Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and

(C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.

Response: In compliance with the requirements of Chapter 343, Hawaii Revised Statutes (HRS), this Environmental Assessment (EA) has been prepared to facilitate public understanding and involvement in project development. All aspects of the development will be conducted in accordance with applicable Federal, State and County standards. Compliance with applicable regulatory requirements advances the objective and policies for managing development.

8. Public Protection

Objective: Stimulate public awareness, education, and participation in coastal management.

Policies:

(A) Promote public involvement in coastal zone management processes;

(B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and

(C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Response: Opportunities for public awareness and participation for the project are facilitated through the notification, review and comment processes of the EA requirements of Chapter 343, HRS. The proposed project is not contrary to the objectives of public awareness, education, and participation.

9. **Beach Protection**

Objective: Protect beaches for public use and recreation.

Policies:

(A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;

(B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and

(C) Minimize the construction of public erosion-protection structures seaward of the shoreline.

Response: The proposed project is not located in proximity to shoreline areas, nor is it anticipated to impact shoreline activities or beach processes.

10. Marine Resources

Objective: Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

Policies:

(A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;

(B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;

(C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;

(D) Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and

(E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Response: The proposed project is not anticipated to impact marine or coastal resources as the project sites are located over 10 miles away from the ocean.

In addition to the foregoing objectives and policies, SMA permit review criteria pursuant to Act 244 (2005) provides that:

> No special management area use permit or special management area minor permit shall be granted for structures that allow artificial light from floodlights, uplights, or spotlights used for decorative or aesthetic purposes when the light:
>
> (1) Directly illuminates the shoreline and ocean waters; or
>
> (2) Is directed to travel across property boundaries toward the shoreline and ocean waters.

Response: Lighting design for the water tank replacements will be minimal and will comply with applicable requirements of the County of Maui Outdoor lighting ordinance.

IV. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

IV. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

The proposed project involves the construction of two (2) new water tanks and related improvements to replace one (1) existing tank and one (1) that has previously been removed. Construction will take place on lands that were previously developed and a 4,400 square foot portion of adjacent land. Development of the project will involve the placement of larger tanks, but they are not anticipated to have an adverse impact on scenic or open space resources. At the Upper Tank site, a 200,000 gallon reservoir, expected to be less than 30 feet in height, will replace an existing 12,000 gallon tank. At the Lower Tank site, a 40,000 gallon steel tank, expected to be less than 30 feet in height, will replace an old 12,000 gallon tank that was previously removed. The project sites are not part of scenic corridors and will not affect views from inland vantage points.

Assessment of construction-related impacts, noise and air quality impacts, and potential impact on physical and socio-economic environment, were carried out as part of the EA. The proposed development will have a limited, unavoidable construction-related impact on the environment, as described in Chapter II.

In the short term, construction activities associated with the Omaopio Road Tank Replacements Project will have a temporary impact on air quality from dust generation and discharge of exhaust from construction equipment during ground altering activities and site grading. Appropriate BMPs will be incorporated to mitigate adverse impacts, including watering of exposed surfaces and regular maintenance of construction equipment to minimize construction-related impacts.

Construction of the Omaopio Road Tank Replacements Project will also generate short-term noise impacts which will also be unavoidable. The use of properly maintained construction equipment will mitigate noise impacts caused by equipment. Compliance with State Department of Health construction noise limits and imposition of curfew times is another measure to mitigate noise impacts caused by equipment.

V. ALTERNATIVES TO THE PROPOSED ACTION

V. ALTERNATIVES TO THE PROPOSED ACTION

A. PREFERRED ALTERNATIVE

The proposed construction of two (2) replacement water tanks along Omaopio Road was deemed appropriate for the properties given their current and previous use for water storage purposes. The proposed action is intended to expand water storage capacity to better accommodate the water needs for domestic and agricultural uses of residents living along Omaopio Road. In addition, increased water storage capacity will provide more water for fire protection in the event of a fire hazard. Given the current and previous land use of the project sites, this alternative is considered the best option to address the existing water needs of the area. Other site alternatives were not pursued because of the limited financial funds for these water system improvements. Because the parcels of land can accommodate larger capacity water storage tanks, the DWS determined that larger replacement tanks on these sites would make the best use of these funds. In addition, these sites have been previously utilized for water improvements, therefore eliminating potential costs or planning considerations that might arise from other unknown alternative site locations.

B. NO ACTION ALTERNATIVE

The "no action" alternative calls for retaining the project sites in their current condition. If the "no action" alternative were implemented, the Upper Tank site would continue to be used as a site for a 12,000 gallon water tank. The Lower Tank site would continue to be underutilized as a vacant site which was previously used for water storage purposes. The "no action" alternative would not meet the water and fire protection needs of existing residents living along Omaopio Road in Kula and is not deemed desirable.

C. DEFERRED ACTION ALTERNATIVE

A "deferred action" alternative would have similar consequences as the "no action" alternative in that the proposed project would be delayed and would not be immediately realized. This alternative would not respond to the need for enhanced water storage and fire protection requirements for residents living along Omaopio Road in Kula.

D. ALTERNATIVE TANK LOCATIONS

This alternative would involve site selection and property acquisition to develop new water storage facilities. This alternative was not pursued as use of the existing sites under Department of Water Supply jurisdiction was deemed technically viable in addressing system upgrade requirements.

VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Development of the proposed project will involve a commitment of energy, labor, fiscal and material resources. The use of these resources, when weighed against the expected benefit to be derived from the project, is not considered an adverse commitment.

VII. SIGNIFICANCE OF CRITERIA ASSESSMENT

VII. SIGNIFICANCE OF CRITERIA ASSESSMENT

The "Significance Criteria", Section 12 of the Administrative Rules, Title 11, Chapter 200, "Environmental Impact Statement Rules", were reviewed and analyzed to determine whether the proposed project will have significant impacts to the environment. The following criteria and preliminary analysis are provided:

1. **Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.**

   Construction of two (2) new water tanks and the related improvements will result in short-term construction related air quality and noise impacts. However, these effects will be limited in scope as there are no known rare, threatened, or endangered species of flora, fauna, avifauna, or important habitats located within the project sites. Furthermore, project construction will be implemented within parcels that have already been developed. Should archaeological features, cultural artifacts, or human burials be located during construction activities, work in the immediate area of the find shall be promptly halted and the find protected from further disturbance. The State Historic Preservation Division (SHPD) and the Office of Hawaiian Affairs (OHA) will be immediately contacted to determine the significance of the find and establish appropriate mitigative measures.

2. **Curtails the range of beneficial uses of the environment.**

   The proposed action and the commitment of land resources will not curtail the range of beneficial uses of the environment. The continued use of the properties for water tanks is compatible with their current designations for the project sites and the portion of the adjacent Parcel 6 which are identified as "Agricultural" by the State Land Use Commission, "Agricultural" by the Makawao-Pukalani-Kula Community Plan and "AG, Agricultural District" by County of Maui zoning.

3. **Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.**

   The State's Environmental Policy and Guidelines are set forth in Chapter 344, Hawaii

Revised Statutes (HRS). The proposed action is consistent with the policies and guidelines of Chapter 344, HRS.

4. **Substantially affects the economic welfare, social welfare, and cultural practices of the community or State.**

The proposed action will have a beneficial effect on the local economy during construction. In the long term, the proposed project will provide enhanced water storage capacity for current residents living along Omaopio Road.

5. **Substantially affects public health.**

No adverse impact to public health or welfare is anticipated as a result of the proposed action. The proposed project will provide enhanced water storage capacity to meet the potable water needs and fire protection needs of existing residents living along Omaopio Road and Piliwale Road. Therefore, implementation of the water tanks will be beneficial to the overall health of residents living in the area.

6. **Involves substantial secondary impacts, such as population changes or effects on public facilities.**

The proposed project is anticipated to provide enhanced water storage capacity for residents living along Omaopio Road/Piliwale Road. Significant adverse impacts to population are not anticipated as a result of the project.

From a land use standpoint, the proposed project is in keeping with the objectives, policies, and implementing actions of the Makawao-Pukalani-Kula Community Plan. The project does not anticipate any adverse impacts to public facilities as a result of implementation.

Adverse impacts to water and wastewater capacities and facilities are not anticipated as a result of project implementation.

7. **Involves a substantial degradation of environmental quality.**

During construction of the project, appropriate Best Management Practices (BMPs) will be utilized to ensure that potential adverse environmental effects are mitigated. No substantial degradation of environmental quality is anticipated as a result of project implementation.

8. **Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.**

The proposed action does not represent a commitment to larger actions. In addition, the proposed action is not expected to result in cumulative impacts that would adversely affect the environment.

9. **Substantially affects a rare, threatened, or endangered species, or its habitat.**

The project sites have been previously developed for water storage facility use and are located in proximity to residential and agricultural uses in Kula. There are no known or identified habitats of rare, threatened, or endangered species of flora, fauna or avifauna, or their habitats in the vicinity of the project sites or the adjacent Parcel 6. Refer to **Appendix "C"**.

10. **Detrimentally affects air or water quality or ambient noise levels.**

Localized air quality impacts from construction equipment and vehicles may occur during construction of the proposed project. As such, potential air quality impacts during construction will be mitigated by complying with the provisions of the State Department of Health Administrative Rules, Title 11, Chapter 60, Fugitive Dust. Measures will be taken to minimize air quality impacts, such as water spraying of loose or exposed soil, erecting dust screens, and re-vegetating or paving exposed areas as soon as practical.

Temporary noise impacts may also be generated from construction equipment. Equipment mufflers or other noise attenuating equipment, as well as proper equipment and vehicle maintenance, will be used during construction activities. Construction noise impact will be mitigated through compliance with the provisions of the State of Hawaii, Department of Health Administrative Rules Title 11, Chapter 46, "Community Noise Control". These rules require a noise permit if the noise levels from construction activities are expected to exceed the allowable levels set forth in Chapter 46 rules.

With proposed mitigation measures, the project is not anticipated to have adverse significant impacts on air quality or noise levels.

Water quality is not expected to be affected by the proposed project in either the short term or long term.

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.

The project is not located within and would not affect environmentally sensitive areas. The Flood Insurance Rate Map (FIRM) for this region indicates that the project sites and the adjacent Parcel 6 are located in Zone X (unshaded), areas of minimal flooding. In addition, the project sites are located beyond the reaches of designated tsunami evacuation areas. The project sites are not shoreline properties, nor are they situated near streams, wetland areas or other areas which may pose flooding concerns. There are no geologically hazardous lands, estuaries, or coastal waters within or adjacent to the project sites.

12. Substantially affects scenic vistas and viewplanes identified in county or state plans or studies.

The project sites and the adjacent Parcel 6 are not identified as scenic vistas or viewplanes. It is not anticipated, therefore, that the proposed project will affect scenic corridors and coastal scenic and open space resources.

13. Requires substantial energy consumption.

The proposed project will involve the short-term commitment of fuel for equipment, vehicles, and machinery during construction activities. However, this use is not anticipated to result in a substantial consumption of energy resources. In the long term, the project will not create substantial new demand for energy resources.

In summary, the project sites are located in proximity to residences and agricultural uses along Omaopio Road/Piliwale Road in Kula. The project will provide enhanced water service to these residences and agricultural uses. Development of the two (2) proposed water tanks is not anticipated to have significant adverse impacts on the physical environment. In this context, a Finding of No Significant Impact (FONSI) is anticipated for the proposed action.

VIII. LIST OF PERMITS AND APPROVALS

VIII. LIST OF PERMITS AND APPROVALS

The following permits and approvals will be required prior to the implementation of the project:

State of Hawaii

1. Noise Permit, as applicable

2. National Pollution Discharge Elimination System (NPDES) Permit, as applicable

County of Maui

1. Construction Permits (Building Permits)

2. Grading Permit

There are no Federal funds that will be utilized for the proposed Omaopio Tank Replacements project. As such, Federal review requirements, such as Section 106 Historic Preservation Act, the Environmental Justice Act or the Wild and Scenic Rivers Act are not anticipated to be "triggered" by the proposed project.

IX. AGENCIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

IX. AGENCIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

The following agencies were consulted during preparation of the Draft Environmental Assessment. Agency comments and responses to substantive comments are also included in this section.

1. Larry Yamamoto, State Conservationist
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2. Ranae Ganske-Cerizo, Soil Conservationist
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3. George Young
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4. Patrick Leonard
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5. Russ K. Saito, State Comptroller
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6. Sandra Lee Kunimoto, Chair
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7. Theodore E. Liu, Director
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8. Kathryn Matayoshi, Interim Superintendent
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9. Heidi Meeker
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Department of Education
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cc: Bruce Anderson, Complex Area Superintendent (Central/Upcountry Maui)

10. Kaulana Park, Chairman
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11. Chiyome Fukino, M.D., Director
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12. Alec Wong, P.E., Chief
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15. Laura Thielen, Chairperson
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23. Dan Davidson, Executive Officer
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26. Tamara Horcajo, Director
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27. Jeffrey Hunt, Director
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28. Gary Yabuta, Chief
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29. Milton Arakawa, Director
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30. Cheryl Okuma, Director
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31. Donald Medeiros, Director
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32. Danny Mateo, Council Chair
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33. Councilmember Gladys Baisa
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34. Hawaiian Telcom
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35. Greg Kauhi, Manager, Customer Operations
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37. Bryan Otani
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Honolulu, HI 96850
808-541-2600

April 16, 2010

Munekiyo & Hiraga, Inc.
Attention Erin Mukai, Planner
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Erin Mukai,

Thank you for providing the NRCS the opportunity to review the Early Consultation Request for the Proposed Omaopio Road Tank Replacement Project and related Improvements at TMK (2) 2-3-003:1010and 103, Maui, Hawaii. Please find enclosed the NRCS Soil Survey Map, soil reports, and a map indicating areas of Important Farmlands. The important farmlands map has been enclosed for your aid in determining if an AD-1006 Farmland Impact Conversion Rating Form is needed for this project. Typically, this form is required on projects that convert farmlands into non-farmland uses, and have federal dollars attached to the project. See the website link below for more information on the Farmland Protection Policy Act and a copy of the AD-1006 form with instructions. The soil mapping does not identify any hydric soils in this project area. Hydric soils identify potential areas of wetlands. If wetlands do exist, any proposed impacts to these wetlands would need to demonstrate compliance with the "Clean Water Act", and may need an Army Corp of Engineers 404 permit.

The enclosed Soil Survey Map identifies all soil map units in the project area. The soil reports provide selected soil properties and interpretation. The limitation ratings for the selected use "Local Roads and Streets" are "Somewhat limited" for the soil map units. These ratings do not preclude the intended land use, however they do identify potential limitations for the use, which may require corrective measures, increase costs, and/or require continued maintenance.

The NRCS Soil Survey is a general planning tool and does not eliminate the need for an onsite investigation. If you have any questions concerning the soils or interpretations for this project please call, Tony Rolfes, Assistant State Soil Scientist, (808) 541-2600 x129, or email, Tony.Rolfes@hi.usda.gov.

NRCS - Farmland Protection Policy Act Website: http://www.nrcs.usda.gov/programs/fppa/

Sincerely,

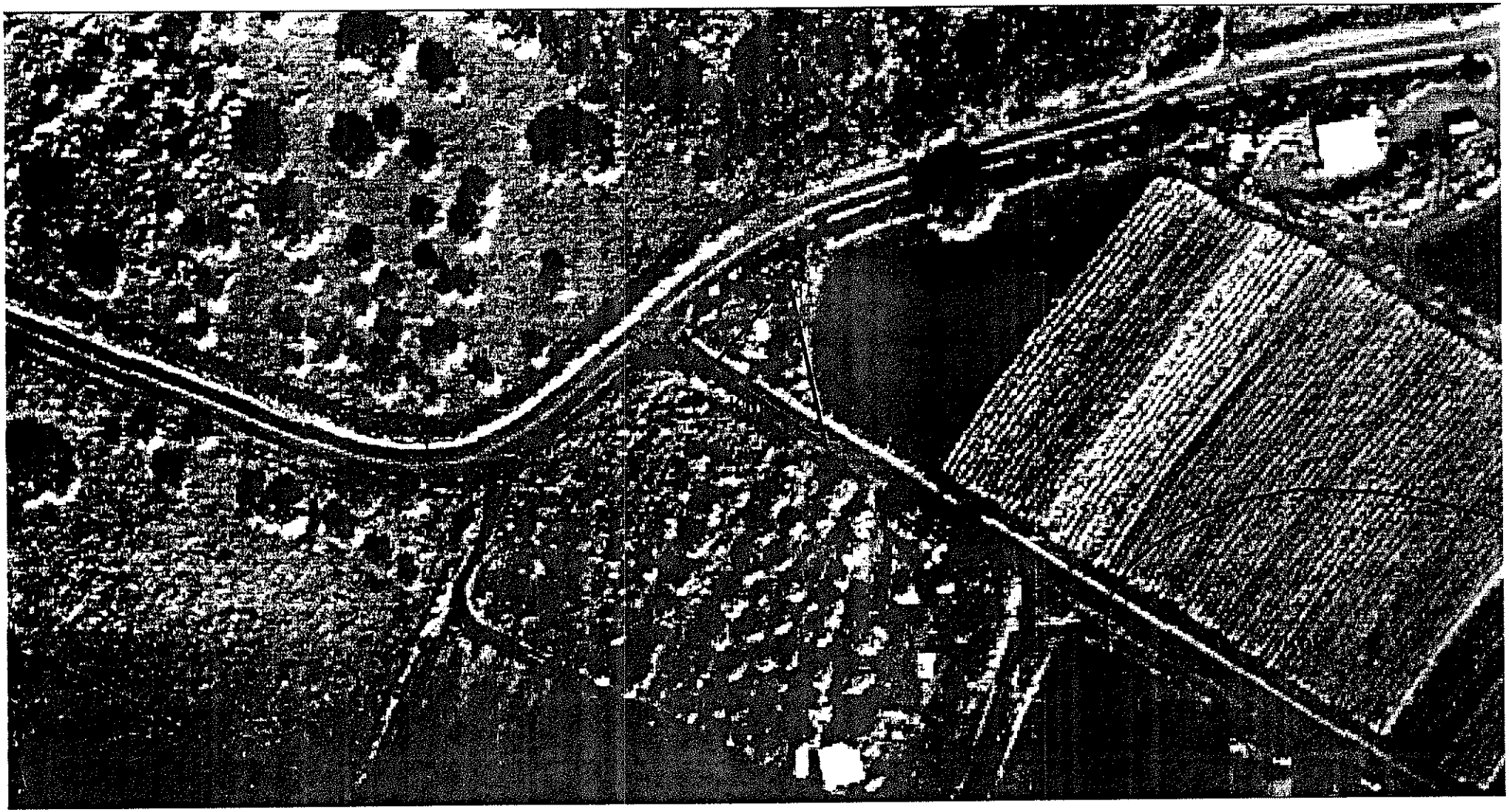
LAWRENCE T. YAMAMOTO
Director
Pacific Islands Area

cc: Michael Robotham, Asst. Director for Soil Science and Natural Resource Assessments, Honolulu, HI

Enclosures:

Helping People Help the Land

Soil Map - Proposed Omaopio Road Tank Replacement
Lower Tank



0 0.015 0.03 0.06 0.09 0.12 Miles

N

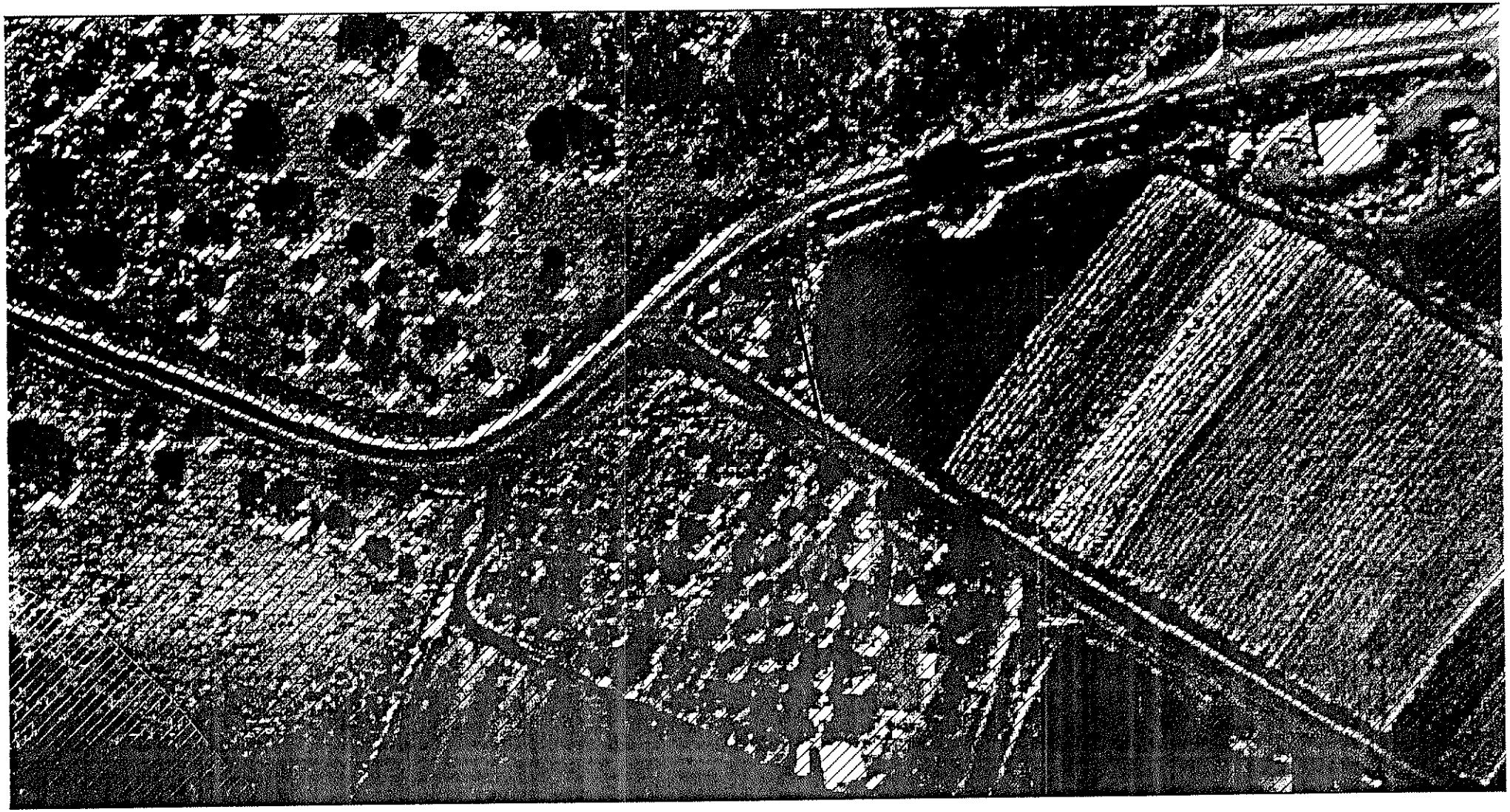
Legend

- Approximate Project_Boundaries
- Soil Map units

4/2010

NRCS

Important Farmlands - Proposed Omaopio Road Tank Replacement
Lower Tank



Legend

Approximate Project_Boundaries

Important Farmlands

<all other values>

AGTYPE

0

Prime Farmlands

Unique

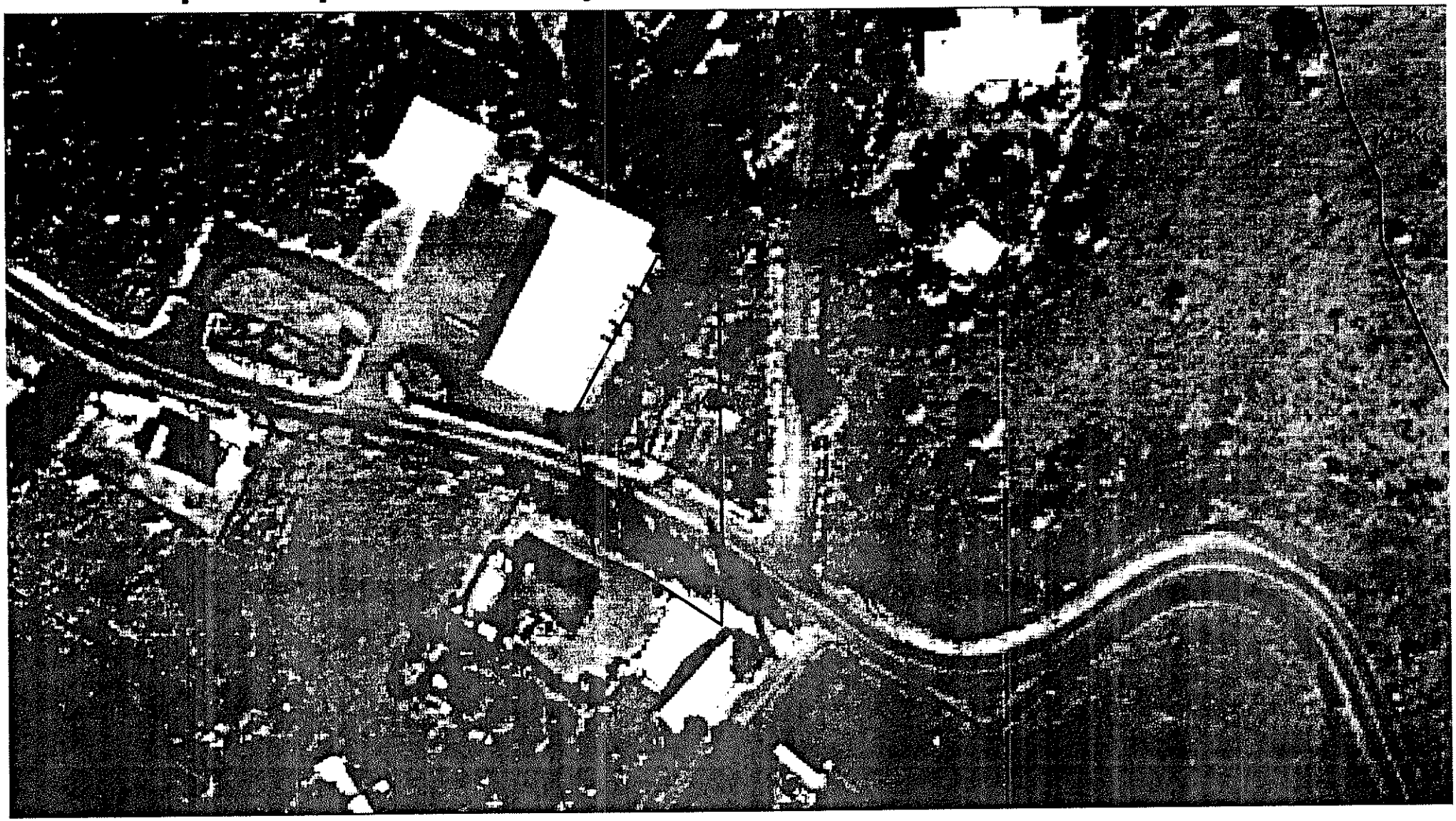
Statewide Important

0 0.015 0.03 0.06 0.09 0.12 Miles

N

NRCS

Soil Map - Proposed Omaopio Road Tank Replacement -Upper Tank



Legend

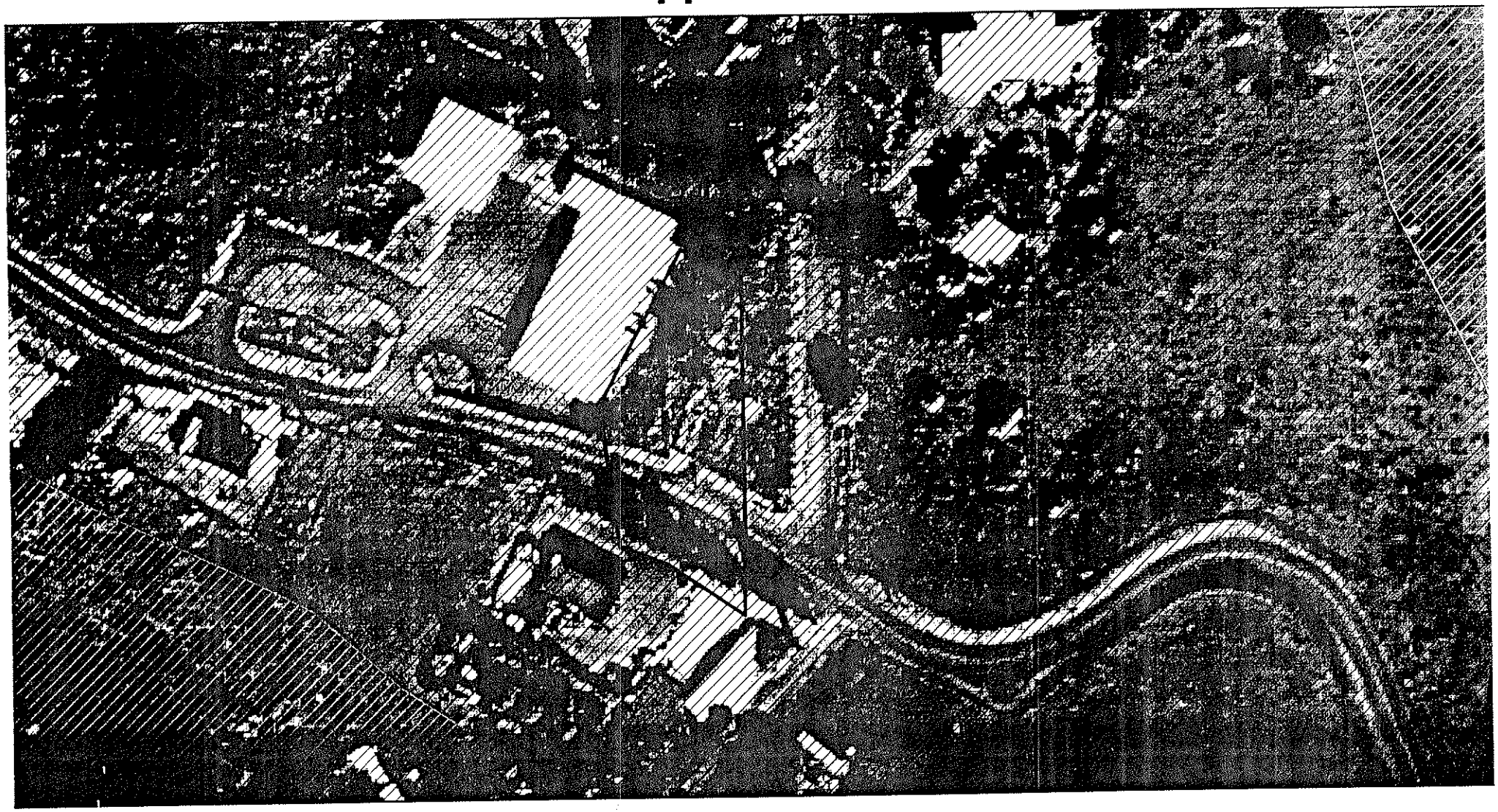
- Approximate Project_Boundaries
- Soil Map units

0 0.015 0.03 0.06 0.09 0.12 Miles

N

NRCS

Important Farmlands - Proposed Omaopio Road Tank Replacement
Upper Tank



Legend

Approximate Project_Boundaries

Important Farmlands

<all other values>

AGTYPE

0

Prime Farmlands

Unique

Statewide Important

0 0.015 0.03 0.06 0.09 0.12 Miles

N

NRCS

Roads and Streets, Shallow Excavations, and Lawns and Landscaping

Island of Maui, Hawaii

[Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. The table shows only the top five limitations for any given soil. The soil may have additional limitations]

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
KnC:							
Keahua	100	Somewhat limited		Very limited		Very limited	
		Slope	0.37	Cutbanks cave	1.00	Sodium content	1.00
		Low strength	0.10	Slope	0.37	Slope	0.37
				Too clayey	0.28	Droughty	0.06
						Large stones content	0.01
KncC:							
Keahua	100	Somewhat limited		Very limited		Very limited	
		Slope	0.37	Cutbanks cave	1.00	Sodium content	1.00
		Low strength	0.10	Slope	0.37	Slope	0.37
				Too clayey	0.28	Droughty	0.20
						Large stones content	0.01

Dwellings and Small Commercial Buildings

Island of Maui, Hawaii

[Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. The table shows only the top five limitations for any given soil. The soil may have additional limitations]

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
KnC:							
Keahua	100	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
KncC:							
Keahua	100	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00

Engineering Properties

Island of Maui, Hawaii

Absence of an entry indicates that the data were not estimated. The asterisk "*" denotes the representative texture; other possible textures follow the dash.

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percent passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
KnC:												
Keahua	0-10	Silty clay loam	CL-K (proposed)	A-6	0-5	0-5	100	95-100	95-100	80-100	30-40	10-20
	10-33	Silty clay loam	CL-K (proposed)	A-6	0	0-5	100	95-100	95-100	80-100	30-40	10-20
	33-62	Clay loam	CL-K (proposed), ML-K (proposed)	A-4	0	0-5	100	95-100	95-100	80-100	30-40	5-10
	62-70	Very gravelly clay loam	GM	A-2	0	0-5	20-40	15-35	15-30	10-25	30-40	5-10
KncC:												
Keahua	0-10	Silty clay	CL-K (proposed)	A-6	0-5	0-5	100	95-100	95-100	80-100	30-40	10-20
	10-33	Silty clay loam	CL-K (proposed)	A-6	0	0-5	100	95-100	95-100	80-100	30-40	10-20
	33-62	Clay loam	CL-K (proposed), ML-K (proposed)	A-4	0	0-5	100	95-100	95-100	80-100	30-40	5-10
	62-70	Very gravelly clay loam	SM, SP-SM	A-2	0	0-5	75-100	15-35	15-30	10-25	30-40	5-10

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Lawrence T. Yamamoto
Director, Pacific Islands Area
Natural Resources Conservation Service
United States Department of Agriculture
P.O. Box 50004 Rm. 4-118
Honolulu, HI 96850

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii, (Reference No. 1-3105)

Dear Mr. Yamamoto:

Thank you for your letter dated April 16, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we offer the following information in response to the comments noted in your letter.

1. We appreciate your assistance in providing us with the National Resources Conservation Service (NRCS) Soil Survey Map, soil reports, and a map indicating areas of Important Farmlands. The soils, as identified on the project site, as well as their implications, will be addressed in the Draft Environmental Assessment (EA).

2. The applicant acknowledges your recommendation to utilize the Important Farmlands map to determine if an AD-1006 form, Farmland Impact Conversion Rating Form is needed for this project. The applicant notes that use of Federal funds for the project is not anticipated. Furthermore, the proposed project is not expected to convert areas currently being used as farmland into non-farmland uses.

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your Department for review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
I:F:\DATA\SATO\OmaopioTank\NRCSresponse.ECL.doc

APR 05 2010

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF:

March 31, 2010

Regulatory Branch

File No. POH-2010-00076

Munekiyo & Hiraga, Inc.
Attention: Erin Mukai
305 High Street, Suite 104
Wailuku, HI 96793

Dear Ms. Mukai:

We have received your request for the Department of the Army to review and comment on the proposed Omaopio Road Tank Replacement Project, in Kula, Island of Maui, Hawaii. We have assigned the project the reference number POH-2010-0076. Please cite the reference number in any correspondence with us concerning this project. I have completed my review of the submitted document and have the following comments:

Section 10 of the Rivers and Harbors Act (Section 10) of 1899 requires that a Department of the Army (DA) permit be obtained from the U.S. Army Corps of Engineers (Corps) prior to undertaking any construction, dredging, and other activities occurring in, over, or under navigable waters of the U.S. Section 404 of the Clean Water Act (Section 404) of 1972 (33 U.S.C. 1344) requires that a DA permit be obtained for the discharge (placement) of dredge and/or fill material into waters of the U.S., including wetlands.

Based on our review of the information provided, it appears that no navigable waters of the U.S. are present within the project area. As such, authorization under Section 10 of the Rivers and Harbors Act does not appear to be required for the proposed project. The Corps does not have sufficient information to determine if there are waters of the U.S. present at the project site or if such waters are proposed for impact, which may require authorization under Section 404 of the Clean Water Act.

When developing the Environmental Assessment, we recommend you include any information regarding any potential waterbodies, including wetlands, drainage ditches, gulches, stream, etc., on-site if they may be impacted by the proposed project. Only the Corps of Engineers has authority to determine if any of these features are or are not waters of the U.S. and, potentially subject to regulations under Section 404 of the Clean Water Act.

We encourage the landowner (or the applicant who can demonstrate landowner authorization) to submit a request for a jurisdictional determination for any potentially regulated waterbodies. The request should include the aquatic features proposed for impact, flow duration of each feature, and the flow path of each feature into navigable waters. For instance: the unnamed ditch contains flow for two consecutive weeks annually and, from the project impact site, flows for 800 linear feet before discharging into XYZ Stream. XYZ Stream flows year-round and flows 1,200 feet before discharging into the Pacific Ocean. For wetlands, a wetland

delineation conducted in accordance with the Corps of Engineers 1987 Wetland Delineation Manual, should be submitted. We recommend the applicant also include a vicinity map, map of the waterbodies and flow paths, and site photographs so the Corps may conduct a jurisdictional determination if necessary.

If any waterbodies are determined to be waters of the U.S., the applicant will need to obtain authorization from the Corps prior to discharging dredge or fill material into these waterbodies. Fill material may include, but is not limited to: rock, dirt, sand, sandbags, concrete, piping a water of the U.S., or diverting a water of the U.S. into a pipe. Fill can be temporary or permanent. The applicant should contact the Corps to determine if any of the proposed work constitutes a "discharge of fill" and submit an application and drawings that meet our drawing recommendations found at http://www.poh.usace.army.mil/EC-R/EC-R.htm. The Corps will then review the application to ensure it complies with all necessary federal laws and is within the public interest. If the fill results in the loss of waters of the U.S. or the waterbodies' associated functions, the applicant may be required to provide compensatory mitigation for any unavoidable impacts. A jurisdictional determination request can be submitted prior to or concurrently with an application.

Thank you for contacting us regarding this project and providing us with the opportunity to comment. Should you have any questions, please contact Ms. Amy Klein at (808) 438-7023 or via email at Amy.S.Klein@usace.army.mil.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

George P. Young, P.E.
Chief, Regulatory Branch
Department of the Army
U.S. Army Corps of Engineers
Honolulu District
Fort Shafter, Hawaii 96858-5440

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, (POH-2010-0076)

Dear Mr. Young:

Thank you for your letter dated March 31, 2010, responding to our request for early consultation on the subject project. On behalf of the applicant, County of Maui, Department of Water Supply, we would like to offer the following information in response to your comments in the order presented in your letter.

1. There are no navigable waters occurring in, over, or under the project site. As a result, it is anticipated that a Department of the Army (DA) permit will not be necessary for the proposed project.

2. The applicant notes your comment with regards to no navigable waters of the U.S. located in or around the project sites. The Draft Environmental Assessment (EA) will provide an analysis of any wetlands or streams in the vicinity of the project sites.

3. At this time, it is anticipated that the proposed project will not impact any waters of the U.S., including wetlands. Information relating to the spatial relationship between the project sites and water bodies will be included in the Draft EA.

4. The proposed project is not anticipated to impact any waters of the U.S. Therefore, it is anticipated that a request for a jurisdictional determination for any potentially regulated waterbodies will not be needed for the proposed project.

5. There are no water features occurring within the vicinity of the project sites. Therefore, any discharging of dredge or fill material into any waters of the U.S. is not anticipated for the Upper Tank site or Lower Tank site.

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your department for review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
I:\DATA\SATO\OmaopioTank\DOAresponse.ECL.doc

APR 09 2010

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850

In Reply Refer To:
2010-TA-0217

APR 06 2010

Ms. Erin Mukai
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Subject: Technical Assistance for County of Maui Department of Water Supply Replacement of Omaopio Road Tanks and Related Improvements, Kula, Maui, Hawaii

Dear Ms. Mukai:

The U.S. Fish and Wildlife Service has reviewed your March 18, 2010, request for technical assistance regarding the proposed upgrade of two small water tanks at the Omaopio Road in Kula, Maui. A 200,000-gallon, 30-foot tall reservoir tank will replace an existing 12,000-gallon tank on TMK (2) 2-3-003:130, and a 40,000-gallon, 26-foot tall steel tank will replace an existing 12,000-gallon tank at a lower site (TMK (2) 2-3-003:101). In addition, an existing driveway will be paved, a chain link fence and retaining wall will be installed, and the new tanks will be plumbed to existing waterlines. The project will entail vegetation and ground disturbance. Based on the information you provided and pertinent information in our files, the following listed species have been observed in the vicinity of the proposed project: (1) endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*); (2) endangered Blackburn's sphinx moth (*Manduca blackburni*); and (3) threatened Newell's shearwater (*Puffinus auricularis newelli*) and the endangered Hawaiian petrel (*Pterodroma phaeopygia sandwichensis*) (collectively referred to as seabirds). We recommend the following measures be incorporated into the project to minimize potential impacts to listed species.

1. To avoid impacts to the endangered Hawaiian hoary bat, woody plants greater than 15-feet (4.6-meters) tall should not be removed or trimmed during the bat birthing and pup rearing season (May 15 through August 15).

2. The endangered Blackburn's sphinx moth occurs in the project vicinity. The adult moth feeds on nectar from native plants including beach morning glory (*Ipomoea pes-caprae*), iliee (*Plumbago zeylanica*), maiapilo (*Capparis sandwichiana*), and the larvae feed upon non-native tree tobacco (*Nicotiana glauca*) and the native aiea (*Nothocestrum latifolium*). Other host plants in the Solanaceae family include non-native *Nicotiana tabacum* (commercial tobacco), *Solanum melongena* (eggplant), *Lycopersicon esculentum* (tomato),

15

and possibly *Datura stramonium* (Jimson weed). The full range of taxa Blackburn's sphinx moth larvae may feed on is not known. Larvae of a close relative of Blackburn's sphinx moth, *Manduca sexta,* are known to feed on a wide variety of taxa in the Solanceae family including: *Capsicum* (sweet and chili pepper), *Cestrum* (ornamental plants), *Cymphomandra* (tomatillo), *Datura* (jimson weed, loco weed), *Lycium* (ornamental plants used for Chinese herbal medicines), *Nicotiana* (tobacco), *Petunia* (petunia), *Physalis* (tomatillo and ground cherry), *Solandra* (ornamental vines) and *Solanum* (potato, eggplant, christmas cherry, nightshade). We recommend the site be surveyed by a qualified biologist for the presence of the Blackburn's sphinx moth and its host plants. No Blackburn's sphinx moth host plant should be removed or trimmed and the soil within 10 meters (33 feet) of the host plant should be protected from disturbance throughout implementation of this project.

3. Seabirds may traverse the project area at night during the breeding season (February 1 through December 15). Any outdoor lighting, particularly when used during each year's peak fledging period (September 15 through December 15), could result in seabird disorientation, fallout, injury and/or mortality. To minimize potential project impacts to seabirds, all outdoor lights associated with the project should be shielded so the bulb can be seen only from below. In addition night-time construction involving unshielded outdoor lighting should be avoided.

We appreciate your efforts to conserve listed species. If you have questions or would like additional information, please contact Dawn Greenlee, Fish and Wildlife Biologist (phone: 808/792-9469; fax: 808-792-9581). Also please note that Patrick Leonard no longer works in our office; future written correspondence should be addressed to me.

Sincerely,

for Loyal Mehrhoff
Field Supervisor

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Loyal Mehrhoff, Field Supervisor
U. S. Department of the Interior
Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Blvd., Room 3-122, Box 50088
Honolulu, Hawaii 96850

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii (2010-TA-0217)

Dear Mr. Mehrhoff:

Thank you for your letter dated April 6, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply (DWS), we offer the following information in response to the comments noted in your letter:

1. No tree trimming or tree removal at the project sites will be done during May 15 through August 15 due to the bat birthing and pup rearing season, as specified in your comment letter. No impacts to the endangered Hawaiian hoary bat are therefore anticipated as a result of the proposed project.

2. An assessment of the project sites was completed to identify the presence of the endangered Blackburn's sphinx moth and its host plants by DWS personnel. The site assessments did not identify any of the plants referenced in your comment letter. See **Exhibit "A"**.

3. All outdoor lighting associated with the proposed project will be down shielded. In addition, night-time construction involving unshielded outdoor lighting will be avoided. Further, DWS does not anticipate any night time construction work.

We appreciate the input provided. A copy of the Draft EA will be submitted to your Department for review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Justin Tanaka, Planner

JT:lfm
Enclosure
cc: Herb Chang, Department of Water Supply (w/out enclosure)
Michael Ishikawa, Sato & Associates, Inc. (w/ enclosure)
I:\DATA\SATO\OmaopioTank\USFWSresponse.ECL.doc

CHARMAINE TAVARES
Mayor

JEFFREY K. ENG
Director

ERIC H. YAMASHIGE, P.E., L.S.
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

Memorandum

To: Herb Chang, P.E. Engineering Div. Manager, DWS

From: Tom Ochwat, P.E., DWS TO

Cc: Karlynn Fukuda, Munekiyo & Hiraga, Inc.
Michael Ishikawa, P.E., Sato & associates

Date: 5/14/2010

Re: Upper/Lower Omaopio Rd. Water Tank Sites – Floral & Fauna Observations for plants conducive to the endangered Blackburn Sphinx Moth's Larva

---

Herb,

Per our discussion and request from the U.S. Fish and Wildlife Department (USFWD), a floral and fauna reconnaissance of the two existing water tank sites was performed on Wednesday (05-12-2010). Picture images of the listed plants (noted in the letter from the USFWD) were printed and referred to while performing the field site observations in and adjacent to the existing tank locations. The specific site observations are described below.

Lower Omaopio Road Tank Site

The vegetation on the tank site and lands adjacent to the site (including the area that will be disturbed by proposed grading activities) consists of primarily native and non-native grasses along with a stand of Haole Koa trees and saplings. Based on this field site observation, there is no evidence of plants that would promote the larva of the Blackburn Sphinx Moth on or around this tank site.

EXHIBIT A

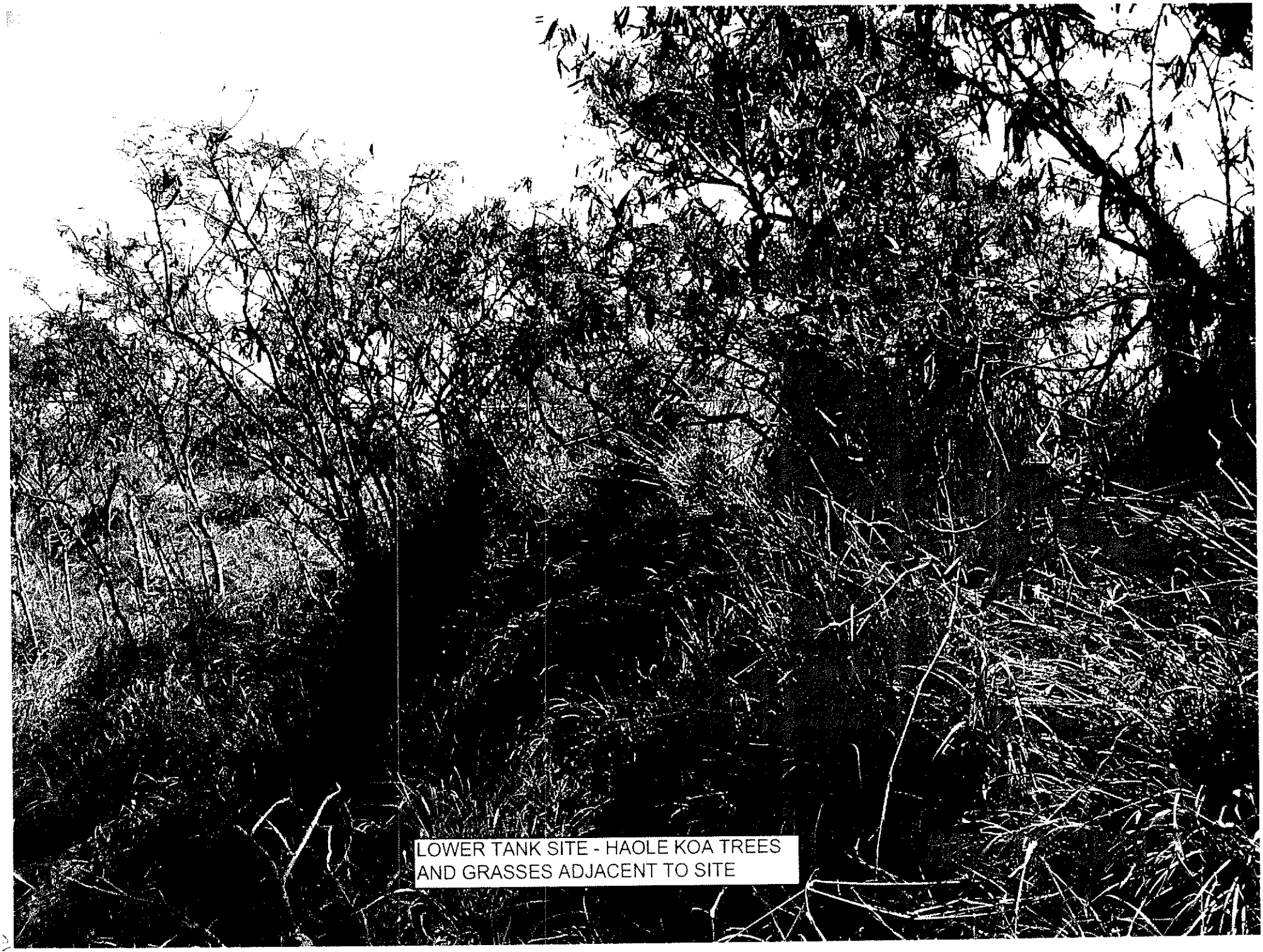
Upper Omaopio Road Tank Site

The vegetation on the tank site consists of primarily tall native and non-native grasses, bougainvilleas along the east property line, a stand of pine trees along the north property line, Silly Oak tree and Castorbean trees are along the east fenceline, along with some new weed seedlings where the geotechnical drilling rig had cleared some ground recently. In comparison with the picture images and leaf and bloom characteristics of the plants conducive to sustaining the larva of the Blackburn Sphinx Moth on or around this area, none of these plants were observed on this tank site.

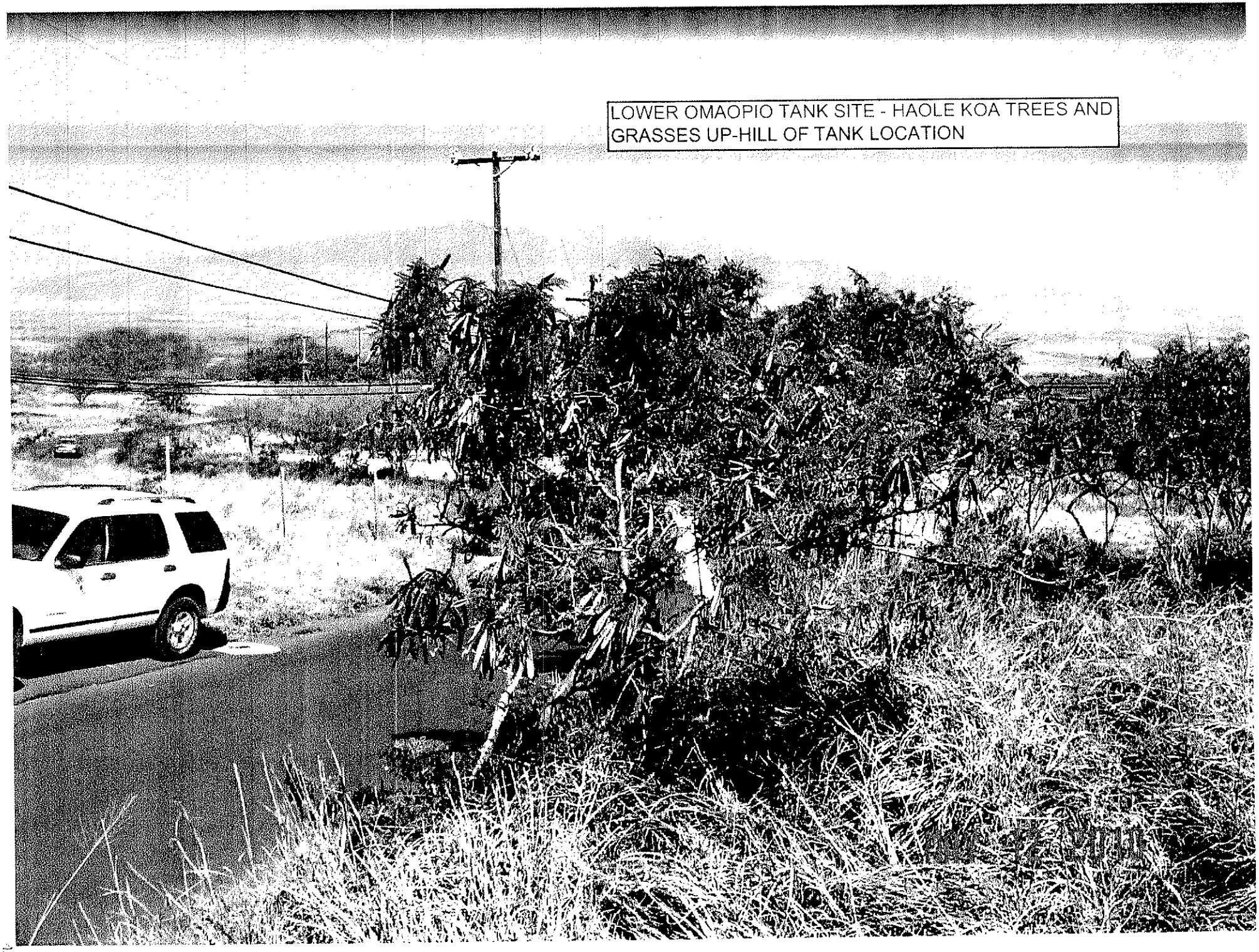
Photos of the vegetation on each tank site are attached.

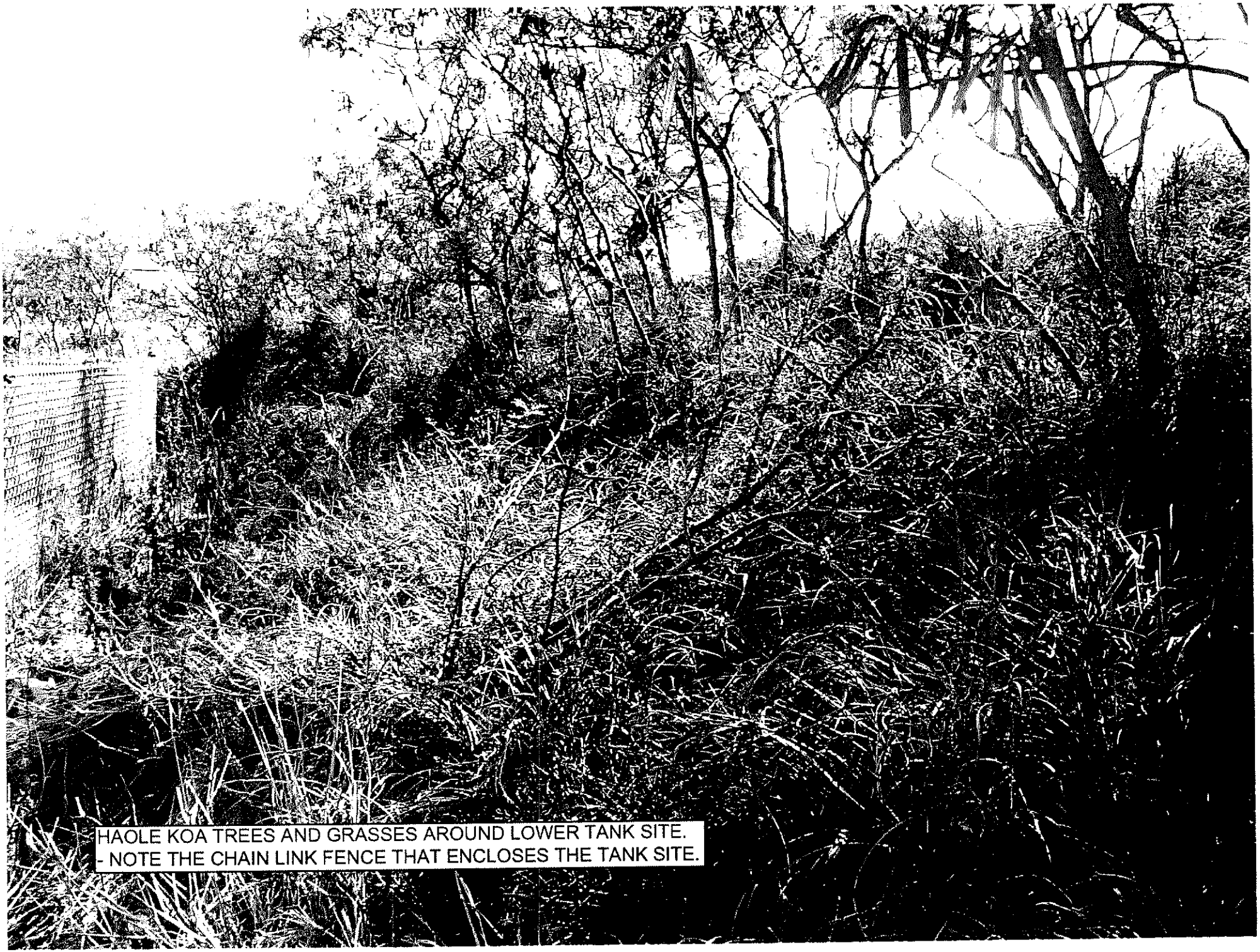
Attmts

TMO/tmo



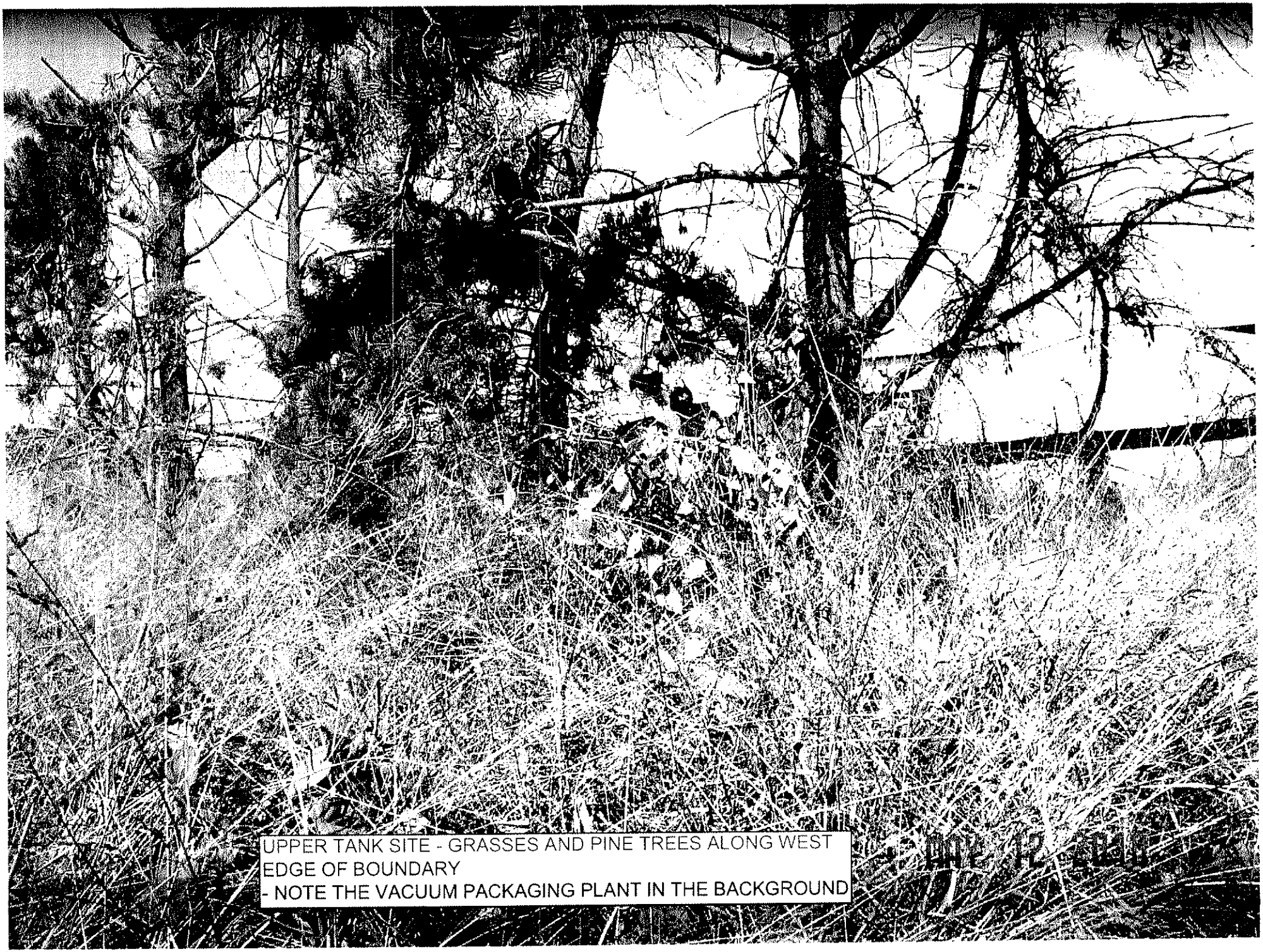
LOWER TANK SITE - HAOLE KOA TREES
AND GRASSES ADJACENT TO SITE


LOWER OMAOPIO TANK SITE - HAOLE KOA TREES AND GRASSES UP-HILL OF TANK LOCATION



HAOLE KOA TREES AND GRASSES AROUND LOWER TANK SITE.
- NOTE THE CHAIN LINK FENCE THAT ENCLOSES THE TANK SITE.

SILKY OAK TREE ON UPPER TANK
SITE ALONG THE EAST FENCLINE



UPPER TANK SITE - GRASSES AND PINE TREES ALONG WEST EDGE OF BOUNDARY
- NOTE THE VACUUM PACKAGING PLANT IN THE BACKGROUND

CASTORBEAN TREE ALONG FENCELINE OF THE UPPER TANK SITE

BOUGAINVILLEAS ALONG THE EAST BOUNDARY LINE.
- NOTE THE PINE TREE STAND IN THE BACKGROUND

APR 0 8 2010

LINDA LINGLE
GOVERNOR

RUSS K. SAITO
COMPTROLLER

SANDRA L. YAHIRO
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

APR 7 2010

(P)1074.0

Ms. Erin Mukai, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Mukai:

Subject: Early Consultation Request for the Proposed Ōma'opio Road Tank Replacement Project and Related Improvements at TMK (2) 2-3-003:101 and 130

Thank you for the opportunity to provide comments on the Early Consultation Request for the Proposed Ōma'opio Road Tank Replacement Project and Related Improvements at TMK (2) 2-3-003:101 and 130. 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 at this time.

If you have any questions, please call me at 586-0400 or have your staff call Mr. Clarence Kubo of the Public Works Division at 586-0488.

Sincerely,

RUSS K. SAITO
State Comptroller

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Russ K. Saito, State Comptroller
Department of Accounting and General Services
State of Hawaii
P. O. Box 119
Honolulu, Hawaii 96810-0019

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii

Dear Mr. Saito:

Thank you for your letter dated April 7, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we acknowledge your confirmation that the project does not impact any of the Department of Accounting and General Services' projects or existing facilities.

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your Department for review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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APR 0 1 2010

LINDA LINGLE
GOVERNOR

PATRICIA HAMAMOTO
XXXXXXXXXXXXXXXX
KATHRYN S. MATAYOSHI
INTERIM SUPERINTENDENT

STATE OF HAWAI'I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI'I 96804

OFFICE OF THE SUPERINTENDENT

March 29, 2010

Ms. Erin Mukai, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Mukai:

Subject: Early Consultation, Proposed Omaopio Road Tank Replacement Project
TMK (2) 2-3-003:101 and 130, Kula, Maui, Hawaii

The Department of Education (DOE) has reviewed your request for early consultation on the proposed Omaopio Road Tank Replacement Project. The DOE has no comment.

Thank you for the opportunity to comment. If you have any questions, please call Jeremy Kwock of the Facilities Development Branch at (808) 377-8301.

Very truly yours,

Kathryn S. Matayoshi
Interim Superintendent

KSM:jmb

c: Randolph Moore, Assistant Superintendent, OSFSS
Bruce Anderson, CAS, Baldwin/Kekaulike/Maui Complex Areas

LINDA LINGLE
GOVERNOR
STATE OF HAWAII

APR 23 2010

KAULANA H. R. PARK
CHAIRMAN
HAWAIIAN HOMES COMMISSION

ANITA S. WONG
DEPUTY TO THE CHAIRMAN

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAI'I

DEPARTMENT OF HAWAIIAN HOME LANDS

P.O. BOX 1879
HONOLULU, HAWAI'I 96805

April 16, 2010

Munekiyo & Hiraga, Inc.
Attn: Erin Mukai
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Mukai:

Subject: Proposed Omaopio Road Tank Replacement Project and Related Improvements at TMK (2) 2-3-003:101 and 130

Thank you for your request for comments dated March 15, 2010, regarding the subject proposal.

The replacement project represents a major upgrade to the storage capacity in the area. The department requests an explanation of whether or not the proposed improvements will contribute to the objective of providing agricultural water for our farm homesteaders at Keokea, Kula, as provided for in the UpCountry Maui Watershed Project.

I appreciate the opportunity to provide comments. If you have any questions, please contact Darrell Yagodich, Planning Program Manager, at 620-9481.

Aloha and mahalo,

Kaulana H.R. Park, Chairman
Hawaiian Homes Commission

cc: Ms. Robin Newhouse, President
Keokea Homestead Farm Lots Association

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Kaulana H. R. Park, Chairman
Hawaiian Homes Commission
Department of Hawaiian Home Lands
State of Hawaii
P. O. Box 1879
Honolulu, Hawaii 96805

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii

Dear Mr. Park:

Thank you for your letter dated April 16, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we offer the following information in response to the comments noted in your letter.

At this time, the proposed project is intended to provide increased water storage capacity and fire flow protection for existing residents living along Omaopio Road in Kula. The scope of the proposed project is not anticipated to provide agricultural water to farm homesteaders at Keokea, Kula as part of the UpCountry Maui Watershed Project.

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your Department for review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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APR 06 2010

LINDA LINGLE
GOVERNOR OF HAWAII

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

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

In reply, please refer to
EMD / CWB

04006PJF.10

April 1, 2010

Ms. Erin Mukai
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Mukai:

SUBJECT: Proposed Omaopio Road Tank Replacement Project and Related Improvement
Kula, Island of Maui, Hawaii
TMK: (2) 2-3-003:101 and 130

The Department of Health, Clean Water Branch (CWB), has reviewed the subject document, received on February 23, 2010, 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 the 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/env-planning/landuse/CWB-standardcomment.pdf.

1. Any project and its potential impacts to State waters must meet the following criteria:

   a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.

   b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.

   c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. 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 an 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.

   b. Hydrotesting water.

   c. Construction dewatering effluent.

   You must submit a separate NOI form for each type of discharge at least 30 calendar 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 calendar 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.

3. For types of wastewater not listed in Item No. 2 above or wastewater discharging into Class 1 or Class AA waters, you may need an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 calendar 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.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage is 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 (808) 586-4309.

Sincerely,

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

JF:ml

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

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

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii (04006PJF.10)

Dear Mr. Wong:

Thank you for your letter dated April 1, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we offer the following information in response to the comments noted in your letter.

1. The applicant recognizes your concern relating to any impacts the project may have on State waters. Impacts to State waters due to the construction of the project, as well as possible mitigation measures, will be addressed in the Draft Environmental Assessment (EA), as applicable.

2. The project's civil engineer will coordinate with the Clean Water Branch to address applicable National Pollutant Discharge Elimination System (NPDES) permit requirements for the project.

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your Department for review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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APR 13 2010

LINDA LINGLE
GOVERNOR OF HAWAII

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

LORRIN W. PANG, M. D., M. P. H.
DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2102

April 12, 2010

Ms. Erin Mukai, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai`i 96793

Dear Ms. Mukai:

Subject: **Early Consultation Request for the Proposed Omaopio Road Tank Replacement Project and Related Improvements**
TMK: (2) 2-3-003:101 and 130

Thank you for the opportunity to comment on the early consultation. The following comments are offered:

1. National Pollutant Discharge Elimination System (NPDES) permit coverage may be required for this project. The Clean Water Branch should be contacted at 808 586-4309.

2. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules, Chapter 11-46 "Community Noise Control". A noise permit may be required and should be obtained before the commencement of this project.

It is strongly recommended that the Standard Comments found at the Department's website: http://hawaii.gov/health/environmental/env-planning/landuse/landuse.html be reviewed, and any comments specifically applicable to this project should be adhered to.

Should you have any questions, please call me at 808 984-8230 or e-mail me at patricia.kitkowski@doh.hawaii.gov.

Sincerely,

Patti Kitkowski

Patti Kitkowski
Acting District Environmental Health Program Chief

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Patti Kitkowski, Acting District Environmental
Health Program Chief
Department of Health
Maui District Health Office
State of Hawaii
54 High Street
Wailuku, Hawaii 96793-2102

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006, 101, and 130 (por.), Kula, Maui, Hawaii

Dear Ms. Kitkowski:

Thank you for your letter dated April 12, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we offer the following information in response to the comments noted in your letter.

1. The project's civil engineer will coordinate with the Clean Water Branch to address applicable National Pollutant Discharge Elimination System (NPDES) permit requirements for the project.

2. Pursuant to Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control", a noise permit will be secured prior to commencement of construction, as applicable.

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your office for review and comment.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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APR 08 2010

LINDA LINGLE
GOVERNOR OF HAWAII

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

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

In reply, please refer to:
EMD/SDWB

April 6, 2010

Ms. Erin Mukai, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Dear Ms. Mukai:

SUBJECT: EARLY CONSULTATION REQUEST FOR THE PROPOSED OMAOPIO ROAD TANK REPLACEMENT PROJECT AND RELATED IMPROVEMENTS AT TMK: (2) 2-3-003:101 AND 130
REFERENCE NO. 1-3105

We are in receipt of the above referenced document and offer the following comments:

In the draft environmental assessment, please provide the following information:

a. A statement of project needs and benefits, including a discussion of the drinking water quality benefits of the project and/or the public health/water quality problems to be corrected.

b. A description of the proposed project and the public water system of which it is a part of.

c. An evaluation of the alternatives considered to address the project needs.

d. A description of the selected alternative and the relevant design criteria used.

e. Cost information on the estimated total capital costs and annual operation and maintenance costs for the project.

f. An evaluation of the impact of the project on the water supply (if applicable).

Please refer to the enclosed document for the specific criteria and cross-cutters in sections A, B, and C that are expected to be addressed in the environmental assessment.

Should you have any questions, please contact Alain Carey of the Safe Drinking Water Branch, Engineering Section, at 586-4258.

Sincerely,

STUART YAMADA, P.E., CHIEF
Safe Drinking Water Branch
Environmental Management Division

AC:cb

Enclosure

c: Herb Chang, Maui DWS (w/enclosure) (via email)
Environmental Planning Office (w/enclosure)

(Rev. Jul 25/07)

SAFE DRINKING WATER BRANCH
HAWAII DEPARTMENT OF HEALTH

ENVIRONMENTAL ASSESSMENT
CHECKLIST AND CERTIFICATION

PROJECT NAME: _____

PROJECT NUMBER: _____ (Applicant) _____ (State)

	YES	NO
ENVIR. ASSESSMENT SUBMITTED:	-----	-----
PRIOR DECISION DOC'T SUBMITTED:	-----	-----

_____

_____

A. OEQC CRITERIA ADDRESSED:

(1) ID of applicant:	-----	-----
(2) ID of approv agency:	-----	-----
(3) Agencies consulted:	-----	-----
(4) Descrip. of proj. char:	-----	-----
(5) Descrip. of envir:	-----	-----
(6) Impacts and alternatives:	-----	-----
(7) Mitigation measures:	-----	-----
(8) Determination:	-----	-----
(9) Findings and reasons:	-----	-----

B. SERP CRITERIA ADDRESSED:

1. Population projections current:	-----	-----
2. "No-action" alternative:	-----	-----

A2

3. Impacts analysis addresses:

a. prim & sec impacts:	-----	-----
b. social parameters:	-----	-----
c. cumulative impacts:	-----	-----
d. other projects:	-----	-----
e. sensitive issues:	-----	-----

C. CROSS CUTTERS ADDRESSED:

1. Arch & Hist Pres Act:	-----	-----
2. Clean Air Act:	-----	-----
3. Coastal Zone Mang. Act:	-----	-----
4. Endangered Spec Act:	-----	-----
5. Environmental Justice Act:	-----	-----
6. Farmland Prot Act:	-----	-----
7. Fish & Wildlife Act:	-----	-----
8. Floodplain Mang EO:	-----	-----
9. Nat Hist Pres Act:	-----	-----
10. Prot of Wetlands EO	-----	-----
11. Safe Drink Water Act:	-----	-----
12. Wild & Scen Rivers Act:	-----	-----
13. Essential Fish Habitat Act:	-----	-----

CERTIFICATION: (County certifies that it has conducted a current assessment of the environmental impacts of the proposed project, and has disclosed, in the Environmental Assessment Documents referred to in this checklist, all known significant environmental impacts of the proposed project.)

Signature	Title	Date

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Stuart Yamada, P.E., Chief
Safe Drinking Water Branch
Environmental Management Division
Department of Health
State of Hawaii
P. O. Box 3378
Honolulu, Hawaii 96801-3378

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101 and 130 (por.), Kula, Maui, Hawaii, (Reference No. 1-3105)

Dear Mr. Yamada:

Thank you for your letter dated April 6, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we offer the following information in response to the comments noted in your letter.

The applicant acknowledges your suggestion to provide the following information in the Draft Environmental Assessment (EA).

a. *A statement of project needs and benefits, including a discussion of the drinking water quality benefits of the project and/or the public health/water quality problems to be corrected.*
b. *A description of the proposed project and the public water system of which it is a part of.*
c. *An evaluation of the alternatives considered to address the project needs.*
d. *A description of the selected alternative and the relevant design criteria used.*
e. *Cost information on the estimated total capital costs and annual operation and maintenance costs for the project.*
f. *An evaluation of the impact of the project on the water supply (if applicable).*

The applicant acknowledges the above items and will address them in the Draft EA. In addition, the Draft EA will address the specific criteria and cross-cutters, as applicable to the proposed project, referred to in the attachments that were enclosed by the Department.

We appreciate the input provided by your office. A copy of the Draft EA will be

submitted to the Department of Health for review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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APR 20 2010

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

April 19, 2010

Munekiyo & Hiraga, Inc.
305 High Street Suite 104
Wailuku, Hawaii 96793

Attention: Mr. Erin Mukai, Planner

Ladies and Gentlemen:

Subject: Early Consultation for Proposed Omaopio Road Tank Replacement Project and Related Improvements

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, 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,

Charlene Unoki
Assistant Administrator

47

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

'10 MAR 24 AM 09:55 ENGINEERING

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 23, 2010

RECEIVED
LAND DIVISION
2010 APR 13 P 2:27
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
__Office of Conservation & Coastal Lands
x Land Division –Maui District
x Historic Preservation

FROM: Morris M. Atta
SUBJECT: Early Consultation for Proposed Omaopio Road Tank Replacement Project and Related Improvements
LOCATION: Island of Maui
APPLICANT: Munekiyo & Hiraga, Inc. on behalf of the County of Maui, 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 April 15, 2010.

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: 4/8/10

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Morris Atta
Ref.: EarlyConsultationForProposedOmaopioRoadTankReplacementProj&RelatedImprov Maui.005

COMMENTS

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ___.

(X) **Please take note that part of the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone X. The National Flood Insurance Program (NFIP) does not regulate 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 ___.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Frank DeMarco at (808) 961-8042 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. Dennis Imada of the Planning Branch at 587-0257.

Signed: _____
CARTY S. CHANG, ACTING CHIEF ENGINEER

Date: 4/6/10

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Charlene Unoki, Assistant Administrator
Land Division
Department of Land and Natural Resources
State of Hawaii
P. O. Box 621
Honolulu, Hawaii 96809

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii

Dear Ms. Unoki:

Thank you for your letter dated April 19, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we offer the following information in response to the comments noted in your letter.

The applicant notes that according to the Flood Insurance Rate Map (FIRM), the project site is located within Zone X, an area of minimal flooding. The National Flood Insurance Program (NFIP) does not regulate developments within Zone X. Thank you for your confirmation of the flood zone for the subject properties.

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to the Department of Land and Natural Resources for review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Justin Tanaka

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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APR 07 2010

LINDA LINGLE
GOVERNOR

BRENNON T. MORIOKA
DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
FRANCIS PAUL KEENO
BRIAN H. SEKIGUCHI
JIRO A. SUMADA

IN REPLY REFER TO:

STP 8.0071

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

March 30, 2010

Mr. Erin Mukai
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Mukai:

Subject: Omaopio Road Tank Replacement Project and Related Improvements
Early Consultation for Draft Environmental Assessment (DEA)

Thank you for providing the subject early consultation request for the State Department of Transportation's (DOT) review and comments.

DOT understands the proposed project to construct two (2) new water tanks along Omaopio Road. The two (2) new proposed water tanks will be located approximately 1.5 miles apart along Omaopio Road. The proposed new 200,000 gallon reservoir tank will replace an existing 12,000 gallon tank. Related improvements include the installation of a paved service road, new chainlink fence and retaining wall. The other new 40,000 gallon steel tank will replace an old 12,000 gallon tank that was previously removed. Related improvements include the construction of a Concrete Masonry Unit (CMU) retaining wall, gravel service road surrounding the tank and replacement of an existing driveway with a new asphaltic concrete (A.C.) paved driveway. The project sites are accessed from the intersection of Omaopio Road with Kula Highway (State Route 37).

The DEA should discuss and evaluate project impacts to the State highway facilities, such as, but not limited to:

1. Construction vehicles and equipment type that will be used at the job site. Please note that a permit is required from the DOT Highways Division, Maui District Office at telephone number (808) 873-3538, to transport oversized equipment/materials and overweight loads on State highway facilities.

2. Inconvenience to the motoring public at the Omaopio Road/Kula Highway intersection.

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3. Dust and noise pollution. Debris, dirt and mud from construction vehicles.

4. Construction activity hours.

If there are any other questions, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at (808) 587-2356.

Very truly yours,

BRENNON T. MORIOKA, Ph.D., P.E.
Director of Transportation

c: Herb Chang, Maui County Department of Water Supply

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Brennon T. Morioka, Ph.D., P.E., Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii (STP 8.0071)

Dear Mr. Morioka:

Thank you for your letter dated March 30, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we offer the following information in response to the comments noted in your letter.

1. A permit from the Department of Transportation (DOT) Highways Division, Maui District Office to transport oversized equipment/materials and overweight loads on State highway facilities will be obtained by the applicant, as applicable.

2. Impacts to traffic in the area as a result of the proposed project will be discussed in the Draft Environmental Assessment (EA).

3. Best Management Practices (BMP's) will be utilized by the applicant during project construction to mitigate dust and noise pollution.

4. Construction activity will be limited to daylight hours.

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your Department for review and comment.

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhplanning.com www.mhplanning.com

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Justin Tanaka

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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APR 15 2010

LINDA LINGLE
GOVERNOR

MAJOR GENERAL ROBERT G. F. LEE
DIRECTOR OF CIVIL DEFENSE

EDWARD T. TEIXEIRA
VICE DIRECTOR OF CIVIL DEFENSE

PHONE (808) 733-4300
FAX (808) 733-4287

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

April 13, 2010

Ms. Erin Mukai, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Mukai:

Early Consultation Request, Proposed Omaopio Road Tank Replacement Project with Related Improvements, Kula, Maui, Hawaii

Thank you for the opportunity to comment on this project. After careful review of the project description and the accompanying map and diagrams, we wish to draw attention to the changes that the new tanks and improvements will make to these areas. The differences in tank size for both areas are the new paved service road, new fence and retaining wall in Parcel 130, and the new CMU retaining wall and gravel service road in Parcel 101, all will mean change to the existing surface area of both sites. We suggest careful study of the ramifications of these changes to minimize any environmental, cultural or historical consequences.

We anticipate reviewing the Draft Environmental Assessment when it is completed and will make any further comments at that time. If you have any questions, please call Mr. Richard Stercho, Hazard Mitigation Planner, at (808) 733-4300, ext. 583.

Sincerely,

EDWARD T. TEIXEIRA
Vice Director of Civil Defense

c: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Edward T. Texeira, Vice Director
of Civil Defense
Attention: Richard Stercho, Hazard
Mitigation Planner
Department of Defense
Office of the Director of Civil Defense
State of Hawaii
3949 Diamond Head Road
Honolulu, Hawaii 96816-4495

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii

Dear Mr. Texeira:

Thank you for your letter dated April 13, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we offer the following information in response to the comments noted in your letter.

Changes to the existing surface area of both sites, and their ramifications on any environmental, cultural, or historical resources will be discussed in the Draft Environmental Assessment (EA).

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your Department for review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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APR 22 2010

PHONE (808) 594-1888

FAX (808) 594-1865

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

April 19, 2010

HRD10/4886

Munekiyo & Hiraga, Inc.
Attention: Erin Mukai
305 High Street, Suite 104
Wailuku, Hawai'i 96793

Re: Early Consultation Request for the Proposed Omaopio Road Tank Replacement Project and Related Improvements at TMK (2) 2-3-003: 101 and 130

Aloha e Erin Mukai:

The Office of Hawaiian Affairs (OHA) has reviewed your correspondence dated March 18, 2010. We understand the County of Maui proposes upgrades and related improvements for two (2) water tanks located approximately 1.5 miles apart on publicly owned parcels (a portion of which is likely ceded land). The project will substantially increase water capacity for both reservoirs and incur changes to each one's environs. OHA offers the following comments.

The ensuing Draft Environmental Assessment (DEA) under Chapter 343, HRS, is also anticipated to generate a Cultural Impact Assessment (CIA) pursuant to Act 50, SLH 2000. OHA endorses a balanced approach that addresses the county's project needs relative to our commitment in safeguarding traditional and customary Native Hawaiian rights and practices, threatened and endangered native species, historic properties and resources, and iwi kūpuna.

We are also interested in the project's direct, secondary and cumulative effects combined with other ongoing issues such as the Nā Wai 'Ehā contested case. We seek assurances that project coordinators will consult all interested Native Hawaiian Organizations (NHO's) and individuals having a stake in the matter.

We ask that in the event significant cultural deposits or any human skeletal remains are encountered at any phase, work shall cease in the immediate vicinity and the State Historic

Preservation Division (SHPD) and proper law enforcement be contacted pursuant to applicable law. OHA would also like to be advised of any significant finds.

Thank you once again for the opportunity to comment. Should you have any questions, please contact Jerome Yasuhara at 594-0129 or by email at jeromey@oha.org.

'O wau iho nō, me ka ha'aha'a,

Clyde W. Nāmu'o
Chief Executive Officer

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Clyde W. Nāmu`o, Chief Executive Officer
Office of Hawaiian Affairs
State of Hawaii
711 Kapi`olani Boulevard, Suite 500
Honolulu, Hawai`i 96813

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii (HRD10/4886)

Dear Mr. Nāmu`o

Thank you for your letter dated April 19, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we offer the following information in response to the comments noted in your letter.

1. The applicant will be including a Cultural Impact Assessment (CIA) in the Draft Environmental Assessment (EA). The CIA will identify any cultural concerns associated with the project sites. Please note that both the Upper Tank site and Lower Tank site have been previously developed and utilized for water storage purposes for over 40 years.

2. The proposed project is located in the Kula area and connects to the Upcountry water system. The purpose of the project is to improve the reliability of the Upcountry distribution system by installing larger water tanks. Water consumption will remain the same after the tanks are built as this project is not intended to result in an increate in water use. Please note that the proposed project is not anticipated to have an effect on the stream flows of Na Wai Eha nor is it anticipated to affect the Na Wai Eha contested case, as the source of water for the Upcountry system does not come from the Na Wai Eha streams.

3. In the event that significant cultural deposits or any human skeletal remains are encountered during ground-altering work for the project, all work shall cease in the immediate vicinity of the find, and the State Historic Preservation Division (SHPD) and the Office of Hawaiian Affairs (OHA) will be notified to establish the appropriate level of mitigation.

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your Department for review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Justin Tanaka

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
HOUSING DIVISION
COUNTY OF MAUI

APR 14 2010
CHARMAINE TAVARES
Mayor
LORI TSUHAKO
Director
JO-ANN T. RIDAO
Deputy Director

35 LUNALILO STREET, SUITE 102 • WAILUKU, HAWAII 96793 • PHONE (808) 270-7351 • FAX (808) 270-6284

April 12, 2010

Ms. Erin Mukai
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Mukai:

SUBJECT: Early Consultation Request for the Proposed Omaopio Road Tank Replacement Project and Related Improvements at TMK (2)2-3-003:101 and 130

The Department has reviewed the Early Consultation Request for the above subject project. Based on our review, we have determined that the subject project is not subject to Chapter 2.96, Maui County Code. At the present time, the Department has no additional comments to offer.

Please call Ms. Cara Bohne of our Housing Division at (808)270-5748 if you have any questions.

Sincerely,

Wayde T. Oshiro

WAYDE T. OSHIRO
Housing Administrator

xc: Director of Housing and Human Concerns

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Wayde T. Oshiro, Housing Administrator
Department of Housing and Human Concerns
County of Maui
35 Lunalilo Street, Suite 102
Wailuku, Hawaii 96793

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii

Dear Mr. Oshiro:

Thank you for your letter dated April 12, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we note that the subject project is not subject to Chapter 2.96 of the Maui County Code.

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your Department for review and comment.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Justin Tanaka

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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APR 0 1 2010

CHARMAINE TAVARES
Mayor

TAMARA HORCAJO
Director

ZACHARY Z. HELM
Deputy Director

(808) 270-7230
FAX (808) 270-7934

DEPARTMENT OF PARKS & RECREATION

700 Hali'a Nakoa Street, Unit 2, Wailuku, Hawaii 96793

March 23, 2010

Erin Mukai, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

SUBJECT: Early Consultation for the Proposed Omaopio Road Tank Replacement Project and Related Improvements at TMK: 2-3-003:101 and 130

Dear Ms. Mukai:

We have reviewed the proposed project and have no comments or objections to submit at this time.

Thank you for the opportunity to review and comment on this matter. Please feel free to contact me or Mr. Patrick Matsui, Chief of Parks Planning and Development at 270-7387 should you have any other questions.

Sincerely,

TAMARA HORCAJO
Director of Parks & Recreation

c: Patrick T. Matsui, Chief of Parks Planning and Development

TH:PTM:do

64

CHARMAINE TAVARES
Mayor
KATHLEEN ROSS AOKI
Director
ANN T. CUA
Deputy Director

MAY 17 2010

COUNTY OF MAUI
DEPARTMENT OF PLANNING

May 17, 2010

Ms. Erin Mukai
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Mukai:

SUBJECT: REQUEST FOR EARLY CONSULTATION FOR PREPARATION OF AN ENVIRONMENTAL ASSESSMENT (EA) FOR THE PROPOSED COUNTY OF MAUI DEPARTMENT OF WATER SUPPLY REPLACEMENT OF TWO (2) WATER TANKS, AT OMAOPIO ROAD, MAUI, HAWAII; TMK(S): (2) 2-3-003:101 AND 130 (RFC 2010/0042)

The Department of Planning (Department) received your request dated March 18, 2010, for consultation in advance of preparation of an EA on the project referenced above. We have conducted a review of the facts available to us, and offer the following comments:

1. The proposed action consists of replacement of two (2) water tanks at Omaopio Road, Kula;

2. A lower tank will be located on a portion of Tax Map Key [TMK]: (2) 2-3-003:101 (Parcel 101), owned by the State of Hawaii and managed by the County of Maui, located near the intersection of Omaopio Road and Kahala Place. A 40,000 gallon tank will replace a 12,000 gallon tank that was previously removed. Related improvements will include construction of a CMU retaining wall, a gravel service road surrounding the lower tank, and replacement of an existing driveway with a new asphalt concrete driveway. The new lower tank will not exceed twenty-six feet (26') in height;

3. An upper tank will be located on a portion of TMK: (2) 2-3-003:130 (Parcel 130), owned by the County of Maui, located near the intersection of Omaopio Road and Piliwale Road. A 200,000 gallon reservoir tank will replace a 12,000 gallon tank at this site. The existing 12,000 gallon tank will be salvaged and stored for future use. Also proposed is installation of a paved service road, chain link fence, retaining wall on the western property line, and connections to existing waterlines. The new upper tank will not exceed thirty feet (30') in height;

4. Inasmuch as the proposed action involves the use of County funds and County and State lands, an EA is required;

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5. The land use designations for the subject properties are as follows:

	Parcel 101	Parcel 130
State Land Use District:	Agricultural	Agricultural
Makawao-Pukalani-Kula Community Plan:	Agricultural	Agricultural
County Zoning District:	Agricultural	Agricultural
Special Management Area (SMA):	Not in the SMA	Not in the SMA

6. The proposed action is considered a minor utility facility as defined in Section 19.04.040, Maui County Code (MCC), and is a permitted use in the Agricultural District; and

7. In accordance with Chapter 19.30A MCC, pertaining to the Agricultural District, the following standards apply:

Minimum lot area:	Two (2) acres
Minimum lot width:	200 feet
Minimum yard setbacks	
Front:	25 feet
Side and rear:	15 feet
Maximum developable area:	Not applicable to utility facilities
Maximum height limit:	Non-dwelling structures over 35 feet in height shall be setback one (1) additional foot for each foot in structure height. The Director of Public Works may permit greater heights for retaining walls.
Maximum wall height:	Four feet (4') within yard setback area as measured from finished or existing grade, whichever is lower, to the top of the wall. Fences may be constructed on top of a wall.

Thank you for the opportunity to provide comments. If additional clarification is required, please contact Staff Planner Livit Callentine at livit.callentine@mauicounty.gov or at 270-5537.

Sincerely,

CLAYTON I. YOSHIDA, AICP
Planning Program Administrator

for KATHLEEN ROSS AOKI
Planning Director

xc: Livit U. Callentine, Staff Planner
RFC File
General File

KRA:LUC:vb
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MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Kathleen Ross Aoki, Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)-3-03:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii (RFC 2010/0042)

Dear Ms. Aoki:

Thank you for your letter dated May 17, 2010, responding to our early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply (DWS), we offer the following information in response to your comments. Our responses follow in the same order presented in your letter.

Response to Comment No. 1:

We confirm that the proposed action consists of the replacement of two (2) water tanks and related improvements located along Omaopio Road in Kula.

Response to Comment No. 2:

We confirm your noted project scope related to the Lower Tank component of the proposed project.

Response to Comment No. 3:

We also confirm your noted project scope related to the Upper Tank component of the proposed project.

Response to Comment No. 4:

Inasmuch as County of Maui funds and County of Maui and State of Hawaii lands will be used, the proposed actions are triggers for the preparation and processing of an Environmental Assessment (EA) pursuant to Chapter 343, Hawaii Revised Statutes. A

Draft EA is being prepared by our office and will be provided to you for your review and comment once completed.

Response to Comment No. 5:

We thank you for your confirmation of land use designations.

Response to Comment No. 6:

We thank you for your confirmation that the proposed action is a permitted use in the Agricultural District.

Response to Comment No 7:

We note your listed standards relating to the Agricultural District as defined in Chapter 19.30A of the Maui County Code.

We appreciate the information provided by your Department. As noted, a copy of the Draft EA will be submitted to your office for review and comment.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Erin Mukai, Planner

EM:yp
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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MAR 29 2010

POLICE DEPARTMENT
COUNTY OF MAUI

CHARMAINE TAVARES
MAYOR

OUR REFERENCE

YOUR REFERENCE

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

GARY A. YABUTA
CHIEF OF POLICE

CLAYTON N.Y.W. TOM
DEPUTY CHIEF OF POLICE

March 24, 2010

Ms. Erin Mukai
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Dear Ms. Mukai:

SUBJECT: Early Consultation Request for the Proposed Omaopio Road Tank Replacement Project and Related Improvements at TMK (2) 2-3-003:101 and 130

This is in response to the request for comments on the above subject.

We have reviewed the information submitted for this project and have enclosed a copy of our comments. Thank you for giving us the opportunity to comment on this project.

Very truly yours,

Assistant Chief Danny Matsuura
for: Gary A. Yabuta
Chief of Police

c: Jeffrey Hunt, Planning Department

COPY

TO : GARY YABUTA, CHIEF OF POLICE, COUNTY OF MAUI

VIA : CHANNELS 3/23/10

FROM : JODY K.M. SINGSANK, CAPTAIN, WAILUKU PATROL DIVISION

SUBJECT : RESPONSE TO REQUEST FOR EARLY CONSULTATION COMMENTS AND RECOMMENDATIONS

This communication is submitted as a response to a request for early consultation comments and recommendations, by Munekiyo & Hiraga, Inc. Planner, Erin Mukai, regarding the below subject:

SUBJECT : Omaopio Road Tank Replacement Project and Related Improvements

TMK : (2) 2-3-003:101 and 130

RESPONSE:

In review of the provided documents, the project is within an agricultural area and a paved service road with a new chain link fence and retaining wall is planned.

CONCLUSION:

No objections to the progression of this project at this time. Should any health, traffic, or safety issues arise upon commencement of this project, they will need to be addressed.

Respectfully submitted,

Capt. Jody K.M. SINGSANK, E-8467
Patrol Division-Wailuku District
03/23/10 1015 hrs.

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Gary A. Yabuta, Chief of Police
Maui Police Department
County of Maui
55 Mahalani Street
Wailuku, Hawaii 96793

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii

Dear Chief Yabuta:

Thank you for your letter dated March 24, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we offer the following information in response to the comments noted in your letter.

The applicant notes that there are no objections to the project from your Department at this time. Potential impacts to health, traffic, and safety as a result of this project will be discussed in the Draft Environmental Assessment (EA).

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your Department for review and comment.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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APR 07 2010

CHARMAINE TAVARES
Mayor

MILTON M. ARAKAWA, A.I.C.P.
Director

MICHAEL M. MIYAMOTO
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955

RALPH NAGAMINE, L.S., P.E.
Development Services Administration

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET, ROOM NO. 434
WAILUKU, MAUI, HAWAII 96793

April 5, 2010

Ms. Erin Mukai
MUNEKIYO & HIRAGA, INC.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Dear Ms. Mukai:

SUBJECT: EARLY CONSULTATION REQUEST FOR THE PROPOSED OMAOPIO ROAD TANK REPLACEMENT PROJECT AND RELATED IMPROVEMENTS; TMK:(2) 2-3-003:101 AND 130

We reviewed your early consultation request and offer the following comment:

1. Building permits are required for each water tank.

Please call Michael Miyamoto at 270-7845 if you have any questions regarding this letter.

Sincerely,

MILTON M. ARAKAWA, A.I.C.P.
Director of Public Works

MMA:MMM:ls
xc: Highways Division
Engineering Division
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MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Milton M. Arakawa, Director
Attention: Michael Miyamoto
Department of Public Works
County of Maui
200 High Street, Room 434
Wailuku, Hawaii 96793

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii

Dear Mr. Arakawa:

Thank you for your letter dated April 5, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply (DWS), we offer the following information in response to the comments noted in your letter.

The DWS will file all necessary building permits, as required, for this project.

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your Department for review and comment.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
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CHARMAINE TAVARES
Mayor

CHERYL K. OKUMA, Esq.
Director

GREGG KRESGE
Deputy Director

APR 14 2010

TRACY TAKAMINE, P.E.
Solid Waste Division

DAVID TAYLOR, P.E.
Wastewater Reclamation
Division

COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
2200 MAIN STREET, SUITE 100
WAILUKU, MAUI, HAWAII 96793

April 12, 2010

Ms. Erin Mukai
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104t
Wailuku, Hawaii 96793

SUBJECT: **PROPOSED OMAOPIO ROAD TANK REPLACEMENT PROJECT**
EARLY CONSULTATION
TMK (2) 2-3-003101 AND 130

We reviewed the subject application and have the following comments:

1. Solid Waste Division comments:

   a. No comments.

2. Wastewater Reclamation Division (WWRD) comments:

   a. No comments as there are no sewer facilities in this area of the County.

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

Sincerely,

Cheryl K. Okuma

Cheryl K. Okuma, Director

MAR 30 2010

CHARMAINE TAVARES
MAYOR

DON A. MEDEIROS
Director
WAYNE A. BOTEILHO
Deputy Director
Telephone (808) 270-7511
Facsimile (808) 270-7505

DEPARTMENT OF TRANSPORTATION

COUNTY OF MAUI
200 South High Street
Wailuku, Hawaii, USA 96793-2155

March 24, 2010

Ms. Erin Mukai
Munekiyo & Hiraga Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Subject: Proposed Omaopio Road Tank Replacement Project

Dear Ms. Mukai,

Thank you for the opportunity to comment on this project. We have no comments to make at this time.

Please feel free to contact me if you have any questions.

Sincerely,

Dón Medeiros
Director

Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96733-6898 • (808) 871-8461

MAR 29 2010

March 26, 2010

Erin Mukai, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii, 96793

Subject: Early Consultation Request for the Proposed Omaopio Road Tank Replacement Project and Related Improvements
Kula, Maui, Hawaii
Tax Map Key: (2) 2-3-003:130 and (2) 2-3-003:101

Dear Ms. Mukai,

Thank you for allowing us to comment on Early Consultation for the subject project.

In reviewing our records and the information received, Maui Electric Company (MECO) has no objection to the subject project at this time. Since this project's anticipated electrical demand may have a substantial impact to our system, we highly encourage the customer's electrical consultant to submit the electrical demand requirements, electrical service request (if upgrading existing electrical size of service), and project time schedule as soon as practical so that service can be provided on a timely basis. MECO may need to complete system upgrades to accommodate the anticipated electrical load.

Should you have any questions or concerns, please call me at 871-2341.

Sincerely,

Kyle Tamori
Staff Engineer

11

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

July 14, 2010

Kyle Tamori, Staff Engineer
Maui Electric Company, Ltd.
P. O. Box 398
Kahului, Hawaii 96733-6898

SUBJECT: Proposed Omaopio Road Tank Replacements Project at TMK (2)2-3-003:006 (por.), 101, and 130 (por.), Kula, Maui, Hawaii

Dear Mr. Tamori:

Thank you for your letter dated March 26, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Water Supply, we offer the following information in response to the comments noted in your letter.

We note that Maui Electric Company (MECO) has no objection to this project at this time. The proposed project involves the replacement of (2) water tanks and related improvements along Omaopio Road, Kula and is not anticipated to substantially impact MECO's system. The project's electrical consultant will coordinate with MECO to submit an electrical service request, electrical demand requirements, and a project time schedule, as necessary.

We appreciate the input provided by your office. A copy of the Draft EA will be submitted to your office for review and comment.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Justin Tanaka, Planner

JT:lfm
cc: Herb Chang, Department of Water Supply
Michael Ishikawa, Sato & Associates, Inc.
Jeral Fukuda, ECM, Inc.
I:\DATA\SATO\OmaopioTank\MECOresponse.ECL.doc

X. REFERENCES

X. REFERENCES

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APPENDIX A.

Preliminary Drainage Report for Upper Tank Site

DRAINAGE REPORT

FOR

UPPER OMAOPIO ROAD TANK REPLACEMENT

PN: 09-02B

PREPARED FOR:

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII

PREPARED BY:

SATO & ASSOCIATES, INC.
2115 WELLS STREET
WAILUKU, MAUI, HAWAII 96793

JUNE 2010

TABLE OF CONTENTS

INTRODUCTION

The County of Maui Department of Water Supply plans to construct a new 200,000 gallon water tank along Omaopio Road. This report examines how the developed conditions will affect the current drainage patterns at the project site.

PROJECT LOCATION

The site is located in Kula, Maui, Hawaii (See Exhibit A) at the intersection of Omaopio Road and Kahala Place. The project is on a portion of Tax Map Key (TMK) (2) 2-3-3:130, which is 0.4 acre in size and owned by the State of Hawaii and the County of Maui (See Exhibit B.)

PROJECT DESCRIPTION

At the Upper Tank site, a 200,000 gallon reservoir will replace the existing 12,000 gallon tank. Other improvements include a paved service road, new chainlink fence, retaining wall at the west property line, and the necessary fittings to connect to existing utilities.

FLOOD HAZARD

According to the Flood Insurance Rate Map (FIRM) published by the Federal Emergency Management Agency (FEMA) the site is located within Zone X. Areas within this zone designation are prone to minimal flooding.

EXISTING DRAINAGE CONDITIONS

The existing land to be developed at the site has high vegetal cover with about 60% of the site being covered. The land is made up of dirt, grass, an existing paved driveway, and a concrete pad for the 12,000 gallon tank. Elevations on the site range from 2198 to 2210 feet above mean sea level. The steepest area of the site is located at the west property line, where a bank at 50% grade slopes into the adjacent lot. Aside from this bank, the site has an average slope of 7%.

Currently, the existing tank is built on a mound. Offsite runoff flowing from the east is directed away from the site by a bank between the east property line and gravel dirt road (Kahala Place.) Due to the high point at the existing tank location, water flows down this private road in both north and southerly directions. Onsite surface runoff flows in a west, northwest, and southwesterly direction.

Under existing conditions, the site generates the total runoff at a rate of approximately 0.67 cfs during a 10-year recurrence, 1-hour storm. Refer to Exhibit C and runoff summary.

DEVELOPED CONDITIONS

Once completed, runoff conveyed from the Upper Tank site during a 10-year, one-hour storm event is estimated to be 1.14 cfs, a net increase of approximately 0.47 cfs when compared to existing conditions.

The increase in runoff at the Upper Tank site is attributed to the construction of a larger tank and service road area. This added runoff will be directed to a new concrete drain inlet and subsurface drainage system, which will allow excess onsite runoff to percolate underground. It is proposed that the remaining stormwater be allowed to sheet flow off the site as it currently does under existing conditions.

Refer to Exhibit F, G and Runoff Summary table for developed runoff conditions.

CONCLUSION

Development of the Upper Omaopio Road Tank Replacement is not expected to cause any adverse effects to adjacent or downstream properties. Added storm runoff due to the construction of the new Upper Tank will be stored on-site through a subdrain. Offsite runoff from the east is minimal and will follow existing drainage patterns down Kahala Place.

REFERENCES

1. Federal Emergency Management Agency, Federal Insurance Administration. "Flood Insurance Rate Map", Maui County, Hawaii, effective dated September 25, 2009.

2. Title MC-15, Department of Public Works and Waste Management, County of Maui, Subtitle 01, Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui

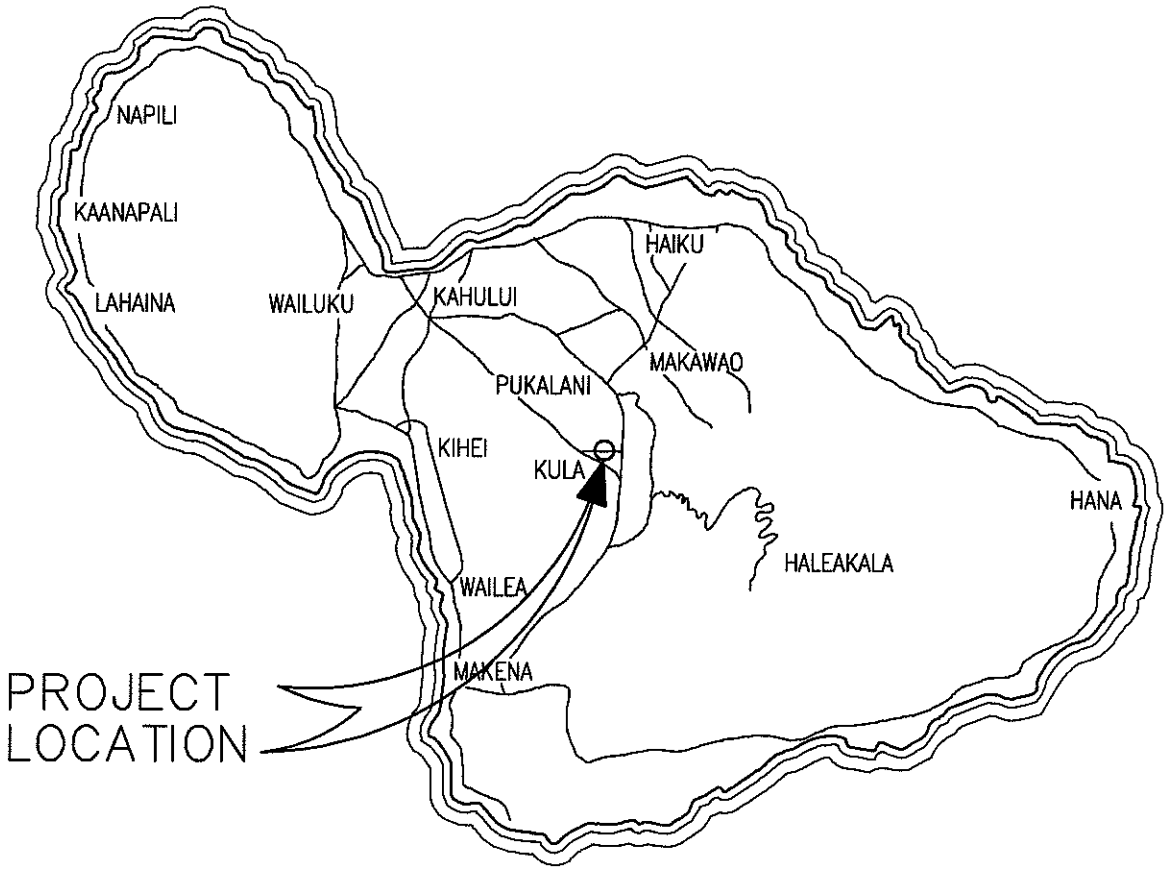
APPENDIX A
Exhibits

PROJECT LOCATION MAP – EXHIBIT A

OVERALL SITE PLAN – EXHIBIT B

EXISTING RUNOFF CONDITIONS, UPPER – EXHIBIT C

DEVELOPED RUNOFF CONDITIONS, UPPER – EXHIBIT D



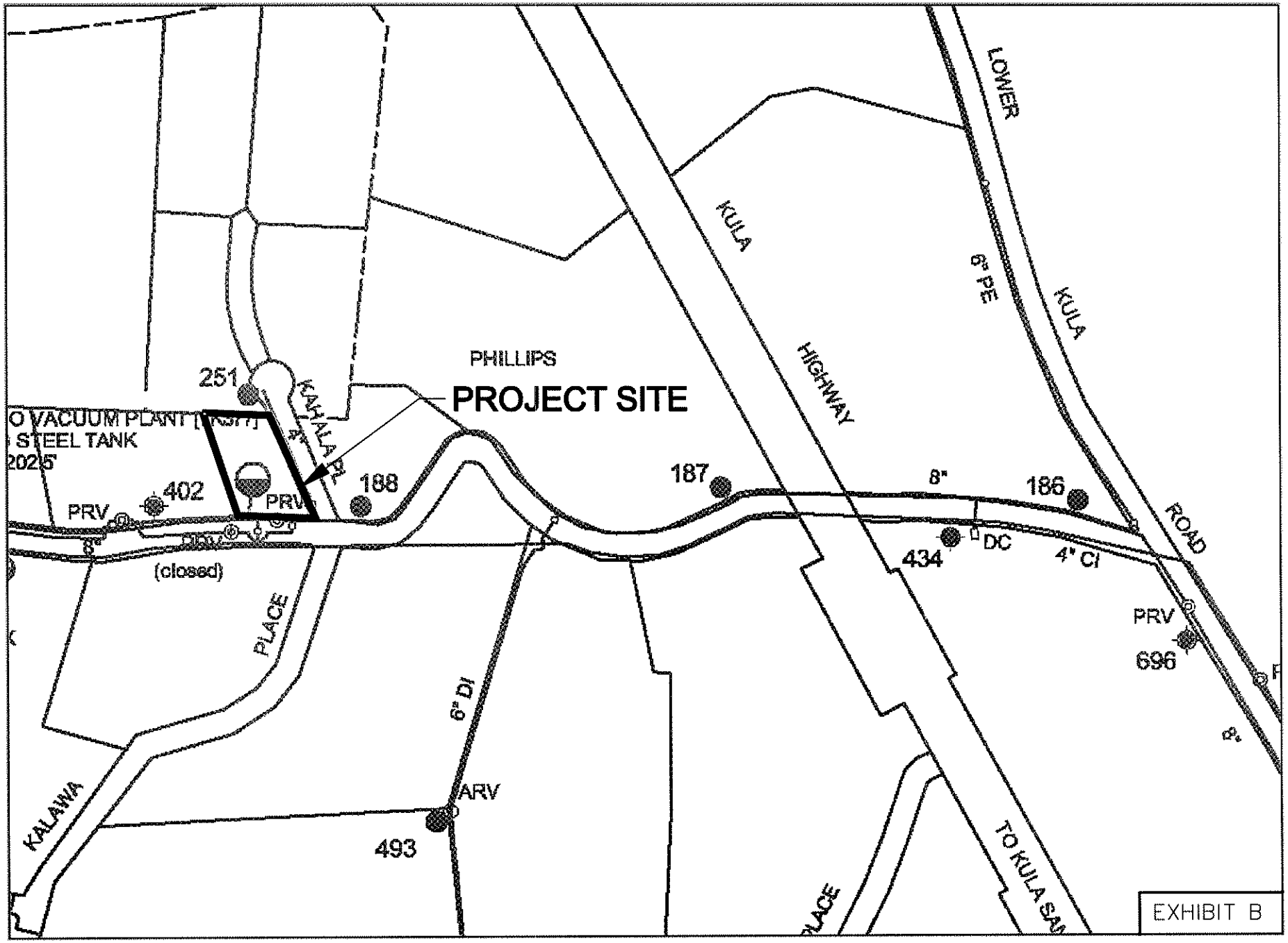
NORTH

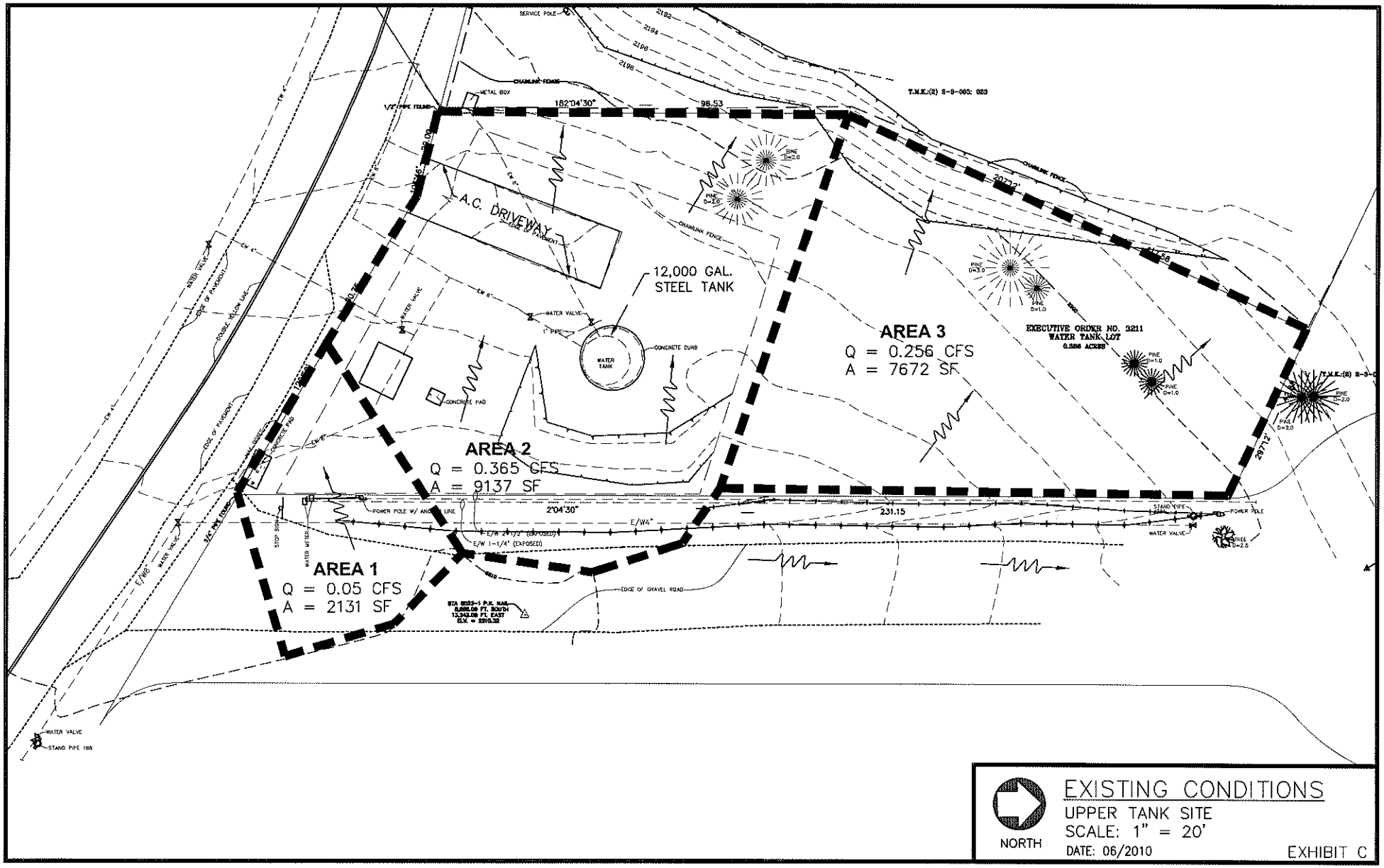
ISLAND OF MAUI

NOT TO SCALE

DATE: 02/2010

EXHIBIT A


PHILLIPS
PROJECT SITE
251
KAHALA PL
O VACUUM PLANT
STEEL TANK
2025'
402
PRV
PRV
188
187
8"
186
434
DC
4" CI
(closed)
PLACE
6" DI
ARV
493
KALAWA
KULA
HIGHWAY
LOWER
KULA
6" PE
ROAD
PRV
696
TO KULA SAN
EXHIBIT B



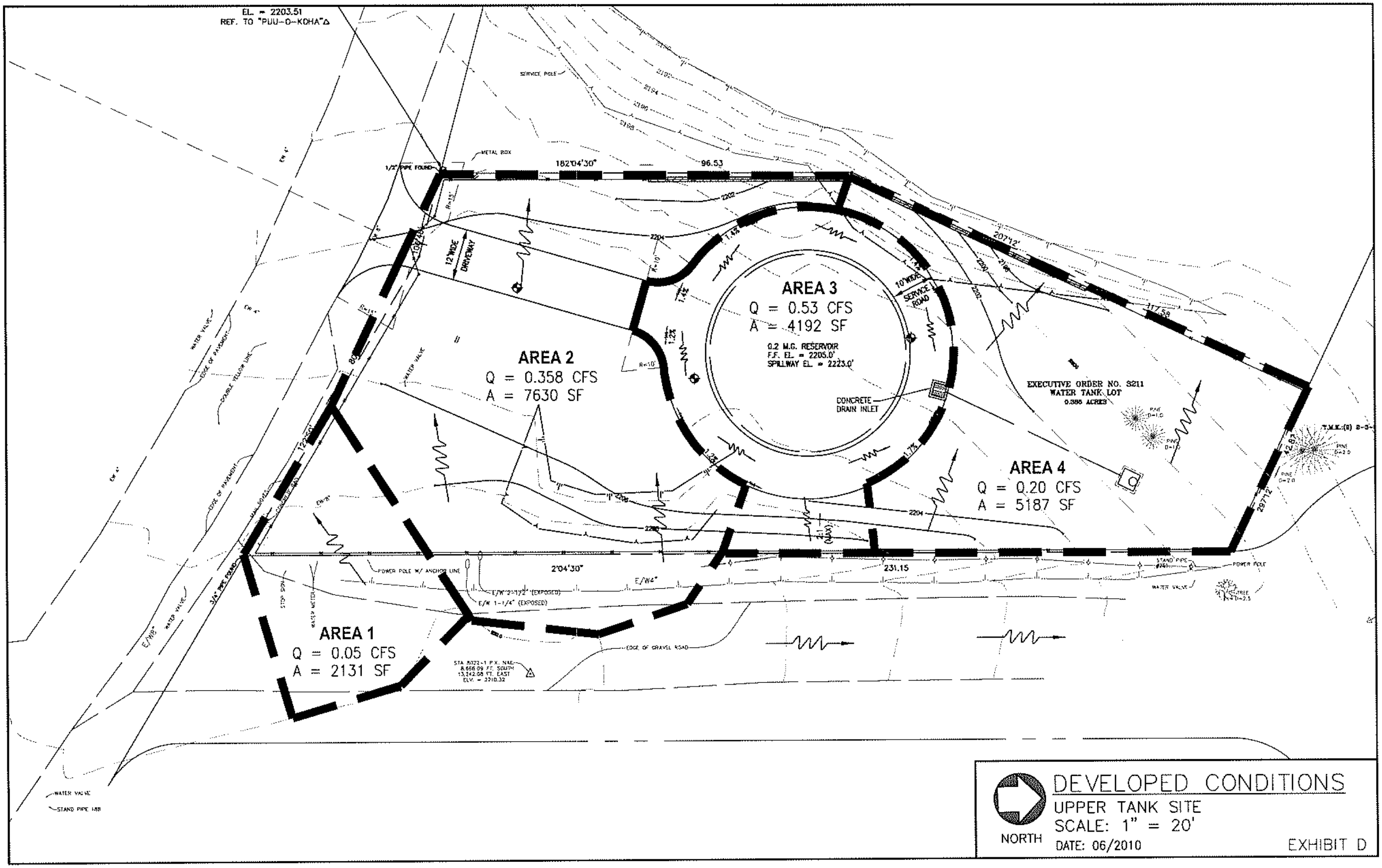
EXISTING CONDITIONS

UPPER TANK SITE

SCALE: 1" = 20'

DATE: 06/2010

EXHIBIT C



EL. = 2203.51
REF. TO "PUU-O-KOHA"
AREA 1
Q = 0.05 CFS
A = 2131 SF
AREA 2
Q = 0.358 CFS
A = 7630 SF
AREA 3
Q = 0.53 CFS
A = 4192 SF
0.2 M.G. RESERVOIR
F.F. EL. = 2205.0'
SPILLWAY EL. = 2223.0'
CONCRETE DRAIN INLET
AREA 4
Q = 0.20 CFS
A = 5187 SF
EXECUTIVE ORDER NO. 3211
WATER TANK LOT
12' WIDE DRIVEWAY
10' WIDE SERVICE ROAD
182°04'30"
96.53
207°12'
117.58
297°12'
42.83
231.15
2°04'30"
EDGE OF GRAVEL ROAD

DEVELOPED CONDITIONS
UPPER TANK SITE
SCALE: 1" = 20'
DATE: 06/2010
NORTH
EXHIBIT D

APPENDIX B

Hydrologic Runoff Calculations

HYDROLOGIC DESIGN CRITERIA

RUNOFF SUMMARY

CALCULATIONS

Hydrologic Design Criteria

Hydrologic calculations for both existing and developed conditions were done using the Rational Method. Factors used in the calculations were taken from the County of Maui's Drainage Standards as outlines in "Title MC-15, Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui."

The following factors were used:

A. Recurrence Intervals:

10 year, 1-hour storm
I = 2.4" (From Plate 4)

B. Time of Concentration:

Overland flow time was determined from Plate 1, using hydraulic length and slope to the intake point.

C. Rainfall Intensity:

Rainfall intensity (i), was determined by using Plate 2, comparing the time of concentration with 1 hour rainfall.

D. Runoff Coefficient:

Runoff Coefficient (c) was determined from Tables 1 and 2, as follows:

Concrete Areas	c = 0.95
Driveway Areas	c = 0.85
Grassed Areas	c = 0.28-0.31
Unimproved Areas	c = 0.20-0.28

For areas with multiple surfaces types, a weighted "c" value was calculated using the above.

RUNOFF SUMMARY - 10 YEAR STORM								
PROJECT: Upper Omaopio Tank Replacement								
Area No.	Area (Acres)	Tm	Tc (min)	C	1 - Hr. Rainfall	Intensity (in/hr)	Q (cfs)	Remarks
EXISTING CONDITIONS								
1	0.049	10	9.5	0.20	2.4	5.1	0.05	Sheet flows offsite to Omaopio Rd.
2	0.209	10	8.3	0.33	2.4	5.3	0.37	Sheet flows offsite to TMK (2) 2-3-003:023
3	0.176	10	9.0	0.28	2.4	5.2	0.26	Sheet flows offsite to TMK (2) 2-3-003:023
						Total Q =	**0.67**	
DEVELOPED CONDITIONS								
1	0.049	10	9.5	0.20	2.4	5.1	0.05	Sheet flows offsite to Omaopio Rd.
2	0.175	10	8.0	0.36	2.4	5.7	0.36	Sheet flows offsite to TMK (2) 2-3-003:023
3	0.096	10	5.0	0.89	2.4	6.2	0.53	CDI/Subdrain
4	0.120	10	7.5	0.31	2.4	5.5	0.20	Sheet flows offsite to TMK (2) 2-3-003:023
						Total Q =	**1.14**	

Existing Runoff Calculations – 10 year 1 hour storm

Area 1:

A. Determine A. (Area)

A_1 = **2131 Sq. ft. (0.0489 Acres)**

B. Determine C. (Runoff Coefficient from Table 1.)

C_1 = **0.20 (Grass/gravel)**
(High infiltration, flat relief, good vegetal cover, agricultural development type)

C. Determine I. (Intensity)

i = 2.4 in/hr, Plate 4 (10-yr,1-hr storm)

From Plate 1:
T_c = 9.5 Min.

From Plate 2.
I_1 = **5.1 in/hr**

C. Determine Existing Runoff

Q = CIA
= 0.20 x 5.1 x 0.0489
$Q_{Exist,1}$ = **0.05 CFS**

Existing Runoff Calculations (Cont.) 10 year 1 hour storm

Area 2:

A. Determine A. (Area)

$\mathbf{A_2}$ = **9137 Sq. Ft. (0.209 Acres)**

B. Determine C. (Runoff Coefficient from Table 1.)

$C_{Driveway}$ = 0.85
$A_{Driveway}$ = 653 SF (0.015 Acres)

$C_{Tank/Conc.Slab}$ = 0.95
$A_{Tank/Conc.Slab}$ = 177 SF (0.0041 Acres)

C_{Grass} = 0.28
(Medium infiltration, rolling relief, good vegetal cover, agricultural development type)
A_{Grass} = 8307 SF (0.19 Acres)

Weighted C:

$$\frac{(0.85 \times 0.015) + (0.95 \times 0.0041) + (0.28 \times 0.19)}{0.209}$$

$\mathbf{C_2}$ = **0.33**

C. Determine I. (Intensity)

i = 2.4 in/hr – Plate 4 (10-yr, 1-hr storm)

From Plate 1:

T_c = 8.25 Min.

From Plate 2.

$\mathbf{I_2}$ = **5.3 in/hr**

D. Determine Existing Runoff

Q = CIA
= 0.33 x 5.3 x 0.209
$\mathbf{Q_{Exist,2}}$ = **0.365 CFS**

Existing Runoff Calculations (Cont.) 10 year 1 hour storm

Area 3:

A. Determine A. (Area)

A_3 = **7672 Sq. Ft. (0.176 Acres)**

B. Determine C. (Runoff Coefficient from Table 1.)

C_3 = **0.28 (Grass)**
(Medium infiltration, rolling relief, good vegetal cover, agricultural development type)

C. Determine I. (Intensity)

i = 2.4 in/hr – Plate 4 (10-yr, 1-hr storm)

From Plate 1:

T_c = 9.0 Min.

From Plate 2.

I_2 = **5.2 in/hr**

D. Determine Existing Runoff

Q = CIA
= 0.28 x 5.2 x 0.176
$Q_{Exist,3}$ = **0.256 CFS**

Developed Runoff Calculations – 10 year 1 hour storm

Area 1:

A. Determine A. (Area)

A_1 = **2131 Sq. ft. (0.0489 Acres)**

B. Determine C. (Runoff Coefficient from Table 1.)

C_1 = **0.20 (Grass/gravel)**
(High infiltration, flat relief, good vegetal cover, agricultural development type)

D. Determine I. (Intensity)

i = 2.4 in/hr, Plate 4 (10-yr,1-hr storm)

From Plate 1:
T_c = 9.5 Min.

From Plate 2.
I_1 = **5.1 in/hr**

C. Determine Existing Runoff

Q = CIA
= 0.20 x 5.1 x 0.0489
$Q_{Dev,1}$ = **0.05 CFS**

Developed Runoff Calculations (Cont.) 10 year 1 hour storm

Area 2:

A. Determine A. (Area)

$\mathbf{A_2}$ = **7630 Sq. Ft. (0.175 Acres)**

B. Determine C. (Runoff Coefficient from Table 1.)

$C_{Driveway}$ = 0.85
$A_{Driveway}$ = 697 SF (0.016 Acres)

C_{Grass} = 0.31
(Medium infiltration, hilly relief, good vegetal cover, agricultural development type)
A_{Grass} = 6933 SF (0.159 Acres)

Weighted C:

$$\frac{(0.85 \times 0.016) + (0.31 \times 0.159)}{0.175}$$

$\mathbf{C_2}$ = **0.359**

C. Determine I. (Intensity)

i = 2.4 in/hr – Plate 4 (10-yr, 1-hr storm)

From Plate 1:

T_c = 8.0 Min.

From Plate 2.

$\mathbf{I_2}$ = **5.7 in/hr**

D. Determine Existing Runoff

Q = CIA
= 0.359 x 5.7 x 0.175
$\mathbf{Q_{Dev2}}$ = **0.358 CFS**

Developed Runoff Calculations (Cont.) 10 year 1 hour storm

Area 3:

A. Determine A. (Area)

A_3 = **4192 Sq. Ft. (0.096 Acres)**

B. Determine C. (Runoff Coefficient from Table 1.)

C_{Roof} = 0.95 (A.C. service road, tank roof)
A_{Roof} = 3737 SF (0.086 Acres)

C_{Grass} = 0.31
(Medium infiltration, hilly relief, good vegetal cover, agricultural development type)
A_{Grass} = 455 SF (0.0104 Acres)

Weighted C:

$$\frac{(0.95 \times 0.086) + (0.31 \times 0.0104)}{0.096}$$

C = **0.885**

C. Determine I. (Intensity)

i = 2.4 in/hr – Plate 4 (10-yr, 1-hr storm)

From Plate 1:

T_c = 5.0 Min.

From Plate 2.

I_2 = **6.2 in/hr**

D. Determine Existing Runoff

Q = CIA
= 0.89 x 6.2 x 0.096
$Q_{Dev,3}$ = **0.53 CFS**

Developed Runoff Calculations (Cont.) 10 year 1 hour storm

Area 4:

A. Determine A. (Area)

A_4 = **5187 Sq. Ft. (0.1191 Acres)**

B. Determine C. (Runoff Coefficient from Table 1.)

C_4 = **0. 31**
(Medium infiltration, hilly relief, good vegetal cover, agricultural development type)

C. Determine I. (Intensity)

i = 2.4 in/hr – Plate 4 (10-yr, 1-hr storm)

From Plate 1:

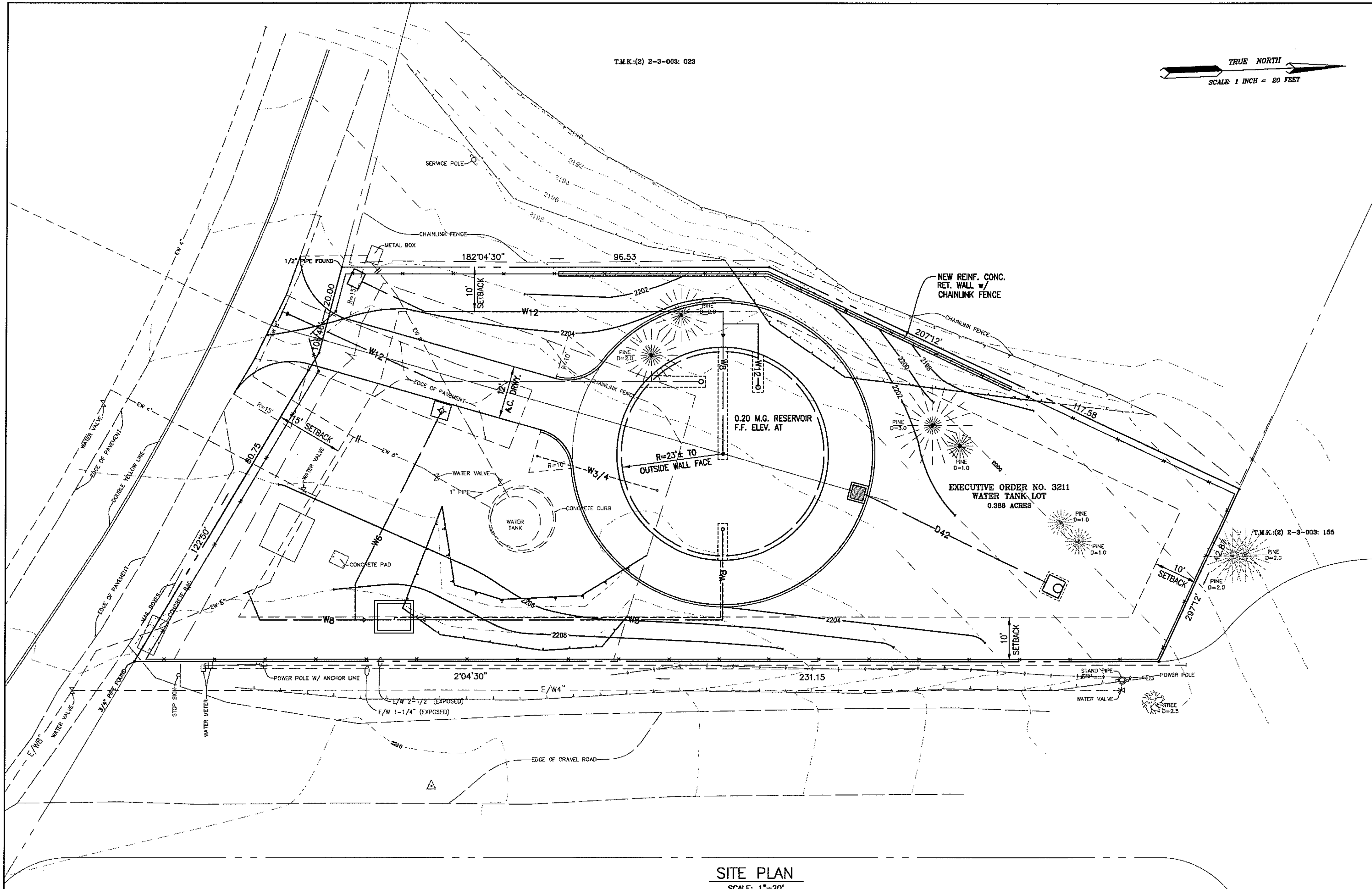
T_c = 7.5 Min.

From Plate 2.

I_4 = **5.5 in/hr**

D. Determine Existing Runoff

Q = CIA
= 0.31 x 5.5 x 0.119
$Q_{Dev,4}$ = **0.203 CFS**


T.M.K.:(2) 2-3-003: 023
TRUE NORTH
SCALE: 1 INCH = 20 FEET
SERVICE POLE
CHAINLINK FENCE
METAL BOX
1/2" PIPE FOUND
182°04'30"
96.53
10' SETBACK
NEW REINF. CONC. RET. WALL w/ CHAINLINK FENCE
W12
207°12'
0.20 M.G. RESERVOIR
F.F. ELEV. AT
R=23'± TO OUTSIDE WALL FACE
12' A.C. DRWY.
EDGE OF PAVEMENT
15' SETBACK
117.58
EXECUTIVE ORDER NO. 3211
WATER TANK LOT
0.386 ACRES
WATER VALVE
1" PIPE
WATER TANK
CONCRETE CURB
CONCRETE PAD
80.75
122°50'
D42
T.M.K.:(2) 2-3-003: 155
297°12'
42.87
DOUBLE YELLOW LINE
MAIL BOXES
CONCRETE PAD
2°04'30"
231.15
E/W4"
POWER POLE W/ ANCHOR LINE
E/W 2-1/2" (EXPOSED)
E/W 1-1/4" (EXPOSED)
STOP SIGN
WATER METER
3/4" PIPE FOUND
E/W8"
STAND PIPE
POWER POLE
WATER VALVE
EDGE OF GRAVEL ROAD

SITE PLAN

SCALE: 1"=20'

SATO & ASSOCIATES, INC.
CONSULTING ENGINEERS • CIVIL & STRUCTURAL
HONOLULU, OAHU, HAWAII • WAILUKU, MAUI, HAWAII

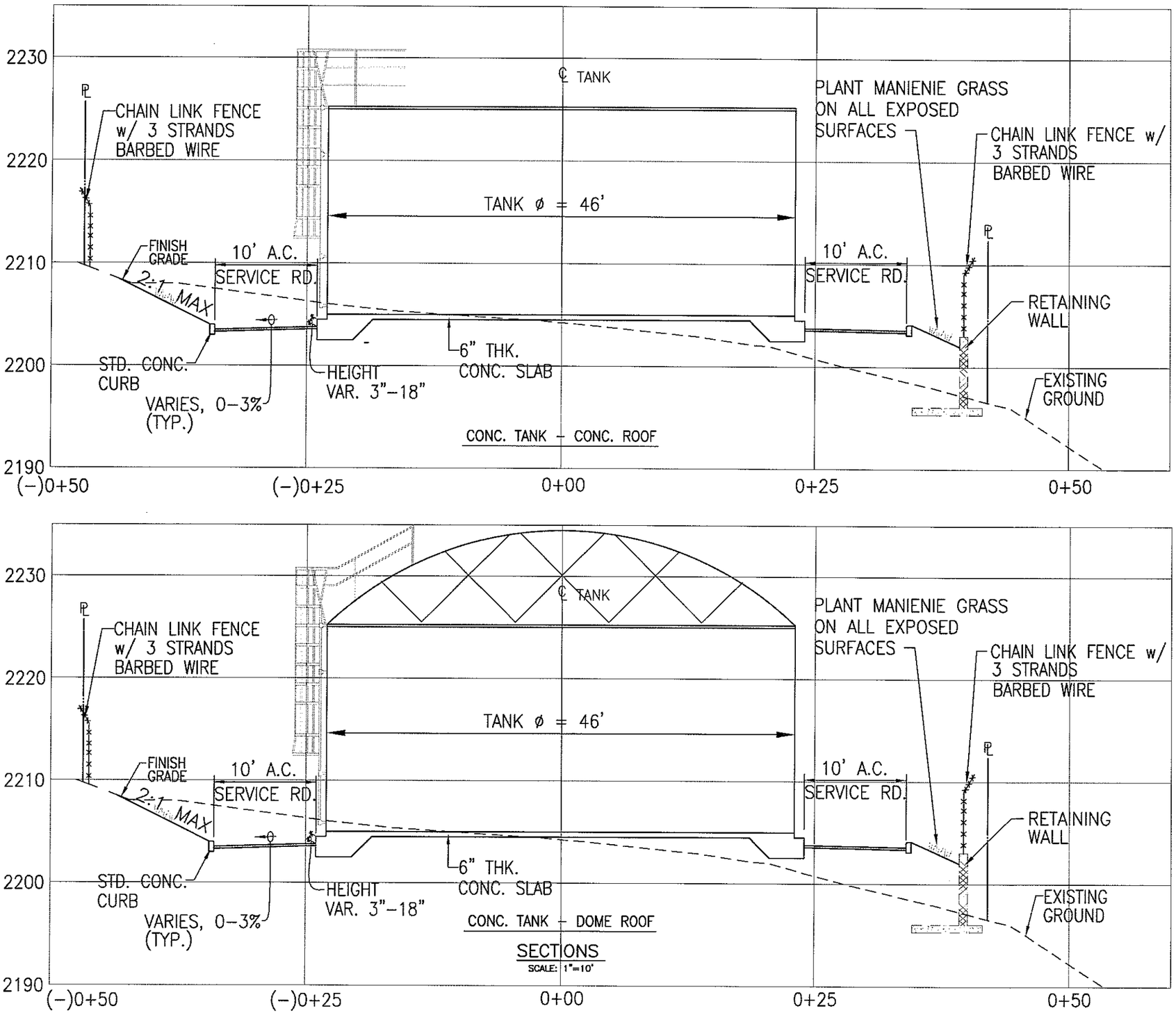
SCALE:	AS SHOWN
DESIGN BY:	K.H.
DRAWN BY:	S.M.
CHECKED BY:	M.I.

1"=20' 20' 10' 0 20' 40' SCALE IN FEET

UPPER TANK SITE

OMAOPIO ROAD TANK REPLACEMENT
KULA, MAUI, HAWAII
JUNE 2010

Proj. No. 04031-00
Jun 16, 2010 - 2:05pm



SATO & ASSOCIATES, INC.
CONSULTING ENGINEERS • CIVIL & STRUCTURAL
HONOLULU, OAHU, HAWAII • WAILUKU, MAUI, HAWAII

SCALE:	AS SHOWN
DESIGN BY:	K.H.
DRAWN BY:	S.M.
CHECKED BY:	M.I.

1"=10' 10' 5' 0 10' 20'
SCALE IN FEET

UPPER TANK SITE

OMAOPIO ROAD TANK REPLACEMENT
KULA, MAUI, HAWAII
JUNE 2010

Proj. No. 04031-00
Jun 16, 2010 – 4:01pm
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APPENDIX B.

Preliminary Drainage Report for Lower Tank Site

DRAINAGE REPORT

FOR

LOWER OMAOPIO ROAD TANK REPLACEMENT

PN: 09-02C

PREPARED FOR:

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII

PREPARED BY:

SATO & ASSOCIATES, INC.
2115 WELLS STREET
WAILUKU, MAUI, HAWAII 96793

JUNE 2010

TABLE OF CONTENTS

INTRODUCTION

The County of Maui Department of Water Supply plans to construct a new 40,000 gallon water tank at the intersection of Omaopio Road and Piliwale Road. This report examines how the developed conditions will affect the current drainage patterns at the project site.

PROJECT LOCATION

The site is located in Kula, Maui, Hawaii (see Exhibit A) on TMK (2) 2-3-3:101. The parcel is owned by the State of Hawaii and is 0.118 acres in size. (See Exhibit B.)

PROJECT DESCRIPTION

A 40,000 gallon steel tank will be installed where the old 12,000 gallon tank has already been demolished. A gravel service road will surround the lower tank, and the existing driveway will be replaced with a new A.C. paved driveway.

FLOOD HAZARD

According to the Flood Insurance Rate Map (FIRM) published by the Federal Emergency Management Agency (FEMA) the site is located within Zone X. Areas within this zone designation are prone to minimal flooding.

EXISTING DRAINAGE CONDITIONS

The existing land at the site has high vegetal cover with about 75% of the site being covered. The land is made up of dirt, grass, the old tank slab, and a paved driveway. In general, the site slopes from east to west. Elevations at the site range from 1566 to 1546 feet above mean sea level. The site is banked down to Omaopio Road at a 2:1 slope. The remainder of the site has an average slope of 5%. Offsite runoff from the east sheet flows through the site and across Omaopio Road into the undeveloped 24.35 acre lot identified by TMK 2-3-03:30.

During a 10-year, 1 hour storm, the runoff generated at the site (including offsite areas) is 0.50 cfs. Refer to Exhibit C, C1, and Runoff Summary.

DEVELOPED CONDITIONS

From the existing offsite area east of the lot, a new berm and swale directs approximately 0.38 cfs of runoff around the tank site down to Piliwale Road. The runoff then follows existing patterns, flowing into the undeveloped lot across Omaopio Road. The runoff generated on site under developed conditions will be about 0.31 cfs. Onsite drainage will not be greatly affected due to the high infiltration rate of the new gravel service road.

Refer to Exhibit D and Runoff Summary table for developed runoff conditions.

CONCLUSION

Development of the Lower Omaopio Tank Replacement is not expected to cause any adverse effects to adjacent or downstream properties. The new berm and swale are expected to direct stormwater around a portion of the lot. Runoff onsite will not be adversely affected, due to the high percolation rate of the new gravel service road.

REFERENCES

1. Federal Emergency Management Agency, Federal Insurance Administration. "Flood Insurance Rate Map", Maui County, Hawaii, effective dated September 25, 2009.

2. Title MC-15, Department of Public Works and Waste Management, County of Maui, Subtitle 01, Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui.

APPENDIX A

Hydrologic Runoff Calculations

HYDROLOGIC DESIGN CRITERIA

RUNOFF SUMMARY

CALCULATIONS

Hydrologic Design Criteria

Hydrologic calculations for both existing and developed conditions were done using the Rational Method. Factors used in the calculations were taken from the County of Maui's Drainage Standards as outlines in "Title MC-15, Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui."

The following factors were used:

A. Recurrence Intervals:

10 year, 1-hour storm
I = 2.4" (From Plate 4)

B. Time of Concentration:

Overland flow time was determined from Plate 1, using hydraulic length and slope to the intake point.

C. Rainfall Intensity:

Rainfall intensity (i), was determined by using Plate 2, comparing the time of concentration with 1 hour rainfall.

D. Runoff Coefficient:

Runoff Coefficient (c) was determined from Tables 1 and 2, as follows:

Concrete Areas	c = 0.95
Driveway Areas	c = 0.85
Gravel Areas	c = 0.35
Unimproved Areas	c = 0.25-0.28

For areas with multiple surfaces types, a weighted "c" value was calculated using the above.

RUNOFF SUMMARY - 10 YEAR STORM								
PROJECT: Lower Omaopio Tank Replacement								
Area No.	Area (Ac.)	Tm	Tc (min)	C	1 - Hr. Rainfall	Intensity (in/hr)	Q (cfs)	Remarks
EXISTING CONDITIONS								
1	0.513	10	25.0	0.27	2.4	3.6	**0.50**	Sheet flows offsite to Omaopio Road and Piliwale Road.
DEVELOPED CONDITIONS								
1	0.150	10	7.0	0.36	2.4	5.6	**0.31**	Sheet flows offsite to Omaopio Road.
2	0.420	10	25.0	0.25	2.4	3.6	0.38	Intercepted by berm and swale graded east of lot and routed around tank site

Existing Runoff Calculations – 10 year 1 hour storm

Area 1:

A. Determine A. (Area)

A_1 = **0.513 Acre**

B. Determine C. (Runoff Coefficient from Table 1.)

$C_{Driveway}$ = 0.85
$A_{Driveway}$ = 0.00767 Acre

$C_{Tank/Conc.Slab}$ = 0.95
$A_{Tank/Conc.Slab}$ = 0.00396 Acre

$C_{Grass/Dirt}$ = 0.28
$A_{Grass/Dirt}$ = 0.1027 Acre

$C_{Grass/Dirt,\ Offsite}$ = 0.25
$A_{Grass/Dirt,\ Offsite}$ = 0.406 Acre

Weighted C:

$$\frac{(0.95 \times 0.00396) + (0.85 \times 0.00767) + (0.28 \times 0.1027) + (0.25 \times 0.406)}{0.00396 + 0.00767 + 0.1027 + 0.406}$$

C_1 = **0.272**

C. Determine I. (Intensity)

i = 2.4 in/hr – Plate 4 (10-yr, 1-hr storm)

From Plate 1:

T_c = 25 Min.

From Plate 2.

I_2 = **3.6 in/hr**

D. Determine Existing Runoff

Q = CIA
= 0.272 x 3.6 x 0.513
$Q_{Exist,1}$ = **0.50 CFS**

Developed Runoff Calculations – 10 year 1 hour storm

Area 1:

A. Determine A. (Area)

A_1	**=**	**0.15 Acre**

B. Determine C. (Runoff Coefficient from Table 1.)

$C_{Driveway}$	=	0.85
$A_{Driveway}$	=	0.0066 Acre
C_{Roof}	=	0.95
A_{Roof}	=	0.0104 Acre
$C_{Grass/Dirt}$	=	0.28
$A_{Grass/Dirt}$	=	0.1085 Acre
C_{Gravel}	=	0.35
A_{Gravel}	=	0.00245 Acre

C. Determine I. (Intensity)

i	=	2.4 in/hr, Plate 4 (10-yr,1-hr storm)
From Plate 1:		
T_c	=	7.0 Min.
From Plate 2.		
I_1	**=**	**5.6 in/hr**

C. Determine Existing Runoff

Q	=	CIA
	=	0.363 x 5.6 x 0.15
$Q_{Dev,1}$	**=**	**0.305 CFS**

Developed Runoff Calculations (Cont.) 10 year 1 hour storm

Area 2:

A. Determine A. (Area)

A_2 = **0.42 Acre**

B. Determine C. (Runoff Coefficient from Table 1.)

C_2 = **0.25**

C. Determine I. (Intensity)

i = 2.4 in/hr – Plate 4 (10-yr, 1-hr storm)

From Plate 1:

T_c = 25 Min.

From Plate 2.

I_2 = **3.6 in/hr**

D. Determine Existing Runoff

Q = CIA
= 0.25 x 3.6 x 0.42
$Q_{Dev,2}$ = **0.38 CFS**

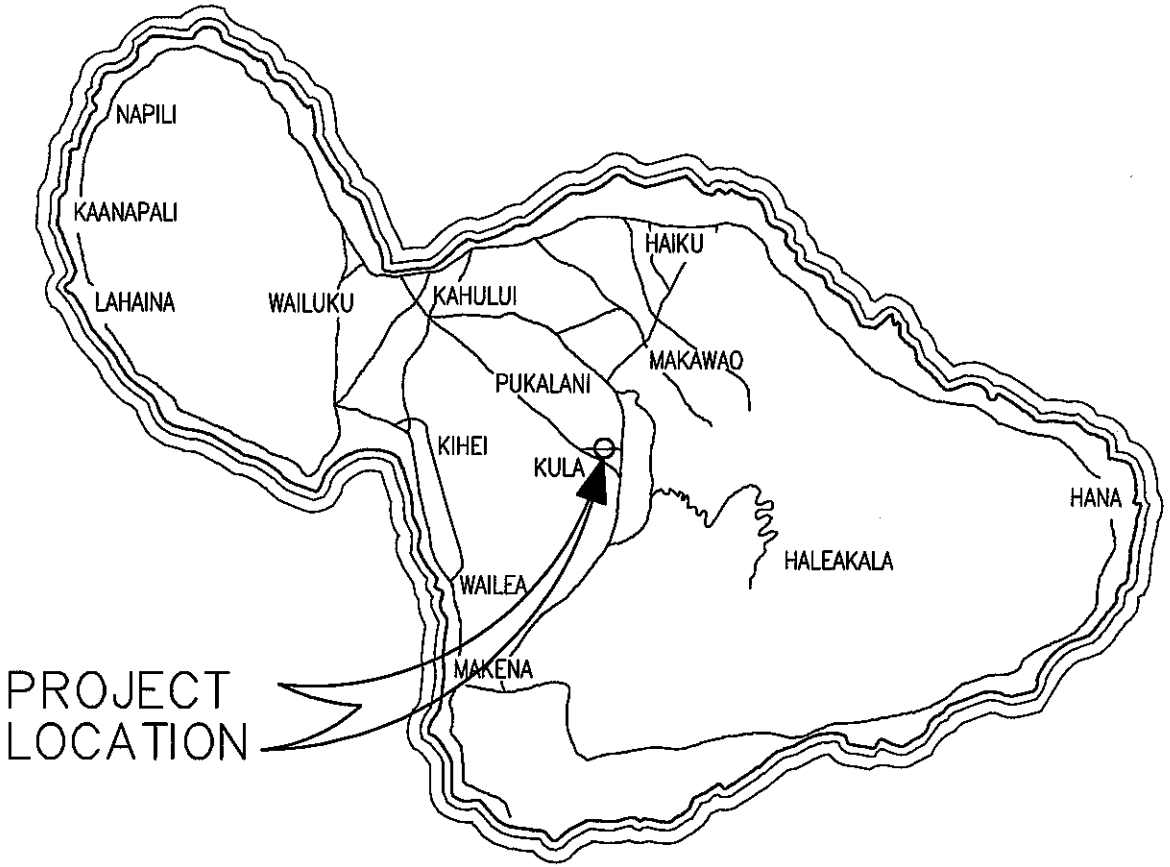
APPENDIX B
Exhibits

PROJECT LOCATION MAP – EXHIBIT A

OVERALL SITE PLAN – EXHIBIT B

EXISTING RUNOFF CONDITIONS – EXHIBIT C & C1

DEVELOPED RUNOFF CONDITIONS – EXHIBIT D



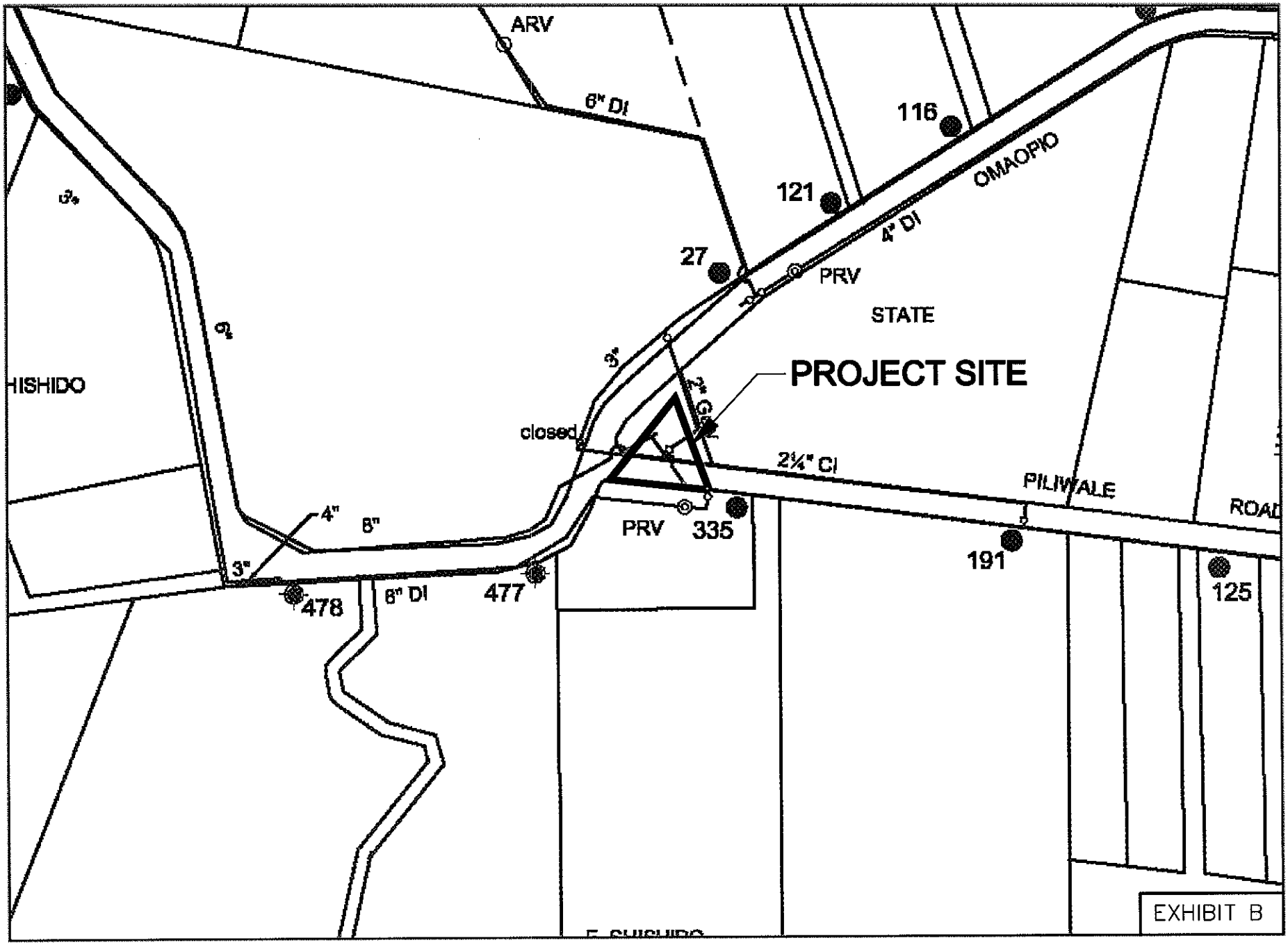
NORTH

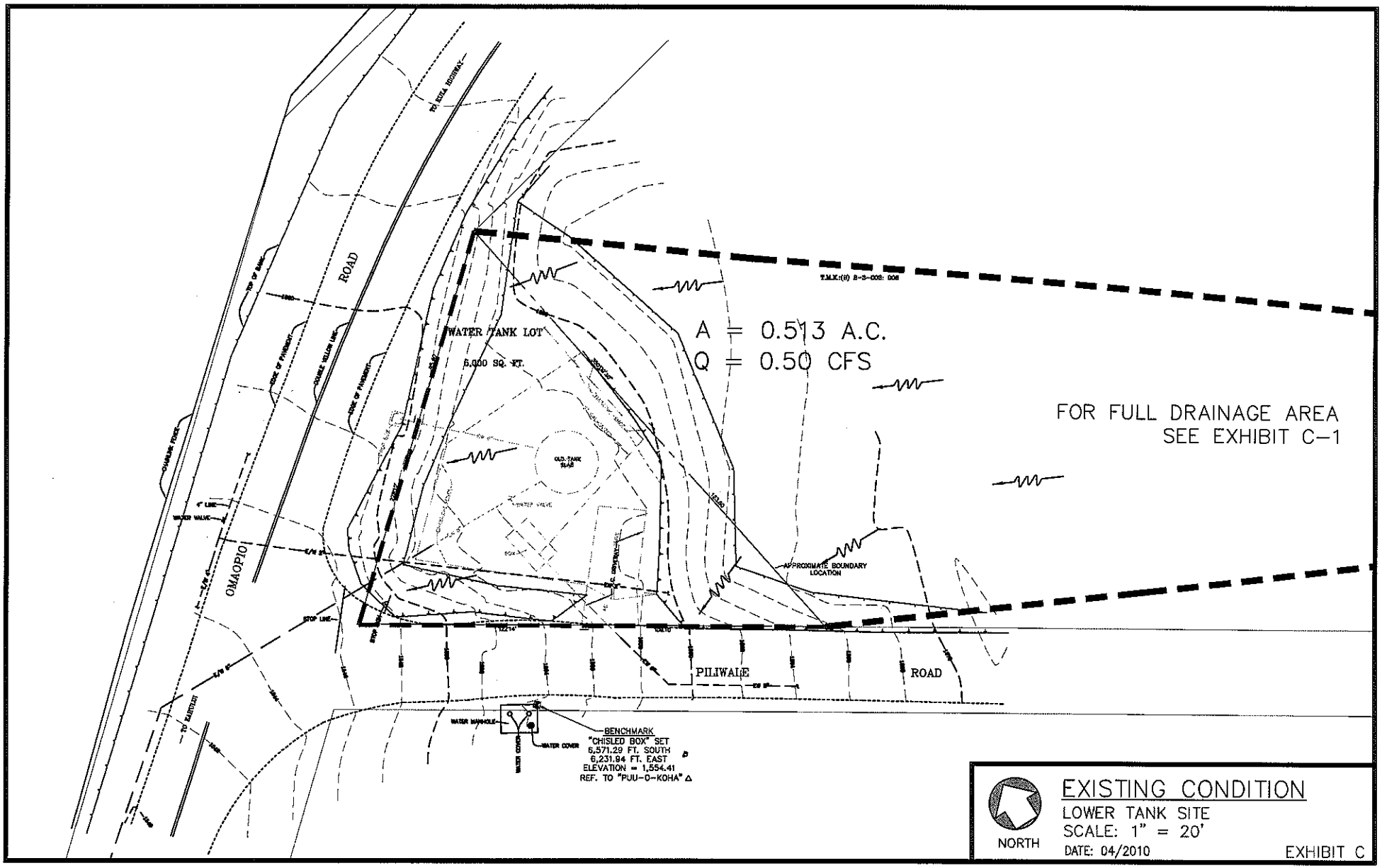
ISLAND OF MAUI

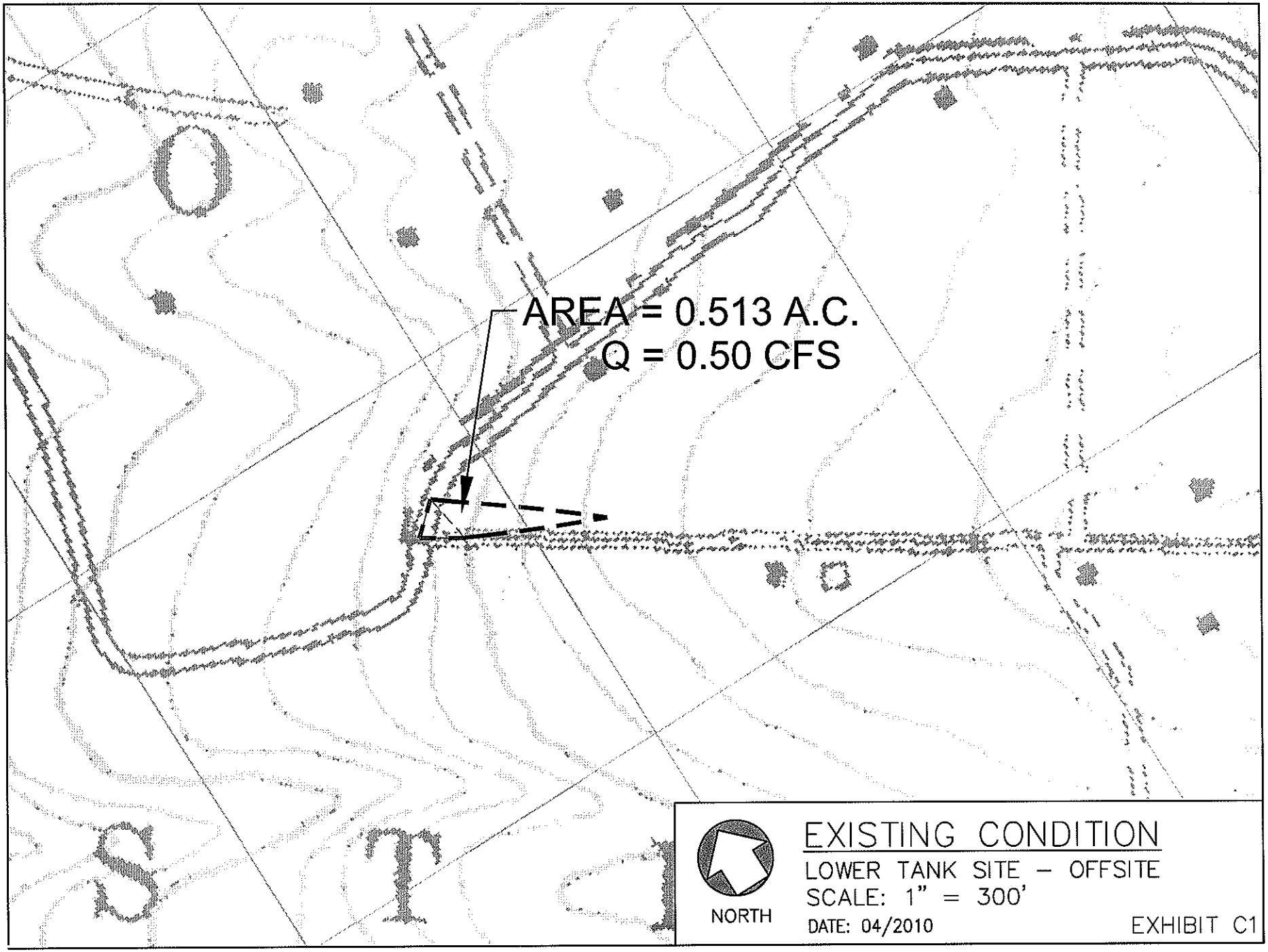
NOT TO SCALE

DATE: 02/2010

EXHIBIT A


ARV
6" DI
116
121
OMAOPIO
4" DI
27
PRV
STATE
PROJECT SITE
HISHIDO
3"
closed
2½" GI
2¼" CI
PILIWALE
ROAD
4"
8"
3"
PRV
335
191
125
478
6" DI
477
EXHIBIT B


ROAD
WATER TANK LOT
6,000 SQ. FT.
A = 0.513 A.C.
Q = 0.50 CFS
FOR FULL DRAINAGE AREA
SEE EXHIBIT C-1
OMAOPIO
PILIWALE
ROAD
APPROXIMATE BOUNDARY LOCATION
BENCHMARK
"CHISLED BOX" SET
6,571.29 FT. SOUTH
6,231.94 FT. EAST
ELEVATION = 1,554.41
REF. TO "PUU-O-KOHA"
NORTH
EXISTING CONDITION
LOWER TANK SITE
SCALE: 1" = 20'
DATE: 04/2010
EXHIBIT C



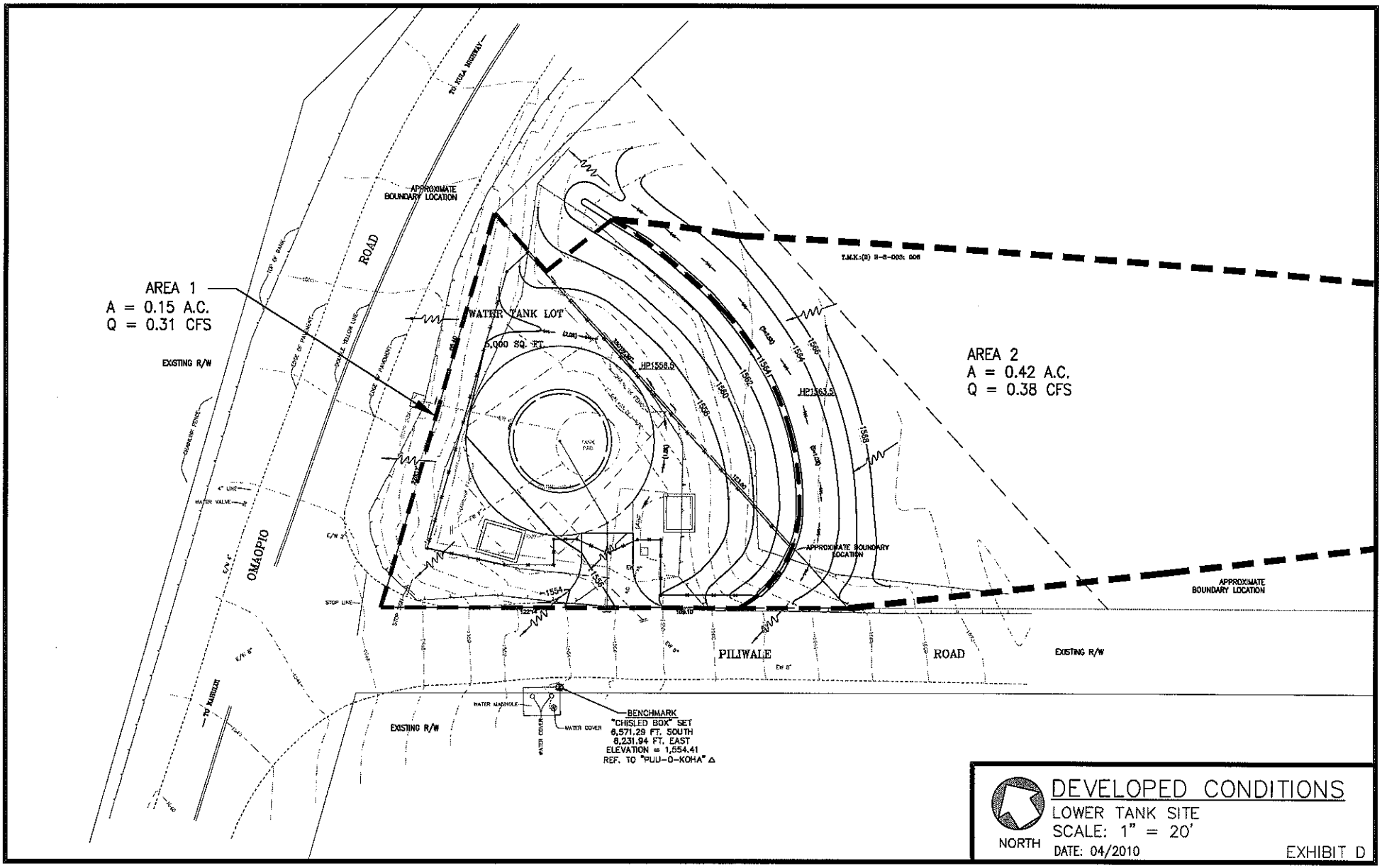
EXISTING CONDITION

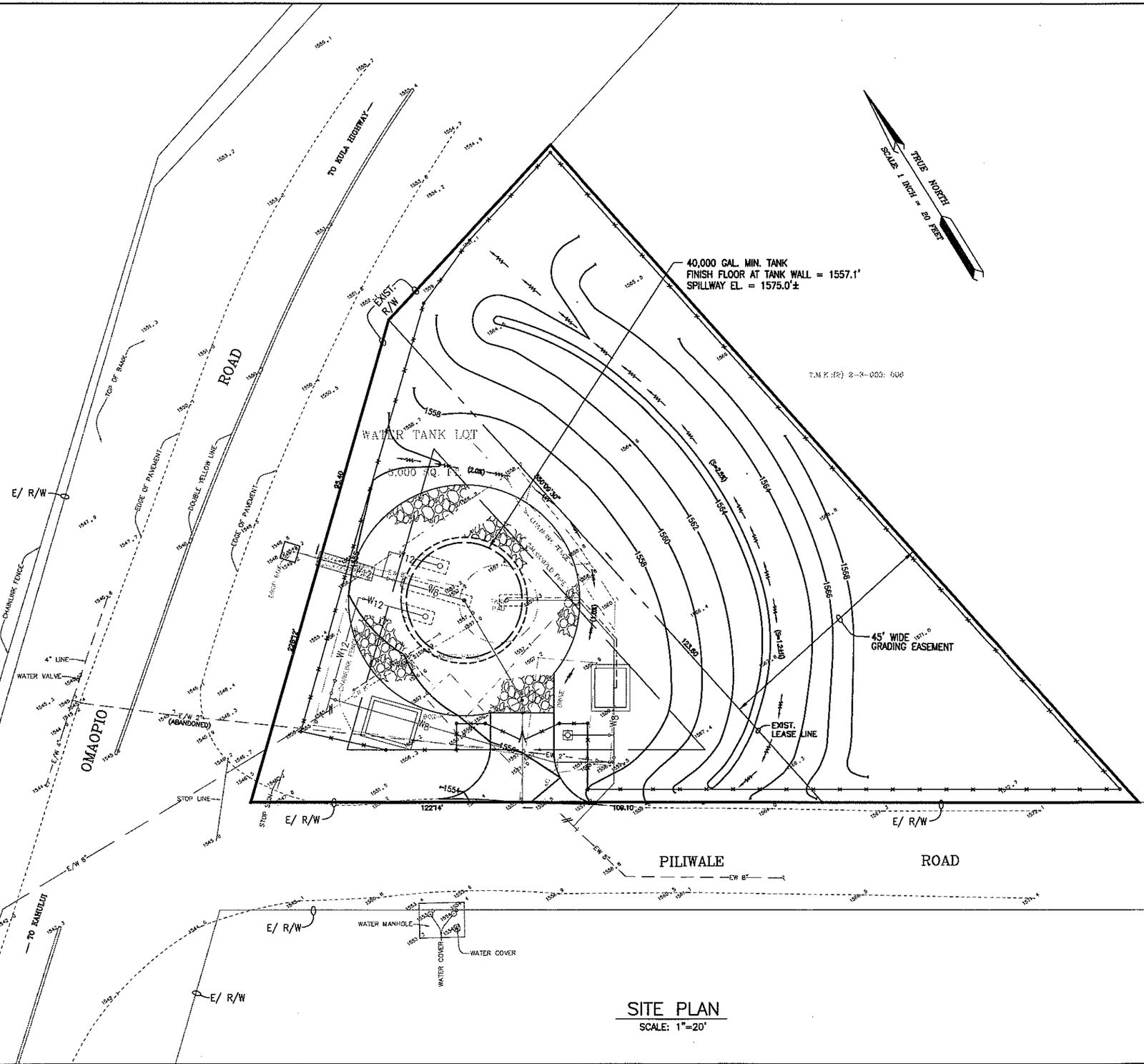
LOWER TANK SITE – OFFSITE

SCALE: 1" = 300'

DATE: 04/2010

EXHIBIT C1


AREA 1
A = 0.15 A.C.
Q = 0.31 CFS
AREA 2
A = 0.42 A.C.
Q = 0.38 CFS
WATER TANK LOT
5,000 SQ. FT.
APPROXIMATE BOUNDARY LOCATION
ROAD
OMAOPIO
PILIWALE
EXISTING R/W
BENCHMARK
"CHISLED BOX" SET
6,571.29 FT. SOUTH
8,231.94 FT. EAST
ELEVATION = 1,554.41
REF. TO "PUU-O-KOHA" △
NORTH
DEVELOPED CONDITIONS
LOWER TANK SITE
SCALE: 1" = 20'
DATE: 04/2010
EXHIBIT D



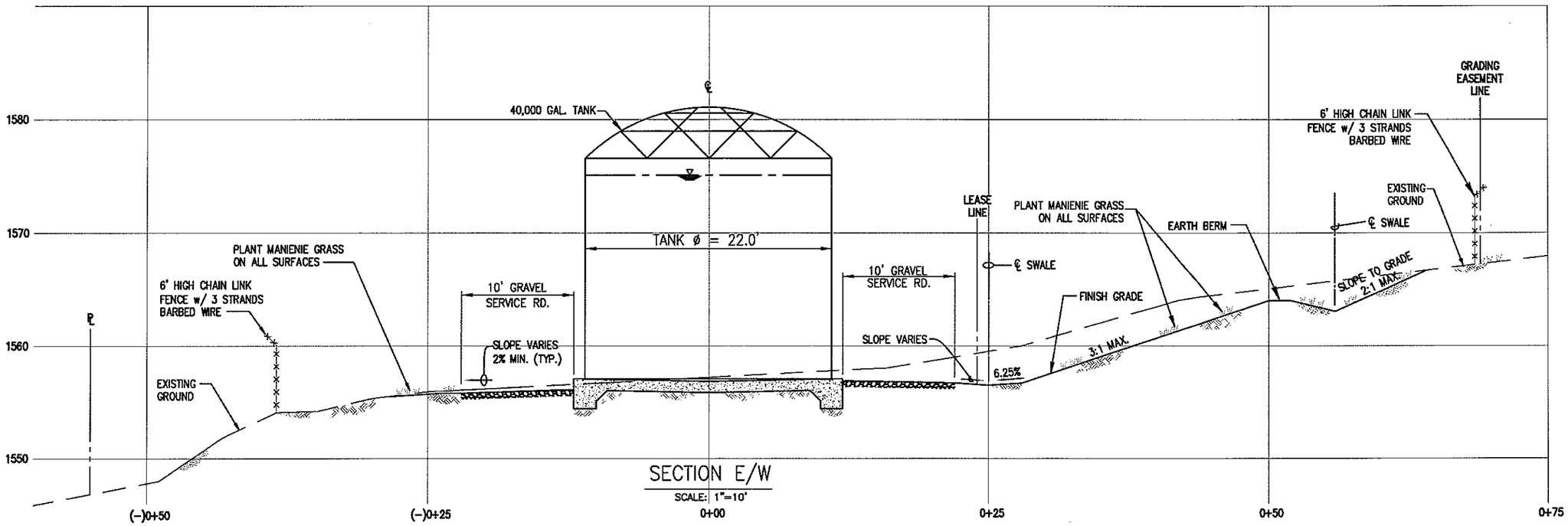
SITE PLAN
SCALE: 1"=20'

SATO & ASSOCIATES, INC. CONSULTING ENGINEERS • CIVIL & STRUCTURAL HONOLULU, OAHU, HAWAII • WAILUKU, MAUI, HAWAII	SCALE: AS SHOWN DESIGN BY: K.H. DRAWN BY: S.M. CHECKED BY: M.I.	1"=20' 20' 10' 0 20' 40' SCALE IN FEET

LOWER TANK SITE

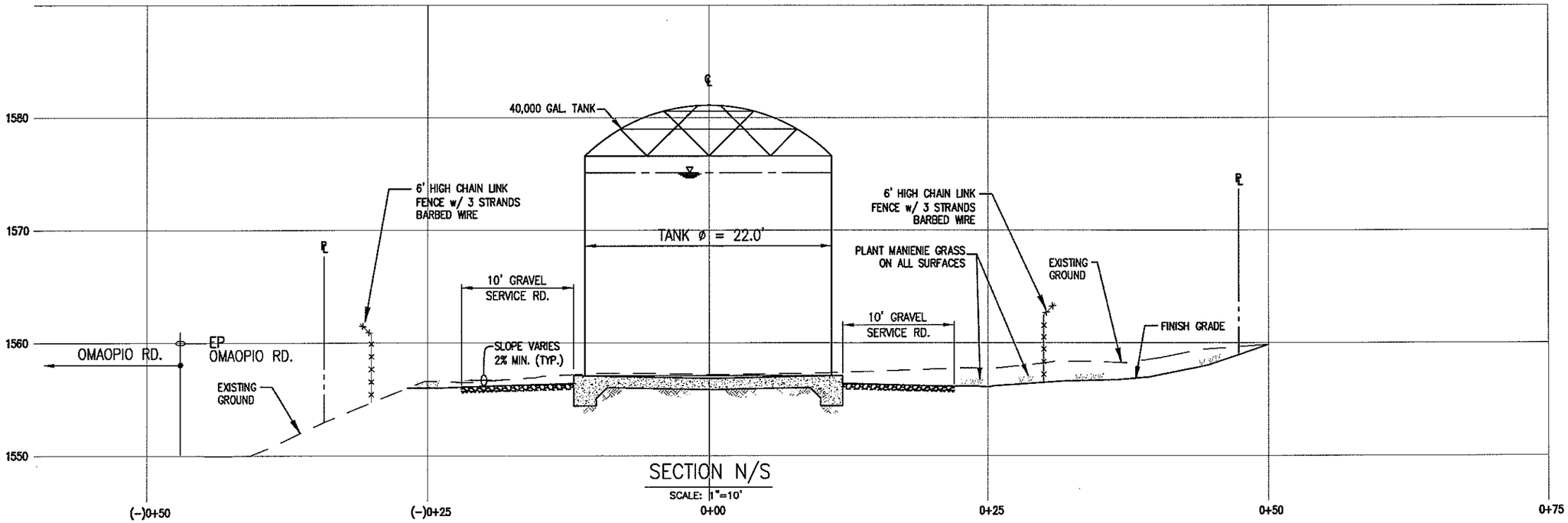
OMAOPIO ROAD TANK REPLACEMENT
KULA, MAUI, HAWAII
JUNE 2010

Proj. No. 04031-00
Jun 16, 2010 - 11:23am
M:\Projects\M0906-00\EA Exhibits\LowerTank\MidLowerTank-Site_Util 6-16-10.dwg



SECTION E/W

SCALE: 1"=10'



SECTION N/S

SCALE: 1"=10'

SATO & ASSOCIATES, INC.
CONSULTING ENGINEERS • CIVIL & STRUCTURAL
HONOLULU, OAHU, HAWAII • WAILUKU, MAUI, HAWAII

SCALE:	AS SHOWN
DESIGN BY:	K.H.
DRAWN BY:	S.M.
CHECKED BY:	M.I.

1"=10' 5' 0 10' 20' SCALE IN FEET

LOWER TANK SITE

OMAOPIO ROAD TANK REPLACEMENT
KULA, MAUI, HAWAII
JUNE 2010

Proj. No. 04031-00
Jun 16, 2010 - 2:13pm
N:\Projects\04006-00\EA Exhibits\LowerTank\MaLowerTank-Sections 6-16-10.dwg

APPENDIX C.

Department of Water Supply Memorandum of Floral and Fauna Observations

CHARMAINE TAVARES
Mayor

JEFFREY K. ENG
Director

ERIC H. YAMASHIGE, P.E., L.S.
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

Memorandum

To: Herb Chang, P.E. Engineering Div. Manager, DWS

From: Tom Ochwat, P.E., DWS

Cc: Karlynn Fukuda, Munekiyo & Hiraga, Inc.
Michael Ishikawa, P.E., Sato & associates

Date: 5/14/2010

Re: Upper/Lower Omaopio Rd. Water Tank Sites – Floral & Fauna Observations for plants conducive to the endangered Blackburn Sphinx Moth's Larva

---

Herb,

Per our discussion and request from the U.S. Fish and Wildlife Department (USFWD), a floral and fauna reconnaissance of the two existing water tank sites was performed on Wednesday (05-12-2010). Picture images of the listed plants (noted in the letter from the USFWD) were printed and referred to while performing the field site observations in and adjacent to the existing tank locations. The specific site observations are described below.

Lower Omaopio Road Tank Site

The vegetation on the tank site and lands adjacent to the site (including the area that will be disturbed by proposed grading activities) consists of primarily native and non-native grasses along with a stand of Haole Koa trees and saplings. Based on this field site observation, there is no evidence of plants that would promote the larva of the Blackburn Sphinx Moth on or around this tank site.

Upper Omaopio Road Tank Site

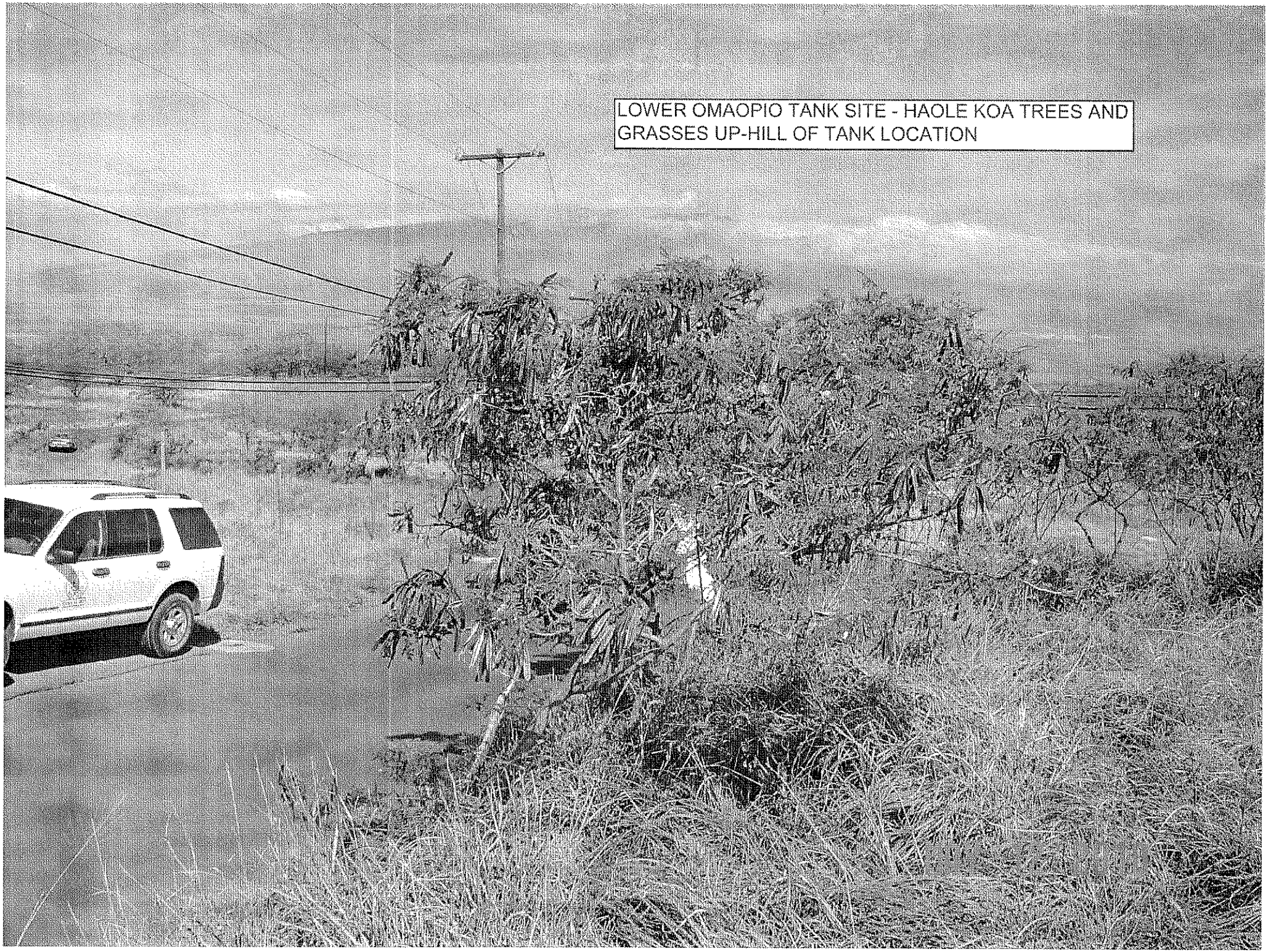
The vegetation on the tank site consists of primarily tall native and non-native grasses, bougainvilleas along the east property line, a stand of pine trees along the north property line, Silly Oak tree and Castorbean trees are along the east fenceline, along with some new weed seedlings where the geotechnical drilling rig had cleared some ground recently. In comparison with the picture images and leaf and bloom characteristics of the plants conducive to sustaining the larva of the Blackburn Sphinx Moth on or around this area, none of these plants were observed on this tank site.

Photos of the vegetation on each tank site are attached.

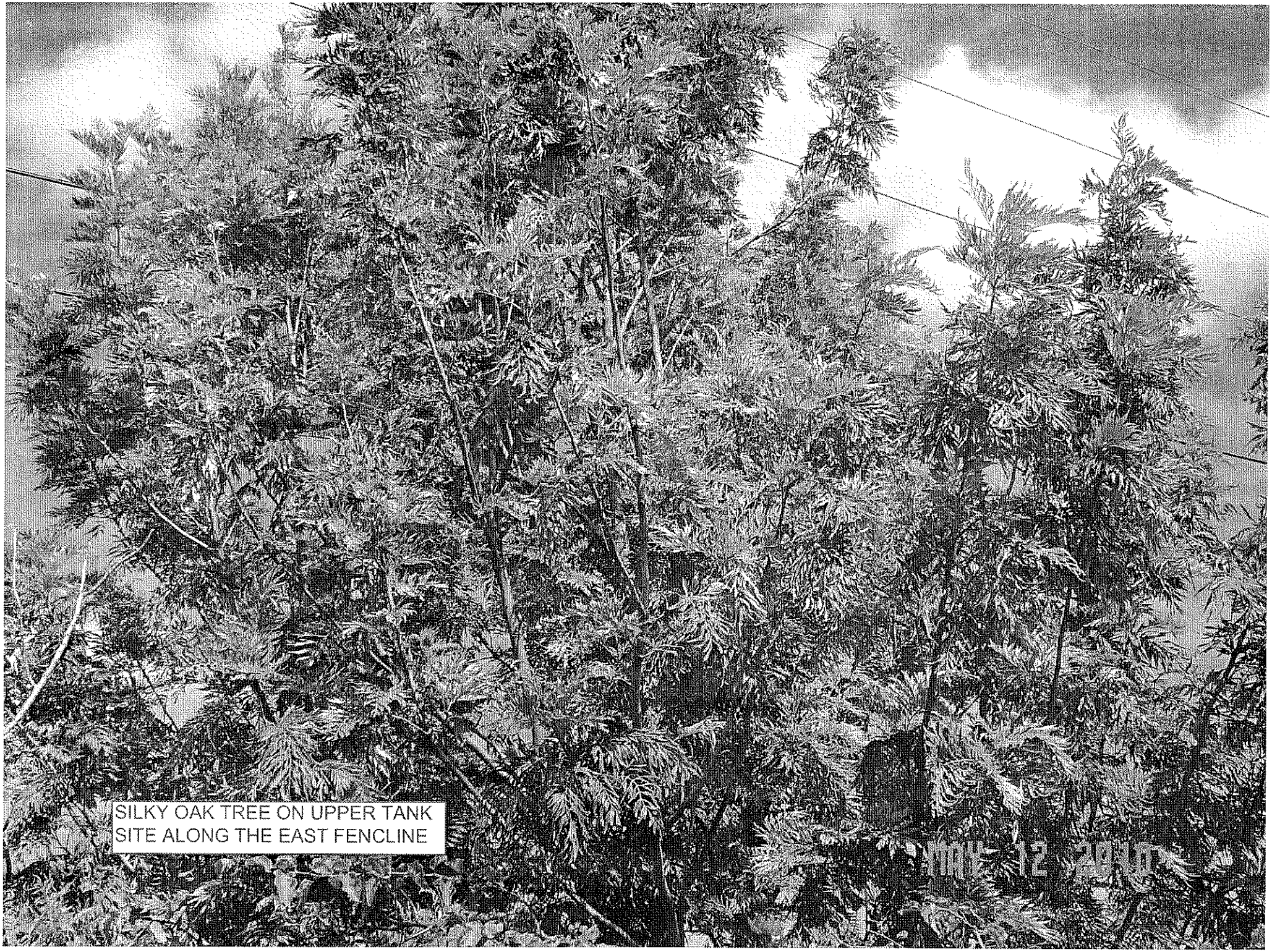
Attmts

TMO/tmo

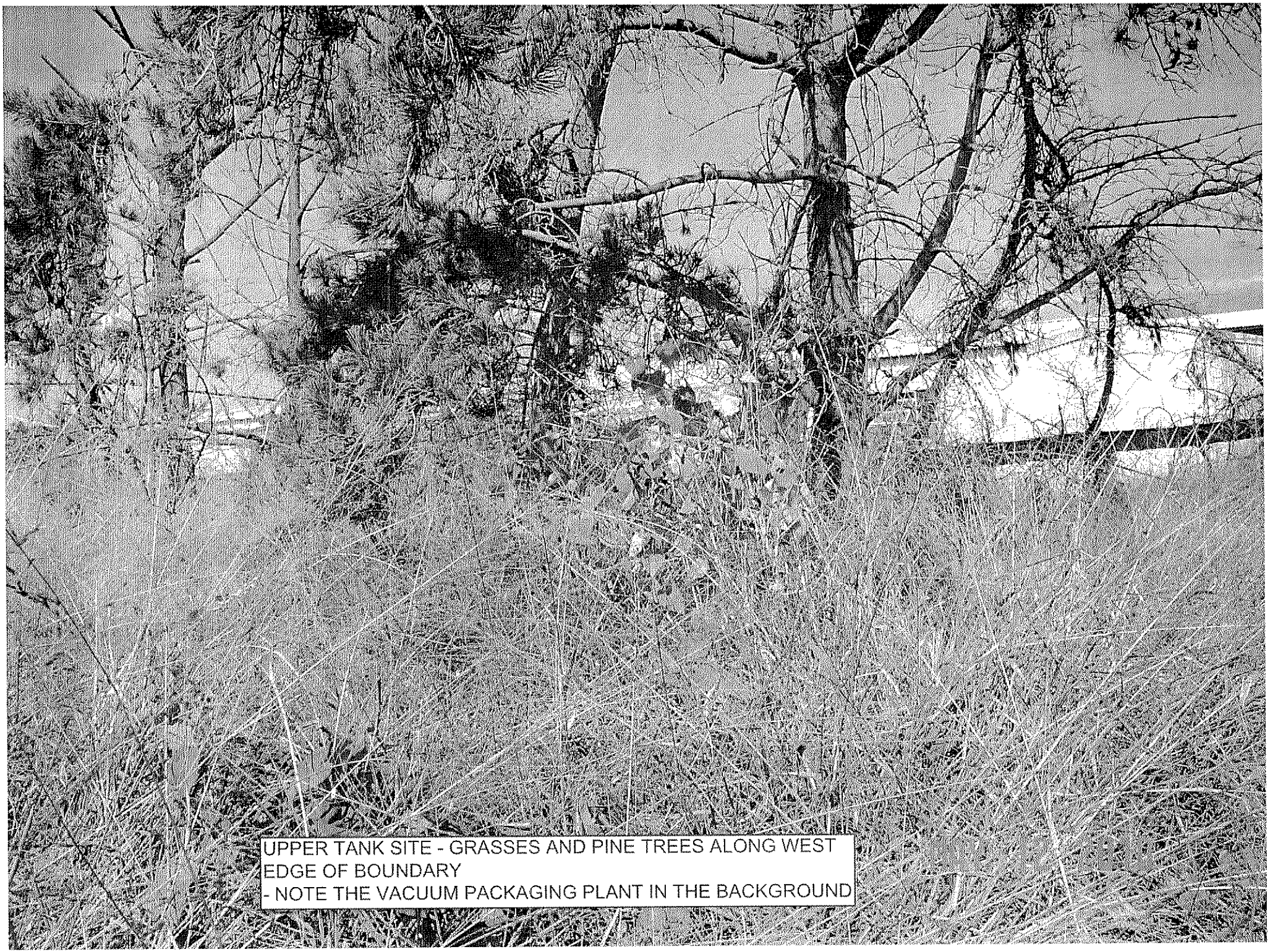
LOWER TANK SITE - HAOLE KOA TREES
AND GRASSES ADJACENT TO SITE


LOWER OMAOPIO TANK SITE - HAOLE KOA TREES AND GRASSES UP-HILL OF TANK LOCATION

HAOLE KOA TREES AND GRASSES AROUND LOWER TANK SITE.
- NOTE THE CHAIN LINK FENCE THAT ENCLOSES THE TANK SITE.

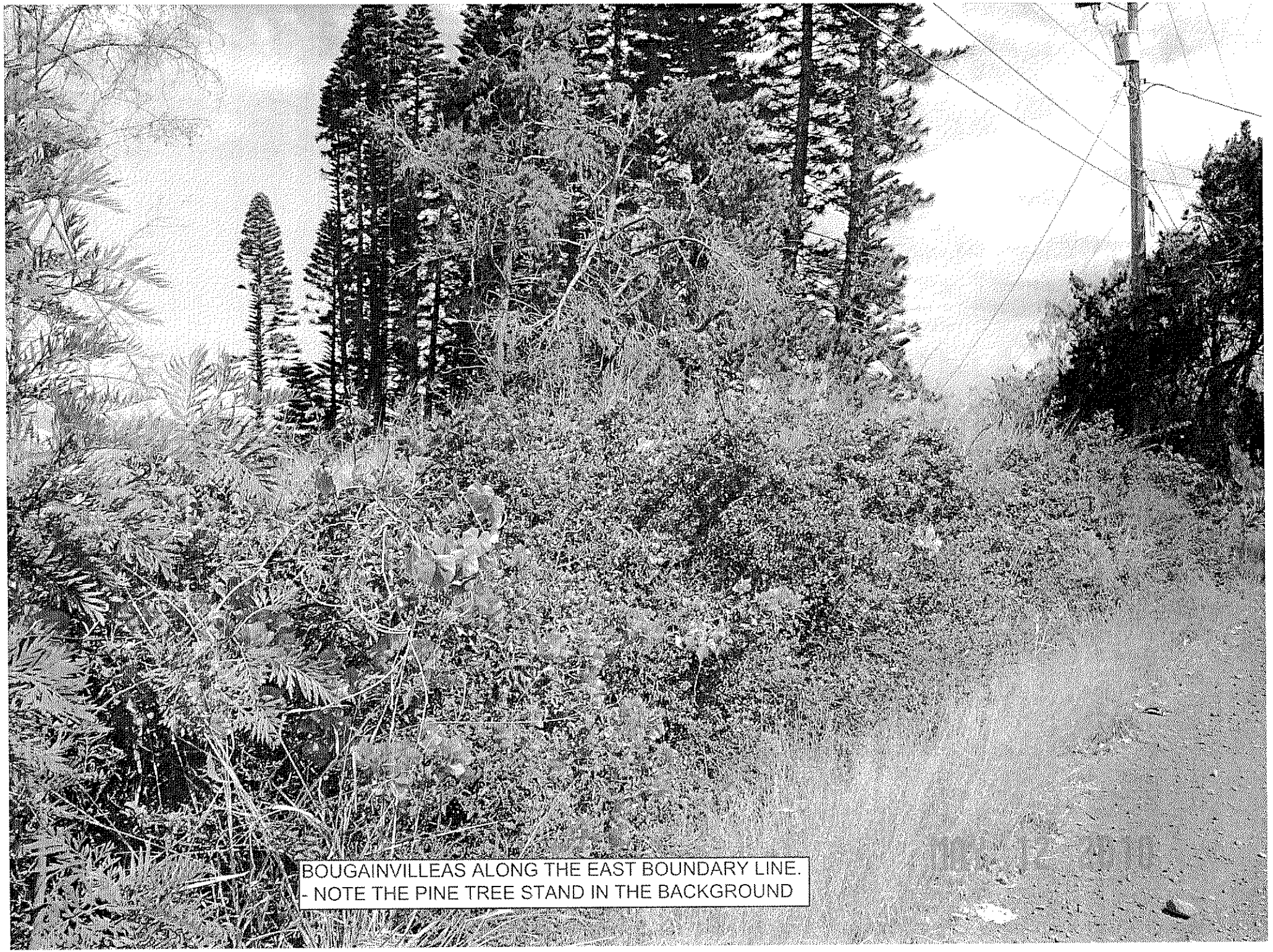


SILKY OAK TREE ON UPPER TANK
SITE ALONG THE EAST FENCLINE



UPPER TANK SITE - GRASSES AND PINE TREES ALONG WEST EDGE OF BOUNDARY
- NOTE THE VACUUM PACKAGING PLANT IN THE BACKGROUND

CASTORBEAN TREE ALONG FENCELINE OF THE UPPER TANK SITE



BOUGAINVILLEAS ALONG THE EAST BOUNDARY LINE.
- NOTE THE PINE TREE STAND IN THE BACKGROUND

APPENDIX D.

Letters from State Historic Preservation Division Dated January 20, 2009

LINDA LINGLE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

January 20, 2009

Mr. Herbert Chang
Engineering Division
County of Maui, Department of Water Supply
200 South High Street
Wailuku, Hawai'i 96793

LOG NO: 2009.0117
DOC NO: 0901JP34
Archaeology

Dear Mr. Chang:

SUBJECT: **UPDATE Chapter 6E Historic Preservation Review [County/Water] – Review and Revised Comments for the Proposed Kula Tank Improvements- 'Oma'opio #1 Tank Replacement Project**
'Oma'opio Ahupua'a, Makawao District, Island of Maui
TMK: (2) 2-3-003:130 (Portion)

The proposed project consists of plans to conduct work in a previously developed section of the subject parcel. We recently recommended archaeological investigation, and have since received new information that changes our position. We wish to keep you apprised of our revised comments.

We believe the proposed project will have **no effect on historic properties** because:

- ☐ Intensive cultivation has altered the land
- ☐ Residential development/urbanization has altered the land
- ☒ Previous grubbing/grading has altered the land
- ☐ An accepted archaeological inventory survey (AIS) found no historic properties
- ☐ SHPD previously reviewed this project and mitigation has been completed
- ☒ Other: *We recently received photographs and information from Mr. Ralph Wenziger, P.E. clarifying the project area has already been grubbed, graded, and an access road in place. Proposed excavations are minimal and trenching is related to an existing pipeline.*

There is always the possibility of encountering cultural deposits. In the event that any historic resources including bottles, ceramics, rock alignments, petroglyphs, artifacts, charcoal, shell midden, or skeletal remains (etc.) are identified, all work needs to cease in the immediate vicinity of the find, the find needs to be protected from additional disturbance, and the State Historic Preservation Division, Maui Section, needs to be contacted immediately at (808) 243-1285, (808) 243-4640. Please contact Jenny Pickett at (808) 243-4641with any archaeological concerns, or questions about this review.

Aloha,

Nancy A. McMahon

Nancy McMahon
Historic Preservation Manager
State Historic Preservation Division

JP

c: Ralph Wenziger EMAIL: Ralph.Wenziger@co.maui.hi.us
Maui Cultural Resources Commission, Dept. of Planning, 250 S. High Street, Wailuku, HI 96793
Dept of Planning, FAX 270-7634

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
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AQUATIC RESOURCES
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BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

January 20, 2009

Mr. Herbert Chang
Engineering Division
County of Maui, Department of Water Supply
200 South High Street
Wailuku, Hawai'i 96793

LOG NO: 2009.0118
DOC NO: 0901JP35
Archaeology

Dear Mr. Chang:

SUBJECT: **UPDATE Chapter 6E Historic Preservation Review [County/Water] – Review and Revised Comments for the Proposed Kula Tank Improvements- 'Oma'opio #3 Tank Replacement Project 'Oma'opio Ahupua'a, Makawao District, Island of Maui TMK: (2) 2-3-003:101 (Portion)**

The proposed project consists of plans to conduct work in a previously developed section of the subject parcel. We recently recommended archaeological investigation, and have since received new information that changes our position. We wish to keep you apprised of our revised comments.

We believe the proposed project will have **no effect on historic properties** because:

- ☐ Intensive cultivation has altered the land
- ☐ Residential development/urbanization has altered the land
- ☒ Previous grubbing/grading has altered the land
- ☐ An accepted archaeological inventory survey (AIS) found no historic properties
- ☐ SHPD previously reviewed this project and mitigation has been completed
- ☒ Other: *We recently received photographs and information from Mr. Ralph Wenziger, P.E. clarifying the project area has already been grubbed, graded, and an access road in place. Proposed excavations are minimal and trenching is related to an existing pipeline.*

There is always the possibility of encountering cultural deposits. In the event that any historic resources including bottles, ceramics, rock alignments, petroglyphs, artifacts, charcoal, shell midden, or skeletal remains (etc.) are identified, all work needs to cease in the immediate vicinity of the find, the find needs to be protected from additional disturbance, and the State Historic Preservation Division, Maui Section, needs to be contacted immediately at (808) 243-1285, (808) 243-4640. Please contact Jenny Pickett at (808) 243-4641 with any archaeological concerns, or questions about this review.

Aloha,

Nancy A. McMahon

Nancy McMahon
Historic Preservation Manager
State Historic Preservation Division

JP

c: Ralph Wenziger EMAIL: Ralph.Wenziger@co.maui.hi.us
Maui Cultural Resources Commission, Dept. of Planning, 250 S. High Street, Wailuku, HI 96793
Dept of Planning, FAX 270-7634