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

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AUG 11 2004

MEMORANDUM

TO: Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control (OEQC)
Department of Health

FROM: Ernest Y. W. Lau
Public Works Administrator

SUBJECT: Finding of No Significant Impact (FONSI) for Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide, Puu Nana Site, Kaluakoi, Molokai, Hawaii, TMK: 5-1-002:004
DAGS Job No. 16-10-0256

The Department of Accounting and General Services has reviewed the comments received during the 30-day public comment period which began on March 23, 2004. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the August 23, 2004, OEQC Environmental Notice.

If you have any questions, please have your staff call Mr. Allen Yamanoha of the Planning Branch at 586-0488.

AY:jp

2004-08-23 FONSI
ANUENUE (FORMERLY RAINBOW) RADIO
FACILITIES & TOWER, PUU NANA SITE

FINAL ENVIRONMENTAL ASSESSMENT

Anuenue (formerly) Rainbow Radio Facilities and Towers Statewide
Puu Nana Site
Kaluakoi District, Island of Molokai

TMK: 5-1-002:004

DAGS Job No. 16-10-0256

Prepared for:

State of Hawaii
Department of Accounting and General Services

Prepared by:

Wilson Okamoto Corporation

August 2004

FINAL
ENVIRONMENTAL ASSESSMENT

Anuenue (formerly Rainbow) Radio Facilities and Towers Statewide
Puu Nana Site
Puu Nana, Kaluakoi, Molokai, Hawaii

Tax Map Key: 5-1-002: 004

Prepared for:

State of Hawaii
Department Accounting and General Services
Division of Public Works
1151 Punchbowl Street
Honolulu, Hawaii 96813
DAGS Job No. 16-10-0256
Consultant Contract No. 49936

Prepared by:

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826
WOC: 6608-02

August 2004

SUMMARY

Proposing Agency:	State of Hawaii Department of Accounting and General Services 1151 Punchbowl Street Honolulu, Hawaii 96813
Accepting Agency:	State of Hawaii Department of Accounting and General Services 1151 Punchbowl Street Honolulu, Hawaii 96813
EA Preparer:	Wilson Okamoto Corporation 1907 South Beretania Street, Suite 400 Honolulu, Hawaii 96826 Contact: John L. Sakaguchi, AICP, Senior Planner Tel: 808.946.2277; Fax: 808.946.2253
Project Location:	Puu Nana, Kaluakoi, Molokai, Hawaii
Recorded Fee Owner:	Molokai Properties Limited (MPL)
Tax Map Key:	5-1-002: 004
Area:	8,300 SF (0.191 acres) approximately
State Land Use Classification:	Agricultural
County Zoning:	Agriculture
Proposed Action:	Construction of one self-supporting tower with mounted antennas, one building, and other supporting facilities for the State of Hawaii Department of Accounting and General Services (DAGS) Information and Communication Service Division to support the modernization of the shared State, County, and Federal microwave system to digital operation.
Impacts:	No significant impacts were determined from construction and operation of the Anuenue Radio Facility at the Puu Nana project site.

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PREFACE

Chapter 343, Hawaii Revised Statues (HRS), as amended, Environmental Impact Statements, requires that a government agency or a private developer proposing to undertake a project consider the potential environmental impacts of the proposed project by preparing an assessment. Use of public funds for a project. is among the criteria set forth in Chapter 343, HRS which requires preparation of an environmental assessment. The Anuenue (formerly Rainbow) Radio Facility at the Puu Nana project site will be constructed and operated with funds provided by the State of Hawaii Department of Accounting and General Services (DAGS).

This Environmental Assessment (EA) has been prepared to meet the requirements of Chapter 343, HRS, as amended, and Hawaii Administrative Rules Title 11, State of Hawaii Department of Health, Chapter 200, Environmental Impact Statement Rules. A Finding of No Significant Impact (FONSI) has been determined for the project as shown in Chapter 5.

1. INTRODUCTION

1.1 Project Background

The State of Hawaii Department of Accounting and General Services (DAGS) through its Information and Communication Service Division (ICSD) carries out the responsibilities for statewide telecommunications for the State of Hawaii. The ICSD owns and operates microwave radio transmission systems, antennas, towers, buildings, and related communications facilities and infrastructure throughout the islands. The ICSD also plans, coordinates, organizes, directs, and administers services to ensure the efficient and effective development of communications systems. Over the years, public safety, emergency response, and law enforcement agencies have benefited from the significant advances in communications technology. To fulfill their public service missions, these government agencies rely on telecommunications to communicate and transmit information and data between offices and facilities as well as to communicate with personnel in the field.

1.2 Purpose and Need

The primary purpose of the Anuenue (formerly Rainbow) Radio Facility at the Puu Nana project site will be to support the rebuilding and modernization of a microwave communication system to be owned by DAGS and shared with County of Maui, State and Federal agencies. The Anuenue Radio system is a follow-on to the "Hawaii Rainbow Communications System," commonly known as "Rainbow." which was an agreement among three State and three federal agencies to share infrastructure and microwave radio transmission systems. The Rainbow resulted in a statewide system of radio tower facilities and microwave radio interconnections that were used by Federal, State, and county agencies in support of their law enforcement, public safety, emergency response, and civil defense missions. The Rainbow agreement dissolved at the end of September 2002.

The Anuenue Radio Facility at Puu Nana will be totally funded by the State of Hawaii and represents a part of the infrastructure provided by the State to the Anuenue Radio system and to support other public agency projects. The Anuenue project is a partnership between the DAGS and the US Coast Guard (USCG). In addition to the two Anuenue partner agencies, other public agencies planning to use the Anuenue Radio

Facility include: State of Hawaii Department of Defense Civil Defense Division, State of Hawaii Department of Health Emergency Medical Services System, and County of Maui Police Department and Fire Department. The Anuenue Radio Facility at the Puu Nana project site will be administered by the ICSD. Thus, the Anuenue Radio Facility at Puu Nana will be a public facility to be used by public agencies for public purposes.

The Anuenue Radio Facility at Puu Nana is one of three radio facilities that was funded by the State Legislature to support the modernization of the Anuenue Radio system. Legislative funding was sought and provided with the understanding that the three facilities to be developed would be designed to accommodate the radio communications infrastructure needs of other State and county agencies.

The purpose of the Anuenue Radio system is to install a modern high capacity digital interconnect to replace the Rainbow analog radio channels used by the various agencies. The digital interconnect will facilitate voice, digital radio, video, and data communications. The backbone of the new digital system will have the capability to transmit 155 Mbit/s (megabits per second), which is equivalent to 2,016 traditional voice channels or about 17 times the capacity of the Rainbow analog system. The conversion to a digital system is needed to handle the expanding voice and data communications requirements of the public safety community. The conversion to high capacity digital microwave was also forced both by the Federally-mandated reassignment of analog microwave frequencies to personal communications systems (cellular telephones) and the growing need of public safety agencies for communications services to properly serve the public in the coming years.

In addition to the Puu Nana Facility, DAGS intends to construct facilities on eastern Oahu and northwestern Hawaii for the Anuenue Radio system. The USCG is refurbishing its existing facilities at Mauna Kapu, Oahu and Haleakala, Maui and will construct new facilities in central Oahu and west Hawaii to accommodate the new digital microwave radio system. Existing State facilities elsewhere on Kauai, Oahu, Lanai, Maui, and Hawaii will also be used to support the Anuenue Radio system. The ICSD will license, own, and operate the microwave radio links that will connect the Puu Nana Facility to USCG radio sites on Maui and Hawaii.

Construction of the new radio facility at Puu Nana is necessary to meet path clearance criteria for radio line-of-sight and to minimize station-to-station path lengths to permit the operation of new high capacity digital microwave radio links for Anuenue. The Rainbow Microwave System, a precursor to the Anuenue used frequencies in the 2 GHz bands could be used to send low capacity signals across great distances. However, frequencies in the 2 GHz range are no longer available for use because they were reassigned by the federal government to cellular services and other bandwidth hungry innovative services. In any case long path channel assignments for high capacity radio links were rarely, if ever, available. Therefore the Anuenue can only operate on frequencies that are available to support high capacity services in the bands from 6 GHz to 11 Ghz. Operation in these higher frequency bands requires closer spacing between the microwave repeater stations and has driven the construction of new facilities and towers.

The Puu Nana Facility will significantly upgrade the infrastructure that supports communications for homeland security, law enforcement, and emergency and disaster response at all levels of government. In addition to the State of Hawaii Information and Communication Services Division and the State of Hawaii Department of Health Emergency Medical Services Systems Branch, the Puu Nana project site will be used by the County of Maui Police Department to support the their microwave interconnect and mobile radio system (LMR) systems which provide radio coverage for the County's police functions on the Molokai and Lanai. Note, the County of Maui Police Department will be relocating from the Maui Electric Co. (MECO) tower to the new Anuenue Radio Facility tower.

1.3 Project Location and Conditions

1.3.1 Project Location

The Puu Nana project site is located in the Kaluakoi District of Molokai about 11 miles west of Kaunakakai and 5 miles west of the Molokai Airport within lands owned by Molokai Properties Limited (MPL), or Molokai Ranch as it is more commonly known, Tax Map Key: 5-1-002:004. The project site is located about ½ mile south of Maunaloa Road, State Route 460, and will occupy an area of about 8,300 square feet (0.191 acres) on the southwestern slope of Puu Nana within an area which has been used for

cattle grazing. The project site is located near the existing communication facilities owned by the Maui Electric Co. (MECO), Verizon Hawaii, Verizon Wireless, and Oceanic Time Warner cable television.

Access to the project site will be via an existing unimproved road that connects to Maunaloa Road, (State Route 460), and serves the lands owned by Molokai Ranch and the other developed facilities on Puu Nana. The Puu Nana project site will be used under a lease agreement between Molokai Properties Limited (MPL), the landowner, and the State of Hawaii. Figure 1.1 shows the location map. Figure 1.2 shows the project site map. Figure 1.3 shows the tax map. Figure 1.4 shows the project site topographic map. Figure 1.5 shows site photographs.

Puu Nana is a prime location to base communication and LMR systems of various government agencies. The site provides excellent coverage of Molokai and northern Lanai, some coverage fill in for the western portion of Maui, as well as coverage of the ocean area off the eastern end of Oahu.

1.3.2 Existing Project Site Conditions

The Puu Nana project site is located within Tax Map Key: 5-1-002:004 and will be used under an easement or lease agreement between the State of Hawaii and Molokai Properties Limited (MPL), or Molokai Ranch as it is more commonly known. The 8,300 square-foot project site is currently an open grass-covered portion of the puu used for cattle grazing. The project site contains one Eucalyptus tree, a number of Christmas berry and Formosa koa trees and a three-strand barbed wire cattle fence. No buildings or other structures are located on the project site. See Figure 1.4.

The project site is located near an existing 100-foot tall self-supported four-leg tower and supporting communication facilities owned by the Maui Electric Co (MECO). Antennas and radio systems used by the County of Maui Police Department are currently on the MECO facility. Other nearby facilities include a fenced compound with three (70, 50, and 25-foot tall) self supported towers and related facilities controlled by Verizon Hawaii, a fenced compound with a 100-foot high, monopole tower and related facilities controlled by Crown Castle which includes the antennas of Verizon Wireless; a fenced compound with facilities and two dish antennas/towers (41 and 31-foot tall)

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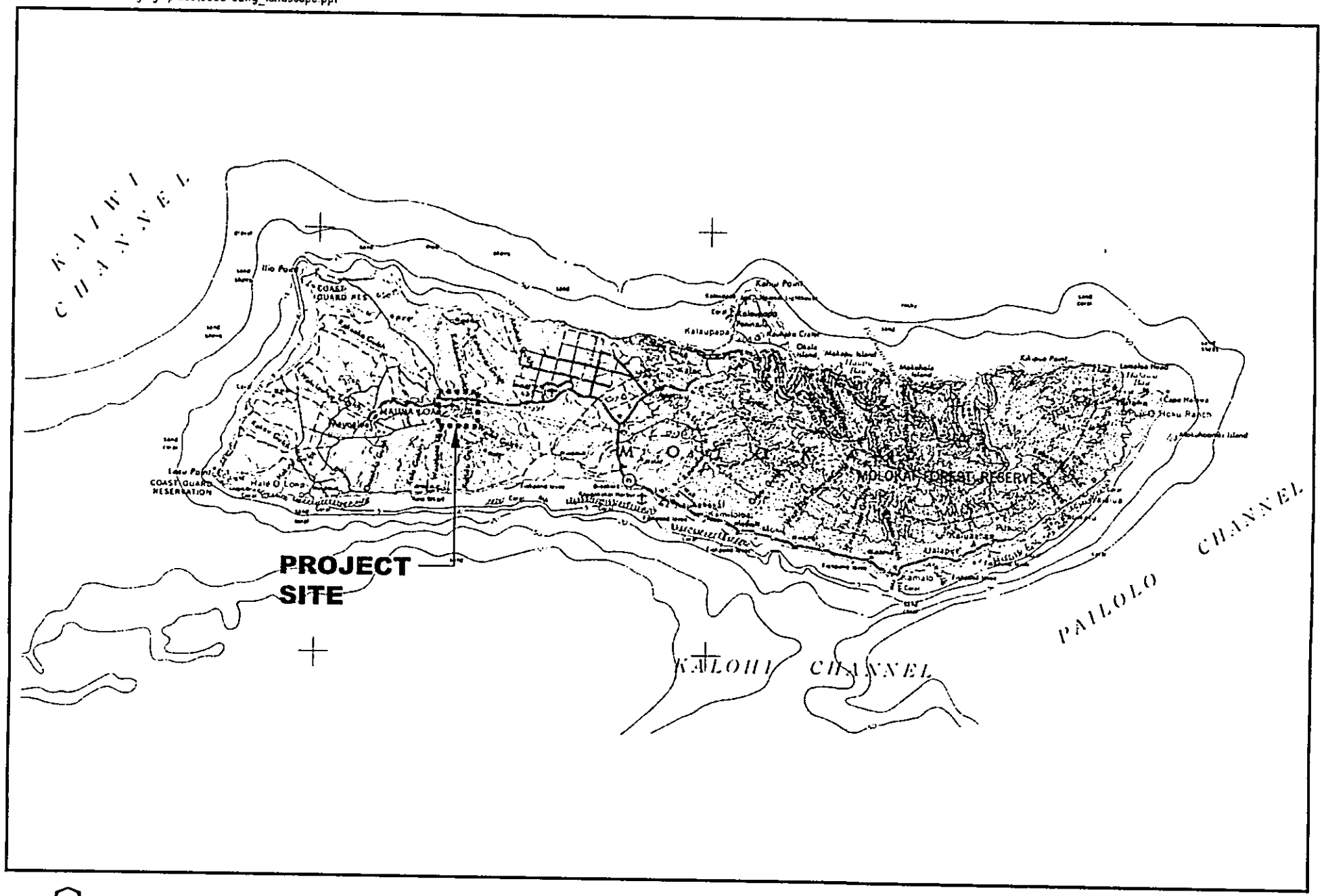

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PUU NANA, MOLOKAI

Project Location Map

Figure No.

1.1

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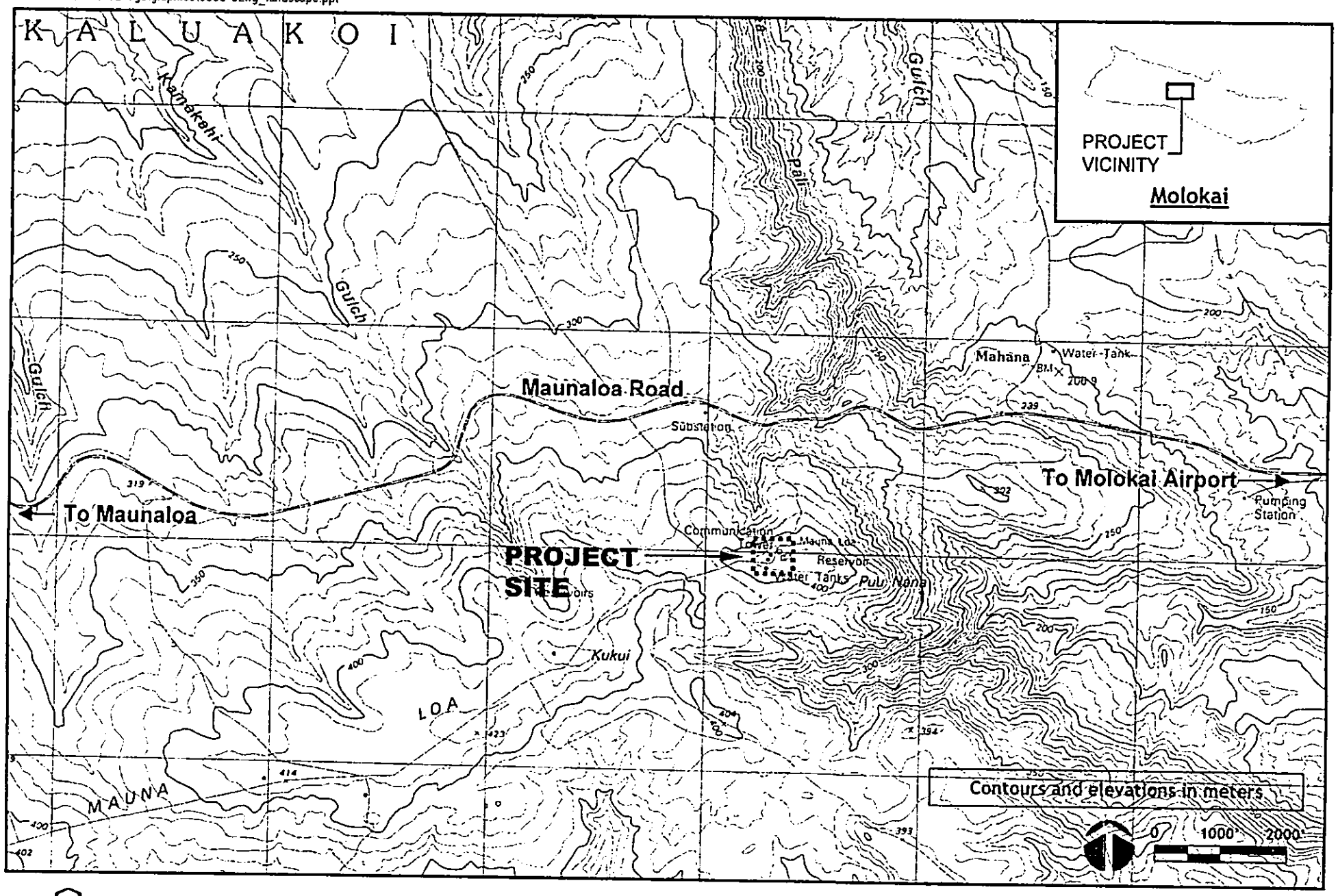

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PUU NANA, MOLOKAI

Project Site

Figure No.

1.2

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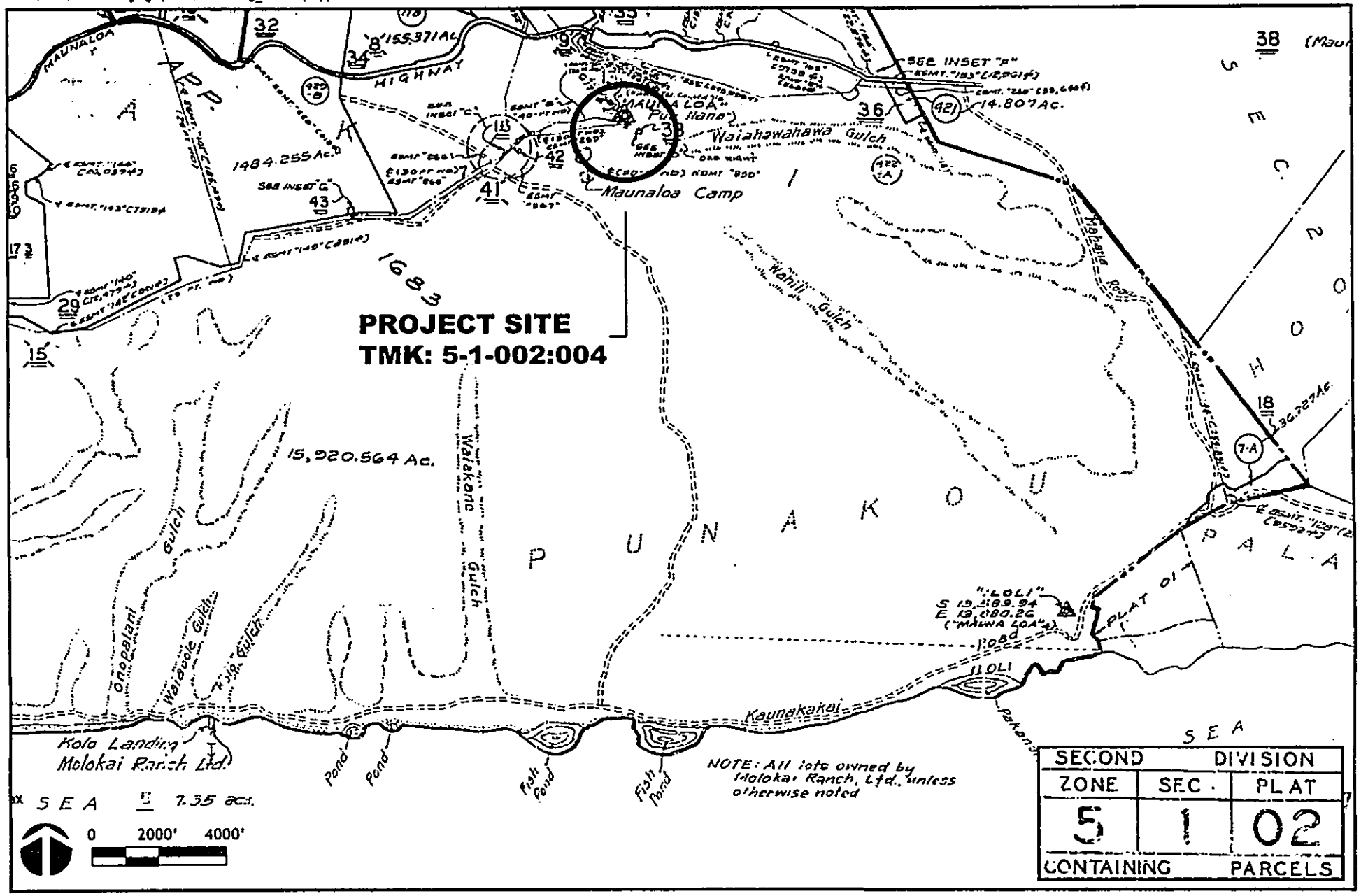

PUU NANA, MOLOKAI

Figure No.

Tax Map Key 5-1-02

1.3

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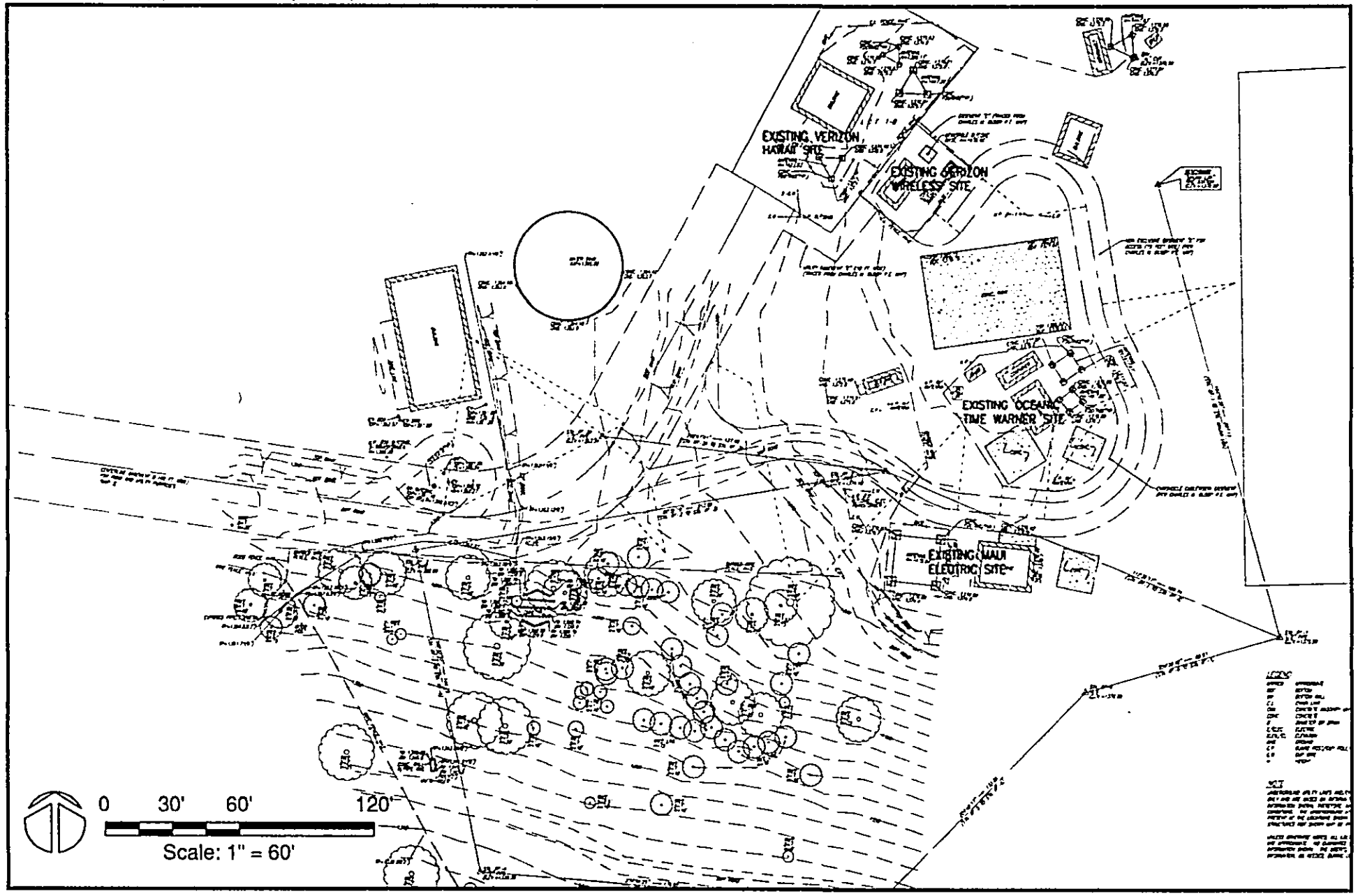

PUU NANA, MOLOKAI

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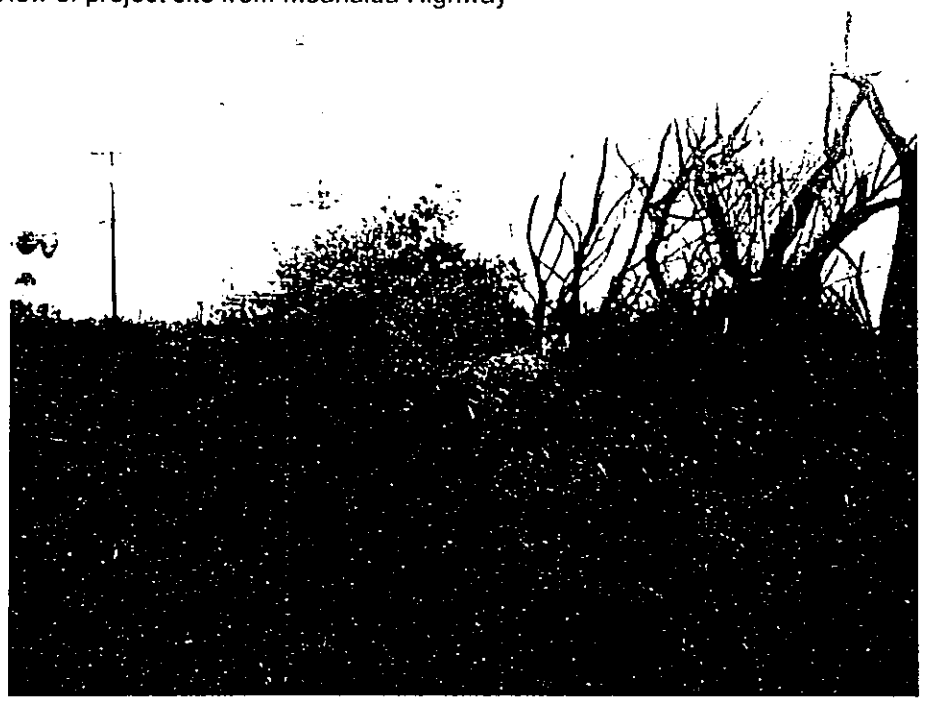
Project Site Topographic Map

Figure No.

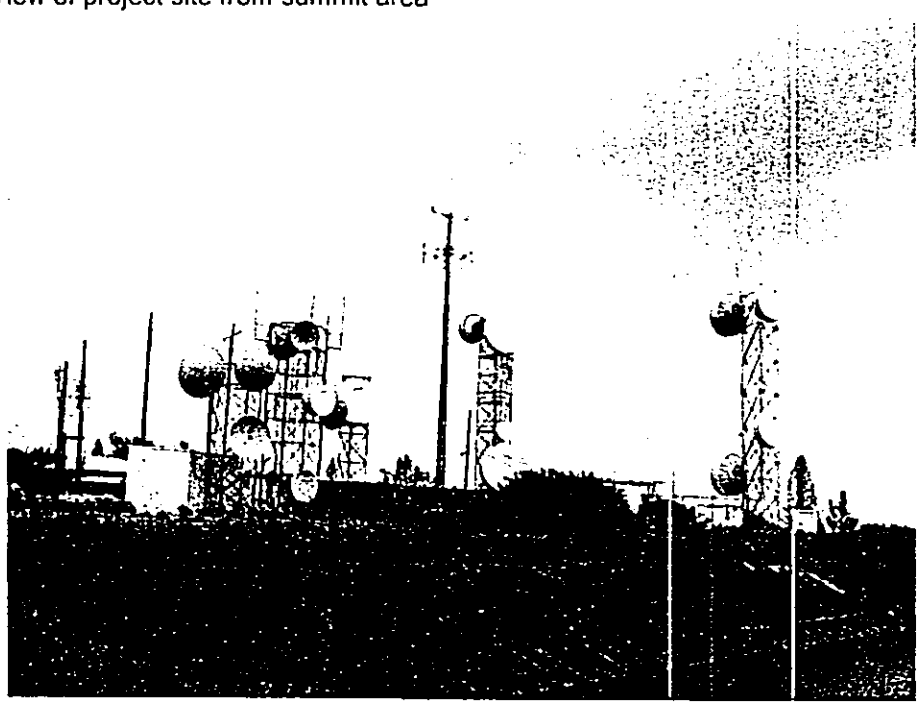
1.4

View of project site from Moanalua Highway

View of project site from summit area



View of project site



View of other towers south of project site

FIGURE 1.5

controlled by Oceanic Time Warner cable television, and other radio facilities. In addition, there are a number of facilities controlled by Molokai Ranch including an above ground, concrete open-top reservoir, an approximately 2,000 square-foot storage building, an above ground steel storage tank, an above ground polyvinyl chloride (PVC) water line, and a lined open reservoir.

1.3.3 Other Project Site Data

The State Land Use Commission designation for the Puu Nana project site is the Agricultural District. According to Chapter 205-45, Hawaii Revised Statutes (HRS), as amended, communication buildings are permitted within the State Agricultural District. However, the tower requires a State Special Use Permit (SUP) in accordance with Chapter 205-6, HRS.

The Puu Nana project site is designated Agricultural on the County of Maui Molokai Community Plan Map. The County of Maui zoning designation for the project site is Agriculture (AG-20). The Anuenue Radio Facility will be a public facility to be used by public agencies for public purposes. Telecommunications and broadcasting antennas are listed as a special use in Section 19.30A.060 County of Maui Code and are permitted if a County Special Use Permit (SUP) has been obtained in accordance with Section 19.510.70, Maui Code. A County of Maui Special Use Permit will be required to construct and operate the Anuenue Radio Facility within the Agricultural zoning designation.

The project site is not located within the County of Maui Special Management Area (SMA).

1.4 Project Description

1.4.1 Project Site Plan

As previously discussed, DAGS will use the project site under a lease agreement between the State and Molokai Ranch. The Puu Nana project site will not be subdivided into a separate parcel and will encompass an area, 8,300 square feet (0.191 acres) adjacent to and southeast of the MECO tower. Figure 1.6 shows the site plan.

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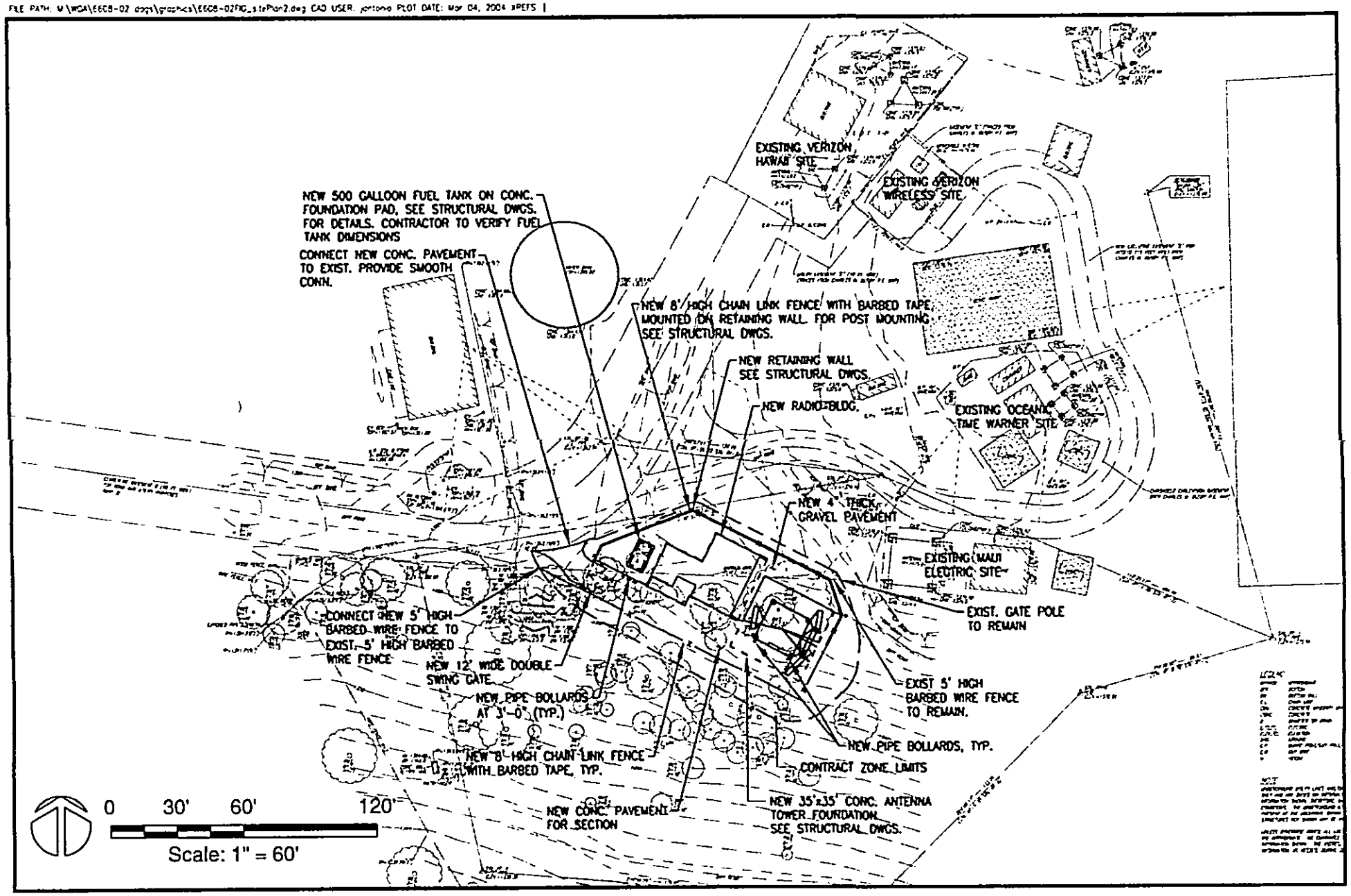

PUU NANA, MOLOKAI

Figure No.

Project Site Plan

1.6

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The project site will include a 110-foot tall four-legged self-supporting tower, retaining walls, an equipment building, and a double-walled, above-ground fuel tank protected by surrounding bollards. An 8-foot high chain link fence topped with a three strand barbed tape will be placed around the building and tower to protect the tower and to prevent access to the building.

The areas immediately surrounding the tower and south side of the equipment building will be paved or covered with gravel to limit weed growth within the project site.

The project site will be graded and sloped slightly to the south to allow surface runoff to the surrounding unimproved grassy area. The project site will require a cut of about 4 feet to provide a pad for the building and tower foundation. A retaining wall will be built on the northern and eastern sides to provide a pad for the building and tower foundation. Preliminary planning shows the project site elevation will be at about 1,364 feet mean sea level which will place the it about 8 feet below the MECO site. This will place the top of steel structure of the new 110-foot tall tower at about the same elevation as the top of the MECO tower which is at 1,476 feet mean sea level. The new 110-foot tower will be located about 2,050 feet south of the nearest of the three Verizon Hawaii towers.

A 4-foot high reinforced concrete retaining wall be placed about 4 feet away from the north wall of the building. The area behind this retaining wall and the eastern retaining wall will be backfilled to approximate the existing ground surface.

No potable water will be required at the project site.

No toilet facilities will be provided at the project site.

Parking spaces will be provided next to the building for contractor personnel and other visitors to the project site.

1.4.2 Project Access

The project site is located about ½ mile south of Maunaloa Road, State Route 460, on the southwestern slope of Puu Nana near the existing communication facilities owned by the Maui Electric Co. (MECO) and within an area which has been used for other

communication facilities and towers, and for cattle grazing. Access to the project site will be via an existing unimproved road that connects to Maunaloa Road and serves to reach the cattle grazing lands, other developed facilities at Puu Nana which include, in addition to MECO, Verizon Hawaii, Verizon Wireless, and Oceanic Time Warner cable television. This access road is under the control of Molokai Ranch.

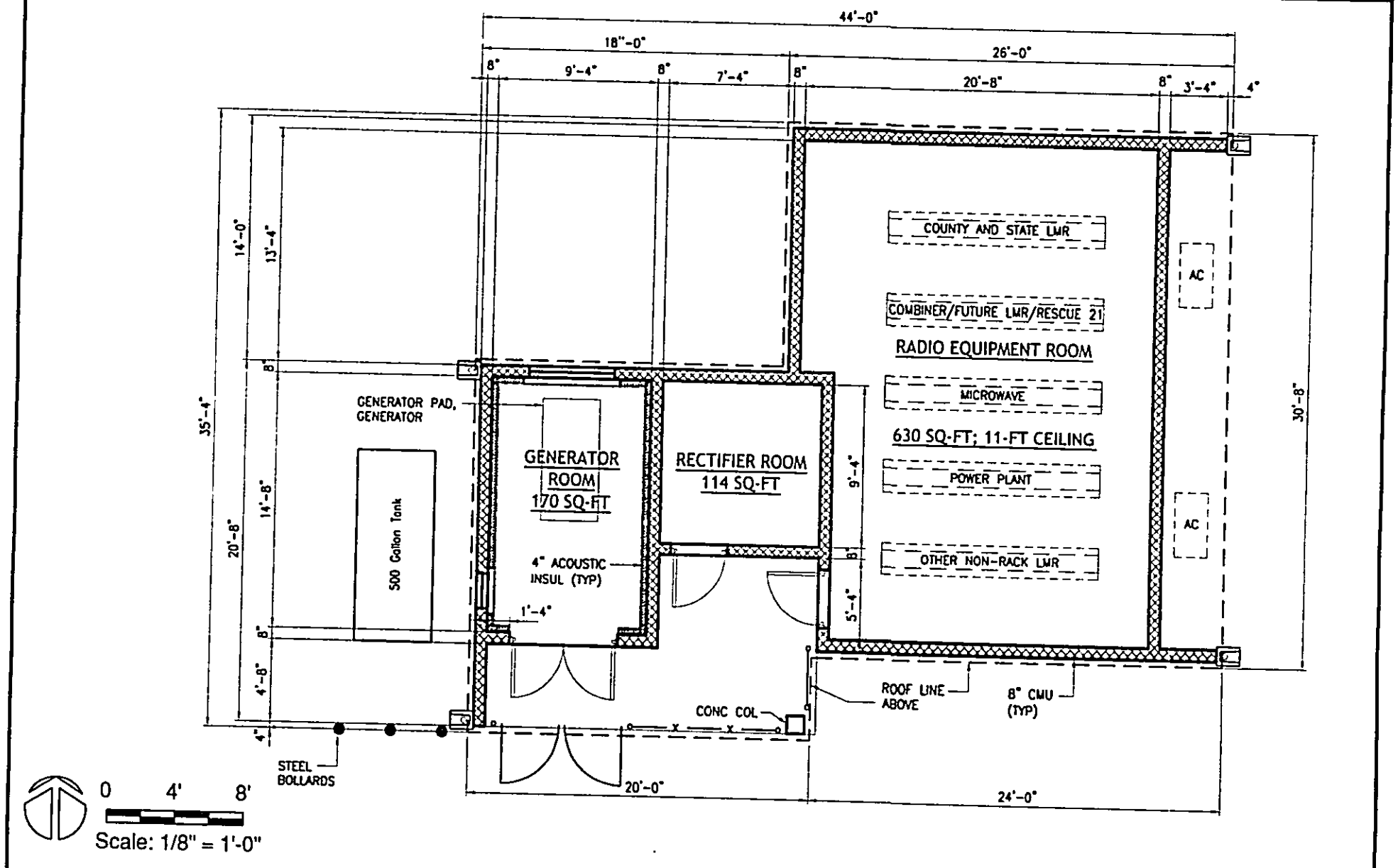
1.4.3 Equipment Building Plan

A three room, single story 914-square foot (SF) equipment building with 8-inch thick reinforced concrete-masonry unit (CMU) walls and concrete slab floors will be constructed on the project site to accommodate a 630-SF radio equipment room, a 114-SF rectifier room, and a 170-SF emergency generator room. A 3-foot wide roof overhang will be provided on the east-facing wall to protect openings in the wall for the approximately 12 elliptical microwave waveguide cables (typically 2.21" by 1.26" oval in cross section) and 10 Andrew heliax style coaxial cables (typically 0.63" to 1.09" in diameter) which will be installed through the wall openings. Figure 1.7 shows the building floor plan. Figure 1.8 shows the building elevations.

The south side of the equipment building will have a covered lanai to provide protection against wind and rain for exterior entrances to the radio and battery rooms and the emergency generator. The finished floors of the rooms will be raised slightly above the covered lanai floor to prevent water entry into the interior spaces.

The radio room will be designed with 11-foot 8-inch high clear height ceiling to accommodate 8-foot tall equipment racks, overhead wiring trays, and microwave waveguide and LMR coaxial cables as well as cable and waveguide support hardware. Typically, the equipment racks will be purchased and installed as part of each user agency radio installation project. Although agencies may share the space or equipment within one rack (as will be done for the Anuenue microwave system), each agency's systems will usually be grouped into its own rack and/or cabinet group.

An integrated approach will be taken to protect the entire facility from damage caused by lightning strikes. The equipment racks will be isolated from the floor, with an insulating gasket, as part of the effort to protect the equipment from damage caused by lighting strikes. An internal ground halo will be provided for connection of non-active metallic items such as door frames and cable racks. Surge protected entryways will be



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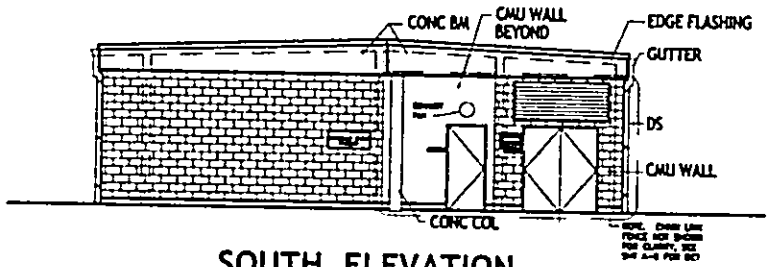
PUU NANA, MOLOKAI

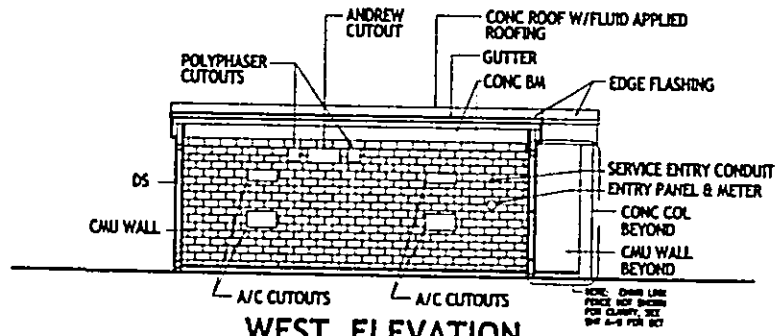
Building Floor Plan

Figure No.

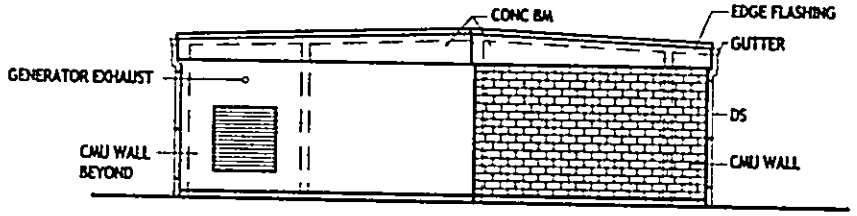
1.7



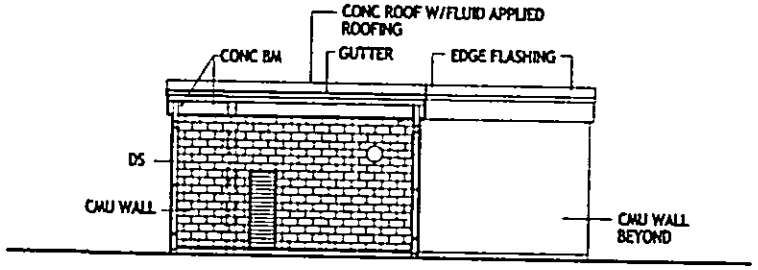
SOUTH ELEVATION



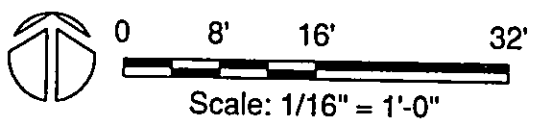
WEST ELEVATION



NORTH ELEVATION



EAST ELEVATION



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PUU NANA, MOLOKAI

Building Elevations

Figure No.

1.8

required for all waveguide, coaxial, signal (such as telephone or similar external system connections), and electrical power connections. Protection will also include the establishment of a single point ground for user equipment. The tower and the building ground systems will be interconnected to both a ground well, buried ground halos, and an exothermically welded connection to the reinforcing bars of the tower (a Ufer ground).

The 114-SF rectifier room will house several independent backup battery systems, with at least one system to support State equipment and another to support County systems. These battery systems are comprised of strings of valve regulated lead acid (VRLA) batteries cells, which are an improved version of the lead acid batteries commonly found in most vehicles. However, the VRLA batteries are supplied with a gelled electrolyte, do not require water, and have been designed not to leak. The VRLA batteries are not classified as hazardous materials. As such, a spill containment system is not required for the batteries. In the event of leak, the VRLA batteries will be equipped with flame arresting safety vents.

The batteries to be installed will be similar to those found at other State facilities which have 48 individual cells, each weighing 88 pounds, to make a battery that will support the radio equipment for 15 hours without the use of commercial power. Such a battery contains about 920 pounds of gelled electrolyte and 3,360 pounds of lead plates.

Although VRLA batteries have a projected service life of about 20 years, experience to date indicates that replacement should be scheduled at 10-year intervals. It is ICSD policy that all removed batteries be recycled, not disposed, in accordance with all federal and State environmental regulations.

The VRLA batteries will be tested, cleaned, and serviced semi-annually by contractor personnel.

The batteries are kept under constant charge by rectifiers that also normally provide direct current (DC) power to the critical radio equipment. The rectifiers will operate from commercial power that is backed up by an autostart generator. The use of the commercial/battery/generator redundancy is standard procedure in the telecommunications industry and at public safety facilities.

Maui Electrical Company (MECO) provides commercial electrical power to Molokai, including by existing overhead lines to the other communication facilities on Puu Nana. The existing overhead power lines supply three-phase power to these facilities which are separately metered with secondary electric service from transformers on utility poles.

New electrical service will be provided to the Anuenue Radio Facility project site via either a new or the existing MECO transformer located adjacent to the MECO facility. If a new transformer is provided, it can be fed from the existing overhead lines at the nearest utility pole. A new 200-amp, 208Y/120-volt, 4-wire electrical underground service will be provided from the transformer to a new meter on the new Anuenue Radio building via an underground ductline. The electrical load requirements for the Anuenue facility are expected to be about 40 kilowatts. The electrical service will feed rectifiers and battery systems which will provide DC power to the communication equipment.

The 170-square foot generator room will house a 40 kilowatt (kW) diesel generator to provide emergency power in the event of a power outage to the commercial system. The DAGS specifications require that the emergency system provide power to the facility in the event of an outage for a 7-day period. The generator will be sized to provide sufficient power for charging the batteries, running the air conditioning for the building, and other facility needs. See Figure 1.7.

Although the emergency generator can be powered by either propane or diesel fuel, it is expected that a diesel-fuel generator will be selected. The diesel fuel will be stored in a separate two-section double-walled Convault style above ground tank. It is expected that at least a 500-gallon total fuel capacity will be required to provide for the desired 7-day supply of fuel. The above ground double-walled tank will not require a spill containment system around its base.

The fuel tank will be double walled and will contain a leak detection system in the interstitial space between the inner and outer walls to detect leaks. The leak detection gauge will be mounted on the wall of the equipment building.

The emergency generator will be tested by operating it once or twice a month for period of about 3 to 4 hours under load test to ensure that is operational during emergency situations. Contractor personnel will conduct the tests and maintain the emergency power system.

The building will be equipped with a building alarm system to telemeter door entry, high temperature conditions, and fire alarms. Each room will be equipped with a fire suppression system and hand-held fire extinguishers suitable for use in rooms with electronic equipment. In addition, automatic security devices will be provided.

1.4.3.1 Tower and Building Design Criteria

The DAGS specifications require the building, tower, and antennas remain operational at wind speeds up to 110 miles per hour (mph) and the facilities survive wind speeds up to 155 mph. Wind speeds of 110 mph are the highest sustained winds expected in a Safir-Simpson Category 2 hurricane. Wind speeds of 155 mph are the highest speed reached in a Safir-Simpson Category 4 hurricane.

1.4.4 Tower and Antennas

A four-leg self-supporting pipe-leg, 110-foot high tower will be used to mount a total of 13 microwave antennas (5 solid, 4 grid, and 2 parareflectors) and 2 whip antennas. The two largest solid antennas will be 15-foot in diameter and the largest grid antennas will also be 15-foot in diameter. The other antennas include top mounted whips and side mounted smaller parareflectors antennas. The tower will include work platforms, internal climbing ladders equipped with a safety climb device, ladder and trap door locks, waveguide ladder, and covered transmission line bridges between the tower and the building entry point. The tower will initially be left unpainted which will be a light gray shade due to galvanized finish. Eventually the tower will be painted a light gray shade similar to the color of the galvanized finish. Figure 1.9 shows the tower plan, Figure 1.10 the antenna plan, and Figure 1.11 the antenna coverage plan.

DAGS filed a FAA Form 7460-1, Notice of Proposed Construction or Alteration, with the FAA to obtain approvals for the location and height of the tower and the use of radio transmitting facilities. On January 8, 2004, the FAA completed Aeronautical Study No. 2003-AWP-4782-OE under the provisions of 49 U.S.C. Section 447818 and Title 14 of the Code of Federal Regulations Part 77. The evaluation determined that the structure does not exceed obstruction standards would not be a hazard to air navigation. In addition, the evaluation determined that marking and lighting are not necessary for aviation safety. Appendix A shows the FAA determination.

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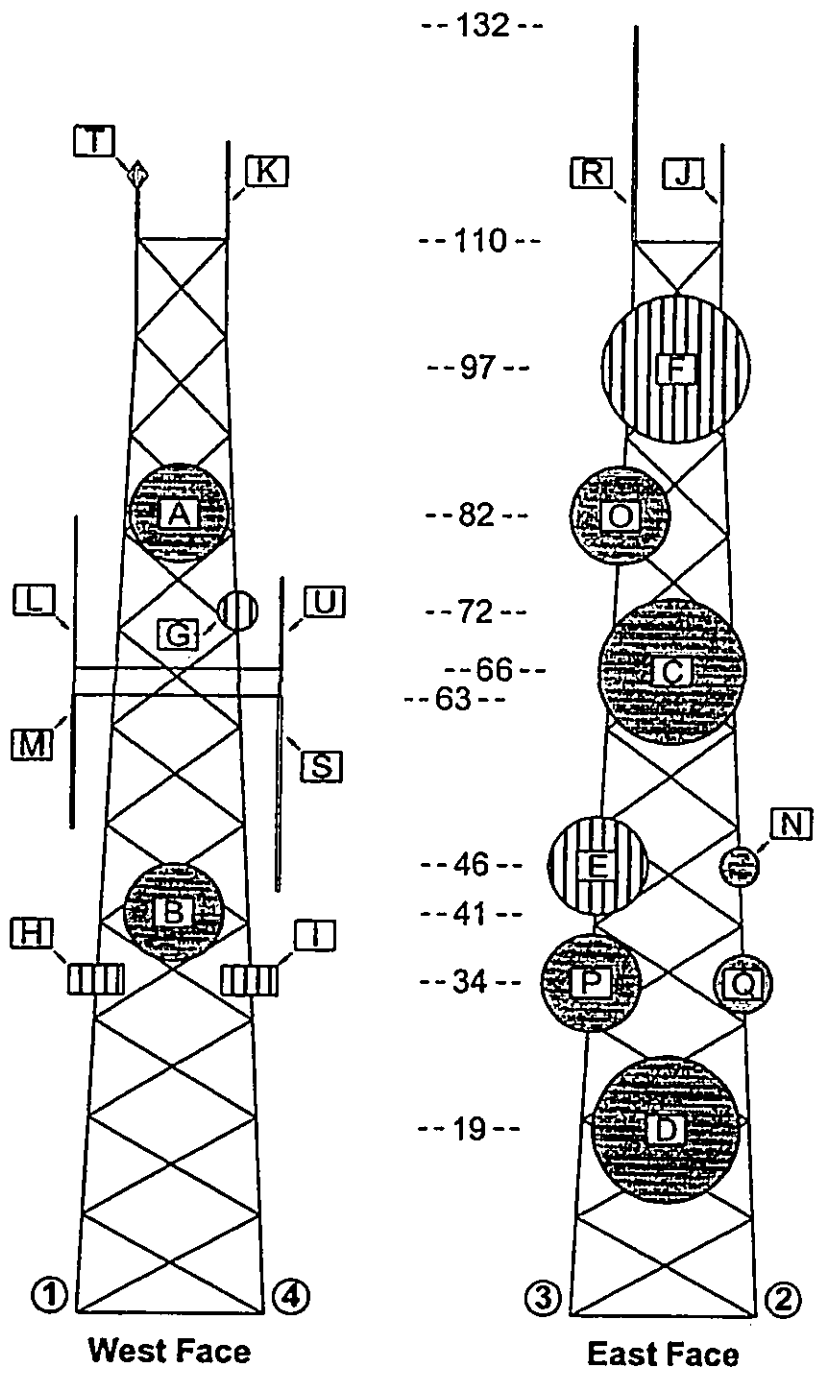

TOWER

1. 110' high, 4 leg tower; minimum 19' leg-to-leg spacing at base: Microflect 108-M8xx-xx0M
2. 155-mph wind survival with NO radial ice.
3. Work platforms at 30', 60', 80', and 100'.
4. Internal climbing ladder with Safety-Climb Cable.
5. Waveguide ladder.
6. Oversize leg bolts.
7. WNW face of tower must be perpendicular to 297.1 degree bearing; i.e. parallel to 27.1 true

ANTENNAS

A & B	State 10' solid 6 GHz Koko Head
C & D	State 15' solid 6 GHz Haleakala
E	State 10' grid 2 GHz Puu Kilea
F	Maui 15' grid 960 MHz Haleakala
G	Maui 4' grid 960 MHz Amikopala
H & I	State UHF parareflector
J	Maui 800 MHz omni
K	State 700 MHz omni
L	State VHF omni
M	State UHF omni
N	future Maui 4' solid 11 GHz Kaunakakai
O & P	future State 10' solid 6 GHz Puu Kilea
Q	future State 6' solid 11 GHz Kaunakakai
R	lightning rod
R & S	future federal VHF omnis
T	future federal DF antenna
U	future federal UHF omni

Wilson Okamoto CORPORATION

PUU NANA, MOLOKAI

Tower Plan

Figure No.

1.9

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Puu Nana - Antennas

Revision 1a October 20, 2001

A 10' Diam. Solid Antenna with radome; Andrew UHX10-59J; lower 6 GHz;
Face Mount; c/l = 75; AZ = 283.4; Koko Head; feedline: 2 each EWP52

B 10' Diam. Solid Antenna with radome; Andrew UHX10-59J; lower 6 GHz;
Face Mount; c/l = 40; AZ = 283.4; Koko Head; feedline: 2 each EWP52

C 15' Diam. HP Solid Antenna with radome; Andrew UHX15-59H; lower 6 GHz;
Face Mount; c/l = 65; AZ = 117.1; Haleakala; feedline: 2 each EWP52

D 15' Diam. HP Solid Antenna with radome; Andrew UHX15-59H; lower 6 GHz;
Face Mount; c/l = 25; AZ = 117.1; Haleakala; feedline: 2 each EWP52

E 6' Diam. HP Solid Antenna with radome; Andrew UHX6-59J; lower 6 GHz;
Leg Mount; c/l = 45; AZ = 109.6; Kamiloloa; feedline: 2 each EWP52

F 6' Diam. Grid Antenna; Andrew KP6F-19; 2 GHz;
Leg Mount; c/l = 45; AZ = 141.0; Puu Kilea; feedline: 1 each LDF5-50A

G 15' Diam. Grid Antenna; RSI P9A180G; 2 GHz;
Face Mount; c/l = 82; AZ = 117.3; Haleakala; feedline: 1 each LDF5-50A

H 4' Diam. Grid Antenna; Andrew RSI P9A48G; 2 GHz;
Leg Mount; c/l = 50; AZ = 235.3; Amikopala; feedline: 1 each LDF5-50A

I 4' Diam. Grid Antenna; Andrew RSI P9A48G; 2 GHz;
Leg Mount; c/l = 52; AZ = 110.0; Kaunakakai; feedline: 1 each LDF5-50A

J 15.5' tall whip antenna; Decibel DB806TL; 800 MHz;
Mounts on top of leg using Antenna Pipe Mount; omni; feedline: 3 each LDF5-50A

K 23' tall whip antenna; Celwave PD755-6; UHF;
Mounts on top of leg using Antenna Pipe Mount; omni; feedline: 1 each LDF5-50A

L 68" wide x 36" tall Parareflector; Scala PR-460; UHF;
Leg Mount; c/l = 30; AZ= 300.0; feedline: 1 each LDF5-50A

M 68" wide x 36" tall Parareflector; Scala PR-460; UHF;
Leg Mount; c/l = 30; AZ= 260.0; feedline: 1 each LDF5-50A

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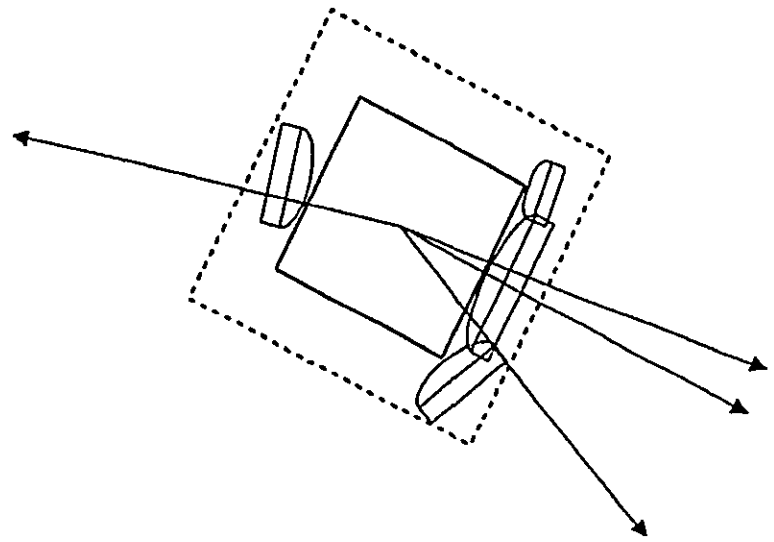
Tower

110' high, 4-leg self supporting
Microflect 108-M8xx-xx0M
19' leg-to-leg at base



WNW face of tower must be
perpendicular to
297.1 degree bearing;
i.e. parallel to 27.1 true

Wilson Okamoto CORPORATION

PUU NANA, MOLOKAI

Antenna Coverage Plan

Figure No.

1.11

1.4.5 Electromagnetic Radiation (EMR)

The DAGS Anuenue Radio Facility at Puu Nana will support multiple radio transmitters that operate in two broad categories: point-to-point microwave and land mobile radio (LMR). The point-to-point microwave transmitters are of the type that transmit continuously and concentrate their frequency energy in a narrow beam that does not change direction or scan. None of the energy from these microwave transmitters is expected to reach, spill, or scatter into any nearby surface areas or structures that can be accessed by humans. Microwave transmitters will operate in the 6 GHz and 11 GHz bands with output powers at one watt or less.

The LMR systems expected to be installed at the Anuenue Radio Facility will operate on fixed frequencies that range from just above 100 MHz to just under 900 MHz. LMR systems transmit intermittently with their duty cycles related to system traffic. A typical LMR system would have a transmitter output power of 100 watts (or less) and transmit in an omni-directional (or wide sector) pattern with energy concentrated towards the horizon.

The directional nature of microwave antennas and the placement of the LMR antennas well above the surrounding ground level will ensure that the frequency energy from the Anuenue Radio Facility will not make a significant contribution of the energy levels in the area of the project site. In addition, radio frequency planning has been coordinated with the County of Maui Police Department, a future user of the Anuenue Radio Facility. Standard frequency coordination and licensing requirements, which will be followed by the users of this facility, will minimize effects on other radio users and Federal Aviation Administration (FAA) navigational aids.

1.5 Project Operation

1.5.1 Personnel

No government or contractor personnel will be assigned to daily operation of the Anuenue Radio Facility. However, as previously discussed, contractor personnel will

visit the project site to conduct tests and to perform maintenance service on the air conditioning and power systems and to clean the building and surrounding area.

The radio equipment and batteries will be serviced at least twice per year by contractor personnel from separate companies with technicians responding intermittently as needed to equipment failures. Technician visits typically would not exceed twenty man-days per year per system (or agency). In total, an average of about 10 to 20 trips/month will be made by contractor personnel to the Puu Nana project site.

1.5.2 Hours of Operation

The radio equipment will operate continuously on a 24 hours per day, 7 days per week basis.

1.6 Preliminary Cost Estimate

The budgeted construction cost, excluding the equipment, for the Puu Nana facility is approximately $950,000 which will be funded by DAGS.

1.7 Project Schedule

Construction is expected to start in late 2004 and should require about 4 to 6 months to complete. Antenna and equipment installation and testing will commence in early 2005. The facility should be in operation by mid 2005.

2. DESCRIPTION of EXISTING ENVIRONMENT, IMPACTS and MITIGATION MEASURES

2.1 Geology and Soils

2.1.1 Existing Environment

The project site is located on the slopes to the southeast of Puu Nana in the central portion of Molokai. The County of Maui/Molokai is assigned seismic Zone 2B in the 1997 Uniform Building Code (UBC). As a comparison, seismic Zone 4, the zone with the most stringent building structural requirements, is assigned to the Big Island and the coastal areas of California. Originally enacted in 1927, the UBC was developed by the International Code of Building Officials to guide construction of buildings, structures, and facilities throughout the US. The State of Hawaii and the counties in state, including the County of Maui, have adopted the UBC as the applicable code for constructing buildings, structures, and facilities. County of Maui uses the 1997 UBC.

The purpose of the seismic provisions in the UBC is primarily to safeguard against major structural failures and loss of life, not to limit damage or maintain functions. Structures are to be designed and constructed as a minimum to resist the effects of ground motions from seismic events. The site seismic hazard characteristics in the UBC are based on the seismic zone and proximity of a site to active seismic sources.

The Soil Survey of Islands of Kauai, Oahu, Maui, Lanai, and Molokai prepared by the US Department of Agriculture Soil Conservation Service (now Natural Resources Conservation Service) shows the soils of the project site to be Kalae silty clay, 2 to 7 percent slopes, which occurs on Molokai. Runoff is medium, and the erosion hazard is moderate to severe.

2.1.2 Impacts and Mitigation Measures

The Anuenue Radio Facility will be designed and constructed to meet the requirements of latest version of the UBC. This will ensure that the Anuenue Radio Facility can meet the seismic loadings established for Zone 2B and that the geological conditions at the project site do not adversely affect the building and facilities.

Construction of the equipment building and tower will require subsurface excavation for placement of the foundations and footings for the tower and building. This will disturb surface and subsurface soils and displace the soils with on-grade slab foundations and footings which will be used for the tower and building. However, this disturbance will typically be to depths of 3 to 3½ feet or less which will not adversely affect the soils and geology of the project site and surrounding area.

The slopes created by cutting and filling will be spread with mulch material or other fast growing vegetation to prevent erosion from runoff from the project site.

2.2 Water Resources and Flood Hazard

2.2.1 Existing Environment

The project site is located on the slopes to the southeast Puu Nana at an elevation of about 1,364 feet mean sea level (msl). The US Department of the Interior Geological Survey (USGS) topographic map shows there are no natural surface water resources on the project site.

There are two man-made irrigation reservoirs, one above ground and one excavated, and an above ground steel potable water tank located near the project site. Buried and above ground pipes supply the reservoirs and tank with water.

According to the County of Maui Department of Water supply, the Puu Nana project site is located over the Kaluakoi aquifer which has sustainable yield of 2 million gallons per day (MGD).

The project site is shown in Zone C the June 1981 Federal Emergency Management Flood Insurance Rate Map Community Panel Number 150003 025B for Molokai. Zone C is defined as area of minimal flooding. Thus, the project site is not subject to flooding.

2.2.2 Impacts and Mitigation Measures

There are no natural surface water sources on the project site. There will be no discharges from the project site directed to waters of the US or waters of the State of Hawaii. On November 25, 2003, the Department of the Army US Army District,

Honolulu (Corps of Engineers) confirmed that the project site has no waters of the US subject to their jurisdiction. Appendix B contains the Corps of Engineers letter.

Temporary erosion control measures will be used during construction to prevent runoff to nearby areas. These mitigation measures will include placement straw or hay bales and erection of a silt fence around the perimeter to prevent surface runoff into adjacent areas. These measures will contain surface flows within the project site during the construction period. In addition, the contract specifications state that the contractor needs to implement best management practices during the construction to minimize runoff from the project site.

The 8,300 SF project site would be cleared and graded to construct the equipment building and tower foundation. The project site would be sloped to the south to direct surface flow from rainfall away from the equipment building. The surface flow will be directed to the unimproved grassy areas to the south used by Molokai Ranch to graze cattle.

2.3 Agricultural Lands

2.3.1 Existing Conditions

In 1975, the US Department of Agriculture Soil Conservation Service (now Natural Resources Conservation Service) initiated a nationwide inventory of important farmlands. When completed, the inventory included three categories "prime", "unique", and "other farmlands of state-wide and local importance". This classification was later adopted by the State of Hawaii Department of Agriculture under the title "Agricultural Lands of Importance to the State of Hawaii" (ALISH).

The ALISH system defines "prime agricultural land" as the best suited for food, forage, and timber crops. "Unique agricultural land" is defined as land other than prime, used for the production of high-value food crops. "Other agricultural land" is defined as land used for the production of food, feed, fiber and forage crops, but not classified as "prime" or "unique".

According to the ALISH system, the project site is not classified as "prime", "unique" or "other agricultural land", indicating that the lands are not significant for agricultural

productivity. Most of the lands surrounding the project site are also not classified, although a small area has been classified as "other agricultural land".

2.3.2 Impacts and Mitigation Measures

The project site occupies an area of about 0.191 acres currently used for cattle grazing. Removal of this land from cattle grazing would not adversely affect the total land available for cattle grazing in this area of Molokai. Cattle grazing can remain an important agricultural activity on the Molokai Ranch lands and on other nearby lands.

2.4 Hazardous Waste

2.4.1 Existing Environment

The project site has been used for cattle grazing by Molokai Ranch for a number of years. The remnants of a concrete foundation or structure, most likely a water tank, were found adjacent to the project site. In addition, a buried concrete box with a pump inside was found adjacent to the project site. A visual inspection of the area near the concrete foundation/structure did not reveal staining on the structure or on the surrounding soil which might indicate the presence of hazardous waste. Similarly, the vegetation surrounding the structures did not show signs of distress or other unusual characteristics.

The project site shows no signs of previous cultivation or other activities which might have used hazardous materials.

2.4.2 Impacts and Mitigation Measures

The Anuenue Radio Facility will contain valve regulated lead acid (VRLA) batteries which will generate a direct current (DC) power source for the microwave repeaters and the land mobile repeaters. The batteries will not require water and will be equipped with flame arresting safety vents. The VRLA batteries are not classified as hazardous materials and will be mounted over a spill containment system. Thus, the VRLA batteries should not adversely affect the environment of the project site and nearby areas.

The emergency generator is expected to use diesel fuel which will be stored in a two-compartment double-walled, concrete encased above ground tank such as manufactured by Convault. It is expected that at least a 500-gallon total fuel capacity will be required to provide for the desired 7-day supply of fuel. According to the US Environmental Protection Agency (EPA), an above ground double-walled concrete tank will not require a secondary spill containment system around its base.

The exterior above ground fuel tank will be used to provide diesel fuel to the emergency generator. The fuel tank will be double walled and will contain a leak detection system in the interstitial space between the inner and outer walls to detect leaks. The leak detection gauge will be mounted on the wall of the equipment building.

The fuel tank fill pipe will be provided with two or more of the following methods to protect them against overfill. These include: a) direct reading level gauge at the tank which is visible from the fill pipe location; b) valve located within the fill-pipe access to close automatically at a specified fill level; c) a spill containment basin with return to the tank surrounding the fill tube to catch any spills; and d) an audible high level alarm activated by a float switch at a specified fill level. These measures will protect against spills from overfilling when the tank is being filled with fuel.

The piping between the fuel tank and generator room will be above ground which will allow for detection of leaks. Similarly, the piping in the generator room will be routed on the surface to allow for detection of leaks.

The County of Maui Fire Department has allowed use of double-walled, above ground fuel storage tanks.

The equipment building will be equipped with a fire suppression system which would discharge in the event of a fire in the equipment room or rectifier room. The fire suppression system will use a compound of carbon, fluorine, and hydrogen as the suppressant which is non-ozone depleting and safe for use in occupied spaces. County of Maui fire protection will be needed at the project site to safely enter the building in the event of a fire.

2.5 Biological Resources

2.5.1 Existing Environment

Flora

In September 2003, a botanical survey was conducted to determine the vegetation on the project site. The survey shows the vegetation on the project site and most of the surrounding area is described as scattered weed trees with mixed grass understory. The trees consist of a single Eucalyptus tree and several Christmas beery and Formosa koa. The understory consists of mixed grasses, primarily Guinea grass, buffelgrass and Kikuyu grass. The botanical survey found a total of 11 plant species on the project site. No listed or candidate threatened or endangered botanical species as set forth by the US Department of the Interior Fish and Wildlife Service (USFWS) were found on the project site. See Appendix C.

Fauna

A walk–through survey of the project site showed almost no birds species on the project site. The project site consists of primarily grass species (Guinea, buffle, and Kikuyu grass), which typically does not grow to a height for bird habitat. Similarly, the single Eucalyptus tree on the project site does not provide habitat for birds. No USFWS or DLNR listed or candidate threatened or endangered avian species were detected during the walk-through survey.

No mammalian species were detected on the project site during the walk-through survey. Although the project site is used for cattle grazing, none were seen on the project site.

2.5.2 Impacts and Mitigation Measures

Flora

Construction of the Anuenue Radio Facility will require removal of the surface vegetation from the project site, including one Eucalyptus tree, a number of Christmas berry and Formosa koa trees, and grading it to for construction of the building and tower

foundation. Once graded and prepared, the foundation and footings for building and tower will be constructed. Removal of the surface vegetation will not create an adverse impact to the flora of this area of Molokai.

The project site contains no listed or candidate threatened or endangered botanical species as set forth by the USFWS. Thus, construction of the Anuenue Radio Facility will not have an adverse impact to threatened or endangered botanical species.

Fauna

The grasses on the project site does not include habitat normally used by birds. Nor do grasses produce seeds which would serve as food for birds. Thus, the project site does not serve as a feeding and foraging habitat to attract birds. Thus, loss of vegetation would not adversely affect the bird population in the area of the project site or any USFWS or DLNR listed or candidate threatened or endangered species.

As with any above ground structure, bird strikes are possible with the 110-foot high Anuenue Radio Facility tower and attached antennas. However, there are a number of factors which indicate the likelihood such birds strikes with the tower and antennas should not occur. First, the height of the Anuenue Radio Facility tower structure is about the same as (1,474 feet msl) the adjacent MECO tower which stands about 1,476 feet msl. These towers will be visible to birds flying in the area so that they could avoid both the Anuenue and MECO towers.

In addition, the Anuenue Radio Facility tower is sited in an area with other existing communications towers, although most are not as tall as the Anuenue tower. Thus, there are other towers which birds must avoid while flying near the project site.

Lastly, the Anuenue tower will be self-supporting and will use no hard-to-see guys that could present a hazard to birds flying in the near the tower. Lastly, the FAA has determined the Anuenue tower will not require lighting that might attract and/or disorient birds in flight at night or during periods of low visibility. It should also be noted that most birds have excellent eyesight and most structures typically do not present a hazard to birds in the area. Overall, the potential for bird strikes with the Anuenue tower and antennas should be low and not present a threat to the birds in the area.

2.6 Traffic

2.6.1 Existing Environment

State Route 460, Maunaloa Road, located about ½-mile west of the project site, provides the primary public access to the western portion of Molokai. Maunaloa Road is a two-lane road, one lane in each direction, under the control of the State of Hawaii Department of Transportation (DOT). Maunaloa Road has a functional classification of a major collector, one of eight functional classifications used by the DOT.

The DOT Highways Division conducts periodic 24-hour traffic counts at various locations on Molokai. The closest traffic counts to the project site were conducted by the DOT at the intersection of Maunaloa Road and Launui Street, near the Molokai Airport. In June 2001, the 24-hour two-way traffic volume at the intersection was about 1,200 vehicles.

2.6.2 Impacts and Mitigation Measures

Traffic impacts related to construction activities will occur while equipment and materials are moved to the project site. However, this traffic will be short-term occurring during the 4 month construction period. This should not create an adverse affect to traffic on Maunaloa Road as volumes on this roadway are relatively low.

No State of Hawaii or County of Maui personnel will be assigned on a daily basis to the Anuenue Radio Facility. Contractor personnel will visit the project site to conduct tests on the radio equipment and to perform maintenance service on the emergency generator and on other building systems. In total, an average of about 10 to 20 trips/month will be made by contractor personnel to the Puu Nana project site. This level of activity will not create an adverse affect to traffic on Maunaloa Road or on the Molokai Ranch access road.

2.7 Molokai Airport

2.7.1 Existing Conditions

Molokai Airport (MKK), a facility under the control of the State of Hawaii Department of Transportation Airports Division, is located about five miles east of the Puu Nana project

site. The airport elevation is 454 mean sea level (msl). MKK is classified as a "Commercial Service – Primary Airport" in the National Plan for Integrated Airport Systems (NPIAS) which classifies airports with short-haul air carrier routes of less than 500 miles. MKK contains two runways, 5-23, 100 feet wide by 4,490 feet long, and 17-35, 100 feet wide by 3,110 feet long. Most aircraft operations are conducted on Runway 5-23 during daytime hours.

MKK is served by a scheduled air carrier, by Hawaiian Air Lines, by air taxi service, including Aloha Island Air, Pacific Wings, and by an unscheduled on-demand service by Paragon Air. Molokai-Lanai Air Shuttle provides charter service to MKK. Currently, a total of about 12 to 15 passenger flights per day provide service to MKK from primarily Honolulu International Airport.

In May 1999, the State of Hawaii Department of Transportation Airports Division issued the *Molokai Airport Master Plan* which documents the extent of aviation facilities needed at MKK through 2020. The Master Plan also shows arrival and departure flight tracks for each runway used by aircraft approaching and departing from MMK. The only arrival flight track for Runway 5 routes aircraft to the south of Puu Nana, while the only departure flight track for Runway 5 routes aircraft to the north of Puu Nana.

2.7.2 Impacts and Mitigation Measures

The Anuenue Radio Facility project site will be at elevation approximately 1,364 feet mean sea level (msl). The top of the tower structure will be 110 feet tall which would place the top of the structure tower at elevation approximately 1,474 feet msl. The top of the adjacent MECO tower is 1,476 msl which it at about equal height to the Anuenue Radio tower.

The presence of the MECO tower means that aircraft approaching and departing MKK already avoid overflying the Puu Nana area. The top of the Anuenue Radio Facility tower will be located slightly to the east and south of the MECO tower. The proximity of the MECO tower and the Anuenue Radio Facility tower will essentially present a single object to aircraft in the area. Thus, the Anuenue Radio Facility tower should not cause a change to the approach and departure flight tracks for aircraft using MKK.

In addition, DAGS filed a FAA Form 7460-1, Notice of Proposed Construction or Alteration, with the FAA to obtain approvals for the location and height of the tower and the use of radio transmitting facilities. On January 8, 2004, the FAA completed Aeronautical Study No. 2003-AWP-4782-OE under the provisions of 49 U.S.C. Section 447818 and Title 14 of the Code of Federal Regulations Part 77. The evaluation determined that the structure does not exceed obstruction standards would not be a hazard to air navigation. In addition, the evaluation determined that marking and lighting of the tower are not necessary for aviation safety. Appendix A shows the FAA determination.

2.8 Air Quality

2.8.1 Existing Environment

The project site is located in the Kaluakoi District, an area characterized by low level of residential and commercial development and almost no industrial facilities. A low level of development generally indicates an absence of stationary and mobile sources of emissions which could affect ambient air quality.

2.8.2 Impacts and Mitigation Measures

Potential short-term adverse air-quality impacts during the construction phase include: 1) generation of fugitive dust from vehicle movements and soil excavation; and 2) exhaust emissions from on-site construction equipment and from construction workers' vehicles traveling to and from the project site. These adverse impacts will be short-term during the period of construction.

Construction activities must comply with provisions of Chapter 11-60.1, Hawaii Administrative Rules (DOH), "Air Pollution Control" and, with respect to fugitive dust, Section 11-60.1-33. In addition, the entire project site is approximately 0.138 acres (8,300 square feet) which will mean a relatively small area of disturbance. The DAGS Contract Specifications Section 01577 include a standard Environmental Controls section with specific reference to Chapter 11-60. Under air pollution control, the Environmental Controls specifications include the provision that the contractor must maintain the areas within and without the project limits free from dust which would cause hazards to the work and to other persons or property. The specifications also state the

contractor will be permitted to use accepted methods for dust control such as enclosure and filtering. It is expected that the contractor will comply with State regulations and provide adequate means to control dust during the various phases of construction.

Once construction has been completed, operation of the Anuenue Radio Facility will involve visits by contractor personnel who will visit the project site to perform periodic maintenance and testing of equipment and systems. This level of activity will not generate sufficient traffic to adversely affect air quality in the area.

The 40 KW standby emergency generator will be tested once or twice per month to ensure proper operation in the event of an outage of the MECO system. The testing will involve starting the generator, testing the switching systems, and placing the system under load conditions to ensure proper operation. This testing should require operation of the generator for about 3 to 4 hours per month, or less than 50 hours per year. This level of testing of the emergency generator should not create adverse impacts to the air quality in the area.

2.9 Noise

2.9.1 Existing Environment

The project site is located about ½-mile south of Maunaloa Road within lands used for cattle grazing by the landowner, Molokai Ranch. One residential unit lies about ¼ mile south and slightly to the west of the Puu Nana project site within lands owned by Molokai Ranch.

Vehicle traffic on Maunaloa Road and activities conducted by Molokai Ranch, such as driving vehicles and equipment, would be the primary sources of noise near the project site. Since vehicle traffic on Maunaloa Road is relatively light near the project site, noise generated by vehicle traffic should not be significant.

2.9.2 Impacts and Mitigation Measures

Construction activities such as grading, excavating for footings and foundations, and erecting the building and tower will create noise. The equipment used for these activities typically include pick ups trucks, excavators, graders, rollers, backhoes,

concrete delivery trucks, water tank trucks, hydraulic cranes, and forklifts. Noise generated by this will be short-term during the period of construction. Once construction has been completed, the noise impact will no longer occur.

Once constructed has been completed, noise will be generated by vehicles used by contractor personnel and others visiting the Anuenue Radio Facility for testing and other purposes. An average total of about 10 to 20 trips per month will be made to the project site. This level of traffic should not create an adverse affect to the noise environment in the area of the project site.

The County of Maui zoning designation for the project site is Agriculture. Title 11 Hawaii Administrative Rule State of Hawaii Department of Health Chapter 46, Community Noise Control identifies maximum permissible sound levels for classes of zoning districts classes using the zoning established by the counties. According to Chapter 46, the maximum permissible sound level at any point at or beyond the property line is 70 dBA for zoning district Class C, areas equivalent to lands zoned agriculture. The maximum permissible sound level shall apply in a manner deemed appropriate by Director of the Department of Health.

The emergency generator will be placed within the generator room as part of the equipment building. The generator and generator room will be designed to suppress noise from the generator during emergency operations and testing. The generator intake shroud is designed to suppress noise and the generator room will have insulation placed along the walls to attenuate noise. Since noise levels decline rapidly with distance from the source, the emergency generator should not create an adverse affect to the noise environment near the residential unit, which lies about ¼ mile from the project site, and in the area of the project site.

2.10 Archaeological and Cultural Resources

2.10.1 Existing Environment

In September 2003, an archaeological field survey was conducted on the project site. The objective of the survey was to determine the presence of archaeological resources, and if an archaeological inventory survey would be required to meet the requirements of

the State of Hawaii Department of Land and Natural Resources Historic Preservation Division (SHPD).

The archaeological field survey consisted of a pedestrian survey of the project site which provided 100 percent coverage of the site. No subsurface testing was undertaken as part of the archaeological survey. The archaeological field survey did not identify any sites or features on the project site. In addition, the project site location on the side of Puu Nana would indicate it is unlikely that buried subsurface cultural remains would be present. See Appendix D.

2.10.2 Impacts and Mitigation Measures

Based on the results of the archaeological field survey and the findings in the Assessment Report, construction of the Anuenue Radio Facility should have no adverse impacts to historic sites. The Assessment Report and its conclusion have been accepted as final by the SHPD. See Appendix E.

2.11 Cultural Impact Assessment

2.11.1 Existing Environment

On April 26, 2000, the Governor approved House Bill No. 2895 H.D.1 as Act 50 which amended Chapter 343 Hawaii Revised Statutes (HRS) to require a cultural impact assessment be included in the preparation of an Environmental Assessment.

A Cultural Impact Assessment/Study (CIA) was undertaken to gather information about traditional cultural practices, ethnic cultural practices, and pre-historic and historic cultural remains that might be affected by the Anuenue Radio Facility. Appendix D contains a summary of the Cultural Impact Assessment. The complete CIA report will be filed with the SHPD and the Office of Environmental Quality Control (OEQC).

The CIA indicates that the most significant events of Kalauakoi in the vicinity of Puu Nana took place in a very distant time. The events are remembered in the mo'olelo or documented by stone legacies. Other events are the founding of Maunaloa and the establishment of ranching and pineapple cultivation in the central areas of Molokai.

The CIA also indicates nothing is known about the project site on the slope of Puu Nana, except that it once had a views of the northern and western areas of the Molokai, assuming the exotic forest and other vegetation that is currently there, was not there in the ancient past. See Appendix D.

2.11.2 Impacts and Mitigation Measures

In addition to the extensive literature research, the CIA included meetings and interviews with consultants living on Molokai. The results of the interview documented in the CIA indicate the consultants generally approve of the Anuenue project. However, they have concerns that the construction activity be contained in previously impacted areas; that access for hunters not be blocked; that construction access be kept to currently available roads; and that care be taken not to damage traditional cultural sites in the Puu Nana forest.

The consultants also noted that the area of the Anuenue project site has been impacted by the construction of other towers and facilities. The construction of the facilities did not seem to present a problem to the consultants. However, they did state care should be taken when constructing on the project site as clues to the function of Puu Nana may still exist in subsurface layers. See Appendix D.

Based on comments from the Office of Hawaiian Affairs, in August 2004, a follow up call was made to Mr. Billy Akutagawa to discuss the Cultural Impact Assessment and to verify information about the project site. Mr. Akutagawa stated that the contacts made as part of the Cultural Impact Assessment were the correct persons and he had nothing further to add regarding the Puu Nana project site. See Appendix E.

2.12 Infrastructure

2.12.1 Water

Existing Conditions

The project site is not served by the County of Maui Department of Water Supply system. The Molokai Ranch water system is used for potable and irrigation purposes.

The Anuenue Radio Facility will not require potable water services for domestic uses or for fire protection.

Impacts and Mitigation Measures

The Anuenue Radio Facility will not create a need for potable water on the project site. Thus, the Anuenue Radio Facility will not have an adverse affect to the County of Maui water system, including on sources of water.

Fire protection for the building will include an interior fire suppression system and hand-held fire extinguishers. Once the fire suppression system has discharged, County of Maui fire protection will be needed at the project site to safely enter the building in the event of a fire.

2.12.2 Sewer

Existing Conditions

The equipment building will not have toilet facilities. Thus, the Anuenue Radio Facility will not require wastewater services from the County of Maui or use an on-site system for treatment or disposal.

Impacts and Mitigation Measures

The Anuenue Radio Facility will not have an adverse affect to the County of Maui wastewater system nor create adverse affects from the on-site disposal of wastewater.

2.12.3 Electrical and Communication

Existing Conditions

Maui Electrical Company (MECO) provides commercial electrical power to Molokai, including by existing overhead lines to the other communication facilities on Puu Nana. The existing overhead power lines supply three-phase power to these facilities which are separately metered with secondary electric service from transformers on utility poles.

Existing telephone lines are routed overhead with the electrical lines. Service near the project site is via lines routed between the Verizon facilities and the utility pole serving the MECO facility.

Impacts and Mitigation Measures

New electrical service will be provided to the Anuenue Radio Facility project site via either a new or the existing MECO transformer located adjacent to the MECO facility. If a new transformer is provided, it can be fed from the existing overhead lines at the nearest utility pole. A new 200-amp, 208Y/120-volt, 4-wire electrical underground service will be provided from the transformer to a new meter on the new Anuenue Radio building via an underground ductline. The electrical load requirements for the Anuenue facility are expected to be about 40 kilowatts .The electrical service will feed rectifiers and battery systems which will provide DC power to the communication equipment.

2.13 Visual Considerations

2.13.1 Existing Conditions

The Anuenue Radio Facility project site is located about ½-mile south of Maunaloa Road within lands used for cattle grazing by the landowner, Molokai Ranch. Maunaloa Road provides access to the resort areas on the western end of Molokai.

Maunaloa Road provides the main source of public views in the central area of Molokai. Puu Nana can be seen in the distance on the left when west bound on Maunaloa Road from the Molokai Airport area. In this area, Maunaloa Road begins a gradual rise in elevation from around 400 msl near the west end of Molokai Airport to about 1,050 msl, which is the summit almost directly north of the project site. When approaching the summit, trees and other vegetation and the intervening ground features obscure and block views of the existing towers located on Puu Nana. Figure 2.1 shows the project site from Moanalua Road.

The distant views of Puu Nana show the existing 100-foot tall self-supported four-legged MECO tower, the three Verizon ((69, 51, and 24-foot tall), self supported towers and antennas, the Verizon Wireless 100-foot high, monopole tower, and the Oceanic Time Warner two (41 and 31-foot tall) dish antennas.

Without Tower

With Proposed Tower

PUU NANA, MOLOKAI

Views of Project Site

Figure No.

2.1

Wilson Okamoto CORPORATION

2.13.2 Impacts and Mitigation Measures

The Anuenue Radio Facility will be located on the southwest slope of Puu Nana, which is located about ½-mile south of Moanalua Road, the public roadway in this area of Molokai. Public views of the tower facilities on Puu Nana, including the new Anuenue Radio Facility tower, will be visible in the distance from Moanalua Road from near its intersection with Haukea Avenue, west of Molokai Airport. Continuing west on Moanalua Road, public views of Puu Nana are only intermittent due to the intervening ridges and other terrain features.

The upper portion of the Anuenue Radio Facility tower along with the upper portion of the MECO tower will be visible at approximately the 1,050-foot summit of Moanalua Road north of Puu Nana. The upper portions of the towers will be visible through the vegetation and trees to both east and west bound travelers, although the predominant views will be to the north looking towards the ocean.

The visual impact of the Anuenue Radio Facility tower and antennas will be mitigated since the tower will initially be left unpainted which will be a light gray shade due to galvanized finish. Eventually the tower will be painted a light gray shade similar to the color of the galvanized finish. At a distance, these colors will not contrast sharply with the adjacent MECO tower.

A photograph was taken of the project site to show existing conditions from Moanalua Road at the summit about ½ mile north of Puu Nana. The photograph was taken from the roadside after stopping the car and shows the project site visible through branches of the intervening trees. The project site is approximately 300 feet above the elevation of Moanalua Road. See Figure 2.1.

Based on this information, the known height of the MECO tower and the known height of the Anuenue Radio Facility tower (about 110 feet tall), it was possible to approximate the view of the project site with the Anuenue Radio Facility tower and antennas. This analysis shows that the upper portion of the Anuenue tower and antennas would be visible to public views from Moanalua Road. See Figure 2.1.

2.14 Biological Exposure

2.14.1 Existing Electromagnetic Radiation Environment

Radio frequency (RF) radiation is part of the electromagnetic radiation (EMR) spectrum that applies to frequencies between 3 kilohertz (kHz) and 300 gigahertz (Ghz). A variety of commercial communications and data systems are made possible by transmitting information via electromagnetic waves. For example, most amplitude modulated (AM) radio stations transmit signals in the frequency range of 550 kHz to 1,600 kHz, while frequency modulated (FM) radio stations transmit signals in the frequency range of 88 MHz to 108MHz.

The Federal Communications Commission (FCC) has established maximum permissible exposure (MPE) limits to electromagnetic radiation. A summary of the FCC's "Local Official's Guide to RF" explains:

> The FCC's guidelines establish separate MPE limits for "general population/uncontrolled exposure" and for "occupational/controlled exposure." The general population/uncontrolled limits set the maximum exposure to which most people may be subjected. People in this group include the general public not associated with the installation and maintenance of the transmitting equipment. Higher exposure limits are permitted under the "occupational/controlled exposure" category, but only for persons who are exposed as a consequence of their employment (e.g., wireless radio engineers, technicians). To qualify for the occupational/controlled exposure category, exposed persons must be made fully aware of the potential for exposure (e.g., through training), and they must be able to exercise control over their exposure. In addition, people passing through a location, who are made aware of the potential for exposure, may be exposed under the occupational/controlled criteria. The MPE limits adopted by the FCC for occupational/controlled and general population/uncontrolled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

The FCC limits for EMR are discussed in detail on the FCC website at http://www.fcc.gov/oet/rfsafety/.

Therefore, any area located outside of a radio facility fence is defined as a "general population/uncontrolled exposure" area. Almost all people live and work in an "uncontrolled" environment filled with radio energy from sources as diverse as broadcast stations (AM, FM, and TV), cellular telephone transmitter sites and handheld cell phones, LMR, wireless computer networks, and natural radio energy sources such as thunderstorms. However, this "uncontrolled" environment is safe because the signal energies are usually well below the MPE limits. Although the Anuenue Radio Facility will be considered an "occupational/controlled exposure" environment, the expected EMR levels both on the ground inside the fenced compound and inside the equipment building will be below the MPE limits for a "general population/uncontrolled exposure" environment. Personnel servicing and testing equipment within the building should not be exposed to an EMR hazard. However, tower maintenance personnel can be exposed to potentially unsafe levels of EMR, if proper access and work procedures are not followed.

2.14.2 Impacts and Mitigation Measures

EMR consists of time varying electromagnetic fields that have the characteristic of motion or propagation. Unfortunately, radio frequency EMR is often confused with ionizing radiation which has known biological hazards ascribed to X-rays, gamma rays, and particle beam energies. Even moderate levels of ionizing radiation are dangerous as they have sufficient quantum energy to expel an electron from a molecule. This expulsion leaves the molecule positively charged and thereby affecting its interactions with neighboring molecules. In biological systems this ionization can alter the molecule functions fundamentally and often irreversibly.

The energies from nonionizing radiation, such as radio frequency EMR, are much lower such that, even very high signal intensities, their primary effect is to agitate or vibrate the molecular structure rather than to ionize them. The effect of this agitation is to produce heat. In humans, the heat produced by such exposure is undetectable above the heat produced by the normal metabolic rate. Even at intentional exposure, the

thermoregulatory capabilities of mammals and birds can adequately accommodate dissipation of the added heat load.

The Anuenue Radio Facility at Puu Nana will support multiple radio transmitters that operate in two broad categories: point-to-point microwave and land mobile radio (LMR). The point-to-point microwave transmitters are of the type that transmit continuously and concentrate their frequency energy in a narrow beam that does not change direction or scan. None of the energy from these microwave transmitters is expected to reach, spill, or scatter into any nearby surface areas or structures that can be accessed by humans. Microwave transmitters will operate in the 6 GHz and 11 GHz bands with output powers at one watt or less.

The LMR systems expected to be installed at the Anuenue Radio Facility will operate on fixed frequencies that range from just above 100 MHz to just under 900 MHz. LMR systems transmit intermittently with their duty cycles related to system traffic. A typical LMR system would have a transmitter output power of 100 watts (or less) and transmit in an omni-directional (or wide sector) pattern with energy concentrated towards the horizon.

The lowest microwave dish antenna will be mounted with its centerline at 19 feet above ground level and its bottom rim at 11.5 feet above the ground level. This placement, which is well above the surrounding ground level, and the directional nature of microwave antennas, and the placement of the LMR antennas will ensure that the frequency energy from the Anuenue Radio Facility will not make a significant contribution of the energy levels in the area of the project site. Based on this analysis, the Anuenue Radio Facility will not produce an EMR hazard to persons or animals at ground level beyond the fence line.

In a rigorous study completed for a DAGS facility with a similar mix of emitters, the distances required to keep personnel safe from EMR hazards were less than 20 feet for all emitter types and the only hazardous area associated with the microwave emitters occurred immediately in front of those antennas. Since the center of the lowest microwave antenna will be at least 11.5 feet above the foundation of the tower, it will not present an EMR hazard to persons or animals near the Anuenue Radio Facility.

3. RELATIONSHIP to PLANS, POLICIES and CONTROLS

3.1 Hawaii State Plan

The Hawaii State Plan, adopted in 1978 and revised in 1988, establishes the overall theme, goals, objectives, and priority guidelines to guide the future long-range development of the State. The Anuenue Radio Facility at Puu Nana project site supports and is consistent with the following State Plan objectives and policies:

Section 226-6 Objectives and policies for the economy - in general.

> *(b) (6) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.*

The Anuenue Radio Facility will involve construction of new facilities at a new site. The Anuenue Radio Facility will increase the level of construction activity on Molokai during the period of construction which will enhance the state's growth objectives.

Section 226-10.5 Objectives and policies for the economy – information industry

> *(b) (1) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawaii to accommodate future growth in the information industry.*

The Anuenue Radio Facility will enhance the voice communication and data transmission capabilities of public agencies to provide information to all areas of the public sector. The facility has been planned to accommodate the future needs to the public agencies using the Anuenue Radio Facility.

Section 226-11 Objectives and policies for the physical environment - land-based, shoreline, and marine resources.

> *(b) (3) Take into account the physical attributes of areas when planning and designing activities and facilities.*

The Anuenue Radio Facility at Puu Nana is located adjacent to three existing similar facilities currently used by the MECO, County of Maui Police Department, Verizon, Verizon Wireless, and Oceanic Time Warner. The Anuenue Radio Facility project site has been designed to take into account the existing facilities and the topographic conditions on the project site to minimize excavation or grading. (Note, the County of Maui Police Department will be relocating its antenna to the Anuenue Radio Facility.)

Section 226-14 Objectives and policies for facility systems – general.

> *(b) (1) Accommodate the needs of Hawaii's people through the coordination of facility systems and capital improvement priorities in consonance with the state and county plans.*

The Anuenue Radio Facility has been planned for joint use by State and County public agencies to provide vital transmission of voice and data communications. The Anuenue Radio Facility will be a single facility which can accommodate the needs of various State and County public agencies.

3.2 Land Use Plans and Policies

3.2.1 State Land Use District

The Hawaii Land Use Law of Chapter 205, Hawaii Revised Statutes, classifies all land in the State into four land use districts: Urban, Agriculture, Conservation, and Rural. The State Land Use Commission designation for the Puu Nana project site is the Agricultural District. According to Chapter 205-45, Hawaii Revised Statutes (HRS), as amended, communication buildings are permitted within the State Agricultural District. However, the tower requires a State Special Use Permit (SUP) in accordance with Chapter 205-6, HRS.

3.2.2 Molokai Community Plan

The Molokai Community Plan was prepared in 1984 and amended in December 2001 by the adoption of Ordinance 3022, Bill No. 106 (2001). The purpose of the Molokai Community Plan advances planning goals, objectives, policies, and implementation

considerations to guide decision making to 2010. The Community Plan is also a policy document for the long-range comprehensive development of the island of Molokai.
The Molokai Community Plan designates the Anuenue Radio Facility project site as Agricultural.

3.2.3 County of Maui Zoning

The Puu Nana project site is designated Agricultural on the County of Maui Molokai Community Plan Map. The County of Maui zoning designation for the project site is Agriculture (AG-20). The Anuenue Radio Facility will be a public facility to be used by public agencies for public purposes. Telecommunications and broadcasting antennas are listed as a special use in Section 19.30A.060 County of Maui Code and are permitted if a County Special Use Permit (SUP) has been obtained in accordance with Section 19.510.70, Maui Code. A County of Maui Special Use Permit will be required to construct and operate the Anuenue Radio Facility within the Agricultural zoning designation.

3.2.4 County of Maui Special Management Area

The Coastal Zone Management Act contains the general objectives and policies upon which all counties within the State have structured specific legislation which created Special Management Areas (SMA). Any development within the Special Management Area boundary requires a SMA Use permit which is administered by the County of Maui.

The Anuenue Radio Facility project site is not located within the County's SMA.

4. ALTERNATIVES TO THE PROPOSED ACTION

4.1 No Action Alternative

The No Action alternative would limit public safety radio users to the use of existing voice and data communication systems which have limited capabilities and a questionable amount of service lifetime remaining. The various public agency users would have to rely on dated systems for transmitting data and voice communications. Although there would be no disturbance to the project site, use of the limited and dated systems would not be in the public interest, particularly when the Anuenue Radio Facility at the Puu Nana project site will serve agencies such as the County of Maui Police Department, and the State Civil Defense. These agencies need adequate and modern communication system to provide the high level of public service needed by the residents of Molokai and the County of Maui. Based on these considerations, the No Action alternative is not considered a feasible alternative.

4.2 Other Sites

The Anuenue Radio Facility site requires radio line-of-sight to provide an unobstructed path for microwave signals between the other sites located on east Oahu and Haleakala, Maui. For any alternative site to be considered, it would have to support a microwave path that meets both the radio line of sight and minimum path length criteria for a viable microwave communications link. Two sites on Molokai and the existing State facility on Lanai were considered as an alternative to the Puu Nana project site.

The two alternative sites on Molokai were above Illio Road above Kaunakakai and above Kamiloloa, east of Kaunakakai. Although these sites would have served the needs of Molokai, neither site met the microwave line-of-sight, unobstructed path for signals to Oahu. Thus, the alternative Molokai sites were not considered feasible alternatives for the Anuenue Radio Facility.

Upgrades and modernization of the existing State facility on Lanai was considered and alternative to use of the Puu Nana project site. There were several drawbacks to use of the Lanai site which is located on Murio Trail about three miles beyond the end of the improved highway. First, the existing access roadway, which is only usable with 4-wheel drive vehicles, becomes frequently impassable when it rains. The additional costs

necessary improvements to the access road and the related environmental considerations made it almost prohibitive to develop this alternative site. In addition, lack of adequate electrical power service and space in the building for additional equipment were another drawback to use of the State's existing Lanai facility. Lastly, the existing 130-foot tall tower could not support additional microwave antennas. Further, use of the Lanai facility meant that the State would not be able to provide adequate connectivity to public safety entities on Molokai. Based on these considerations, the Lanai facility was not considered a feasible alternative.

5. DETERMINATION

Short-term construction impacts include disruption to the project site and surrounding areas during construction, decline in air quality from construction activities, and increase in noise levels. Once construction has been completed, the short-term adverse impacts will no longer occur.

Based on analysis of the anticipated impacts, a Finding of No Significant Impact (FONSI) is determined for the Anuenue Radio Facility Puu Nana project site. The significance criteria to make this determination are set forth below and in Hawaii Administrative Rules Title 11, State of Hawaii Department of Health, Chapter 200, Environmental Impact Statement Rules.

1) *Involve an irrevocable commitment to loss or destruction of any natural or cultural resources*;

The Anuenue Radio Facility Puu Nana project site does not provide habitat for Federal or State of Hawaii listed or candidate threatened or endangered species of flora or fauna. The project site has been used for cattle grazing since the late 1920's. Thus, the Anuenue Radio Facility Puu Nana project site will not result in the loss or destruction of natural resources. Based on the results of the archaeological field survey, and Assessment Report, construction of the Anuenue Radio Facility should have no adverse impacts to historic sites. The Assessment Report and its conclusion have been accepted as final by the SHPD. The Cultural Impact Study indicates that nothing is known about the project site on the slope of Puu Nana, except that it once had views of the northern and western areas of the Molokai. Thus, development of the Anuenue Radio Facility Puu Nana project site is not expected to have loss or destruction of any natural or cultural resources.

2) *Curtail the range of beneficial uses of the environment*;

The Anuenue Radio Facility will use lands within Molokai Ranch which have been used for cattle grazing. The Anuenue Radio Facility will occupy an area of 8,300 square feet (0.191 acres) which is a minor portion of the cattle grazing land in the central area of Molokai. Thus, the Anuenue Radio Facility will not curtail the beneficial uses of the environment.

3) *Conflict with the State's long-term environmental policies or goals as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders*;

The Anuenue Radio Facility Puu Nana project will not involve actions or activities which would adversely affect natural resources of the project site. The Anuenue Radio Facility Puu Nana project will be consistent with the guidelines of Chapter 344, HRS, as it will provide a public facility to support the critical public service functions assigned to the State of Hawaii and the County of Maui. As such, the Anuenue Radio Facility Puu Nana project will not conflict with the State's long-term environmental policies or goals as expressed in Chapter 344, HRS.

4) *Substantially affect the economic or social welfare of the community or state*;

The Anuenue Radio Facility Puu Nana project will be a public facility to be used by public agencies for public purposes, including for the County of Maui Police Department and Fire Department, the State of Hawaii Department of Defense Civil Defense Division, State of Hawaii Department of Health Emergency Medical Services System. The Anuenue Radio Facility is an integral part of the infrastructure needed to maintain the health and welfare of the community. The Anuenue Radio Facility will have not have an adverse effect to the economic or social welfare of the community.

5) *Substantially affect public health*;

An efficient and well-maintained voice and data communication system is needed to protect the public health of the residents and visitors of Hawaii and the County of Maui. The Anuenue Radio Facility will serve as the facility for State and County of Maui agencies to conduct their mandated public functions. Thus, the Anuenue Radio Facility Puu Nana project will not have an adverse effect on public health.

The Anuenue Radio Facility is not expected to produce any EMR hazard to persons or animals on the ground or in areas beyond the site fence line. Thus, the Anuenue Radio Facility project will not have an adverse effect on public health.

6) *Involve substantial secondary impacts, such as population changes or effects on public facilities*;

The Anuenue Radio Facility Puu Nana project will be a public facility which will be used by the State of Hawaii and the County of Maui to support their mission critical applications. No government or contractor personnel will be assigned to daily operation of the Anuenue Radio Facility Puu Nana project site. Contract personnel will visit the project site to conduct tests and to perform maintenance service on the air conditioning and power systems and to clean the building and surrounding area. The contractor personnel are expected to be residents from Hawaii. Thus, construction of the Anuenue Radio Facility will not create secondary impacts, such as population changes or effects on public facilities.

7) *Involve a substantial degradation of environmental quality*;

The Anuenue Radio Facility is anticipated to result in short-term impacts to noise, air quality and traffic in the immediate vicinity of the project sited during the period of construction. The Anuenue Radio Facility project site does not contain Federal or State listed or candidate threatened or endangered species of flora or fauna. Further, based on the results of the archaeological field survey and Assessment Report, construction of the Anuenue Radio Facility should have no adverse impacts to historic sites. The Cultural Impact Study indicates that, nothing is known about the project site on the slope of Puu Nana, except that it once had views of the northern and western areas of the Molokai. Thus, there will be no loss or destruction of archaeological or cultural resources. As a result, the Anuenue Radio Facility project will not result in a substantial degradation of environmental quality.

8) *Have a cumulative effect upon the environment or involves a commitment for larger actions*;

The Anuenue Radio Facility does not involve a commitment to further actions to other State of Hawaii related projects on Hawaii. As a result, the Anuenue Radio Facility will not have a cumulative effect upon the environment or involve a commitment by the State to larger actions on Hawaii.

9) *Affect a rare, threatened or endangered species;*

The Anuenue Radio Facility Puu Nana project site does not contain Federal or State listed or candidate threatened or endangered species of flora or fauna. Thus, the Anuenue Radio Facility Puu Nana project site will not affect a threatened or endangered species.

10) *Detrimentally affect air or water quality or ambient noise levels*;

Operation of construction equipment would increase noise and exhaust emission levels in the immediate vicinity of the Anuenue Radio Facility Puu Nana project site during the construction period. Once operational, the Anuenue Radio Facility will contribute almost no additional noise or air emissions to the local area.

11) *Affects or likely to suffer damage by being located in an environmentally sensitive area such as a floodplain, tsunami zone, beach, erosion-prone area, geographically hazardous land, estuary, fresh water or coastal water*;

According to the Flood Insurance Rate Map (FIRM), the Anuenue Radio Facility is located in area not subject to flood hazards, a hazardous floodplain or a tsunami zone. The Anuenue Radio Facility project site is also not within the County of Maui Special Management Area. In addition, the Anuenue Radio Facility project site is not within the coastal shoreline area. Thus, the Anuenue Radio Facility Puu Nana project site is not located in an environmentally sensitive area.

12) *Substantially affect scenic vistas and viewplanes identified in county or state plans or studies*;

The Anuenue Radio Facility will be located on the southwest slope of Puu Nana, which is located about ½-mile south of Moanalua Road, the public roadway in this area of Molokai. Public views of the facilities on Puu Nana, including the Anuenue Radio Facility, will be visible in the distance from Moanalua Road from near its intersection with Haukea Avenue, west of Molokai Airport. Continuing west on Moanalua Road, views of Puu Nana are only intermittent due to the intervening ridges and other terrain features.

The upper portion of the Anuenue Radio Facility tower along with the upper portion of the MECO tower will be visible at approximately the 1,050-foot summit of Moanalua Road north of Puu Nana. The upper portions of the towers will be visible through the vegetation and trees to both east and west bound travelers, although the predominant views will be to the north looking towards the ocean.

The visual impact of the Anuenue Radio Facility tower and antennas will be mitigated since the tower will initially be left unpainted which will be a light gray shade due to galvanized finish. Eventually the tower will be painted a light gray shade similar to the color of the galvanized finish. At a distance, these colors will not contrast sharply with the adjacent MECO tower. Analysis shows that the upper portion of the Anuenue Radio Facility tower and antennas would be visible to public views from Moanalua Road.

13) *Require substantial energy consumption.*

The Anuenue Radio Facility is public facility to be used by public agencies for public purposes. It is a new facility which will be planned and designed to minimize use of electrical power. Thus the Anuenue Radio Facility Puu Nana project will not create a substantial increase in energy consumption.

Based on these findings and the assessment of potential impacts from the Anuenue Radio Facility at the Puu Nana project site, a Finding of No Significant Impact (FONSI) is determined.

6. CONSULTED PARTIES

6.1 Pre-Assessment Consultation

The following agencies were consulted during the pre-assessment phase of the Draft Environmental Assessment. Each agency was sent a copy of a project summary and a request for their written comments on the project. All written comments and responses are reproduced in Appendix B.

US Army Corps of Engineers
US Coast Guard
US Fish and Wildlife Service
State of Hawaii Department of Agriculture
State of Hawaii Department of Hawaiian Home Lands
State of Hawaii Department of Health
State of Hawaii Department of Land and Natural Resources/ Historic Preservation Division
State of Hawaii Department of Transportation
County of Maui Planning Department
County of Maui Department of Public Works
County of Maui Molokai Planning Commission
Maui Electric Co.
Verizon Hawaii
Verizon Wireless
Oceanic Time Warner Cable

6.2 Agencies and Organizations to be Consulted on the Draft EA

The following is a list of agencies and organizations that will be consulted during the preparation of the Draft Environmental Assessment. Copies of the comments (▲), substantive comments received (✖), and responses are included in the Appendix E.

Federal

Department of the Army, US Army Engineer District, Honolulu

▲ US Department of the Interior of the Fish and Wildlife Service (via telephone)

US Department of the Interior Geological Survey
- ✖ US Department of Transportation Federal Aviation Administration
- ✖ US Department of Transportation Federal Highway Administration
- ✖ US Coast Guard

State Agencies

Department of Agriculture
Department of Business, Economic Development and Tourism
DBED&T - State Energy Office
Department of Defense
- ✖ Department of Hawaiian Home Lands

Department of Health
Department of Health - Environmental Management Division
Department of Land and Natural Resources
- ✖ Department of Land and Natural Resources Historic Preservation Division

Department of Land and Natural Resources - Water Resource Management
- ✖ Department of Transportation
- ✖ Office of Hawaiian Affairs

University of Hawaii Water Resources Research Center
University of Hawaii Environmental Center
Molokai Public Library
- ✖ Office of Environmental Quality Control

County of Maui Agencies
- ✖ County of Maui Department of Fire Control
- ✖ County of Maui Department of Parks and Recreation
- ✖ County of Maui Planning Department

County of Maui Police Department
- ✖ County of Maui Department of Public Works and Environmental Management
- ✖ County of Maui Department of Water Supply

County of Maui Molokai Planning Commission

Officials

Senator J. Kalani English, 6th District
Representative Sol P. Kaho`ohalahala, 13th District
Councilmember Danny A. Mateo

Public Utilities

Maui Electric Company

✖ Verizon Hawaii

Oceanic Time Warner Cable

Organizations

Maui Economic Opportunity Inc., Molokai Branch

Molokai Properties Limited

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The Hawaii State Plan Chapter226,Hawaii Revised Statutes . Office of the Governor Office of State Planning. !988.

Title 11 Hawaii Administrative Rules State of Hawaii Department of Health Chapter 46 Community Noise Control. September 23, 1996.

US Department of Agriculture Soil Conservation Service. *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii.* Issued August 1972.

US Department of the Navy Naval Space Command. *Final Environmental Impact Statement for Electronic Installations in the Western Pacific.* June 1990.

APPENDIX A

Federal Aviation Administration
Western Pacific Regional Office
PO Box 92007-AWP-520
Los Angeles, CA 90009-2007

Aeronautical Study No.
2003-AWP-4782-OE

6603-02

FILE → 1/10/04

Issued Date: 1/8/2004

RUSS K. SAITO
STATE OF HAWAII, DAGS
1151 PUNCHBOWL STREET, ROOM 412
HONOLULU, HI 96813

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has completed an aeronautical study under the provisions of 49 U.S.C., Section 44718 and, if applicable, Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure Type:	4-LEG SELF SUPPORTING COMMUNICATIONS TOWER
Location:	KAUNAKAKAI, HI
Latitude:	21-8-30.2 NAD 83
Longitude:	157-9-26.8
Heights:	110 feet above ground level (AGL)
	1478 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory Circular 70/7460-1 70/7460-1K.

While the structure does not constitute a hazard to air navigation, it would be located within or near a military training area and/or route.

This determination expires on 7/8/2005 unless:

(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed , as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

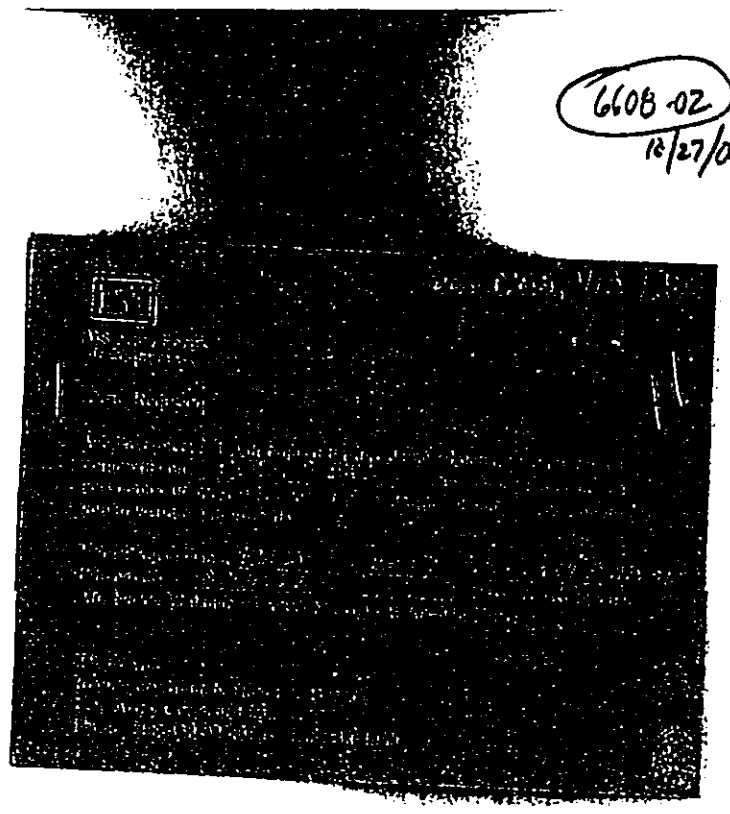
NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

Frequency Data for ASN 2003-AWP-4782-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
6004.5	0	MHz	69.9	dBm
6004.5	0	MHz	73.3	dBm
2194.4	0	MHz	62.3	dBm
955.15	0	MHz	62.6	dBm
955.55	0	MHz	59	dBm
453.25	0	MHz	100	W
866.0125	866.5125	MHz	53	dBm
867.0125	867.5125	MHz	53	dBm
764.24375	0	MHz	100	W
147.36	0	MHz	100	W
444.775	0	MHz	100	W
156.8	0	MHz	50	W

APPENDIX B



6608-02
12/27/03

U.S. Department of Homeland Security
United States Coast Guard

Commander (t)
United States Coast Guard
Maintenance & Logistics Command Pacific

Staff Symbol: MLCP (te-4)
Phone: (510) 437-5853
Fax: (510) 437-5656
Email: jcote@d11.uscg.mil

4700
November 3, 2003

Mr. John Sakaguchi, AICP, Senior Planner
Wilson Okamoto & Associates, Inc.
Suite 400
1907 South Beretania Street
Honolulu, HI 96826

RE: ENVIRONMENTAL PRE-ASSESSMENT CONSULTATION, PUU NANA SITE

The United States Coast Guard, Maintenance & Logistics Command Pacific (USCG MLCP) has reviewed the provided project summary sheet and agrees with it's content.

USCG MLCP fully supports this project as this site is vital to the design of the joint USCG and State of Hawaii sponsored inter-island Anuenue microwave communications system.

If there is anything we can do to facilitate the completion of this environmental assessment, please contact LT Sean Katz at (510) 437-3374, skatz@d11.uscg.mil.

Sincerely,

JAMES COTE
Chief, Integrated Network Systems Section
U.S. Coast Guard
By direction

RECEIVED AS FOLLOWS

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

ERNEST Y.W. LAU
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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 15, 2003

LD-NAV
L-2472
PUUNANARADIO.RCH

Wilson Okamoto Corporation
John L. Sakaguchi, AICP
Senior Planner
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

SUBJECT: Pre-Assessment Consultation for Preparation of a Draft Environmental Assessment - Anuenue Radio Facilities and Towers, Statewide, Puu Nana Site, Kaluakoi, Molokai
DAGS Job No. 16-10-0256

Thank you for your letter dated October 13, 2003, pertaining to the subject matter.

Please submit three (3) copies of the Draft Environmental Assessment to our office when they become available for review.

If you have any questions, please feel free to contact Nicholas A. Vaccaro of the Land Division Support Services Branch at (808) 587-0384.

Very truly yours,

DIERDRE S. MAMIYA
Administrator

C: MDLO

cc: DAGS A YAMAMOTO
R HLIVAC
DAGS16-10-0256 FAX
10/17/03

RECEIVED
OCT 16 2003
WILSON OKAMOTO CORPORATION

LINDA LINGLE
GOVERNOR

RODNEY K. HARAGA
DIRECTOR

Deputy Director
BRUCE Y. MATSUI

IN REPLY REFER TO
HWY-PS
2.2259

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

NOV 3 2003

cc: DAGS, VIA FAX
11/6/03

Mr. John L. Sakaguchi, AICP, Senior Planner
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826

RECEIVED
NOV 05 2003
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

Subject: Pre-Assessment Consultation, Draft Environmental Assessment, Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide Puu Nana Site; Kaluakoi, Molokai, Hawaii, TMK: 5-1-002: 013

Thank you for your transmittal requesting our review of the subject project. We have the following comments:

1. We require the submittal and approval of construction plans for any work done within our State highway rights of way.

2. The planning and design of the radio facilities and towers should consider aesthetics and visual impacts as criteria.

If you have any questions, please contact Ronald F. Tsuzuki, Head Planning Engineer, Highways Division, at 587-1830.

Very truly yours,

for RODNEY K. HARAGA
Director of Transportation

RECEIVED AS FOLLOWS

LINDA LINGLE
GOVERNOR OF HAWAII

RECEIVED
OCT 30 2003
WILSON OKAMOTO CORPORATION

6008-02

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

ERNEST Y.W. LAU
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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

CC: DAGS VIA FAX 11/7/03
A HAWN, " " "

October 27, 2003

LOG NO: 2003.2195
DOC NO: 0310SC24

Mr. John L. Sakaguchi, Senior Planner
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

SUBJECT: **Chapter 6E-8 Pre-Assessment Consultation on a Draft Environmental Assessment (DEA) to be Prepared for the Proposed Anuenue (Formerly Rainbow) Radio Facilities and Towers, Statewide, Puu Nana Site (DAGS Job No. 16-10-0256) [State/DAGS] Kaluako'i, Moloka'i**
TMK: (2)-5-1-002:013

Thank you for the opportunity to comment on the proposed construction of the Anuenue Radio Facilities and Towers at Pu'u Nānā in West Moloka'i. The State Department of Accounting and General Services proposes to build a new unmanned telecommunications facility on 0.5 acres of land near the existing facilities owned by Maui Electric. Included in the planned facilities are an equipment building, a 110-foot tall tower sized to carry multiple large microwave solid and grid dish antennas, an exterior fuel tank, and at least thirteen antennas will be attached to the tower to meet the known requirements of public agency users. We received your request for comment on October 15, 2003 and provide the following remarks.

According to your pre-Assessment descriptions, the land proposed for the Anuenue Radio Facilities and Towers is unaltered cattle pasture. We have no record of an inventory survey for the subject parcel, although nearby areas of similar pasture lands have undergone archaeological surveys, and significant historic sites were found during this work. Identified sites include agricultural, habitation, and religious sites in the Kukui Summit and 'Amikopala regions of Kaluako'i, to the west and northwest of the proposed project area.

Given these facts, we recommend that the proposed project area undergo a site inspection by a qualified archaeologist. If historic sites are found during the inspection, an archaeological inventory survey will need to be carried out prior to any ground disturbance. We strongly recommend that you and your client initiate these actions as soon as possible, and allow sufficient time both for all needed historic preservation work to be carried out adequately, and for our office to complete reviews of any resulting reports.

Finally, we ask if there is any federal involvement in the proposed construction. Federal involvement would include direct or indirect funding by a Federal agency, and the issuing of licenses, permits, or approvals by a Federal agency. If so, this involvement should be clearly

stated, and compliance with Section 106 of the National Historic Preservation Act should be carried out as part of the planning process, well before any construction plans are finalized. Compliance with Section 106 also requires consultation with consulting parties such as Native Hawaiian organizations who attach religious and cultural significance to historic properties that may be affected by an undertaking. It should be noted that historic properties can be adversely affected by an undertaking, such as a radio tower, that has an impact on the historic property's setting or view plan even if there is no direct, physical impact.

If there is no Federal involvement, then the project will proceed subject to our review under Chapter 6E-8, Hawaii Revised Statutes. Chapter 6E-8 provides, in part, for the following: "The proposed project shall not be commenced, or, in the event it has already begun, continued, until the department shall have given its written concurrence."

Should there be any questions about archaeological matters, please feel free to contact Sara Collins at 692-8026.

Aloha,

P. Holly McEldowney

P. Holly McEldowney, Acting Administrator
State Historic Preservation Division

SC:jen

c: Michael Foley, Director, Dept of Planning, 250 South High Street, Wailuku, HI 96793
Cultural Resources Commission, Planning Dept, 250 S. High Street, Wailuku, HI 96793
Malia Akutagawa, Chair, Moloka'i Plng Comm, PO Box 1715, Kaunakakai, HI 96748
Nathan Napoka, Branch Chief, History and Culture Branch

ALAN M. ARAKAWA
Mayor
MICHAEL W. FOLEY
Director
WAYNE A. BOTEILHO
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

JS 6608.02

11/5/03

CC: DAGS V/A FAX 11/5/03

October 31, 2003

RECEIVED
NOV 04 2003
WILSON OKAMOTO CORPORATION

Mr. John L. Sakaguchi, AICP
Wilson Okamoto Corporation
1907 South Beretania Street, Ste 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

RE: Draft Environmental Assessment Preconsultation Comments for the Anuenue (Formerly Rainbow) Radio Facilities and Towers, Statewide, Puu Nana Site Located at TMK 5-1-002: 013, Kaluakoi, Island of Molokai, Hawaii, DAGS Job No. 16-10-0256 (LTR 2003/4121)

The Maui Planning Department received the above referenced request on October 15, 2003, and has the following comments:

1. The State Land Use, Molokai Community Plan, and County Zoning designations are Agricultural.

2. A Land Use Commission Special Use Permit is required for the proposed tower. Pursuant to Section 205-6 Special Permit, Hawaii Revised Statutes, the county planning commission (Molokai Planning Commission) may permit certain "unusual and reasonable" uses within agricultural and rural districts other than those for which the district is classified. Special permits for land the area of which is greater than fifteen acres shall be subject to approval by the Land Use Commission.

   Standards for reviewing a Land Use Commission Special Use Permit are found under Title 15 Department of Planning and Economic Development, Subtitle 3 State Land Use Commission, Chapter 15 Land Use Commission Rules, Subchapter 12 Special Permits, §15-15-95 of the Hawaii Administrative Rules.

3. Provide a discussion of any anticipated impacts to public health and safety from radio frequency radiation or electromagnetic interference, including the anticipated impact of the 13 antennas attached to the proposed tower, as well as, the cumulative impact from any neighboring radio towers.

   Are there any anticipated impacts regarding interferences with other established frequencies?

4. Discuss any potential impacts of the proposed tower to scenic views.

5. Will the proposed tower pose any potential impacts to the flight paths from Molokai Airport?

6. The project summary refers to the proposed construction of a "double-wall exterior fuel tank." Will this tank be under or aboveground? In addition to double-walled construction, discuss mitigative measures used to prevent a release.

7. List and discuss the best management practices to be utilized for construction related impacts.

Thank you for the opportunity to comment. Should you have any questions, please contact Ms. Kivette A. Caigoy, Staff Planner, at 270-7735.

Sincerely,

Mike Foley

MICHAEL W. FOLEY
Planning Director

MWF:KAC:lar
c: Aaron H. Shinmoto, PE, Planning Program Administrator (2)
Clayton I. Yoshida, AICP, Planning Program Administrator
Kivette A. Caigoy, Staff Planner
General File
S:\ALL\Kivette\EA\Preconsultation Letters\4121_AnuenueRadioTower.wpd

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
PLANNING DIVISION (808) 270-7735; ZONING DIVISION (808) 270-7253; FACSIMILE (808) 270-7634

6608-02

cc: DAGS, VIA FAX 2/6/04

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST
SUITE 400
HONOLULU, HI 96826
PH: (808) 946-2277
FAX: (808) 946-2253

6608-02
February 6, 2004

Mr. Michael W. Foley, Planning Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Maui 96793

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide,
Puu Nana Site; Kaluakoi, Molokai, Hawaii;
Tax Map Key: 5-1-002: 013
DAGS Job No. 16-10-0256
Response to Comment

Dear: Mr. Foley:

Thank you for your October 31, 2003 comment letter on the Pre-Assessment Consultation Notice for the Draft Environmental Assessment (EA) for the Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide at the Puu Nana site.

Our responses follow:

1. The Draft EA will note the State Land Use, Molokai Community Plan, and County zoning designations are Agricultural.

2. The Draft EA will note that a Special Permit will be required to construct the Anuenue Radio Facility in land zoned Agricultural.

3. The Anuenue Radio Facility at Puu Nana will support multiple radio transmitters that operate in two broad categories: point-to-point microwave and land mobile radio (LMR). The point-to-point microwave transmitters are of the type that transmit continuously and concentrate their frequency energy in a narrow beam that does not change direction or scan. None of the energy from these microwave transmitters is expected to reach, spill, or scatter into any nearby surface areas or structures that can be accessed by humans. Microwave transmitters will operate in the 6 GHz and 11 GHz bands with output powers at one watt or less. The LMR systems expected to be installed at the Anuenue

Radio Facility will operate on fixed frequencies that range from just above 100 MHz to just under 900 MHz. LMR systems transmit intermittently with their duty cycles related to system traffic. A typical LMR system would have a transmitter output power of 100 watts (or less) and transmit in an omni-directional (or wide sector) pattern with energy concentrated towards the horizon.

The directional nature of microwave antennas and the placement of the LMR antennas well above the surrounding ground level will ensure that the frequency energy from the Anuenue Radio Facility will not make a significant contribution of the energy levels in the area of the project site. In addition, radio frequency planning has been coordinated with the County of Maui Police Department, a future user of the Anuenue Radio Facility. Standard frequency coordination and licensing requirements, which will be followed by the users of this facility, will minimize effects on other radio users and Federal Aviation Administration (FAA) navigational aids. The Draft EA will include additional discussion of the public health effects of Anuenue Radio Facility.

4. The Anuenue Radio Facility project site is located about ½ mile south of Maunaloa Road, State Route 460, on the southwestern slope of Puu Nana. The project site is located near the existing communication facilities owned by the Maui Electric Co. (MECO), Verizon Hawaii, Verizon Wireless, and Oceanic Time Warner cable television.

   An analysis of views from public roadways will be included in the Draft EA.

5. The Molokai Airport Master Plan Final Report (State of Hawaii Department of Transportation Airports Division, May 1999) shows the arrival flight track is south of Puu Nana and the departure track is north of Puu Nana.

   Additional discussion of the effects of the Anuenue Radio Facility on Molokai Airport will be included in the Draft EA.

6. The double-wall exterior fuel tank will be sited above ground adjacent to the equipment building generator room. The County of Maui Fire Department has allowed use of double-walled, above ground fuel storage tanks.

The double wall tanks contain a leak detection system in the interstitial space between the inner and outer walls to detect leaks. A leak detection gauge will be mounted on the wall of the equipment building.

The fuel fill pipe will be provided with two or more of the following methods to protect them against overfill. These include: a) direct reading level gauge at the tank which is visible from the fill pipe location; b) valve located within the fill-pipe access to close automatically at a specified fill level; c) audible high level alarm activated by a float switch at a specified fill level; d) a spill containment basin with return to the tank surrounding the fill tube to catch any spills. These measures will protect against fuel spills from overfilling when the tank is being filled with fuel.

7. The project site and construction staging area are expected to disturb less than 1 acre of land. At this time, based this information, it has not been determined that there will be need to file a National Pollutant Discharge Elimination System (NPDES) General Permit Notice of Intent Storm Water Associated with Construction Activity or a National Pollutant Discharge Elimination System (NPDES) General Permit Site Specific Construction Best Management Practices (BMP) Plan Storm Water Associated with Construction Activity.

Thank you for your participation in preparation of the Draft EA.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, ACIP, Senior Planner

cc: A. Yamanoha, DAGS
R. Hlivak, DAGS

6608-02

verizon 10/27/03
Verizon Hawaii Inc.
P.O. Box 2200
Honolulu, HI 96841

RECEIVED
OCT 27 2003
WILSON OKAMOTO CORPORATION

JS

CC: DAGS, VIA FAX 10/27/03

October 22, 2003

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, HI 96826

Attention: John L. Sakaguchi, AICP, Senior Planner

Subject: DRAFT ENVIRONMENTAL ASSESSMENT, PRE-ASSESSMENT CONSULTATION;
ANUENUE (FORMERLY RAINBOW) RADIO FACILITIES AND TOWERS,
STATEWIDE, PUU NANA SITE: KALUAKOI, MOLOKAI, HAWAII
DAGS JOB NO. 16-10-0256
TAX MAP KEY: 5-1-002: 013

Dear Mr. Sakaguchi:

Thank you for soliciting our comments on the Puu Nana Draft Environmental Assessment that you are doing on behalf of the State of Hawaii Department of Accounting Services Anuenue Radio Project.

We have no concerns at this time but would like to be kept informed on the progress of the project. We are particularly interested in the specific site plan in relation to our Puu Nana radio station and tower. We would like to verify that no interference to our operations and radio line-of-sight will be encountered.

If you have any questions please call me at (808) 546-7868 or Joyce Hlivak at (808) 546-8799.

Sincerely,

Keith Yoshino
Section Manager-Network Engineering & Planning

KY:jh

c: J. Hlivak
D. Masutomi

APPENDIX C

JS

BOTANICAL SURVEY REPORT FOR THE PROPOSED ANUENUE RADIO FACILITIES AND TOWERS, STATEWIDE PUU NANA SITE DAGS JOB NO.16-10-0256, KALUAKOI, MOLOKAI, HAWAII

FOR
WILSON OKAMOTO AND ASSOCIATES
1907 SOUTH BERETANIA STREET, SUITE 400
HONOLULU, HAWAII 96826

BY
EVANGELINE J. FUNK, PH.D.
BOTANICAL CONSULTANTS
HONOLULU, HAWAII
SEPTEMBER 2003

INTRODUCTION

The proposed Anuenue Radio Facilities and Towers, Statewide Puu Nana site consists of approximately one half acre of land and is located in the Kaluakoi District of the Island of Molokai, Hawaii. It is about five miles west of the Molokai Airport within lands owned by Molokai Ranch. Approximately one half mile south of Maunaloa Highway, the project site is accessed by way of an unimproved dirt tract. At the time of the survey, the site and the surrounding land were being used for pasture.

METHODS

A walk through botanical survey of this site was carried out on September 10, 2003 by a single botanist. All parts of the site were surveyed and data on all of the existing vegetation were collected. The results of this survey are presented below.

RESULTS

The proposed Anuenue Radio Facilities and Towers Site and the surrounding area are part of a working cattle ranch and the vegetation can be described as Scattered Weed Trees with a Mixed Grass understory. The dominant vegetation on the site is a single Eucalyptus tree (*Eucalyptus pilularis* Sm.), which is twenty to twenty-five feet in height. The few remaining trees are Christmas berry (*Schinus terebinthifolius* Raddi) and Formosa koa (*Acacia confusa* Merr.) all less that eighteen feet in height.

The understory consists of a dense cover of very dry mixed grasses. Notably among these is Guinea grass (*Panicum maximum* Jacq.), buffelgrass (*Cenchrus ciliaris* L.), and Kikuyu grass (*Pennisetum clandestinum* Chiov.). Within the grass mat can be found a very few stressed individuals of 'Ilima (*Sida fallax* Walp.), 'Uhaloa (*Waltheria indica* L.), and Koa haole *(Leucaena leucocephala* (Lam.) deWit) which are sparely

distributed within the grass mat. A total of eleven plant taxa were found and they are listed below (TABLE 1).

ENDANGERED SPECIES

No candidate, proposed, or listed threatened or endangered species as set forth in the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) were found during this survey and none were expected.

CONCLUSIONS

The vegetative cover of this site is highly disturbed. One indigenous species, 'Ilima, and one Polynesian introduction, 'Uhaloa, are present, but since these taxa are very widely distributed they are not considered endangered in any way. If the vegetation of this site is destroyed it will quickly regenerate.

TABLE 1

Scientific Name*	Common Name	Status
	Grasses	
Cenchrus ciliaris L.	Buffel grass	Alien
Panicum maximum Jacq	Guinea grass	Alien
Pennisetum clandestinum Chiov.	Kikuyu grass	Alien
	Trees	
Acacia confusa Merr	Formosa koa	Alien
Eucalyptus pilularis Sm	Eucalyptus	*Alien*
Schinus terebinthifolius Raddi	Christmas berry	Alien
	Shrubs and Herbs	
Bidens sp.	Bidens	Alien
Glycine wightii (Wight & Arnott) Verde.		Alien
Leucaena leucocephala (Lam.) deWit	Koa haole	Alien
Sida fallax Walp	'Ilima	Indigenous
Waltheria indica L.	'Uhaloa	Poly. Intro.

*Wagner, W. L., D.R. Herbst, and S.H. Sohmer. 1990. Handbook of the Flowering Plants of Hawaii. Bis. Mus. Special Publication 83. Honolulu, Hawaii

APPENDIX D

ARCHAEOLOGICAL ASSESSMENT

ANUENUE (FORMERLY RAINBOW) RADIO FACILITIES AND TOWERS, STATEWIDE

PUU NANA SITE

DAGS JOB # 16-10-0256

LAND OF KALUAKO'I, ISLAND OF MOLOKAI

(TMK: 5-01-002:004)

By:

Alan E. Haun, Ph.D.
and
Dave Henry, B.S.

Prepared for:

State of Hawaii
Department of Accounting and General Services
c/o Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826

November 2003

Haun & Associates

Archaeological, Cultural, and Historical Resource Management Services
HCR 1 Box 4730, Keaau, Hawaii 96749 Phone: 982-7755 Fax: 982-6343

INTRODUCTION

At the request of Wilson Okamoto Corporation, of the State of Hawaii Department of Accounting and General Services, Haun & Associates conducted an archaeological assessment of the proposed Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide, Puu Nana Site, situated in the Land of Kaluako'i, Island of Molokai (TMK: 5-01-002:004; *Figure 1*). The objective of the assessment was to determine if an inventory survey would be required by the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD). The proposed project consists of the erection of a 105 ft antenna tower, a single story building for equipment and power generation and an exterior fuel storage tank. These proposed structures are to be situated within a fenced area that is 33.0 m long (northwest by southeast) by 16.5 m wide, located in the northeastern portion of the study area.

Project Area Description

The area examined during the project consists of a c. 0.07-acre, irregularly-shaped parcel situated on the southern slopes of Puu Nana, a hill located on Molokai Ranch land within the Land of Kaluako'i. The terrain slopes slightly to moderately to the south, with the parcel ranging in elevation from 1,343 ft to 1,376 ft. The project area is bordered by dirt roads to the north and south, by a barbed wire fence to the west and by an existing antennae tower and undeveloped land to the east (*Figure 2*). A barbed wire fence extends through the northern portion of the project in an east-west direction. A variety of structures are situated adjacent to the project area to the north, northeast and east, on the relatively level top of Puu Nana. These structures consist of existing towers and associated support buildings, a water tank, a concrete reservoir and a large, open water storage reservoir (Mauna Loa Reservoir).

Soils within the parcel consist of Kalae silty clay (5-15% slopes). This soil is characterized by a surface layer of dark reddish brown silty clay overlying substrata of dark red to reddish brown silty clays and silty loams, often with soft, weathered rock inclusions. (Foote et al. 1972:55). This soil is severely eroded and the subsoils have often been removed by erosion. This soil evidences a medium runoff and a moderate to severe erosional hazard, and is classified as suitable for pastureland and the cultivation of pineapples.

The vegetation in the project area consists of low *koa haole* (*Leucaena leucocephala* [Lam.] de Witt), Formosa koa (*Acacia confusa* Gray), Christmas berry (*Schinus terebionthifolius* Raddi), *'ilima* (*Sida fallax* Walp.), and buffel grass (*Stenotaphrum secundatum* [Walt.] Ktze.). Examples of the project area terrain and vegetation are illustrated in *Figures 3* and *4*.

Field Methods

The assessment fieldwork was conducted September 10, 2003. The project area was subjected to a 100% surface examination using five meter interval pedestrian survey transects oriented in an east-west direction. No subsurface testing was undertaken.

BACKGROUND

There are no Land Commission Awards in the project area. Major (2000) undertook an archaeological inventory survey of a 90-acre portion of the Maunaloa Golf course, situated c. 1,150 m west and southwest of the current project. This survey report presents an thorough summary of the known archaeological sites that have been identified within the Land of Kaluako'i (*Figure 5*). As indicated in *Figure 5*, no archaeological sites have been noted in the immediate vicinity of the current project area. The following is a brief synopsis of Major's summary.

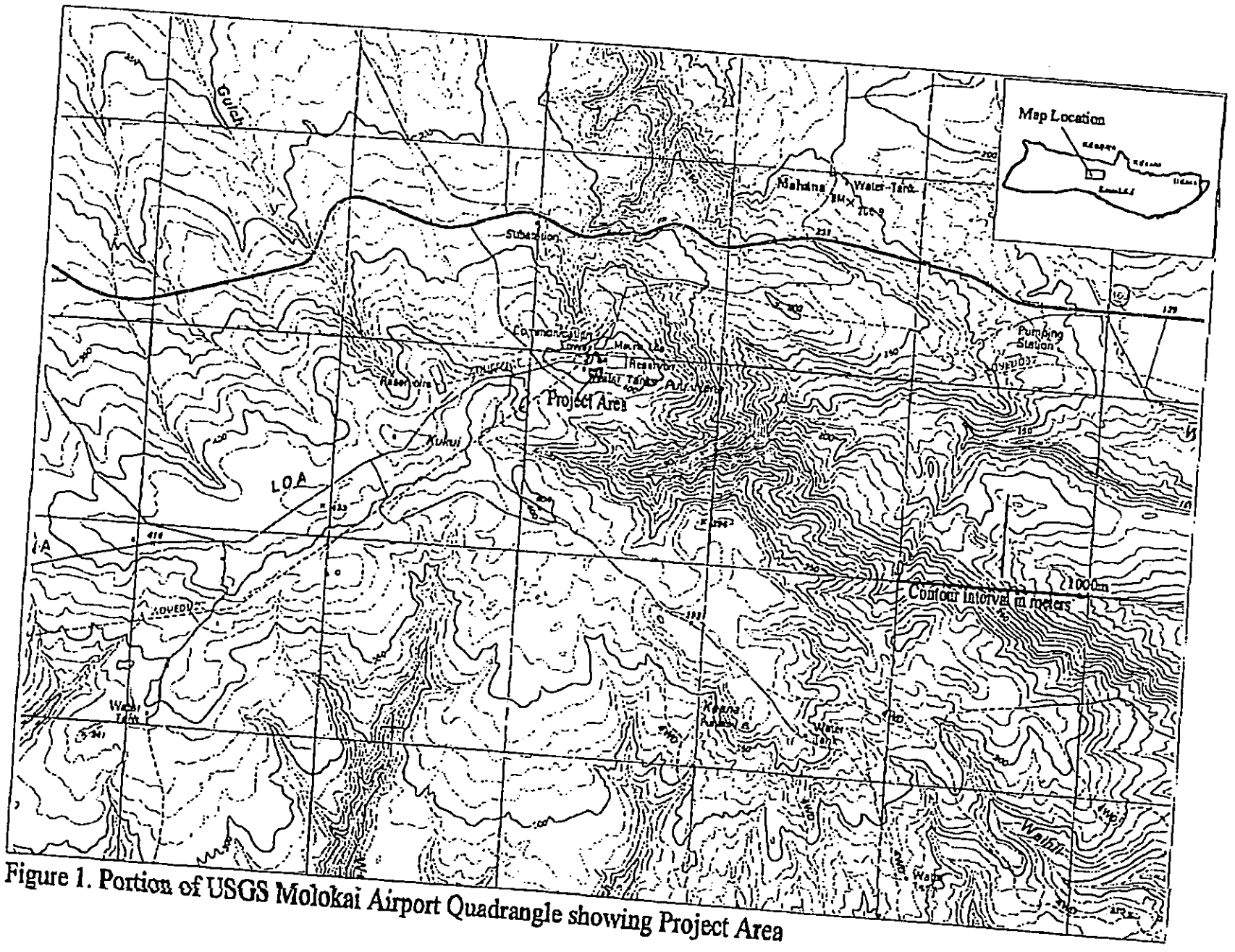


Figure 1. Portion of USGS Molokai Airport Quadrangle showing Project Area

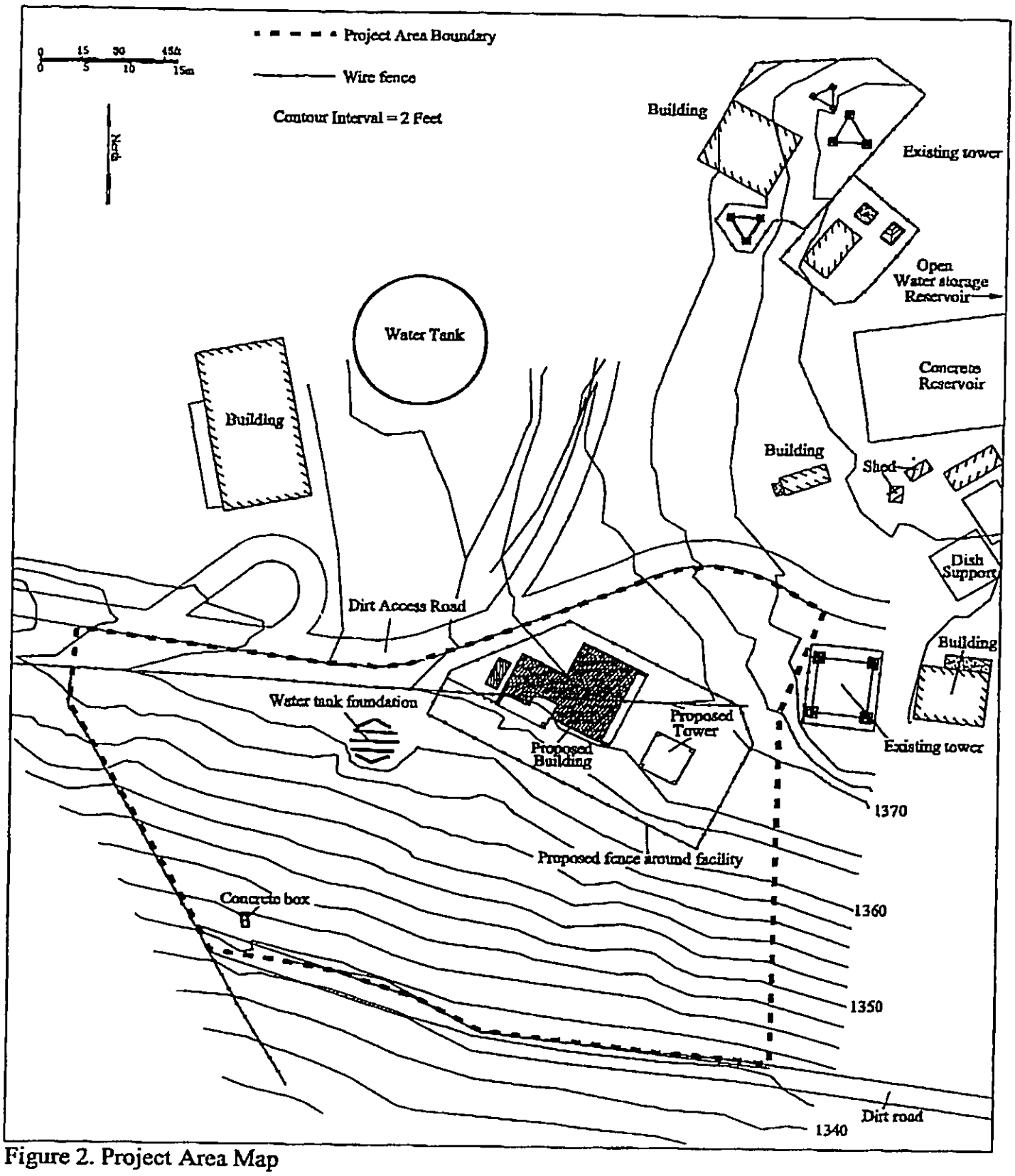


Figure 2. Project Area Map

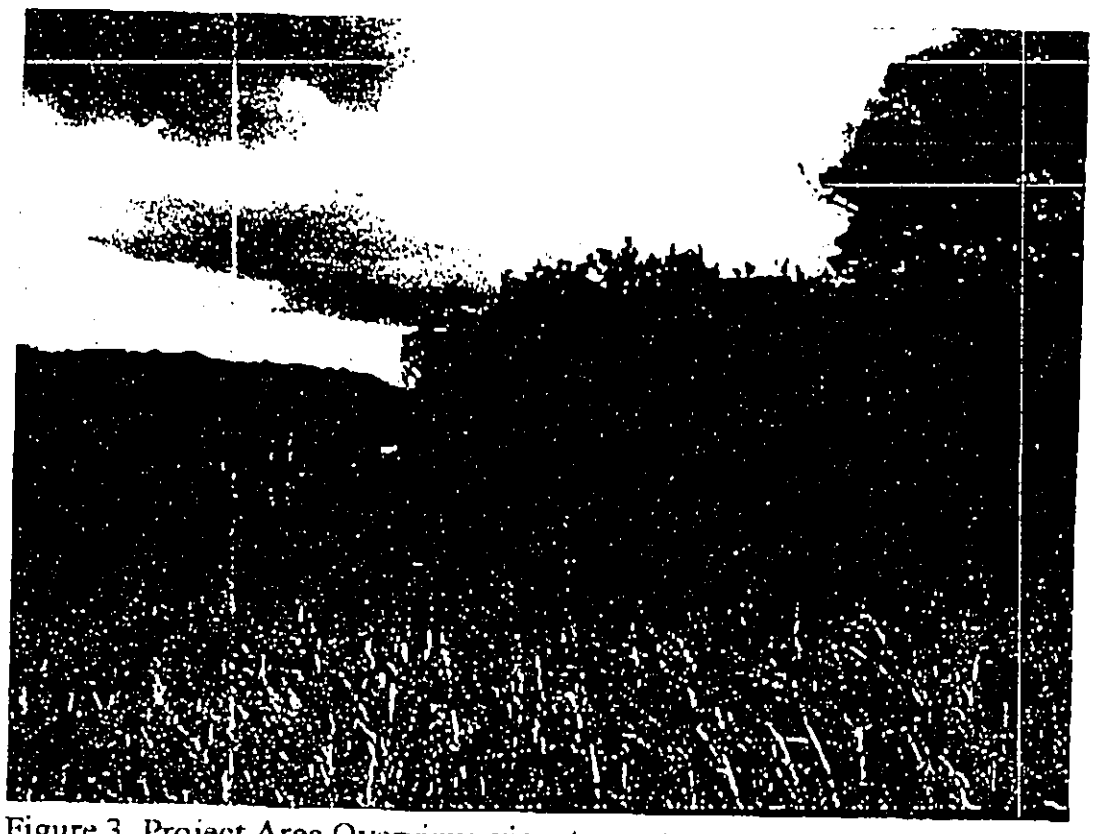


Figure 3. Project Area Overview, view to west

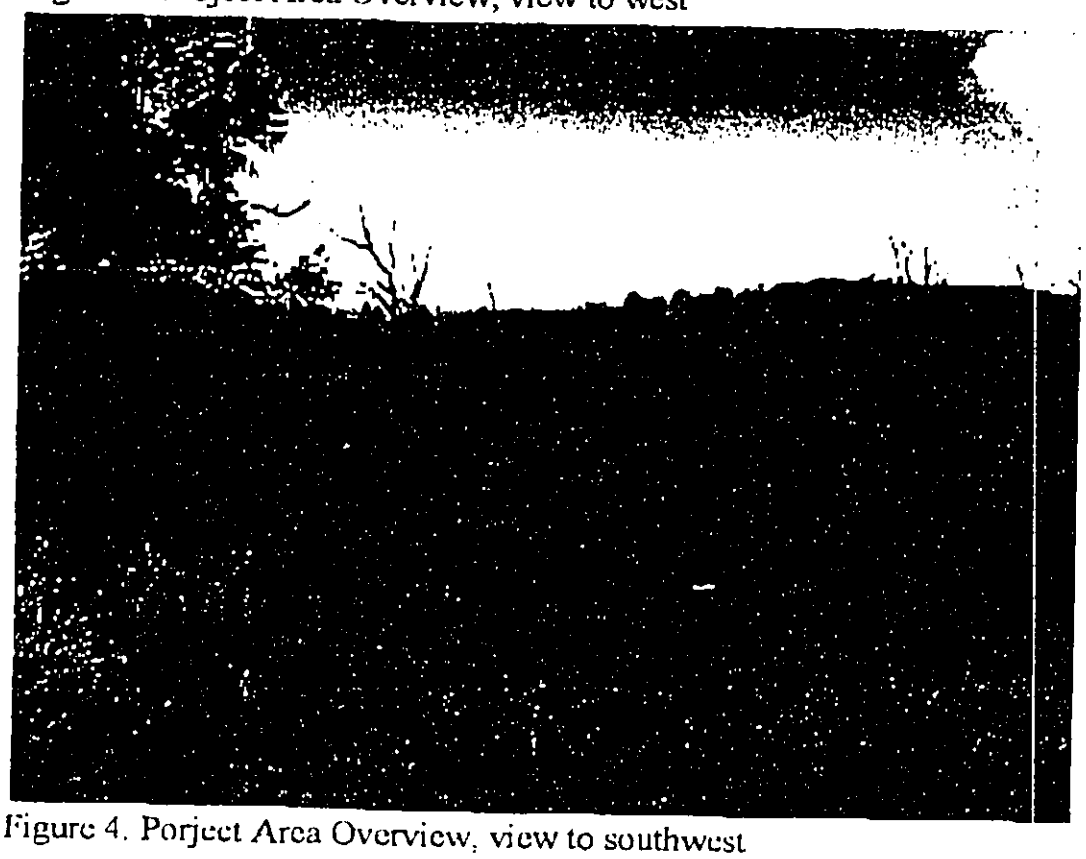


Figure 4. Porject Area Overview, view to southwest

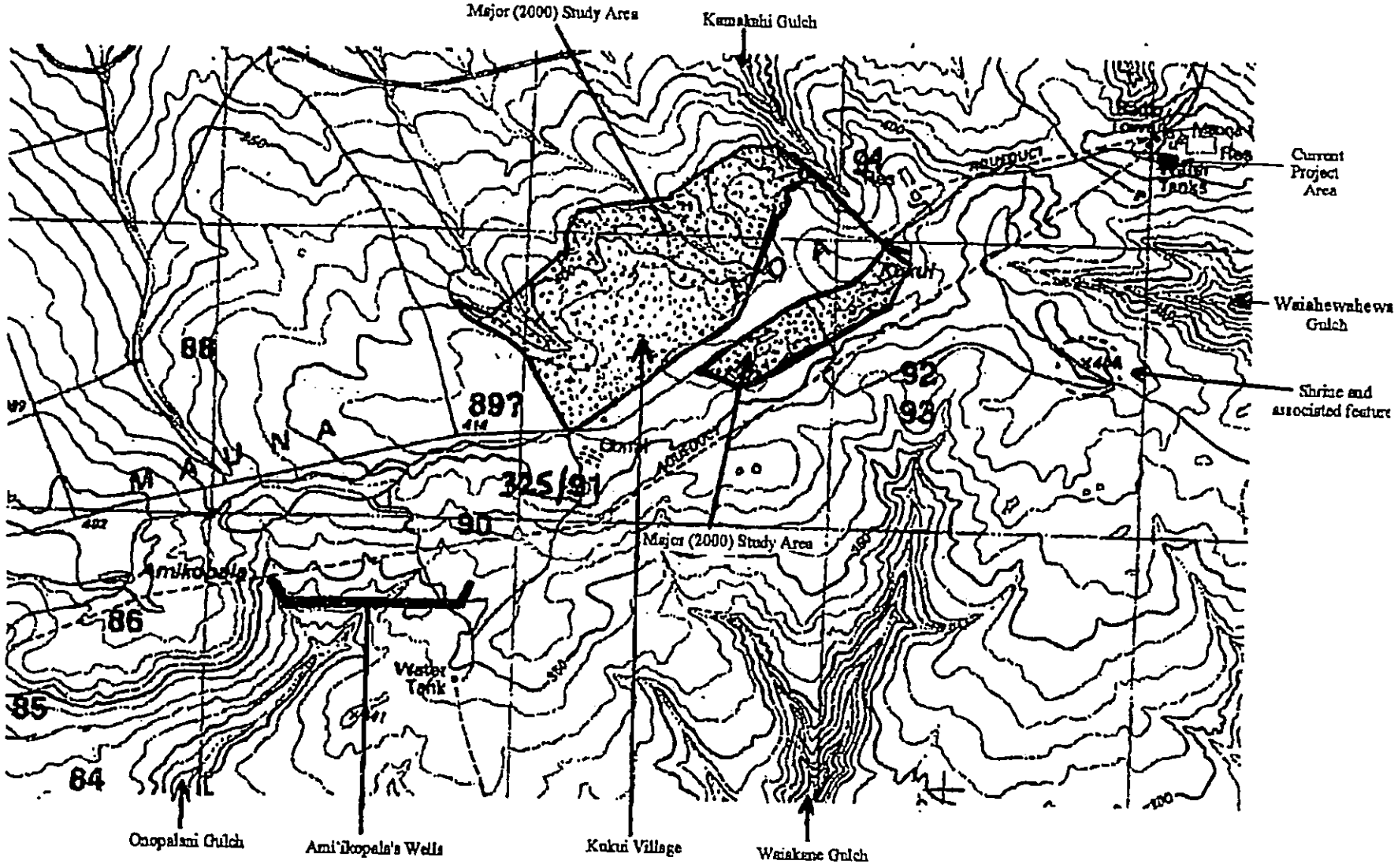


Figure 5. Archaeological Sites in Vicinity of Project Area (modified from Major 2000:7)

Fowke (1922) examined two sites located at the head of Waiakane Gulch (Sites 50-60-01-92 and -93), located c. 1,050 m southwest of the present project area. These sites are commonly referenced as the remains of Kahualewa *Heiau*, but may also represent the remnants of high status dwellings. Fowke also noted, but did not record, numerous archaeological remains in immediate area:

> The surface over hundreds of acres around these ruins is covered with house sites, long straight rows of stones and garden lots surrounded by stone walls. Shop refuse, mostly chips and spalls from adz making, sea shells broken to obtain mollusks, coral for abrading, adzes in all stages of finish, and many "olomaikis" (chunkey stones) [*ulu maika*] are found (Fowke 1922:180).

Portions of this dense archaeological area were subsequently documented as Site 50-60-01-325 during the Statewide Inventory of Historic Places survey. This site, the Waiakane Quarry Complex is also referenced as Site 91.

East of Sites 92 and 93 is an unnamed hill top containing a shrine comprised of vertical boulders that are visible from a considerable distance. Major (2000:9) indicates that according to Kumu Hula John Kaimikaua, this shrine represents the god of adze makers. Possible burials may be indicated by cobbles placed between the boulders. A C-shaped enclosure, stone walls and modified outcrops are also present in this area, and Handy et al. (1972:516) noted the presence of *kua 'iwi* near the head of Waiakane Gulch.

Ami'ikopala is a hill located to the southwest of Site 325. Adze quarrying activity (Site 85) has been documented in this area (Fowke 1922, Phelps n.d., Summers 1970, Dye et al. 1985), and a paved enclosure at the eastern end of the hill has been interpreted as a *heiau* (Site 86; Cartwright n.d., Summers 1971). However, according to Kumu Hula John Kaimikaua, the hill was more properly referenced as Pu'u Puhau and was the home of a giant crab whose name was Ami'ikopala (Major 2000:10). Major states that, "The crab dug five wells that can still be seen as amphitheater-like depressions in the landscape supporting greener vegetation than surrounding soil" (2000:10).

An area of agricultural fields and a trail (Site 84) has been reported to the southeast of Site 85. A *heiau* (Site 90) comprised of large enclosure with an interior platform or pavement is situated to the northeast of the Ami'ikopala wells and to the southwest of Site 91/325 (Phelps n.d, Summers 1971). This structure has apparently been truncated by the construction of an old water line. A *kahua maika* ground (Site 89) in which *ula maika* or gaming stones were rolled is reportedly located to the north-northeast of Site 91/235.

Two culturally significant sites were previously located to the west of Site 89. Site 87 (not depicted on *Figure 5*) consisted of two stones referenced as the "Sisters of Kalaipahoa". These stones were relocated when a road was built in the area (Major 2000:17). The other site in this area (Site 88) consisted of a grove of *a'e* (soapberry, *Sapindus saponaria*) and *nioi* (*Eugenia spp.*) trees that were carved into Kalaipahoa gods. According to Major (2000), this grove was destroyed by pineapple cultivation but remains a culturally significant location.

Major's (2000) survey resulted in the identification of five newly identified sites and with the aid of John Kaimikaua, noted the probable location of the Kukui Village site. According to Kaimikaua, "...no stone walls or platforms were used in the construction of the houses at Kukui—thus the clues to the presence of a village would have disappeared with the decomposition of the organic pole and thatch structures (2000:7).

The five sites identified by Major (2000) consisted of site complexes with from six to 14 features. A total of 51 features were identified, with formal types comprised of lithic scatters, habitation deposits and surface structures, fire-pits, an imu, mounds and a wall remnant. All of the five sites were subjected to surface collection and seven test units, one shovel test and three probes were excavated, yielding a variety of cultural remains dominated by stone tools and flaked lithics.

FINDINGS

The survey did not identify any historic or indigenous surface sites or features. The topographic setting of the project area on the side of a hill indicates that it is in an erosional, as opposed to depositional, environment and it is unlikely that buried subsurface cultural remains are present.

Two modern structures were noted during the survey. These consist of a concrete foundation and a buried concrete box containing pumping equipment (see *Figure 2*). The concrete foundation is located in the north-central portion of the project area to the west of the proposed project structures. It is comprised of a series of five piers built of stacked and mortared concrete blocks (*Figure 6*). Metal anchor bolts are imbedded vertically in the surface of the concrete blocks. The three central piers are situated parallel to each other (0.9 m apart) and vary in length from 4.7 to 5.3 m long (east-west) and in height from 0.7 to 0.9 m. The two remaining piers are V-shaped (1.7 m long on each side) and are situated to the north and south of the central piers. The overall dimensions of the foundation are 5.3 m long (east-west) by 5.1 m wide (north-south). The condition of the concrete blocks and anchor blocks indicates that the structure is modern and its configuration suggests that it potentially served to support a water tank, likely associated with ranching activity in the area.

The buried concrete box is located in the southwestern corner of the study area. It is rectangular in shape and is 1.7 m long (north-south) by 0.85 m wide, built of formed concrete. The top of the box is 0.1 m in height above the surrounding ground surface and the walls are 0.15 m thick. The floor of the box is soil filled and is 1.3 m in depth. A pump is located at the base of the box, with sections of 3" plastic pipe extending out of the box to the north and south. Another section of 3" pipe is located adjacent to the box to the west on the ground surface. The box is surrounded by a frame comprised of welded pipes (*Figure 7*). The condition of the concrete suggests that this structure is also modern.

Based on the fieldwork and limited background research, an inventory survey of the project area is not recommended. This recommendation will require the concurrence of DLNR-SHPD.

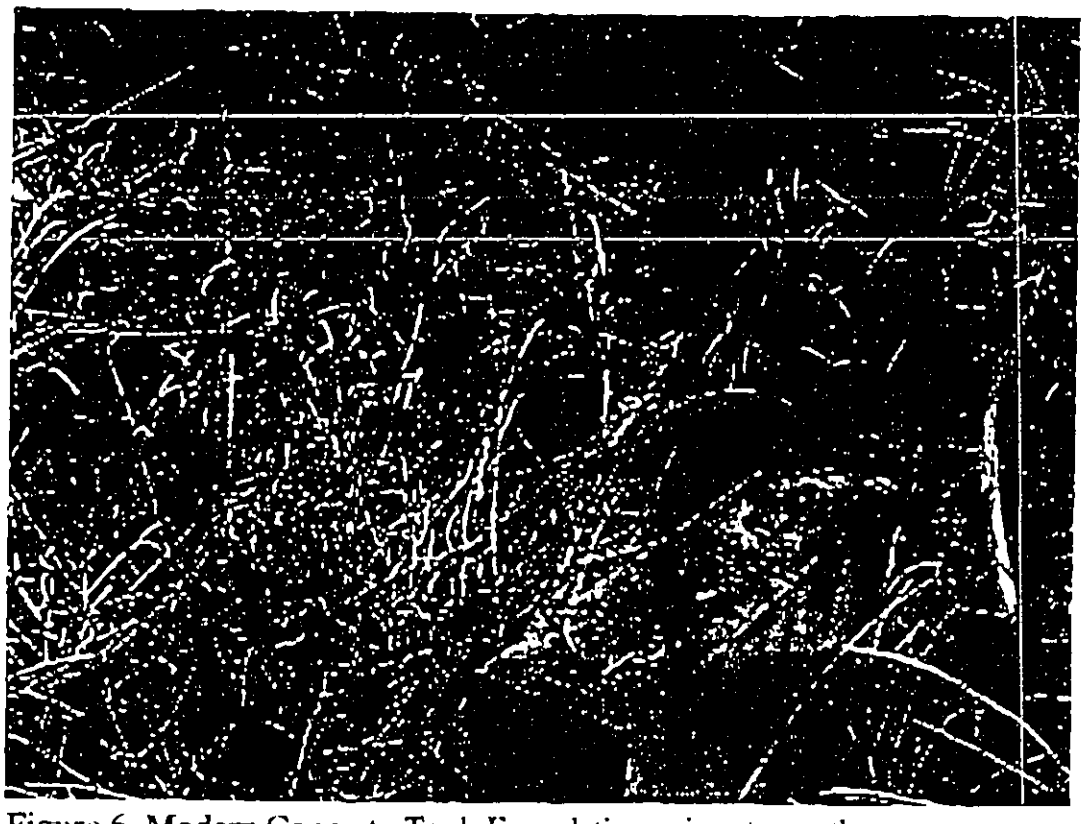


Figure 6. Modern Concrete Tank Foundation, view to northeast

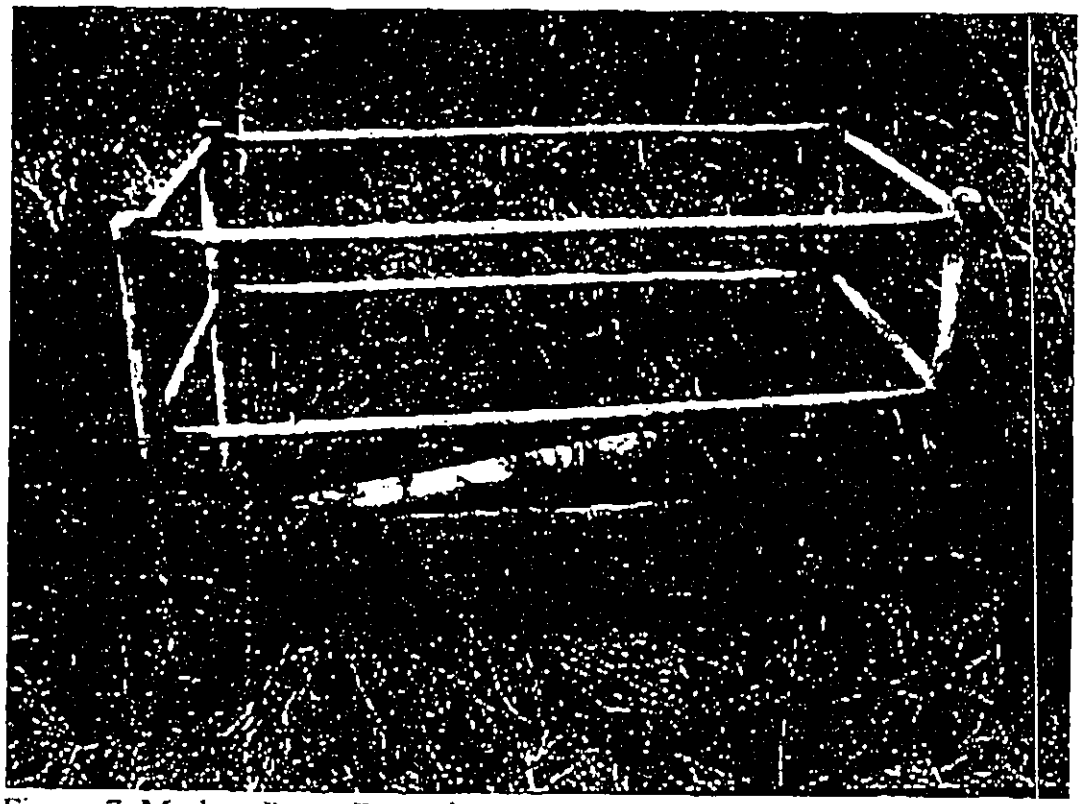


Figure 7. Modern Pump Box, view to west

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The complete Cultural Impact Study and Assessment
has been filed with the State of Hawaii Department of Land
and Natural Resources Historic Preservation Division and
the State of Hawaii Office of Environmental Quality Control

Pu`u Nānā
Cultural Impact Study & Assessment
Ahupua`a & District of Kaluako`i,
Molokai Island, Hawai`i

Prepared for
Haun & Associates
Wilson Okamoto Corp.

By Maria E. Ka`imipono Orr
November 28, 2003

CULTURAL IMPACT ASSESSMENT
SUMMARY

This cultural impact study is based on two guiding documents, Act 50 and OEQC Guidelines, as well as the *Criteria for Historic Preservation* cited below.

Act 50 [State of Hawaii 2000]. H.B. NO. 2895 H.D.1 was passed by the 20th Legislature and approved by the Governor on April 26, 2000 as Act 50. The following excerpts illustrate the intent and mandates of this Act:

> The legislature also finds that native Hawaiian culture plays a vital role in preserving and advancing the unique quality of life and the "aloha spirit' in Hawaii. Articles IX and XII of the state constitution, other state laws, and the courts of the State impose on government agencies a duty to promote and protect cultural beliefs, practices, and resources of native Hawaiians as well as other ethnic groups.
>
> Moreover, the past failure to require native Hawaiian cultural impact assessments has resulted in the loss and destruction of many important cultural resources and has interfered with the exercise of native Hawaiian culture. The legislature further finds that due consideration of the effects of human activities on native Hawaiian culture and the exercise thereof is necessary to ensure the continued existence, development, and exercise of native Hawaiian culture.
>
> The purpose of this Act is to: (1) Require that environmental impact statements include the disclosure of the effects of a proposed action on the cultural practices of the community and State; and (2) Amend the definition of "significant effect" to include adverse effects on cultural practices.
>
> SECTION 2. Section 343-2, Hawai`i Revised Statutes, is amended by amending the definitions of "environmental impact statement' or "statement" and "significant effect", to read as follows:
>
> "'Environmental impact statement" or "statement" means an informational document prepared in compliance with the rules adopted under section 343-6 and which discloses the environmental effects of a proposed action, effects of a proposed action on the economic [and] welfare, social welfare, and cultural practices of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects….

State Historic Preservation Division Draft Rules (1989)

Criteria for Historic Preservation. The "significance" of a site is determined by a set of criteria.
The following is the State of Hawaii criteria for historic preservation:

> Criterion A: Be associated with events that have made an important contribution to the broad patterns of our history.
>
> Criterion B: Be associated with the lives of persons important in our past.
>
> Criterion C: Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value.
>
> Criterion D: Have yielded, or be likely to yield, information important for research on prehistory or history.
>
> Criterion E: Have an important historical cultural value to an ethnic group of the state.

SUMMARY OF FINDINGS.

The following summaries are based on the information presented in the previous sections: the traditional and historical literature review in Part III and the ethnographic data and analyses in Part IV. References are not cited here unless it is new information and not already cited in the text above. These summaries condense the information above, but also serve to focus on a few significant individuals and events in Kaluako`i's history in relation to Pu`u Nänä as well as give a broad overview of land, water and marine resources and uses in the general area, as they reflect cultural properties and practices.

Summary of Significant People and Events.

According to traditional and historical material, the Kaluako`i District has gone through a number of significant changes, and over time, and witnessed the comings and goings of many significant people. Some of these people contributed substantially not only to the history of Kaluako`i, but of Molokai Island and the rest of the Hawaiian Islands as well. There were several individuals and events noted in the oral histories and later recorded by explorers, missionaries, native Hawaiian scholars and ethno-historians, from the time of Nana`ula and Paka`a to Kamehameha I who conquered the various island kingdoms to bring them under one realm. Some of these significant personalities lived in the Kaluako`i District in the

vicinity of Pu`u Nänä, were responsible for land modifications, shifts in polity and commerce, the gene pool of some of Hawaii's people, and are noted below.

Mythical Entities.

There are a few mythical entities noted in this district such as Kapo and Laka, who are credited with originating the art of *hula* in Kä`ana, the flat pu`u southeast of Pu`u Nänä. According to legend Laka started a *hula halau* here and a shrine and rock mark the place where this took place. Legends also mention the *`ohi`a lehua* forests of this area and *`ohi`a* leis being made for Kapo.

The famous poison goddess Kälai-pähoa, was according to legends, carved from trees that grew on Maunaloa. This god-figure became a coveted object well-guarded by Molokai *kahu*. However, it eventually came into the possession of Maui kingdom *ali`inui* Kahekili who married the daughter of it's last Molokai guardian. After the death of Kahekili, and after the defeat of the island polities, with the exception of Kauai, the victor, Kamehameha I claimed Kälai-pähoa as one of his gods.

Kihawahine, an ancient `aumakua who took the form of a *mo`o* or lizard, and who became the patroness of the Pi`ilani *ohana* was also patroness *`aumakua* of the people of Molokai; the Kama`uaua *`ohana* who maintained their Nana`ula line.

Another mythical entity of Kaluako`i was Amikopala, the giant crab whose legs, while grabbing onto land, created six to eight streams.

Ruling Chiefs & Ali`i nui.

One of the first legendary people or families or lines who impacted the history of Hawai`i was the Nana`ula *`ohana* [also referred to as Nana`ulu] who came from the southern islands to Hawai`i around the 6th century along with other families from Tahiti or Samoa and brought their Polynesian traditions with them. They peopled all the islands for thirteen or fourteen generations. During the 10th century the Paumakua family arrived from Tahiti. They are the ancestors of many of the families of the islands. During the 11th century the Nanama`oa family from the Society Islands established families on the islands of Hawaii, Maui and Oahu. During this period the descendants of Paumakua, Haho (who started the *Aha-ali`i*), Palena, Hua, Hanalaanui & Hanalaaiki (twins and progenitors of Maui and Hawaii Island *aliinui*), and Mauiloa, were well established in the islands. The Nanama`oa families were shortly followed by Pa`ao and Pili who came during the reign of Kapawa, grandson of Nanama`oa, started their own lines and changed the religious and social structures of the island chiefdoms. They brought with them the Ku cult and the practice of human sacrifice. Around the beginning of the 12th

century great voyages regularly took place to and from the southern islands, but stopped abruptly around the end of that century, during the time of Wakalana around AD 1175, right after the arrival of white foreigners, possibly from Japan.

Molokai's Kama`ua`ua line started in the 13th century and continued until the 19th century. Most of the islands were ruled by the southern families with the exception of Molokai (Kama`uaua family) and parts of Oahu (Maweke family) who were descendants of the ancient Nana`ula line. However, based on the Molokai genealogy, some of Molokai's *ali`inui* were intermarried with *ali`i* from Hawai`i and Maui [i.e., Makeamalaehanae who married Kalapana of Hawaii--their son Kahai was prominent on Maui and O`ahu].

During the 15th century many of Maui's ruling chiefs are written about in the oral histories, such as: Kamaloohua, Kaulahea I, Kakae (ca. AD 1450), Kaka`alaneo (brother of Kaka`e who co-ruled Maui with him), and Kahekili I (ca. AD 1475), father of Kawaokaohele and grandfather of Pi`ilani (ca AD 1525) who ruled during the 16th century. He was followed by his sons Lono-a-Pi`ilani, his brother Kiha-a-Pi`ilani, who wrested the power from Lono with the help of his sister Pi`ikea and his husband Umi-a-Liloa, the ruling chief of Hawaii Island during this period [Kiha-a-Pi`ilani went to Molokai and built a significant shell trail in Kaluako`i]; and Kamalalawalu around AD 1575. .These Pi`ilani chiefs, according to oral histories, also considered Lanai and Molokai to be in their polity.

At sometime between the 16th and 17th centuries a Hawai`i Island *ali`i* named Päka`a fled to Molokai from his ruling chief Keawenui-a-`Umi. He settled in the south coast of Kaluako`i where he taught the people there large-scale sweet potato cultivation. After a long period of time, Keawenui caught up with him; for his arrival, thousands of *hale* were constructed for his entourage.

During the 17th century the most significant Maui *alii`nui* were Kauhi-a-Kama I (ca AD 1600), Lonohonuakini (ca AD 1650), and Kaulahea II (ca AD 1675). During the 18th century the ruling chiefs of Maui were; Kekaulike II (ca AD 1700), Kamehameha-nui (ca. AD 1736), Kahekili II (ca. AD 1765), and Kalanikupule (ca. AD 1795), the last ruling chief of Maui polity. The highest ranking *ali`inui* of Molokai at this time was helping his Molokai relatives]; Pele-io-holani [cousin of Alapa`i; father of Kalaniopu`u and Keoua Kanealai [*kahu* of Kälai-pähoa] who was married to Keawe, *ali`inui* of Hawaii; Kanealai later marries Kekaulike and their daughter Luahiwa marries her half brother Kahekili, son of Maui ruling chief Kekaulike. On a sad note, the following *ali`inui* had a negative impact on Molokai: Ka-pi`i-oho-o-ka-lani, ruling chief of O`ahu [who died at Kawela at the hands of warriors of Alapa`i, ruling chief of Hawaii who was; ruling chief of Kauai--later ruling chief of O`ahu, who later retired to

Molokai--in revenge for the death of his daughter by Molokai chiefs]; and Kamehameha I.

It is unclear from the literature when Chief Lono Nu`uhiwa lived in a fishing village at Kepuhi; or when the La`ila`i family lived on Pu`u Nänä--the La`ila`i family supposedly are the descendents of Laka and Kapo.

During the Mahele period when Kamehameha III was dividing up the lands; he kept Kaluako`i for himself. It was later granted to Charles R. Bishop; then transferred to Bishop Estate. It was later sold to a group of investors as American Sugar Company who later became Molokai Ranch Ltd. Part of the ranch lands were leased to Libby, McNeill & Libby in 1923 for a little over 50 years. The Cooke family were long-time prominent people connected to the ranch for years.

Significant Events.

The most significant events of Kalauako`i, specifically in the vicinity of Pu`u Nänä, took place in a very distant time but they are remembered in the *mo`olelo* or documented by their stone legacies. They include the construction the Kä`ana *hula halau;* Päka`a's trails, house and sweet potato gardens; the carving of Kälai-pähoa from a sacred grove of trees on Maunaloa; and the founding of the adze quarries. Other events which may be significant to the people involved are the founding of Maunaloa town; and the denuding of Maunaloa by ranching and pineapple ventures. It is significant, but in a negative way because it did irreparable damage to Kaluako`i, changing it's weather and landscape for over 100 years, and permanently destroying it's native flora and fauna.

Summary of Land Resources and Use

Various land use patterns are recounted in the literature, legends, maps and legal documents, but are not always physically evident on the landscape anymore. Or the reverse can be true; sites are discovered but the legends and literature are silent. Both are the case with Pu`u Nänä and vicinity. Whatever sites that may have been on Pu`u Nänä have been destroyed; and the reason the trails led to it, are no longer known, except that it is the tallest peak of Maunaloa where one could have had a broad view from it. Nothing is known about the site on the northwestern slope of Pu`u Nänä, except that it once had a view of the northern and western landscape and shores, assuming the exotic forest that is currently there, was not there in the ancient past.

Ancient Land & Marine Resources and Use

The traditional literature has a fair amount of information about significant sites in the vicinity of Pu`u Nänä. There is a spring in the valley of its east slope, people were known to live there and still do. The adjacent pu`u where Kä`ana is was an ancient *hula* school. The pu`u where Kukui is was a productive quarry and workshop area, where a special type of hematite quarrying was done. Not far away was the very productive basalt adze quarry of Amikopala. These places are on the volcanic dome of Maunaloa which was once forested with several variety of trees, as was Kä`ana. There were several *heiau* in the area. And the sweet potato fields of Päka`a were also legendary. These all lead to a determination that the area was highly evolved. It wouldn't be a stretch of the imagination to assume that Maunaloa, including Pu`u Nänä was a community of schools: *hula*, healing arts, sorcery, adze, astronomy, cultivation, and fishing...a land of masters, of teaching *kahuna*. It was either supported by fishing villages along the coast or the community lifestyle was seasonal. There is evidence that it was seasonal, as the Kaluako`i shores during the winter months are treacherous.

Historic Land & Marine Resources and Use.

The stories and activities of Kahekili, Luahiwa and Kamehameha I represent a transition period of pre-contact and contact, and were fairly well documented, yet there are no evidence that they had anything to do with Kaluako`i. Historic references are few and mention isolated instances of people living in Kaluako`i during the early historic period amidst ruins of at least three fishing villages. During the Great Mahele (ca 1848) there is interest in these lands as Kamehameha III claims it for himself, but not for its sacredness.

In 1875 it is granted to Charles R. Bishop who raised cattle on it until 1893 when the cattle were eradicated for bovine disease. In 1898 Kalukako`i was sold to American Sugar Company, later incorporated as Molokai Ranch Ltd. where cattle ranged. In 1908 Cooke bought out his partners of Molokai Ranch. In 1923 portions of Molokai Ranch was leased to Libby McNeill & Libby to cultivate pineapple. A part of the land was used to create Maunaloa Town and a golf course where Kukui quarry is located; the rest was used for cattle ranching and raising honey bees. In 1969 Molokai partnered with Louisiana Land and Exploration Company to develop a resort, subdivision and condos on coastal Kaluako`i.

Water Resources and Use.

The Kaluako`i district does not have any perennial streams, although the legends mention that there may have been six to eight streams in the area, most likely the southwestern area of

the *`ili* of Punakou. Water for most of Kaluako`i are from storm runoffs. There is at least two known springs east and southeast of Pu`u Nänä. A large historic reservoir is on the summit of Pu`u Nänä, as is a historic water tank, which would indicate sufficient rainfall to keep the reservoir full. There are pipes coming off the reservoir and water tank of Pu`u Nänä; some are leaking creating pooling of water in places.

Summary of Survey Findings (Cultural Practices)

It is evident that at one time the lands of Pu`u Nänä, were part of an ancient Hawaiian life system. Archaeological surveys reveal evidence of *heiau*, adze quarries, burials, field cultivation, hearths and habitation in the vicinity of Pu`u Nänä, indicating a multi-use of the lands. The most significant cultural practice of Pu`u Nänä at one time was a adze workshop/house site and or astronomy facility. However, any supporting evidence has been destroyed by ranching activity [reservoir and water tank], and the construction of several radio antennae and facilities. Fortunately the "house" site still exists although not in great condition.

Possibly a carry-over activity from precontact time is bird and pig hunting; but the birds are no longer native, and the pigs are feral. However, the recreational hunting activity is something that has been going on for over 100 years.

Summary of Consultants Concerns.

The consultants generally approve of the project, but have a few concerns:

- that the project construction activity be contained in previously impacted areas
- that access for hunters not be blocked
- that access for project construction be kept to currently available roads
- that care be taken not to damage the traditional cultural site(s) in the Pu`u Nänä forest.

Cultural Resources. This category entails sites or places associated with significant events and/or people important to the native Hawaiian patterns of prehistory; embody distinctive characteristics; or are likely to yield information important for research on the prehistory of Hawaii. It also includes sites that yield resources important for native Hawaiian Cultural Practices, past and present; and items that are part of a cultural context. *Wahi Pana* or sacred places are important cultural resources to

native Hawaiians regardless that the original sites that may have been there no longer exist. Often it is not the lack of interest but the lack of knowledge of whereabouts or more likely, lack of access that prevent native Hawaiians from visiting these sites.

Resource	Criteria	Location	Era
Volcanic Glass Spall	A, B, D	Project area	Prehistory
Basalt Debitage	A, B, D	Project area	Prehistory
Platform	A, B, D	Project area	Prehistory
Walls	A, B, D	Project area	Prehistory

Cultural Practices. This category includes items that are essential to the gathering practices that have cultural value to either native Hawaiians or other ethnic groups. Several native flora species were noted, but not identified to the level of use. The cultural practice of pig hunting continues today.

Historic Resources. This category entails sites associated with significant events and/or people important to the broad patterns of history [post Western contact], which includes other ethnic groups; embodies distinctive characteristics of an historic era or master; or are likely to yield information important for research on the history of Hawaii. Other than the reservoir and water tank constructed during the early ranching days and the radio antennae there are no historic sites.

CULTURAL IMPACT ASSESSMENT

The lands within the project area were heavily impacted by the historic ranching and pineapple plantation activities of the 19th and 20th centuries. Cultural sites were either destroyed or buried by both ranching and pineapple plantation activities. It has been further impacted by the construction of several antennae and their associated facilities. The addition of one more antenna does not seem to present a problem for the consultants. However care should be taken when excavating as clues to the function of Pu`u Nänä may still exist in subsurface layers. An archaeological monitor could randomly sift soil to make sure artifacts and/or charcoal are not present.

APPENDIX E

U.S. Department of Homeland Security

United States Coast Guard

Commander (t)
United States Coast Guard
Maintenance & Logistics Command Pacific

Bldg 54, Coast Guard Island
Alameda, CA 94501
Staff Symbol: MLCP (te-4)
Phone: (510) 437-5853
Fax: (510) 437-5666
Email: jcote@d11.uscg.mil

4700
April 28, 2004

RECEIVED
APR 30 2004
WILSON OKAMOTO CORPORATION

Wilson Okamoto Corporation
Attn: Mr. John Sakaguchi, AICP, Senior Planner
1907 South Beretania Street, Suite 400
Honolulu, HI 96826

Dear Sir:

Thank you for the opportunity to review the draft environmental assessment for the proposed Anuenue radio facility at Puu Nana.

As you may be aware, the U.S. Coast Guard is a partner with the State of Hawaii in support of the Anuenue system. We have reviewed this draft environmental assessment and have no additional information to provide. Thank you.

Sincerely,

JAMES COTE
Chief, Integrated Network Systems Section
U.S. Coast Guard
By direction

WILSON OKAMOTO CORPORATION
ENGINEERS PLANNERS
1907 S BERETANIA ST
SUITE 400
HONOLULU, HI 96826
PH (808) 946-2277
FAX (808) 946-2253

6608-02
August 3, 2004

Mr. James Cote, Chief
Integrated Network Systems Section (SLCP (te-4)
US Coast Guard
US Department of Homeland Security
Bldg 54, Coast Guard Island
Alameda, California 94501

Subject: Draft Environmental Assessment (EA)
Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide
Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Mr. Cote:

Thank you for your April 28, 2004 comments (4700) regarding the Anuenue Radio Facility project. The Final EA will note that the US Coast Guard had no additional information to provide.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

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6608-02

4/26/04

JS

cc: DAGS

U.S. Department of Transportation
Federal Aviation Administration

Western-Pacific Region
Real Estate and Utilities Section, AHNL-54B

P. O. Box 50109
Honolulu, Hawaii 96850-5000

April 22, 2004

RECEIVED
APR 23 2004
WILSON OKAMOTO CORPORATION

Wilson Okamoto Corporation
1907 South Beretania Street,
Suite 400
Honolulu, HI 96826
Attention: Mr. John L. Sakaguchi,
Senior Planner

Dear Mr. Sakaguchi:

Your letter of March 23, 2004, requested our review and comment on the Draft Environmental Assessment for the Anuenue (formerly Rainbow) Radio Towers and Facilities, Statewide, Puu Nana Site project to be located at Kaluakoi, Molokai, Hawaii for the State of Hawaii, Department of Accounting and General Services.

The Federal Aviation Administration has no comments or objections to your proposed project.

We appreciate this opportunity to comment. Please contact me on Oahu at 541-1236, if there are any questions.

Sincerely,

Darice B. N. Young
Realty Contracting Officer

WILSON OKAMOTO CORPORATION

ENGINEERS
PLANNERS

1907 S. BERETANIA ST
SUITE 400
HONOLULU, HI 96826
PH (808) 946-2277
FAX (808) 946-2253

6608-02
August 3, 2004

Ms. Darice B.N. Young, Realty Contracting Officer
Federal Aviation Administration
Western Pacific Region
Real Estate and Utilities Section, AHNL-54B
US Department of Transportation
P.O. Box 50109
Honolulu, Hawaii 96850-5000

Subject: Draft Environmental Assessment (EA)
Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide
Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Ms. Young:

Thank you for your April 22, 2004 comments regarding the Anuenue Radio Facility project. The Final EA will note that the Federal Aviation Administration had no comments or objections to the project.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

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6608-02

US Department of Transportation
Federal Highway Administration

Hawaii Division
Box 50206
300 Ala Moana Boulevard, Room 3-306
Honolulu, HI 96850

RECEIVED
MAY 14 2004
WILSON OKAMOTO CORPORATION

May 13, 2004

In Reply Refer To:
HEC-HI

Mr. John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, HI 96826

Dear Mr. Sakaguchi:

Subject: Draft Environmental Assessment, Anuenue (formerly Rainbow) Radio Towers and Facilities, Statewide, Puu Nana Site
Kaluakoi District, Molokai, Hawaii; Tax Map Key: 5-1-002:004
Review and Comment

I want to thank you for including the Federal Highway Administration (FHWA) in the draft review process for the subject project. We have no comments at this time.

I would also like to take this opportunity to let you know for future correspondence concerning the County of Maui and the FHWA, you may contact me rather than Mr. Pat Phung.

Again, thank you for including us in your process, and I look forward to working with you in the future. If you have any questions, please call me at 541-2700, extension 304.

Sincerely yours,

Kai Nani F. Kraut
Transportation Engineer

WILSON OKAMOTO CORPORATION
ENGINEERS PLANNERS
1907 S. BERETANIA ST
SUITE 400
HONOLULU, HI 96826
PH: (808) 946-2277
FAX: (808) 946-2253

6608-02
August 3, 2004

Ms. Kai Nani F. Kraut, Transportation Engineer
Federal Highway Administration
Hawaii Division
US Department of Transportation
Box 50206
300 Ala Moana Boulevard, Room 3-306
Honolulu, Hawaii 96850

Subject: Draft Environmental Assessment (EA)
Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide
Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Ms. Kraut:

Thank you for your May 13, 2004 comments (HEC-HI) regarding the Anuenue Radio Facility project. The Final EA will note that the Federal Highway Administration had no comments on the project.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

M:\WOA\6608-02 dags\dea LTs\fhwaLT-1.doc; 8/3/2004

LINDA LINGLE
GOVERNOR

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

April 22, 2004

6608-02 JS

RODNEY K. HARAGA
DIRECTOR
Deputy Director
BRUCE Y. MATEJI
LINDEN H. JOESTING
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.1112

cc: DAGS

RECEIVED
MAY 05 2004
WILSON OKAMOTO CORPORATION

Mr. John Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

Subject: Anuenue (formerly Rainbow) Radio Towers and Facilities, Puu Nana, Molokai
Draft Environmental Assessment (DEA)
TMK: 5-1-002: 004

Thank you for your transmittal requesting our review of the subject project.

Our prior comments to you on any impact to our highway right-of-way by the project in our letter HWY-PS 2.2259 dated November 3, 2003, are still valid and applicable.

We appreciate the opportunity to provide our comments.

Very truly yours,

RODNEY K. HARAGA
Director of Transportation

c: A. Yamanoha, Department of Accounting and General Services

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST
SUITE 400
HONOLULU, HI 96826
PH: (808)946-2277
FAX: (808)946-2253

6608-02
August 3, 2004

Mr. Rodney K. Haraga, Director of Transportation
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Subject: Draft Environmental Assessment (EA)
Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide
Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Mr. Haraga:

Thank you for your April 22, 2004 comments (STP 8.1112) regarding the Anuenue Radio Facility project. Our responses follow.

1. At this time, no work is anticipated within the State highway rights-of-way. However, should such work be necessary, plans will be submitted to the Department of Transportation for approval.

2. The Final EA will note that Puu Nana contains a number of existing towers and structures. Further, the Final EA will note only the upper portion of the proposed tower will be visible.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

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LINDA LINGLE
GOVERNOR
STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAII 96805

MICAH A. KANE
CHAIRMAN
HAWAIIAN HOMES COMMISSION

BEN HENDERSON
DEPUTY TO THE CHAIRMAN

KAULANA H. PARK
EXECUTIVE ASSISTANT

JS
4/26/04
cc: DAGS

April 6, 2004

RECEIVED
APR 07 2004
WILSON OKAMOTO CORPORATION

Mr. John L. Sakaguchi
Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

Thank you for the opportunity to review the draft environmental assessment report for the Anuenue Radio Towers and Facilities, Statewide, Puu Nana Site project on the island of Molokai. The Department of Hawaiian Home Lands has no comments to offer at this time.

If you have any questions, please call me at 586-3801 or call our Planning Office at 586-3836.

Aloha and mahalo,

for Micah A. Kane, Chairman
Hawaiian Homes Commission

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST.
SUITE 400
HONOLULU, HI 96826
PH: (808)946-2277
FAX: (808)946-2253

6608-02
August 3, 2004

Mr. Micah A. Kane, Chairman
Hawaiian Homes Commission
Department of Hawaiian Home Lands
State of Hawaii
P.O. Box 1879
Honolulu, Hawaii 96805

Subject: Draft Environmental Assessment (EA)
Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide
Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Mr. Kane:

Thank you for your April 6, 2004 comments regarding the Anuenue Radio Facility project. The Final EA will note that the State of Hawaii Department of Hawaiian Home Lands had no comments on the project.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

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LINDA LINGLE
GOVERNOR OF HAWAII

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

GENEVIEVE SALMONSON
DIRECTOR

6608-02
4/26/04
cc: DAGS

April 22, 2004

RECEIVED
APR 23 2004
WILSON OKAMOTO CORPORATION

Mr. Russ K. Saito, Comptroller
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawai'i 96810

Dear Mr. Saito:

Subject: Draft EA for the Anuenue Radio Facilities and Towers, Puu Nana Site, Molokai

Thank you for the opportunity to review the subject document. We have no comment. Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Genevieve Salmonson
Director

c: Wilson Okamoto Corp.

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST
SUITE 400
HONOLULU, HI 96826
PH: (808) 946-2277
FAX: (808) 946-2253

6608-02
August 3, 2004

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

Subject: Draft Environmental Assessment (EA)
Anuenue (formerly Rainbow) Radio Facilities
and Towers, Statewide
Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Ms. Salmonson:

Thank you for your April 22, 2004 comments regarding the Anuenue Radio Facility project. The Final EA will note that the Office of Environmental Quality Control had no comments on the project.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

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LINDA LINGLE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING, ROOM 555
601 KAMOKILA BOULEVARD
KAPOLEI, HAWAII 96707

66-B-02

PETER T. YOUNG
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU
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

7/26/04

July 7, 2004

RECEIVED
JUL 13 2004
WILSON OKAMOTO CORPORATION

LOG NO: 2004.2018
DOC NO: 0407SC02

CC: DAGS, VIA FAX

Mr. John Sakaguchi
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

SUBJECT: Chapter 6E-8 Historic Preservation Review of an Archaeological Assessment of the Proposed Anuenue Radio Facilities at Pu'u Nānā Kaluako'i, Moloka'i
TMK: (2) 5-1-002:004

Thank you for the submission of an archaeological assessment report conducting in support of the proposed Anuenue radio facilities at Pu'u Nānā near Maunaloa on Moloka'i (Haun & Henry. 2003. Archaeological Assessment Anuenue (Formerly Rainbow) Radio Facilities and Towers, Statewide, Puu Nana Site DAGS Job #16-10-0256, Land of Kaluako'i, Island of Moloka'i). We received the subject report on May 10, 2004 and provide the following comments. Our review is late and we apologize for any inconvenience this may cause you or your client.

The assessment covered in an area of 0.07 acres through pedestrian survey; no subsurface testing was done. No historic sites were found, nor were any buried sites deemed likely to be present, due to the ongoing erosion within the project area.

We can deem the report adequate and accept it as final. We only would like to ask that a better quality copy of the report be provided to our office; the photographs in the submitted report are very indistinct.

Should you have any questions, please contact Sara Collins at 692-8026.

Aloha,

P. Holly McEldowney

P. Holly McEldowney, Administrator
State Historic Preservation Division

SC:jen

c: Michael Foley, Director, Dept of Planning, 250 S. High Street, Wailuku, HI 96793
Maui Cultural Resources Commission, Dept of Plng, 250 S. High Street, Wailuku, HI 96793
Lori Buchanan, Moloka'i Plng Comm, Dept of Plng, 250 S. High St., Wailuku, HI 96793
A. Yamanoha, DAGS

JUL 9 2004

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS
1907 S BERETANIA ST
SUITE 400
HONOLULU, HI 96826
PH: (808) 946-2277
FAX: (808) 946-2253

6608-02
August 4, 2004

Ms. P. Holly McEldowney, Administrator
State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
601 Kamokila Boulevard, Room 555
Kapolei, HI 96707

Subject: Draft Environmental Assessment (EA), Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide
Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Ms. McEldowney:

Thank you for your July 7, 2004 comments (DOC:0407SC02) regarding the Anuenue Radio Facility project. The Final EA will note that the Historic Preservation Division has accepted the Archaeological Assessment report as adequate and final.

We will submit a better quality copy of the report for your records under separate cover. We apologize for any inconvenience this may have caused you.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

M:\WOA\6608-02 dags\dea LTs\shpd LT-1.doc; 8/4/2004

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

0602-02

CC: DAGS VIA e-mail
4/20/04

HRD04-1345

April 13, 2004

John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, HI 96826

RECEIVED
APR 15 2004
WILSON OKAMOTO CORPORATION

Subject: Draft Environmental Assessment for the Proposed Rebuilding and Modernization of a Microwave Communication System to be Owned by DAGS (Shared with County of Maui, State and Federal Agencies), Anuenue (formerly Rainbow) Radio Towers and Facilities, Statewide, Puu Nana Site Kaluakoi District, Molokai, Hawaii, TMK: (2): 5-1-02:04

Dear Mr. Sakaguchi:

Thank for your letter dated March 23, 2004 regarding the Draft Environmental Assessment (DEA) for the Proposed Rebuilding and Modernization of a Microwave Communication System to be Owned by DAGS (Shared with County of Maui, State and Federal Agencies) located at the Anuenue (formerly Rainbow) Radio Towers and Facilities, Statewide, Puu Nana Site Kaluakoi District, Molokai, Hawaii, TMK: (2): 5-1-02:04. Your letter requests that the Office of Hawaiian Affairs (OHA) review and comment on the proposed project.

The DEA notes that archeological surveys that were conducted for the project area did not locate any archeological sites, cultural artifacts or known cultural practices on the project site. The DEA, Section 2.10.1, Existing Environment, notes that "the archeological field survey consisted of a pedestrian survey of the project site which provided 100 percent coverage of the site. No subsurface testing was undertaken as a part of the archeological survey."

The DEA indicates the infrastructure proposed for the project site "will significantly upgrade the infrastructure that supports communications for homeland security, law enforcement, and emergency and disaster response at all levels of government." Photographs of the project area reveal that extensive grading and grubbing has already occurred on the site.

Given the extensive grading and grubbing that has already occurred on the site, without revealing any significant burials or archaeological remains, it doesn't appear to trigger the protections of Hawaii Revised Statutes, §6E-43.6 and Hawaii Administrative Rules (HAR), Title 13, Subtitle 13, Chapter 300, Rules of Practice and Procedure Relating to Burial Sites and Human Remains However, if any significant cultural deposits or human burials are encountered on the site[1], work will cease in this area and the State Historic Preservation Division will be contacted.

Appendix D, Archeological Study and Cultural Impact Study Summary contained in the DEA notes,

> Archeological surveys reveal evidence of *heiau*, adze quarries, burials, field cultivation, hearths and habitation in the vicinity of Pu'u Nānā, indicating a multi-use of the lands. The most significant cultural practice of Pu'u Nānā at one time was an adze workshop/house site and or astronomy facility.

Ranching activity and the construction of radio antennae and facilities have subsequently destroyed the adze workshop/house site and/or astronomy facility. The DEA notes that one carry over activity from precontact times are bird and pig hunting, and that access for pig and bird hunters not be blocked. Additionally, Appendix D recommends that "care be taken to damage the traditional cultural site(s) in the Pu'u Nānā forest."

Despite the impacts to the project site and the area, in accordance with the Chapter 343, HRS and HAR §11-200-10, Contents of an environmental assessment, "the proposing agency or approving agency shall prepare any draft or final environmental assessment of each proposed action and determine whether the anticipated effects constitute a significant effect in the context of chapter 343, HRS, and §11-200-12", the project developers should consult with the following individuals with expertise on Hawaiian issues in the project area and Molokai in general. They are as follows:

1. Billy Akutagawa, Napuuwai, (808)-560-3653; and
2. John Kalmikaua, (808)-672-3220

[1]OHA staff notes that any trenching, digging or grading for the two structures: the three room, single story 914-square foot (SF) equipment building with 8-inch thick reinforced concrete-masonry unit (CMU) walls and concrete slab floors will be constructed on the project site to accommodate a 630-SF radio equipment room, a 114-SF rectifier room, and a 170-SF emergency generator room; and approximately 1000-SF footing for the 4-leg self-supporting pipe-leg, 110 foot high tower (housing antennas) may reveal cultural deposits or human remains.

The Kalana Markell, Burials Program Manager, for the Molokai Burial Council at Kai_E_Markell@exec.state.hi.us, should also be contacted for any additional Native Hawaiian practitioners impacted by the proposed project.

If you have questions or concerns please contact Matthew Myers, Policy Advocate at 594-1945 or matthewm@oha.org.

'O wau iho nō,

Clyde W. Nāmu'o
Administrator

6608-02
August 4, 2004

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS

1907 S. BERETANIA ST
SUITE 400
HONOLULU, HI 96826
PH (808) 946-2277
FAX (808) 946-2253

Mr. Clyde W. Namuo, Administrator
Office of Hawaiian Affairs
State of Hawaii
711 Kapiolani Boulevard, Suite 500
Honolulu, HI 96813

Subject: Draft Environmental Assessment (EA),
Anuenue (formerly Rainbow) Radio Facilities
and Towers, Statewide, Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Mr. Namuo:

Thank you for your April 13, 2004 comments (HRD04-1345) regarding the Anuenue Radio Facility project. Our responses follow:

1. The Draft EA indicated that the archaeological survey did locate archaeological sites on the project site. The construction drawings and contract specifications regarding discoveries of archaeological interest state that "should historic sites such as walls, platforms, mounds, or remains such as artifacts, burials, concentration of charcoal or shells are encountered during construction, work shall cease in the immediate vicinity of the find and the find shall be protected from further damage. The contractor is to immediately contact the Historic Preservation Division which shall assess the significance of the find and recommend an appropriate mitigation measure, if necessary."

2. The Cultural Impact Assessment noted that care be taken not to damage the traditional cultural sites in the Puu Nana forest. Please note, the area extent of the project will be about 0.19 acres plus an area for construction staging limited to the previously disturbed area on Puu Nana.

3. The Draft EA, Chapter 5, as required by Chapter 343, HRS, and Title 11 HAR Chapter 200, contains an analysis of the significance criteria and the anticipated impacts of the project. The determination of the Finding of No Significant Impact

(FONSI) is part of the analysis of Chapter 5 and will be included in the Final EA, as required by Chapter 343, HRS, and Title 11 HAR Chapter 200. DAGS, as the proposing agency and approving agency, has the sole responsibility to make the FONSI determination.

4. Mr. Billy Akutagawa was contacted to discuss the project and solicit comments regarding cultural practices. Mr. Akutugawa knew the people who were on the field trip to the project site as part of the Cultural Impact Assessment and said all three were the right people to contact regarding cultural issues on this area of Molokai. He said that he has nothing to add regarding the Puu Nana project. Our past experience with Mr. Kaimikawa is that he does not like to give interviews/information as he is a believer in intellectual property rights. As such, he was not contacted.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

M:\WDA\6608-02 dags\dea LTs\ohaLT-1.doc; 8/4/2004

ALAN M. ARAKAWA
Mayor

GILBERT S. COLOMA-AGARAN
Director

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

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

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL MANAGEMENT
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

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

TRACY TAKAMINE, P.E.
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

JOHN D. HARDER
Solid Waste Division

6608-08

7/26/04

July 7, 2004

RECEIVED
JUL 13 2004
WILSON OKAMOTO CORPORATION

cc: DAGS, VIA FAX

Mr. John L. Sakaguchi, AICP
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
ANUENUE RADIO FACILITIES AND TOWERS
TMK: (2) 5-1-002:004

We reviewed the subject application and have the following comment:

1. The plans submitted for this project do not adequately show sufficient detail to determine whether the project is compliant with building codes. We will review the project for building code requirements during the building permit application process.

If you have any questions regarding this letter, please call Milton Arakawa at (808) 270-7845.

Sincerely,

for GILBERT S. COLOMA-AGARAN
Director

GSCA:MA:bns
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WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS

1907 S. BERETANIA ST
SUITE 400
HONOLULU, HI 96826
PH (808) 946-2277
FAX (808) 946-2253

6608-02
August 4, 2004

Mr. Gilbert S. Coloma-Agaran, Director
Department of Public Works and Environmental Management
County of Maui
200 High Street
Wailuku, Maui, HI 96793

Subject: Draft Environmental Assessment (EA)
Anuenue (formerly Rainbow) Radio Facilities and Towers
Statewide, Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Mr. Coloma-Agaran:

Thank you for your July 7, 2004 comments regarding the Anuenue Radio Facility project. Our response follows:

1. A complete set of design plans for the project will be submitted to the Department of Public Works for a building permit.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

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ALAN M. ARAKAWA
Mayor

GEORGE Y. TENGAN
Director

JEFFREY T. PEARSON, P.E.
Deputy Director

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

RECEIVED
APR 29 2004
WILSON OKAMOTO CORPORATION

April 26, 2004

Wilson Okamoto Corporation
1907 S Beretania Street, Suite 400
Honolulu HI 96826
Attention: Mr. John L. Sakaguchi, Senior Planner

SUBJECT: DEA, Anuenue (formerly Rainbow) Radio Towers and Facilities, Statewide, Puu Nana Site, Kaluakoi District, Molokai, TMK: (2) 5-1-002:004

Dear Mr. Sakaguchi:

Thank you for the opportunity to comment on this project proposal.

The project site is outside of DWS service area. The project involves the installation of 110-foot tall four-legged self-supporting tower, above ground fuel tank, retaining walls, and construction of equipment building. The applicant indicated that domestic service will not be required as the facilities will be un-manned. Should DWS be asked to sign off on a building permit for this project, the applicant will be required to provide adequate fire protection in accordance with standards. Actual fire demand for structures is determined by fire flow calculations prepared, signed and stamped by a certified engineer or architect. The approved fire flow calculation methods for use include - Guidance for Determination of Fire Flow - Insurance Service Office, 1974 and Fire Flow - Hawaii Insurance Bureau, 1991.

The project is located on top of the Kaluakoi aquifer which has a sustainable yield of 2 MGD. In order to protect surface and groundwater resources, we encourage the applicant to adopt best management practices (BMP) designed to minimize infiltration and run-off from construction and vehicle operations.

Should you have any questions, please contact our Water Resources and Planning Division at 270-7199.

Sincerely,

George Y. Tengan
Director

sam
c: engineering division
applicant

"By Water All Things Find Life"

Printed on recycled paper

WILSON OKAMOTO CORPORATION
ENGINEERS PLANNERS
1907 S. BERETANIA ST
SUITE 400
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PH: (808) 946-2277
FAX: (808) 946-2253

6608-02
August 4, 2004

Mr. George Y. Tengan, Director
Department of Water Supply
County of Maui
200 High Street
Wailuku, Maui, Hawaii 96793-2155

Subject: Draft Environmental Assessment (EA); Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide,
Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Mr. Tengan:

Thank you for your April 26, 2004 comments regarding the Anuenue Radio Facility project. Our responses follows:

1. As stated in Draft EA, potable water will not be required for the building or project site.

2. The design plans show a fire suppression system will be installed in the building to protect against fires. The design plans will be submitted to the Department of Public Works for a building permit.

3. The Final EA will note that the project site is located on top of the Kaluakoi aquifer. The design plans incorporate best management practices to minimize infiltration and run off from construction and vehicle operations.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

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ALAN M. ARAKAWA
Mayor

(6608-02)

GLENN T. CORREA
Director
JOHN L. BUCK III
Deputy Director

(808) 270-7230
Fax (808) 270-7934

4/6/04 gs

cc: DAGS, via Fax 4/6/04

DEPARTMENT OF PARKS & RECREATION

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

March 31, 3004

RECEIVED
APR 0 2 2004
WILSON OKAMOTO CORPORATION

Mr. John L. Sakaguchi, Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

SUBJECT: Draft Environmental Assessment
Anuenue (formerly Rainbow) Radio Facilities and Tower
Puu Nana Site, Puu Nana, Kaluakoi, Molokai, Hawaii
TMK: 5-1-002:004

We have reviewed the Draft Environmental Assessment for the subject project and have no comments or objections to the proposed action.

Thank you for the opportunity to review and comment. Should there be any questions, please contact Mr. Patrick Matsui, Chief of Parks Planning and Development, at 270-7387.

Sincerely,

GLENN T. CORREA
Director

c: Patrick Matsui, Chief of Planning and Development

WILSON
OKAMOTO
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1907 S BERETANIA ST
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HONOLULU HI 96826
PH (808) 946 2277
FAX (808) 946 2253

6608-02
August 3, 2004

Mr. Glenn T. Correa, Director
Department of Parks & Recreation
County of Maui
700 Halaia Nakoa Street, Unit 2
Wailuku, HI 96793

Attention: Mr. Patrick Matsui, Chief
Parks Planning and Development

Subject: Draft Environmental Assessment (EA)
Anuenue (formerly Rainbow) Radio Facilities
and Towers, Statewide
Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Mr. Correa:

Thank you for your March 31, 2004 comments regarding the Anuenue Radio Facility project. The Final EA will note that the County of Maui Department of Parks & Recreation had no comment or objections to the project.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

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ALAN M. ARAKAWA
MAYOR

COUNTY OF MAUI
DEPARTMENT OF FIRE AND PUBLIC SAFETY

200 DAIRY ROAD
KAHULUI, MAUI, HAWAII 96732
(808) 270-7561
FAX (808) 270-7919

CARL M. KAUPALOLO
CHIEF

NEAL A. BAL
DEPUTY CHIEF

6608-02

4/1/04 JS

cc: DAGS

RECEIVED
APR 01 2004
WILSON OKAMOTO CORPORATION

March 30, 2004

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826
Attention: Mr. John L. Sakaguchi, Senior Planner

Subject: Anuenue Radio Towers, Kaluakoi, Molokai TMK (2)5-1-002:004

Dear Mr. Sakaguchi,

I have reviewed the Draft Environmental Assessment for the above subject and do not have any comments that would prevent the project from moving ahead. I would like to add the following:

1. The method of fuel storage is acceptable with an approved permit from this office. Depending on the size of the tank, a detailed drawing of the tank & all fuel appliances may need to be submitted to this office. A final inspection will be done on site prior to approval of the fuel tank permit.

2. It is my understanding that a dirt road will need to be negotiated by fire apparatus to reach the site. The fire suppression system is required due to its remoteness

Please feel free to contact me at 270-7568 if there are any questions.

Sincerely,

Vale F. Martin

Valeriano F. Martin
Captain
Fire Prevention Bureau

WILSON
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SUITE 400
HONOLULU, HI 96826
PH (808)946-2277
FAX (808)946-2253

6608-02
August 3, 2004

Captain Valeriano F. Martin
Fire Prevention Bureau
Department of Fire and Public Safety
County of Maui
200 Dairy Road
Kahului, Hawaii 96732

Subject: Draft Environmental Assessment (EA)
Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide
Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Captain Martin:

Thank you for your March 30, 2004 comments regarding the Anuenue Radio Facility project. Our responses to your comments are as follows:

1. The Final EA will note that the method of fuel storage is acceptable with a permit from the County of Maui Department of Fire and Public Safety. A building permit with appropriate drawings will be submitted the Department Public Works for review and approval.

2. The access road to the project site is not improved and will remain unchanged. As stated in the Draft EA, a fire suppression system will be installed in the building.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

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verizon

Verizon Hawaii Inc.
P.O. Box 2200
Honolulu, HI 96841

April 27, 2004

RECEIVED
APR 29 2004
WILSON OKAMOTO CORPORATION

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

ATTN: Mr. John L. Sakaguchi, Senior Planner

SUBJECT: ANUENUE (formerly) RAINBOW RADIO FACILITIES AND TOWERS
STATEWIDE PUU NANA SITE KALUAKOI DISTRICT, ISLAND OF MOLOKAI
DRAFT ENVIRONMENTAL ASSESSMENT

Dear Mr. Sakaguchi:

Thank you for providing Verizon Hawaii Incorporated, the opportunity to comment on the Draft Environmental Assessment for the Department Accounting and General Services for the City and County of Maui for the Anuenue (formerly) Rainbow Radio Facilities and Towers Statewide Puu Nana Site Kaluakoi District, Island of Molokai.

Verizon Hawaii has no comments on this project at this time.

If there are any questions, please call Sheri Tihada at (808) 242-5258.

Sincerely,

Lynette Yoshida
Section Manager –
Network Engineering & Planning

C: File (5025 MNLO)
S. Tihada

6608-02
August 3, 2004

WILSON
OKAMOTO
CORPORATION

ENGINEERS
PLANNERS

1907 S BERETANIA ST
SUITE 400
HONOLULU HI 96826
PH (808)946-2277
FAX (808)946-2253

Ms. Lynette Yoshida, Section Manager
Network Engineering & Planning
Verizon Hawaii, Inc.
P.O. Box 2200
Honolulu, Hawaii 96841

Subject: Draft Environmental Assessment (EA)
Anuenue (formerly Rainbow) Radio Facilities
and Towers, Statewide
Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Ms. Yoshida:

Thank you for your April 27, 2004 comments regarding the Anuenue Radio Facility project. The Final EA will note that the Verizon Hawaii, Inc. had no comments on the project.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

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ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

WAYNE A. BOTEILHO
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

6608-08
4/26/04
CC: DAGS
W/ATT

April 22, 2004

RECEIVED
APR 26 2004
WILSON OKAMOTO CORPORATION

Mr. John L. Sakaguchi
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

RE: Draft Environmental Assessment for the Anuenue (formerly) Rainbow Radio Facilities and Towers Statewide, DAGS Job No. 16-10-0256, located at TMK: 5-1-002:004, Puu Nana Site, Kaluakoi District, Island of Molokai, Hawaii (LTR 2004/1096)

The Maui Planning Department (Department) has reviewed the Draft Environmental Assessment (DEA) and provides the following comments:

1. Sections 1.3.3, 3.2.1, and 3.2.3

   Pursuant to Section 205-4.5, Hawaii Revised Statutes (HRS), communication buildings are permitted within the State Agricultural District. However, the broadcast antenna requires a State Special Use Permit (State SUP) in accordance with Section 205-6, HRS.

   Further, telecommunications and broadcasting antennas are listed as a special use pursuant to Section 19.30A.060 of the Maui County Code (MCC), and are permitted if a County Special Use Permit (County SUP), pursuant to Section 19.510.070, MCC, has been obtained; except that if the use also requires a State SUP, and if the land area of the subject parcel is 15 acres or less, the State SUP shall fulfill the requirements of Section 19.30A.060, MCC.

   Based on the project specifics, a State SUP is required for the project, which is processed by the Department and acted upon by the Molokai Planning Commission. A permit application has been enclosed for your convenience.

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
PLANNING DIVISION (808) 270-7735; ZONING DIVISION (808) 270-7253; FACSIMILE (808) 270-7634

2. Section 6.2, Officials

   Please be advised that Councilmember Danny A. Mateo represents the Island of Molokai.

Thank you for the opportunity to comment. Should you require additional clarification, please contact Ms. Kivette A. Caigoy, Environmental Planner, of my office at 270-7735.

Sincerely,

for MICHAEL W. FOLEY
Planning Director

Enclosure
MWF:KAC:lar
c: Wayne Boteilho, Deputy Planning Director
Clayton Yoshida, Planning Program Administrator
Kivette A. Caigoy, Environmental Planner
OEQC
General File
K:\WP_DOCS\PLANNING\EA\DEAComments\2004\1096_AnuenueRadioTower.wpd

6608-02
August 4, 2004

WILSON
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CORPORATION

ENGINEERS
PLANNERS
1907 S. BERETANIA ST.
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PH: (808) 946-2277
FAX: (808) 946-2253

Mr. Michael W. Foley, Planning Director
Department of Planning
County of Maui
200 High Street
Wailuku, Maui, HI 96793-2155

Subject: Draft Environmental Assessment (EA); Anuenue (formerly Rainbow) Radio Facilities and Towers, Statewide
Puu Nana Site; Kaluakoi, Molokai, Hawaii
DAGS Job No. 16-10-0256
Tax Map Key: 5-1-002: 013
Response to Comment

Dear Mr. Foley:

Thank you for your April 22, 2004 comments (LTR 2004/1096) regarding the Anuenue Radio Facility project. Our responses follows:

1. Sections 1.3.3, 3.21, and 3.23 of the Final EA will state communications buildings are permitted within the State Agricultural District. However, the tower/antenna requires a State Special Use Permit (SUP) in accordance with Section 205-6, HRS, as amended.

2. The Final EA will note that a State SUP is required for the project and that the Planning Department will process the SUP for action by the Molokai Planning Commission.

3. The Final EA will note that Councilmember Danny A. Mateo represents Molokai.

We appreciate your participation in the Draft EA review process.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

cc: A. Yamanoha, DAGS

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