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GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS

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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

Ref.:OCCL:TM

File: KA-3150

MEMORANDUM

TO: Genevieve Salmonson, Director
Office of Environmental Quality Control

FROM: Dierdre S. Mamiya, Acting Administrator
Office of Conservation and Coastal Lands

SUBJECT: Final Environmental Assessment (FEA)/Finding of No Significant Impact (FONSI) for CDUA KA-3150 for the Nextel Cell Site at PMRF, Barking Sands, Island of Kauai

The Department of Land and Natural Resources has reviewed the Allen's revised Conservation District Use Application (CDUA) KA-3150 for the Nextel Cell Site at PMRF, Barking Sands, Island of Kauai. The Draft Environmental Assessment (DEA) for CDUA KA-3150 was published in the September 8, 2003 OEQC Environmental Notice for the subject project. The FEA is being submitted to OEQC. We have determined that this project will not have significant environmental effects, and have therefore issued a FONSI. Please publish this notice in the December 23, 2003 OEQC Environmental Notice.

We have enclosed four copies of the FEA and CDUA KA-3150 for the project. The OEQC Bulletin Publication Form is attached. Comments on the draft EA were sought from relevant agencies and the public, and were included in the FEA.

Please contact Tiger Mills of our Office of Conservation and Coastal Lands at 587-0382 if you have any questions on this matter.

Enclosures

cc: Colette Sakoda

DEC 23 2003

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FILE COPY

2003-12-23-KA-FEA-

**FINAL
Environmental Assessment
And
Cultural Impact Assessment
Report for the
Proposed (NEXTEL
PMRF Barking Sands Cell Site)
Kekaha, Waimea, Kauai, Hawaii**

Clayton Project No. 85-03287.00
November 18, 2003

Prepared for:
**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
(DLNR)
Honolulu, Oahu, Hawaii**

Prepared by:
**CLAYTON GROUP SERVICES, INC.
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Executive Summary

Nextel Partners, Inc. (Nextel) retained Clayton Group Services, Inc. (Clayton) to conduct an Environmental Assessment (EA) in accordance with the State of Hawaii, Department of Land and Natural Resources (DLNR), Office of Conservation and Environmental Affairs Conservation District Use Application (CDUA) requirements, and a Cultural Impact Assessment (CIA) in accordance with the State of Hawaii, Department of Health (DOH) Office of Environmental Quality Control (OEQC) requirements, for the proposed Nextel Pacific Missile Range Facility (PMRF) Barking Sands Cell Site, located at the PMRF Barking Sands United States (U.S.) Naval Military Reservation, Kekaha, Waimea, Kauai, Hawaii (the "subject property").

Nextel proposes to develop a telecommunications facility at the United States PMRF Barking Sands on the island of Kauai, Hawaii. Nextel plans to provide mobile telephone service for PMRF personnel and coverage from Kekaha town to Polihale State Park.

The proposed project site (the subject property) will consist of a 20-foot by 18-foot (360 square-foot) fenced enclosure that will contain a prefabricated telecommunications equipment shelter and associated antenna monopole. The proposed action consists of installing a 90-foot high steel monopole approximately 10 feet northeast of PMRF Bldg. 356, and mounting three, 10-foot high Omni (whip) antennas at the top.

The new monopole will be fitted with a triangular "trimount" support bracket designed to mount the whip antennas at 120° intervals around the top of the pole. The finished height of the antenna tips will be approximately 100 feet above ground level. A prefabricated telecommunications equipment shelter will be installed at ground level on a new concrete equipment pad adjacent to the south side of the monopole, and a global positioning system (GPS) antenna will be mounted on the top of the equipment shelter.

Agencies and individuals consulted by Clayton in order to complete the Environmental Assessment (EA) and Cultural Impact Assessment (CIA) portions of this project include:

- U.S. Army Corps of Engineers (USACE) Honolulu District Office,
- Department of Defense, U.S. Navy, Pearl Harbor
- DLNR Division of Forestry and Wildlife (DOFAW) Kauai Branch Office,
- DLNR – State Historic Preservation Office (SHPO),
- Office of Hawaiian Affairs (OHA), Hawaiian Rights Division
- Historic Hawaii Foundation (HHF),
- Native Hawaiian Group "Hui Malama"
- Ms. La France Kapaka-Arboleda, Chair, Kauai Island Burial Council
- Ms. Vida Mossman, Native Hawaiian Community Member; and,
- Ms. Aletha Kaohi, Native Hawaiian Community Member



None of the inquiries made or documents reviewed during the EA indicated direct evidence of significant negative environmental conditions with respect to the proposed action at the subject property.

With regards to cultural impacts, the proposed project site is located within the boundaries of the Barking Sands Pacific Missile Range Facility (PMRF) United States (U.S.) Naval Military Reservation, an area that is restricted and off-limits to the general public and as well as Native Hawaiians under National Security measures.

Moreover, none of the inquiries made or consultations conducted for the cultural impact assessment (CIA) portion of this project indicated community opposition or evidence of significant negative impacts to "current cultural practices" with respect to the proposed Nextel project.

Therefore, it is anticipated that the DLNR Office of Conservation and Environmental Affairs will make a "Finding of No Significant Impact" (FONSI) determination for the proposed Nextel PMRF Barking Sands Cell Site project.

1.0 INTRODUCTION

Nextel Partners, Inc. (Nextel) retained Clayton Group Services, Inc. (Clayton) to conduct an Environmental Assessment (EA) in accordance with the State of Hawaii, Department of Land and Natural Resources (DLNR), Office of Conservation and Environmental Affairs Conservation District Use Application (CDUA) requirements, and a Cultural Impact Assessment (CIA) in accordance with the State of Hawaii, Department of Health (DOH) Office of Environmental Quality Control (OEQC) requirements, for the proposed Nextel Pacific Missile Range Facility (PMRF) Barking Sands Cell Site, located at the PMRF Barking Sands United States (U.S.) Naval Military Reservation, Kekaha, Waimea, Kauai, Hawaii (the "subject property").

Nextel proposes to develop a telecommunications facility at the United States PMRF Barking Sands on the island of Kauai, Hawaii. Nextel plans to provide mobile telephone service for PMRF personnel and coverage from Kekaha town to Polihale State Park.

The PMRF is located on the Mana Plain in the west/southwest coastal region of Kauai and covers an area of approximately 1,970 acres at Barking Sands, Kekaha, Waimea, Kauai, Hawaii (Figures 1 and 2). The PMRF is surrounded to the east by sugar cane fields, and to the north by Polihale State Park. Kekaha is located about five miles south and the Pacific Ocean borders the facility to the west. The project site is designated as Limited Subzone in the State Conservation District. A Conservation District Use Permit application has been submitted to the Department of Land and Natural Resources.

The proposed project site (subject property) is identified as the Nextel PMRF Barking Sands Cell Site and is located approximately 200 feet north of the PMRF Main Gate and Visitors Center, next to Building 356, alongside an asphalt-paved parking lot. The approximate latitude and longitude of the site are 22.034 North and 159.783 West, respectively. The subject property is situated on portions of two larger parcels of land that are defined by the Kauai County Real Property Tax Assessment Division as Tax Map Key numbers (TMK): (4) 1-2-02: Parcels 13 and 26, an approximately 1,970.36-acre portion of the PMRF, under the jurisdiction of the United States of America.

The site is a generally flat, grassy area that is bordered to the north by landscaped lawn, a tree, and an asphalt-paved parking lot; to the west by the parking lot, which sits between PMRF Bldgs. 355 and 348; to the south by PMRF Bldg. 356 and a concrete slab with an aboveground fuel tank, as well as two 80-foot high wood utility poles and a guyed 120-foot high lattice tower; and to the east by lawn, trees, and dense vegetation lining the property fence line and a drainage canal, followed by about 100 yards of vegetation and grasses bordering the western edge of Kaumualii Highway. Nohili Road lies approximately 100 feet to the west and Imiloa Road lies approximately 265 feet to the south (Figure 2).

According to the County of Kauai Zoning Department, the Kauai County and State Land Use Commission zoning designation for the subject parcel is "Conservation and Limited Subzone."

2.0 PROPOSED ACTION

2.1 TECHNICAL CHARACTERISTICS

According to Nextel, the proposed action involves installing a 90-foot high steel monopole approximately 10 feet to the northeast of PMRF Bldg. 356, and mounting three, 10-foot high Omni (whip) antennas at the top. The new monopole will be fitted with a "trimount" (triangular) bracket designed to support antennas mounted at 120° intervals around the top of the pole. The finished height of the antenna tips will be approximately 100 feet above ground level. Also, a prefabricated telecommunications equipment shelter will be installed at ground level on a new concrete equipment pad to the south of the monopole, and a global positioning system (GPS) antenna will be mounted on the top of the equipment shelter.

Construction activities that will disturb the ground surface in the immediate vicinity of the project site include: (1) excavating to approximately 25-30 feet below ground surface (bgs) to install the new 90-foot high steel monopole and its associated concrete slab foundation; (2) installing a new concrete equipment pad to the northeast of Bldg. 356 for installation of the associated telecommunications equipment shelter; (3) installing buried electrical conduit at approximately 18-24 inches bgs, from Bldg. 352 to the new antenna monopole; (4) installing buried telephone conduit at approximately 24-36 inches bgs, from Bldg. 360 to the new equipment shelter; (5) installing buried ground-field conduit at approximately 24-36 inches bgs, around the new equipment shelter and monopole site; and (6) installing a 1.5-foot deep by 1.5-foot diameter drywell for condensate drainage from air-conditioner (AC) units servicing the telecommunications equipment.

2.2 SOCIO-ECONOMIC CHARACTERISTICS

The proposed Nextel PMRF cell site project is anticipated to have no growth impact on the regional population of the area. The proposed project is meant to improve existing telecommunications service coverage for the PMRF base and surrounding area, thereby increasing safety and benefiting the community at large. In addition, the project will have a positive economic impact by providing construction employment and supporting construction-related services and suppliers.

2.3 ENVIRONMENTAL CHARACTERISTICS

The proposed project site is located in a previously developed and disturbed area of the PMRF. Clearing, grading, and excavation activities required for the proposed project are limited to the immediate vicinity of PMRF Bldg. 356. No significant impacts or alterations to the land are anticipated. The proposed action is designed to maintain the given space by using existing facilities at the site. The project is anticipated to proceed following a "Finding of No Significant Impact" (FONSI) determination by the approving agency (DLNR Office of Conservation and Environmental Affairs), and will take approximately 30 days to complete. Nextel Partners wholly provides funding for this project.

3.0 ALTERNATIVES TO PROPOSED ACTION

In determining a suitable location for construction of a telecommunications antenna site, several search criteria must be met. Various topographic features in the area must be evaluated, including but not limited to: elevation, terrain, and building obstruction. In addition, the antenna tower(s) can only be located in areas that are appropriately zoned by the local jurisdiction.

The purpose of the Nextel telecommunications cell site is to relay signals to receiving antennas (i.e., personal cell phones) located horizontally outward at some distance. Therefore, the site selection is based on its ability to meet and serve this purpose.

PMRF Barking Sands was considered the primary location for the Nextel cell site based on the existing facilities available, as well as providing service for the base. In addition, the cell site location provides the best service for the surrounding area due to its location between Kekaha and Polihale State Park. Alternative sites in Kekaha and Polihale State Park do not meet land use objectives and would not provide adequate service coverage for other areas. An alternative site located in the cane fields did not have necessary utilities and would create a greater visual impact than using the existing facilities at PMRF Barking Sands.

4.0 AFFECTED ENVIRONMENT

The proposed project site, the Nextel PMRF Barking Sands Cell Site, is located in the central northeastern edge of the subject parcel and encompasses a vacant grassy area situated approximately 200 feet north of the PMRF Main Gate and Visitors Center, and 10 feet east/northeast of PMRF Bldg. 356. The estimated latitude and longitude of the subject property are approximately 22.034 North and 159.783 West, respectively.

The proposed cell site is a grassy area that is bordered to the north by landscaped lawn, a tree, and an asphalt-paved parking lot; to the west by the parking lot, which sits between PMRF Bldgs. 355 and 348; to the south by PMRF Bldg. 356 and a concrete slab with an aboveground fuel tank, as well as two 80-foot high wood utility poles and a guyed 120-foot high lattice tower; and to the east by lawn, trees, and dense vegetation lining the property fence line and a drainage canal, followed by about 100 yards of vegetation and grasses bordering the western edge of Kaunualii Highway. Nohili Road lies approximately 100 feet to the west and Imiloa Road lies approximately 265 feet to the south (Figure 2).

The elevations at and around the subject property range from approximately 0 to 10 feet above mean sea level (msl). The general topography of the area is relatively flat and level, with a slight slope to the west toward the Pacific Ocean shoreline.

5.0 ASSESSMENT OF ENVIRONMENTAL IMPACTS

In accordance with the State of Hawaii DLNR, Office of Conservation and Environmental Affairs' s CDUA requirements, an Environmental Assessment (EA) was conducted to assess potential environmental impacts from the cell site on the surrounding areas. A list of references and sources are listed in Appendix A. Various agency correspondences are included in Appendix B.

5.1 WILDERNESS AREA

Clayton contacted the United States Department of the Navy - Naval Facility Engineering Command - Pearl Harbor (U.S. Navy - Pearl Harbor) and the State of Hawaii Department of Land and Natural Resources (DLNR) - Department of Forestry and Wildlife (DOFAW) Kauai Branch Office, regarding the presence of officially designated wilderness areas on the subject property.

According to the DOFAW Kauai Branch Office, the site is not located within a designated wilderness area.

The Navy provided comment on the proposed project in a memorandum dated April 18, 2003. However, they did not directly address or answer the question as to whether the proposed project was located within a wilderness area.

Therefore, Clayton reviewed the National Wilderness Preservation System website (<http://www.wilderness.net/nwps/default.cfm>) for information on whether the proposed project site is located within an officially designated wilderness area:

According to this website, four federal agencies (the National Park Service, the Forest Service, the Bureau of Land Management, and the Fish and Wildlife Service) manage a total of 662 designated wilderness areas in the United States, including two designated wilderness areas in the State of Hawaii - the Hawaii Volcanoes National Park and the Haleakala National Park. Neither of these parks encompasses the proposed project site.

Moreover, the proposed project site was grubbed and graded during development of the surrounding Pacific Missile Range Facility (PMRF). Therefore, the proposed project site is not located within a wilderness preserve.

Based on the inquiries and responses noted in this Section, the proposed action is not located in an officially designated wilderness area.

5.2 WILDLIFE PRESERVE

Clayton contacted the U.S. Navy - Pearl Harbor and DLNR - DOFAW Kauai Branch Office regarding the presence of officially designated wilderness preserves on the subject parcel/property.

According to the DOFAW Kauai Branch Office, the site is not located within a designated wildlife preserve.

The Navy provided comment on the proposed project in a memorandum dated April 18, 2003. However, they did not directly address or answer the question as to whether the proposed project was located within a wildlife preserve.

Therefore, Clayton reviewed the GORP - Hawaii National Wildlife Refuge website (http://gorp.com/gorp/resource/us_nwr/hi.htm) for information on whether the proposed project site is located within a designated wildlife preserve.

According to this website, there are a total of 13 wildlife preserves and marine sanctuaries located within the Hawaiian Islands, including:

- Baker, Howland, and Jarvis Islands and Johnston Atoll National Wildlife Refuge
- Hakalau Forest, Hawaii Island National Wildlife Refuge
- Hanalei, Kauai National Wildlife Refuge
- Hawaiian Islands and Midway Atoll National Wildlife Refuge
- Huleia, Kauai National Wildlife Refuge
- James C. Campbell, Oahu National Wildlife Refuge
- Kakahaia, Molokai National Wildlife Refuge
- Keliia Pond, Maui National Wildlife Refuge
- Pearl Harbor, Oahu National Wildlife Refuge
- Rose Atoll, American Samoa National Wildlife Refuge
- Fagatele Bay, American Samoa National Marine Sanctuary
- Hawaiian Island Humpback Whale National Marine Sanctuary

Based on our review, none of these wildlife preserves encompasses the proposed project site. Moreover, the proposed project site was grubbed and graded during development of the surrounding Pacific Missile Range Facility (PMRF). Therefore, the proposed project site is not located within a wilderness preserve.

Based on the inquiries and responses noted in this Section, the proposed action is not located in an officially designated wildlife preserve.

5.3 LISTED OR PROPOSED THREATENED OR ENDANGERED SPECIES AND DESIGNATED OR PROPOSED CRITICAL HABITATS

Clayton contacted the U.S. Navy and DNLN - DOFAW Kauai Branch Office regarding the presence of listed or proposed threatened or endangered species and designated or proposed critical habitats on the subject property.

The DOFAW Kauai Branch Office deferred to the United States Fish and Wildlife Service regarding the presence of listed or proposed threatened or endangered species and designated or proposed critical habitats on the subject property.

The U.S. Navy provided the following comment regarding possible impacts the project may have on natural resources:

- *“Nextel proposes to construct a 90-foot monopole supporting three, 10-foot antennas at PMRF, adjacent to PMRF Building 356. The project involves construction of a small equipment storage shed that will be surrounded by a 6-foot chain link fence. No floodlights or guy wires are required.*

The Newell's Townsend's shearwater, a species federally listed as threatened, is known to fly over PMRF, especially during the October-November fledging period. PLN232 was asked to provide an analysis of the possible impacts the proposed construction and operation of the Nextel installation may have on this species.

The predominant threats to the shearwaters are nest predation and fledgling “fallout.” When young birds first leave their nests in the interior, high elevation areas of the island, they may crash into man-made structures along the coast, fall to the ground, and be injured or killed by predators. Artificial lighting is believed to be the major factor in this fallout.

Nextel's proposed activities will not affect the Newell's Townsend's shearwaters. We have reached this conclusion based on the following considerations:

Although the proposed pole and antenna will be 100 feet tall, it presents a very thin profile. As such, the chances for a bird striking it are small.

No floodlights or guy wires are associated with the proposed pole. Lights are believed to be a critical factor in the attraction of shearwaters to structures.

For the purposes of compliance with Section 7 of the Endangered Species Act, we have determined that the proposed action will not affect any listed species or destroy or adversely modify any proposed or designated critical habitat.”

Based on the inquiries and responses noted in this Section, the proposed action does not appear to affect listed or proposed threatened or endangered species and designated or proposed critical habitats.

5.4 HISTORIC PLACES

Clayton contacted the State of Hawaii Department of Land and Natural Resources (DLNR) - State Historic Preservation Division (SHPD), Office of Hawaiian Affairs (OHA), Historic Hawaii Foundation (HHF), and the Native Hawaiian Group “Hui Malama” on April 16, 2003, regarding districts, sites, buildings, structures or objects, significant in American/Hawaiian history, architecture, archeology, engineering or culture, that are listed, or are eligible for listing, in the National Register of Historic Places that may be located on the subject property.

As requested by OHA, Clayton also contacted Ms. La France Kapaka-Arboleda, Chair of the Kauai Island Burial Council, Ms. Vida Mossman and Ms. Aletha Kaohi (Native Hawaiian community members) regarding the same concerns on June 9, 2003.

As of the date of this report, none of these parties have provided a written response regarding the proposed project; however, none of the parties have made known any objections to the proposed project either. Moreover, during subsequent follow-up telephone conversations with these Hawaiian community members, each stated that the cell phone project would provide much needed coverage, would help resolve issues of safety, and was long overdue and desired.

As of the date of this report, Clayton has also not yet received responses from the HHF or Hui Malama, but these groups commonly do not respond to such inquiries.

According to SHPD, there are Native Hawaiian burials in the sandy areas of PMRF. Therefore, to cover the possibility that burials and/or historic sites might be found, SHPD believes that site identification and any needed mitigation can be handled through an archeological monitoring program, as defined below:

- *"A qualified archeologist shall be hired to conduct on-site initially (then on-call as needed) monitoring during the project. Prior to starting the monitoring work, an acceptable monitoring plan (scope of work) shall be submitted to the State Historic Preservation Division (SHPD) for review and approval. That monitoring plan will spell out a process for documenting sites that are found, for evaluating significance in consultation with the SHPD and for developing and executing mitigation work with the approval of the SHPD. It must be clear that if historic sites, including burials, are uncovered during the monitoring, construction must stop in the immediate vicinity and the archeologist shall be allowed sufficient time to evaluate the site and carry out mitigation, as needed. The plan must include provisions for an acceptable monitoring report, documenting all the findings, to be approved by our division. If you have any questions, please call Nancy McMahon 742-7033."*

OHA had similar concerns and responded as follows:

- *"OHA is in receipt of your June 9, 2003 request for concurrence on the above referenced project. OHA is concerned that cultural deposits and human burials may be present in the shoreline area at PMRF. The proposal to hire an archaeologist to monitor the project will provide effective mitigation for the project. We also request that a cultural monitor be used on this project. We suggest that you request assistance from La France Kapaka-Arboleda, Chair of the Kauai Island Burial Council, to find an appropriately qualified cultural monitor. A cultural monitor will be able to ensure that families and culturally affiliated organizations are contacted should iwi or cultural deposits be found during ground excavation. A cultural monitor will also know the proper protocol to use in handling iwi or cultural deposits. OHA will agree to a "no adverse effect" designation if a cultural monitor is used on this project."*

Based on the inquiries and responses noted in this Section, there have been no community objections raised regarding the proposed Nextel telecommunications project; and, the noted SHPD and OHA concerns have been addressed and resolved. Therefore, the proposed action will not significantly affect cultural resources (Appendix C).

5.5 HAWAIIAN RELIGIOUS SITES

Clayton contacted the DLNR - SHPD, OHA, HHF, and Hui Malama regarding known Native Hawaiian religious sites on the subject property. OHA recommended that Ms. La France Kapaka-Arboleda, Chair of the Kauai Island Burial Council, Ms. Vida Mossman and Ms. Aletha Kaohi (both Native Hawaiian community members) be contacted for comment and input regarding the proposed project.

As of the date of this report, Clayton has not yet received responses from the HHF or Hui Malama, but these groups commonly do not respond to such inquiries. Also, none of the parties that OHA requested be contacted have provided a written response regarding the proposed project.

According to SHPD, there are Native Hawaiian burials in the sandy areas of PMRF. Therefore, to mitigate the possibility that burials and/or historic sites might be found, SHPD stipulated that an archeological monitoring program be implemented and observed during construction activities, as previously stated (See Section 5.4). Also, OHA requested that a cultural monitor be used on this project.

Based on the inquiries and responses noted in this Section, there have been no community objections raised regarding the proposed Nextel project; and, the noted SHPD and OHA concerns have been addressed and resolved. Therefore, the proposed action will not affect any Native Hawaiian Religious Sites (Appendix C).

5.6 FLOOD ZONE

Clayton reviewed available Federal Emergency Management Agency (FEMA) flood insurance rate maps (FIRM) for the subject property and adjoining properties.

According to FEMA/FIRM Map No. 150002-0100 C, (revised March 4, 1987) for Kauai County, Hawaii, the subject property lies within Flood Zone X, an area determined to be outside both the 500-year and 100-year flood plains.

No sensitive ecological areas were observed on the subject property/parcel. The USGS 7.5-minute topographic quadrangle map (Kehaka, Kauai, Hawaii, 1997), which includes the subject and adjoining properties, does not depict water bodies, creeks or delineated wetlands located on the subject or adjoining properties.

Based on the inquiries and responses noted in this Section, the proposed action is not located in a flood plain.

5.7 SURFACE FEATURES

Clayton contacted Nextel Partners regarding the proposed action at the subject property and the potential for the proposed action to significantly change the surface features (*e.g.*, wetland fill, deforestation or water diversion). As indicated in Section 2.0, the proposed action is not expected to significantly disturb the ground surface at the site.

Clayton contacted the United States Army Corps of Engineers (USACE) Honolulu District Office, regarding wetland permitting for the subject property. According to Mr. George Young of the USACE Honolulu District Office, a Department of the Army (DA) permit is not required for the subject property.

Clayton reviewed the *USGS 7.5-Minute Series 1983-Kekaha, Kauai, Hawaii Quadrangle Topographic Map*, which includes the subject and surrounding property. According to this map, no water bodies were depicted on the subject property.

Based on the inquiries and responses noted in this Section, the proposed action does not appear to involve significant changes in surface features.

6.0 CULTURAL IMPACT ASSESSMENT

6.1 PREHISTORIC LAND USE

According to research in a wide variety of disciplines (archeology, linguistics, physical anthropology and ethnobotany) the Marquesan Islands were the likely ancestral homeland of Hawaii's original population (Kirsch 1985). Migrating parties from this eastern Polynesian Archipelago, located approximately 3,780 kilometers south-southeast of the Hawaiian Islands, are believed to be responsible for the settlement of Easter Island by about 400 A.D. and of Hawaii by 300 A.D.

Kauai is distinguished among the other islands of the Hawaiian Archipelago due to evidence of prehistoric links with the southern islands of Central Polynesia. The differences are exemplified in the stone implements used on Kauai, as well as the heiau style, language and distinct mythologies (Joesting 1984).

The most noticeable of the stone implements used on Kauai are two types of poi pounders used to mash taro into poi, the staple food of the Hawaiians. The ring and stirrup pounders appear to be unique to Kauai. A stirrup pounder was recently discovered on the island of Uahuka in the northern Marquesan Islands, which is similar to those found on Kauai (Joesting 1984).

The long, narrow heiau design, which is distinctively Kauaian in style, resembles the heiau design and construction of Central Polynesia (Joesting 1984).

The language of Kauai resembled the language of Tahiti (Cook 1897). In addition, the Reverend William Ellis, an early missionary to the South Pacific Islands, noted that the language of Kauai was different in its pronunciation from the other islands of Hawaii. He noted the use of the "t" in place of the "k" in words of Hawaii. This is significant because words employing the "t" reflect central and eastern Polynesian origins. The "t" and "k" distinction in language was also noted by Abraham Fornander, a Hawaiian oral traditions transcriber in the 1870's (Joestings 1984).

Kauai's uniqueness of artifacts is a reflection of its isolation from the rest of the Hawaiian Islands (Kirch 1985).

The prehistoric land use of the Mana plain is not well known. However, there was wet taro farming in the swampy areas of Kolo at the northern end of the Mana marsh (Handy 1972 and Pukui 1983). The area would flood during rainy season, and it would take weeks for the water to subside. The farmers would build stick rafts, and dive into the floodwater. They worked the taro mound bases free, and lifted them carefully to the rafts where the taro was secured in place. The rafts would submerge due to the weight of the taro mounds, but the taro stalks were allowed to grow above the water just as they did before the flood of the rainy season came (Pukui 1983).

This type of taro planting was also done within the Haena Valley of northern Kauai until the early 1900's (Handy 1972). There was also taro planting in the lower Waiawa Valley, on the southeastern edge of the Mana marsh. (Bennett 1931).

The Mana area is known as leina-a-ka-u'hane or the entrance into the spiritual realms of the dead, according to traditional Hawaiian religious beliefs (Han et al. 1986, and Kamakau 1968). It refers to the cliffs or seacoast promontories where the spirits of the dead would lead traveler's astray (Beackwith 1970; AECOS Inc. 1982; Knudsen, E. and Noble 1944). The known presence of burial in the Mana area (and within the PMRF) has been found in Hawaiian oral literature (Fornander 1917, 1974), and archeological research as well as traditional Hawaiian practice reveals the existence of burial are common in any sand dune encountered on Kauai (Bennett 1931).

According to Cleghorn (July, 2003), previous archaeological studies in the immediate area indicate that cultural remains might be encountered during the proposed Nextel telecommunications facility project. Since the PMRF and Barking Sands area have been subjected to extensive alterations from military use, there is a low likelihood of finding any surface archaeological features in the project area. However, it seems likely that subsurface archaeological resources may be present. These resources probably date to pre-Contact times (i.e., before the arrival of Captain James Cook in 1778) and may include living areas, artifacts, and human burials (Cleghorn, 2003).

6.2 PRE-CONTACT LAND USE

Multiple references indicate that approximately 600 years ago (from the time of Ma'ilikukahi on Oahu), the native population of the Hawaiian Islands had expanded to the point that large political districts called *moku* had been formed (Lyons 1903; Kamakau 1991; Moffat and Fitzpatrick 1995).

The island of Kauai consisted of six *moku* (Kona, Puna, Ko'olau, Halele'a, Napali, and Waimea), which were further divided into traditional land divisions called *ahupu'a*. The *ahupu'a* were ideally designed to incorporate all of the natural resources required for traditional subsistence. The current project area is located in the *ahupu'a* of Waimea, which was formerly located in the Kona district.

During this period, the Hawaiian economy was based on agricultural production, raising of livestock, exploitation of marine resources, and collection of wild plants and birds. Extended household groups that had settled in various *ahupua'a* were completely self-sufficient by trading needed resources from many different island zones (Lyons 1875).

Most of the present knowledge regarding traditional land use patterns in the Hawaiian Islands (including the proposed Nextel project site on the island of Kauai) is based on records from the time period preceding and following western Contact. Early records include journals kept by travelers and missionaries, Hawaiian traditions that survived long enough to be written down, and archaeological investigations that have documented past practices.

Traditional *mo'olelo* (myths, stories, legends, etc.) provide a rich source of information as well, including facts such as place names and descriptions of various activities that occurred within different districts. For example, *He Mo'olelo no Makalei* (A Legend of Makalei), written by J.W.H.I Kihe, reportedly appeared in the Hawaiian language newspaper *Ka Hoku of Hawai'i* between January 31 and August 21, 1928 (Maly 1993). The legend primarily details a famous water cave on the Island of Hawaii, but also includes information concerning the western region of Kauai.

The following excerpt is taken from the February 2000 "*Final Archeological Inventory Survey at the Pacific Missile Range Facility, Barking Sands, Island of Kaua'i, Hawai'i.*" According to the story, Makalei, the protagonist, expresses a wish to visit Kauai:

"[Kaua'i] the land famed for the firebrands of Kamaile, and where the fire darts are thrown as fluttering tribute from Makuaiki. [The land] of the cliff trail of Nu'alolo where the ocean moves about the cliffs. Where the pandanus trees of Naue grow by the sea, nodding gently in the water fetching wind of Lehua. [The land] of the waters which are red like the sandalwood leaf shoots at Waimea, and [to see] the houses not built by men's hands, but [built] by the deity Limaloa, there at Limaloa amongst the salt beds. [That land of] the ringing (resonant) sands of Nohili, which merrily sing when moved forward and backwards in the bosom. [To see] the pahapaha seaweed of Polihale... (4/17/1928)."

Makalei was pulled by a supernatural swordfish (A'u'ulele) from Lana'i to Kaua'i, where the fish was then killed. Makalei and his companion Palawai then arrive at Kekaha, on the shores of Mana, the western side of Kaua'i. The story says that because of his great farming skills, Makalei marries Ka-wai-li'ula-o Mana. During the fishing season of "*ke kaha o Mana*" (The shore-place went *lawai'a haiku* (bonito lure fishing), Makalei and Kawai remained at their cultivated fields, and Kawai told Makalei of her desire to eat *aku*...Maluaka arrived at their home and told them of the events occurring on the shore and about the great catch of Makalei's in-laws Wai'awa and Poki'i (6/5/1928).

The story tells of the return of the fishing fleet and lists many fish types, as well as the best known seaweed available in the general area. Also identified was an underwater religious feature (*ko'a*). The *mo'olelo* recorded that many people lived in the region and discussed the successful agriculture caused by the abundant water available from springs along the base of the cliffs, to the east of the proposed Nextel project area.

Other *mo'olelo*, such as Hi'iaka's journey to bring Lohiau from Kaua'i to Hawai'i Island, reveal alternate place names, overland trail documentation, and referred to the beliefs and myths concerning different places on the island, including the cliffs noted above and the marshy plains occurring just west of the present project area (Emerson 1978, Maly 1993).

Olelo No'eau contains several references to the area, which revealed traditional activities. The phrase "Waikahi o Mana" was translated as "the single water of Mana" and was explained by Puku'i (1983):

"When schools of 'opelu and kawakawa appeared at Mana, Kaua'i, news soon reached other places like Makaweli, Waimea, Kekaha, and Poki'i. The uplanders hurried to the canoe landing at Keanapuka with loads of poi and other upland products to exchange for fish. After the trading was finished the fishermen placed their unmixed poi in a large container and poured in enough water to mix a whole batch at once. It didn't matter if the mass was somewhat lumpy, for the delicious taste of fresh fish and the hunger of the men made the poi vanish. This single pouring of water for the mixing of poi led to the expression, "Waikahi of Mana."

6.3 TRADITIONAL AND HISTORIC LAND USE

The first recorded contact between the Hawaiians and Europeans reportedly took place in 1778, when Captain James Cook came upon the islands. According to Edward Joesting in his 1984 book *"Kauai: A Separate Kingdom,"* the first reported contact occurred on the west coast of Kauai and was a lethal encounter:

"The Resolution and Discovery stood off-and-on along the west coast of Kauai. Captain James Cook put Lieutenant John Williamson in command of three armed boats and sent to search for an anchorage and a source of fresh water. At one place, as Williamson came through the breakers to beach his boats, a group of Hawaiian rushed to the sea, either to help the sailors or to steal metal objects. Williamson, unnerved, pulled a pistol and shot a Hawaiian dead (Joesting 1984:37)."

Following that momentous event, the influence and impact of European and American explorers, adventurers, trappers, and whalers on Hawaii had a profound, irreversible affect. The new concepts introduced by contact with western culture caused drastic changes for Hawaii.

On the most basic level, contact with people of different cultures who believed in only one god eventually brought about a spiritual revolution among the Hawaiians. In a series of defiant acts led by members of the royal family, the basic beliefs of the Hawaiian religion and culture were undermined, and the priests were overthrown. Furthermore, during the 1840s, traditional land tenures were abandoned in favor of a division of island lands and a system of private ownership based on western law.

Although admittedly a very complicated issue, many scholars have argued that in order to protect Hawaiian sovereignty from foreign powers, Kamehameha III was forced to establish laws changing the traditional Hawaiian society to that of a market

economy (Daws 1968:111; Kuykendall Vol. I, 1938:145 footnote 47, 152, 165-6, 170; Kame'eleihiwa 1992:169-70, 176).

Among other things, foreigners demanded private ownership of lands in order to protect and secure their investments (Kuykendall Vol. I, 1938:138, 145, 178, 184, 202, 206, 271; Kame'eleihiwa 1992:178; Kelly 1998:4). Once traditional lands were made available and private ownership was instituted, all native Hawaiians, including the *maka'ainana* (commoners), were able to claim the plots they were cultivating and living on, if they had been made aware of the foreign procedures (*kuleana* lands, LCAs).

However, these claims could not be made on any previously cultivated or presently fallow land, 'okipu'u, stream fisheries, or many other resource procurement areas necessary for traditional survival. This land division, known as the "Mahele" or debatably the "Great Mahele", occurred in 1848.

The awarded parcels were called Land Commission Awards (LCA). If occupation could be made through the testimony of witnesses, petitioners were given a Royal Patent number and could then take possession of the property. Commoners claiming houselots in Honolulu, Hilo, and Lahaina were required to pay commutation to the government before obtaining a Royal Patent for their awards (Chinen 1961).

The *ahupua'a* of Waimea was awarded as Crown Lands to Kauikeaouli (Kamehameha III). No LCA claims were given in the project area and only three claims were made in the vicinity of Kekaha, southwest of the project area. A house lot, six *lo'i*, and some *kula* lands were claimed at the base of the cliffs at Poki'I (Native Register 1848: Vol. 9:397). A *lo'i*, a house lot, and *aliapa'akai* (a salt bed), and a *muliwai* by the name of Kapenu was awarded in Kekaha (*ibid.*:146). A woman named Elia Lihau claimed all of the land in the valley of Wai'awa as well as a fishery off the coast (Native testimony, Vol 11:155), but these claims were not awarded.

Eventually, the *Ahupua'a* of Waimea became government lands and, then could be purchased by anyone. Change brought about by the new laws eventually reached even the Mana plain, although it was more a shift to utilize and cultivate introduced products. The coastal and sand dune areas continued to be used for traditional fishing, temporary habitation, swimming, and general outings.

Taro cultivation gave way to rice cultivation in the marshlands from the middle to late 1800s. Only small plots of taro were being cultivated. A road extended from Mana along the base of the cliffs, at least as far as Kekaha, and houses were located on the cliff slopes and in the valleys with associated agricultural fields (traditional *kalo* and coconuts).

Kapa was still being traditionally produced in Kekaha and Mana. The higher slopes of the mountain also contained houses. Recent plant arrivals grew in gardens in the valleys. In the summer, many families temporarily moved to cottages in the mountains to escape the coastal heat.

Prior to 1850, William E. Rowell moved with his missionary family to the Waimea region. Summers were spent in the cool uplands where several families had cottages. Rowell remembered hearing the rhythm of the tapa-beaters from the valley and said they got the *wauke* from up in the mountains or "Perhaps they raised it makai" (Lydgate 1991).

By 1854, Valdemar Knudsen, originally from Norway, was living in Wai'awa. He leased large tracts of land leased from the government, which was previously used for a failed tobacco venture, and began ranching and cultivating the land (Lydgate 1991). With the exception of *kuleana* lands, Knudsen eventually became the *konohiki* of a vast area from Nu'alolo to Waimea. The area was very isolated because of difficulties in travel to and from the area.

According to the history presented on the Kekaha Sugar Company website, "the land was already planted for sugar when Valdemer Knudsen acquired it in 1856 and began the Kekaha plantation. It went through a multitude of owners until 1885. By 1898 it became known as Kekaha Sugar Co. Ltd. The plantation railroad was started in 1884. Mules pulled the cane cars until 1886, when they were replaced with German locomotives."

In the 1860s, a Chinese immigrant by the name of Leong Pah On bought and restored an abandoned rice mill at Waimea. He grew rice on government-leased, swampland in Mana, and other land in Kekaha and Waimea. Pah On's rice fields were in, and amongst, land already leased by Kekaha Sugar for sugar cane cultivation.

Eric Knudsen, the son of Valdemar and born in Wai'awa in 1872, recorded his earliest memories (1991). According to Eric Knudsen, the original Westside road followed along the base of the cliffs to Kekaha. It was open country from Waimea to Mana. There were no trees, fences or even sugar cane. There were still taro patches, with coconuts grown nearby, at Kekaha and Poki'i.

At Poki'i, above the road, Hawaiians lived in thatched houses and grew tobacco. Wai'awa had some coconut trees, a few taro patches, and several wells. The King's well, was regarded as sacred and no commoners were allowed to drink from it. About one mile from Wai'awa, along the old road, was Kaunalewa, which contained a famous coconut tree grove and a village (Pukui *et al.* 1974).

Limaloa, which occurred on the edge of the swamp, reportedly had a spring, seven coconut trees, and a small taro patch. Further toward Mana, the countryside was open with a swamp between fertile and sand lands. The swamp extended all the way from Kekaha to Mana, and when we had heavy winter rains the Hawaiian would paddle their canoes from Mana to Waimea on the inland sea and tie their canoes to the coconut trees in the Waiawa garden.

Knudsen further stated that the majority of the area's population was along the road at the bottom of the cliffs. He continues by describing the unusual communication methods between the settlements:

"At certain hours all the women sat in their houses and beat tapa cloth and as they beat they talked to one another in a tapa beaters' code. They could send a message with great speed from Waimea to Mana. When the men returned from the mountains with fire wood or canoes, the woman that saw them at once tapped out the news and it flew from house to house with the result that every man, when he came home, found his house in order and no surprised visitors hanging around. An old man at Mana told my father that the men had tried for years to learn the secrets of the tapa code but were never able to do so (ibid.)."

Food was plentiful, in spite of the heat in the area and its isolation. According to Knudsen:

"Taro and sweet potatoes, rice and milk, yams and watermelons were plentiful. The Mana natives raised wonderful melons...Every now and then Mana fisherman would come past with huge packs of dried squid and give some to father... Eggs and chickens were plentiful. Turkey wandered about in large flocks...we had figs, papias(sic), mangos and fresh hau coconuts...(ibid.:100-101)."

Between the 1850s to 1880s, goats were hunted, firewood was gathered, and logs for canoes were harvested in the uplands. There was no market for cattle (beef), but goatskins could fetch a good price. Twice a year all the men went goat hunting in the valleys, driving thousands of them to the top of Ho'ea Valley. The rest of the villagers would make two long lines on the sides of the Valley and the men would send the goats down the middle to the sea for slaughter (Knudsen 1191).

As more land became available, the Kekaha Sugar Plantation purchased it. In the 1880s, large sections of the marshlands were being drained, filled, and planted with sugar cane. The population moved into the cities or the plantation camps, as the sugar cane lands expanded in the area. Many of the camps were built around the old springs that had traditionally irrigated *lo'i* and were now being pumped for sugar cane.

In 1878, Valdemar Knudsen, Christian L'Orange, and Hane P. Faye began Kekaha Sugar Company. Sugar was first planted near Kekaha at Poki'i and it was Faye who excavated the first artesian wells in Hawaii at Kekaha (Joesting 1984). With the steady financial backing of Paul Isenberg and George Wilcox, sugar company employees dug wells, filled-in previous swamp lands, plowed new fields, developed immense irrigation systems, and, finally built a railroad to carry the cane to their sugar mill in Kekaha.

From the 1870s to 1880s, there was no road to the far end of the island, only a trail (Knudsen 1991). The marshland was full of wildlife (plants and native birds), and when flooded, was used for canoe travel between Mana and Kekaha. Native birds thrived near the swampy waters and the travelers saw hundreds of *ae'o* (*Himantopus mexicanus knudseni*, stilts), *Koloa* (*Anas wyvilliana*, Hawaiian ducks), and *'ale'ula* (*Gallinula chloropus sandwicensis*, mudhens; *ibid.*).

In 1922, Pah On's leases were about to expire and the manager of Kekaha Sugar (H.P. Faye) convinced him to allow the sugar company to buy up all the leases and rent the rice fields back to him. When Kekaha Sugar had control of all the leases, its Board of

Directors would not honor the agreement and Pah On lost his business. The rice land reverted to sugar cane land. As more immigrants arrived to work in the cane fields, plantation camps were established, usually along ethnic lines, to provide for the workers families. A historic Japanese cemetery was located near the project area, within the PMRF (Cleeland 1975).

During pre-contact and historic times, the western portion of Kauai was populated despite the isolation and harsh environment. Fishing, birding, utilizing trails to the Na Pali region, and taro farming were all a part of the area's tradition. Historic use of the landscape included rice cultivation, sugar cane production, and some ranching activities. Although the present project area is presently leased by the military, the TMK classification suggests that this particular section was used for pastureland most recently.

Modern military facilities extend from the coastal region to the lower mountain slopes. State leased lands continue to be utilized to cultivate crops in the large areas that were formerly marshland.

6.4 SETTLEMENT PATTERN

Based on previous studies and research in the coastal sandy area, the features present may include traditional Hawaiian fishing camps, temporary houses, and burials. Religious shrine remnants (stacked rocks representing cairns or *ahu*) may also be present.

In the cliff slopes and valleys across from the coastal sandy area, permanent habitation features may be present. These include walls, terraces, pavements, rock mounds, and enclosures. Along the cliff base, springs provide fresh water for irrigating small taro patches, filling or maintaining fishponds, and for domestic use (drinking water). Pond walls and *lo'i* terraces are also likely present.

Cultivation in the gulches depended upon adequate rainfall and the flow of intermittent streams, which probably contained more water than is presently evident (see Handy and Handy 1972). Terraces, platforms, enclosures, *'auwai* have been identified in this zone. Evidence of permanent habitation might be found at the base of the cliffs in the same area, as well as the old road referred to by Knudsen (1991) that followed along the base of the cliffs.

The eastern fringes of the Mana and Wai'ele ponds were modified for agriculture and aquaculture purposes. The marshy terrain attracted waterfowl, which was an alternative food source to the rich, offshore fishing grounds (Malo 1951; Handy and Handy 1972). The beach area fronting the swamps probably supported temporary fishing camps and portions of the dunes were used for burials.

Oral traditions suggest close contact and the exchange of food (fish and other crops) for taro between coastal areas and the Kekaha and Waimea region. It may have also extended to valleys along the Napali coast.

Changes to life-style and the environment were brought about by post-contact activities. Grazing by cattle and goats altered the landscape on the hills and gulches. Natural ponds and swamps were drained and filled for agricultural pursuits, native fauna was dispersed, and some of the beach and inland areas were modified and developed for military use.

The greatest modifications in the area of the proposed Nextel project site have occurred as a result of the construction of military buildings across the PMRF. However, this area does not appear to be an area of intensive occupation or agricultural activities due to the nature of the sand dunes in the area. In any case, the proposed project area has previously undergone extensive grading activities.

Reviews of the United States Navy's Pacific Naval Facilities Planning Department's archeological maps identify multiple human burial sites and indicate numerous burials have occurred within the PMRF (Gonzales, Berryman and Welch 1990). The maps delineate a portion of the northern area of the installation as part of "a major ancient burial ground." The burial ground extends from a point on the shoreline, approximately 400 meters (1,312 feet) south of the mouth of Nohili ditch, to Polihale State Park on the northeast. The inland edge of the dunes at Barking Sands demarcates the approximate boundary of the burial ground, and the shoreline forms the western limit.

Based on a personal site visit by Gonzales in January of 1990 and subsequent research in the area directly north of Nohili ditch, an extensive subsurface archeological site was discovered. Human remains, as well as evidence of continual occupation of this area, have been reported in the form of shell-midden deposition and imus (earth ovens), which were eroding from the dune ledges.

Ground penetrating radar studies have also confirmed the subsurface potential for cultural resource materials (Doolittle and McMahaon, pers. Comm. March 26, 1990).

An 1874 land survey map indicates a settlement named Moelaoa in the area's vicinity. In addition, a Hawaiian Government survey from 1900 indicated the existence of a settlement (spelled Moelola) in the same area (Alexander 1900).

An 1898 landscape painting depicting a southern view of the Barking Sands, along the seaward edge, shows a gazebo or pavilion-like structure once existed near the base of the Nohili Dune (Von Holt 1985: Plates of water colors paintings by Maud Knudsen Garstin). Various PMRF personnel stated that this structure existed until it was destroyed by a tsunami in recent times. A date of this occurrence could not be established (C. Kagawa pers. comm. July 27, 1989).

6.5 SITES ON THE PMRF AND SURROUNDING VICINITY

Substantial use of the coastal and adjacent areas of the PMRF by Hawaiians during the pre-contact and early historic period is evidenced by ethnographic and archeological studies. The northern and central sections of the PMRF currently occupy these areas.

There is no archeological evidence of pre-contact and early historic period use by Hawaiians in the southern section of the PMRF (Kennedy 1991).

According to Kennedy, the northern section of the PMRF is "astride an ancient transport route where canoes were hauled from the ocean and carried across the sand spit to the marsh." The corals located in the north and central sections contribute to more abundant marine resources. One reason for this clustered distribution of archaeological sites may be that there was no formal trail running through the Mana coastal plain. Knudsen and Noble (1944) refer to the ruggedness of the coastal trail from the Waimea area to Na Pali, which V. Knudsen rode by horse.

In the Kona District, most prehistoric sites are clustered at either end of the district. Many of the *heiau* are located in the Polihale State Park area, or around Kekaha and Waimea. Residential sites tend to cluster in the southern portion of the district. A *holua* slide between Ho'ea and Kuapa valleys is reported (Knudsen (1991).

Historic period sites in the Kona District are associated with sugar cane and World War II activities. For example, the Japanese Cemetery (Site 50-30-05-616) located on the central portion of the PMRF documents the initial period of the arrival of Japanese laborers to Hawaii (Yoklavich et al. 1992).

W.C. Bennett found many of the known sites in the PMRF during a survey conducted from 1928 to 1929. The areas covered by Bennett included the northern portion of the PMRF adjacent to Polihale State Park and selected areas along the valleys and cliffs on the eastern edge of the Mana plain. These areas were re-surveyed by Ching (1974). Work along the valley cliffs of Ilukipo, Kapolimao, Waiaka, Paua, Wiapao, Kahoana, Ho'ea and Waiawa was also conducted by the Bishop Museum in 1978; the greatest number of sites were found in Ho'ea Valley (Jones 1992).

Since then, the northern portion of the PMRF has been considered a major burial ground (Formander 1917; Jones 1992). Moreover, it is generally accepted that several known burials have remained undocumented (Advanced Sciences Inc. 1990). In the southern portion of the PMRF, actual documentation of interments has not occurred. A burial ground (Site 50-30-05-1834) is thought to be located within a low stabilized sand dune at the south end of Hana Haouli Place. Clay Kagawa (a PMRF employee) first reported this area in 1989 as a possible 10-acre site located directly behind the Officer's Beach cottage.

Though burial sites are the most common prehistoric cultural resource in the PMRF, other site types are also known. For example, Elekuna Heiau is located in the northern portion of the PMRF. In addition, walls, terraces and enclosures have been found as evidence of human habitation. Historic remains are also common.

A variety of site types have been found within the PMRF. The most common pre-contact period site type is the burial, most often found in and around the Nohili Dune area. Residential, agricultural and religious sites are scarcely represented. Although only one *heiau* is reported for the PMRF (Elekuna Heiau), there are at least ten *heiau* distributed

throughout the area surrounding the base. Archaeological remains suggesting permanent residence in the area are more often found north of the PMRF, in the valleys along the Na Pali Coast, and south of the PMRF. Little data exists concerning the relative ages of the pre-contact period structures in the area, though according to the Kirch (1984, 1985) model, they are expected to date from his population expansion phase at about A.D. 1100.

7.0 SYNOPSIS OF INTERVIEWS

Clayton contacted the State of Hawaii Department of Land and Natural Resources (DLNR) - State Historic Preservation Division (SHPD), Office of Hawaiian Affairs (OHA), Historic Hawaii Foundation (HHF), and the Native Hawaiian Group "Hui Malama." Each of these agencies and/or organizations was contacted on April 16, 2003 and asked for input with respect to concerns regarding the proposed Nextel project.

OHA subsequently recommended that Ms. La France Kapaka-Arboleda, Chair of the Kauai Island Burial Council, Ms. Vida Mossman and Ms. Aletha Kaohi (both Native Hawaiian community members) also be contacted for comment and input regarding the proposed project. Therefore, Clayton contacted each of these parties on June 9, 2003.

As of the date of this report, none of these parties have provided a written response regarding the proposed project; however, none of the parties have made known any objections to the proposed project either.

Moreover, during subsequent follow-up telephone conversations with the Hawaiian community members, each stated that the cell phone project would provide much needed coverage, would help resolve safety concerns, and was long overdue and desired.

As of the date of this report, Clayton has also not yet received responses from the HHF or Hui Malama, but these groups commonly do not respond to such inquiries.

Furthermore, in response to SHPD concerns regarding the possibility that burials and/or historic sites might be found, SHPD has agreed to the project with the qualification that site identification and any needed mitigation can be handled through an archeological monitoring program, as outlined in Section 5.4. OHA had similar concerns, which are also included in Section 5.4.

Based on the inquiries and responses noted in this Section, there have been no community objections raised regarding the proposed Nextel telecommunications project; and, the noted SHPD and OHA concerns have been addressed and resolved (Appendix C).

Therefore, the proposed action will not significantly affect or cause significant negative impacts to any known cultural resources or "current cultural practices."

8.0 FINDINGS

According to the Department of Health Rules (11-200-12), an applicant or agency must determine whether an action may have significant impact on the environment, including all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short and long-term effects. In making the determination, the Rules establish "Significant Criteria" to be used as a basis for identifying whether significant environmental impact will occur. According to the Rules, an action shall be determined to have significant impact on the environment if it meets any one of the following criteria:

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

According to SHPD, "*there are Native Hawaiian burials in the sandy areas of PMRF.*" Therefore, to cover the possibility that burials and/or historic sites might be found, SHPD believes that site identification and any needed mitigation can be handled through an archeological monitoring program, as stated outlined in Section 5.4. OHA had similar concerns, which are also included in Section 5.4.

Based on the inquiries and responses noted in this Section, there have been no community objections raised regarding the proposed Nextel telecommunications project; and, the noted SHPD and OHA concerns have been addressed and resolved (Appendix C).

Therefore, the proposed action will not significantly affect or cause significant negative impacts to any known cultural resources or "current cultural practices."

- (2) **Curtails the range of beneficial uses of the environment;**

The proposed project is located in a previously developed area of the PMRF, and in the immediate vicinity of existing buildings and structures; therefore, it does not curtail the range of beneficial uses of the current environment.

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

The proposed project is consistent with the Environmental Policies established in Chapter 344, HRS, and the National Environmental Policy Act.

- (4) **Substantially affects the economic or social welfare of the community or state;**

The proposed project will benefit the community at large by providing better telecommunications and safety services for the surrounding area, as well as project income for local contractors.

(5) Substantially affects public health;

Impacts to public health may be affected in the short term by air, noise, and water quality impacts; however, these will be insignificant or not detectable and temporary.

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

The proposed project is anticipated to have no growth impact on the regional population. In addition, the project is located on the U.S. Naval Military Reservation and in an area of previous development. Therefore, it will have no effects on public facilities.

(7) Involves a substantial degradation of environmental quality;

The proposed project is located in a previously developed portion of the PMRF. The project activities will be limited to the immediate area of an existing utility pole and existing buildings; therefore, the proposed project will not involve substantial degradation of environmental quality.

(8) Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;

The proposed action is designed to maintain the given space by using existing facilities at the site, and benefit the community at large.

(9) Substantially affects a rare, threatened or endangered species or habitat;

According to the Navy, as outlined in Section 5.3: *"For the purposes of compliance with Section 7 of the Endangered Species Act, we have determined that the proposed action will not affect any listed species or destroy or adversely modify any proposed or designated critical habitat."*

(10) Detrimentially affects air or water quality or ambient noise levels;

The proposed project is not anticipated to detrimentally affect air or water quality or ambient noise levels of the area.

(11) Affects or is likely to suffer damage by being located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters;

Based on the above criteria, there are no environmentally sensitive areas associated with the project site. In addition, the immediate area of the proposed project has already been disturbed by previous development.

- (12) **Substantially affects scenic vistas and view planes identified in county or state plans or studies;**

Views of the area to be developed are generally not significant although they are visible. Existing buildings and other antenna tower structures are already located in the immediate vicinity of the proposed project.

- (13) **Requires substantial energy consumption.**

Construction of the proposed project will not require substantial energy consumption relative to other similar projects.

9.0 **CONCLUSIONS**

We have prepared an Environmental Assessment (EA) for the subject property in conformance with the State of Hawaii DLNR, Office of Conservation and Environmental Affairs CDUA requirements, and a Cultural Impact Assessment (CIA) in conformance with the State of Hawaii Department of Health (DOH), Office of Environmental Quality Control (OEQC) requirements.

The conclusions presented in this Section are based on Clayton's understanding of the subject property location and the proposed action at the subject property, as such action is described in Section 2.0. Should modifications to the location of the subject property or proposed action be made in the future, additional inquiries may be prudent.

None of the inquiries made or documents reviewed during this EA indicated direct evidence of significant negative environmental conditions with respect to the proposed project.

With regards to cultural impacts, the proposed project site is located within the boundaries of the Barking Sands Pacific Missile Range Facility (PMRF) United States (U.S.) Naval Military Reservation, an area that is restricted and off-limits to the general public and as well as Native Hawaiians under National Security measures.

Moreover, none of the inquiries made or consultations conducted for the cultural impact assessment (CIA) portion of this project indicated community opposition or evidence of significant negative impacts to "current cultural practices" with respect to the proposed project.



Therefore, it is anticipated that the DLNR Office of Conservation and Environmental Affairs will make a "Finding of No Significant Impact" (FONSI) determination for the proposed Nextel PMRF Barking Sands Cell Site project.

This report prepared by:

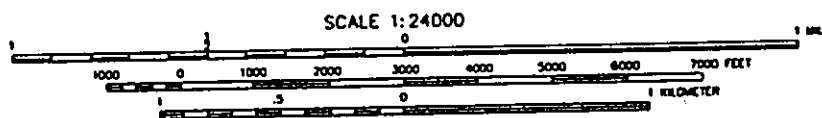
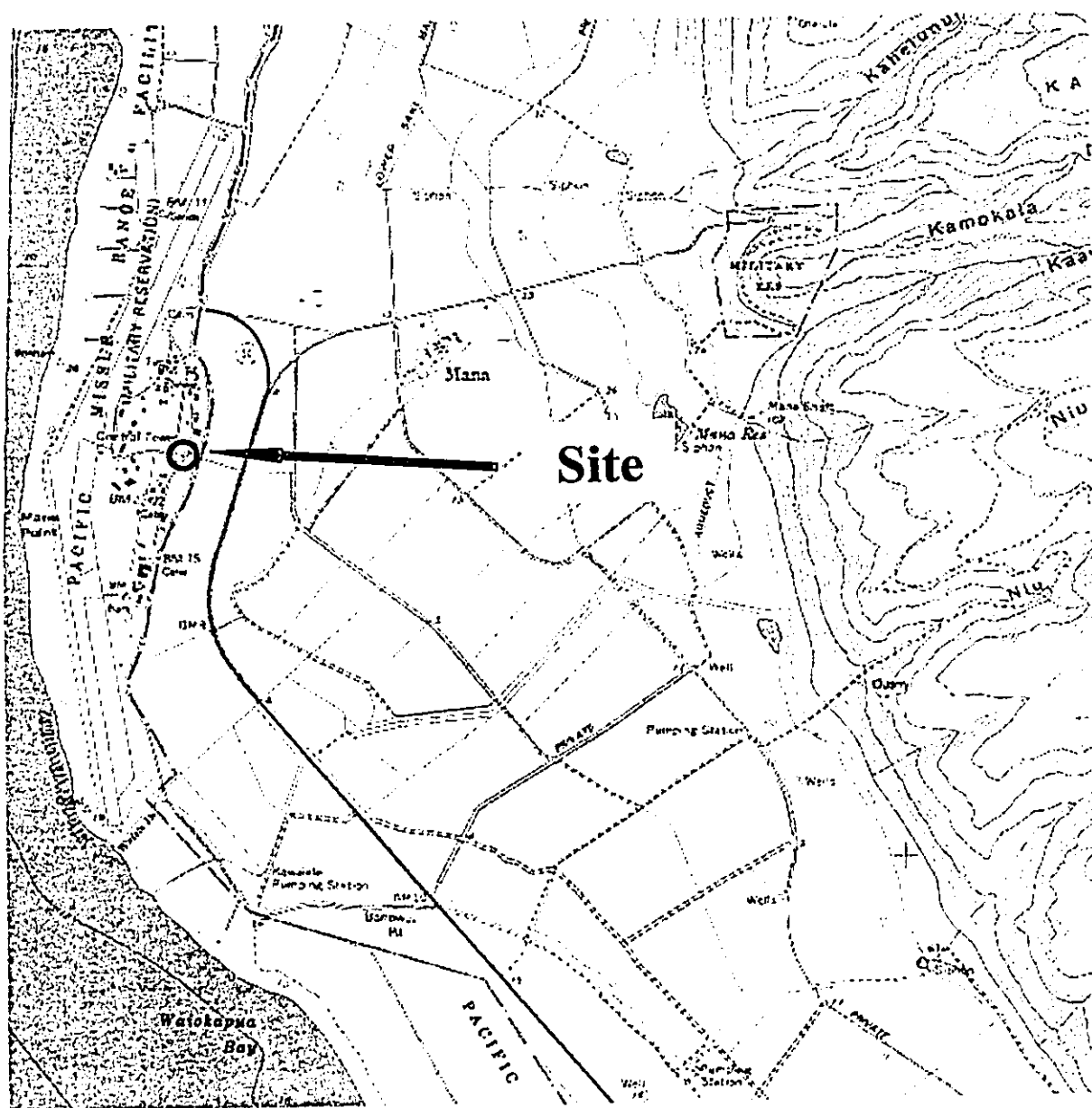
Douglas Oringer
Project Engineer
Honolulu Regional Office

This report reviewed by:

Daniel P. Ford, R.G.
Vice President
Honolulu Regional Office

November 18, 2003

FIGURES

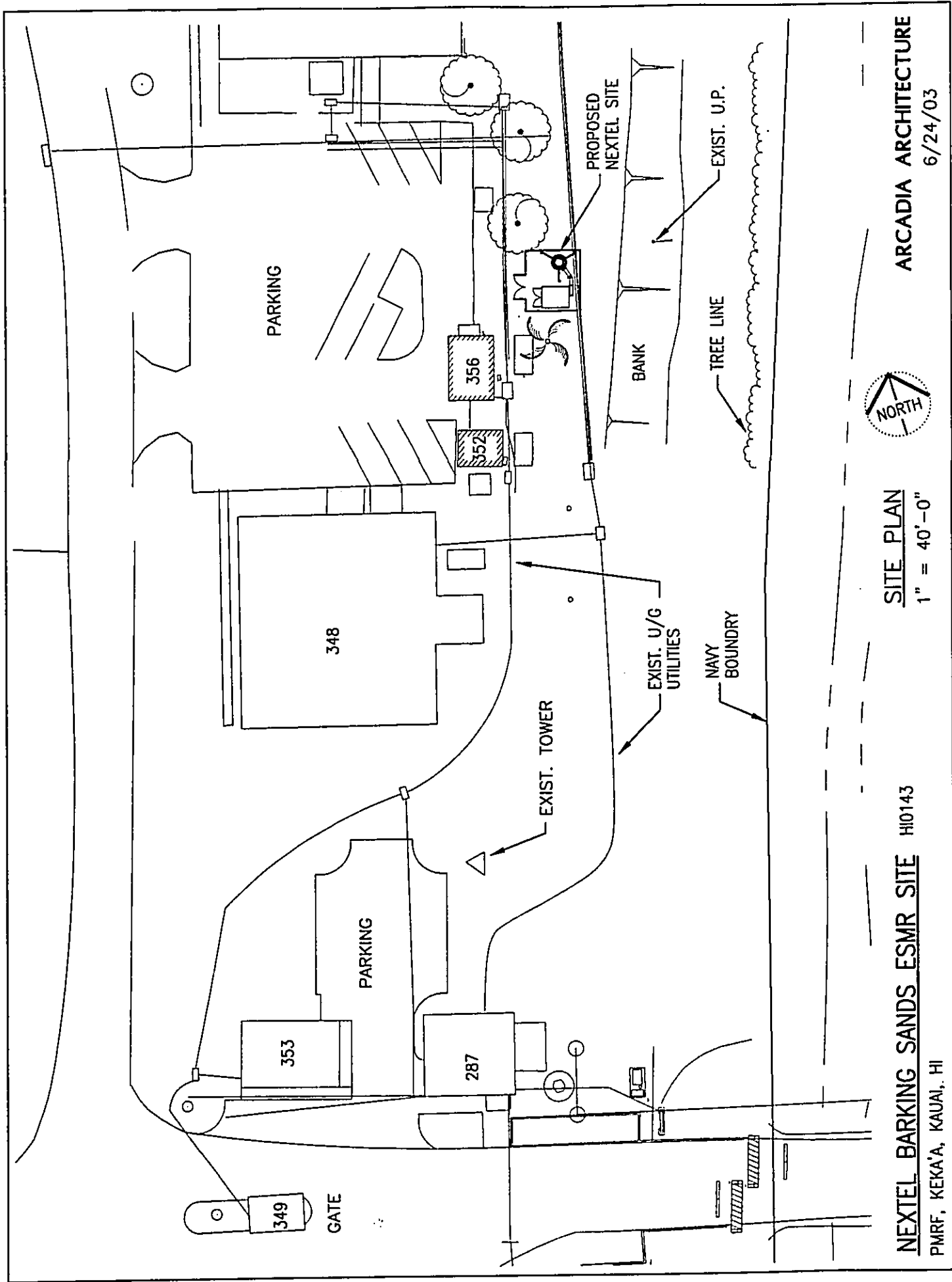


Portion of 7.5-minute Series (Topographic) Map
 United States Department of the Interior
 Geological Survey
 Kekaha Quadrangle Hawaii-Kauai Co.
 1983



Project No:	85-03287.00	Title:	SITE LOCATION MAP
Date:	04/15/03	Location:	PMRF Barking Sands Cell Site Kekaha, Kauai, Hawaii
Revised By:	DAO	Client:	Nextel Partners
Checked By:	DAO		

FIGURE
1

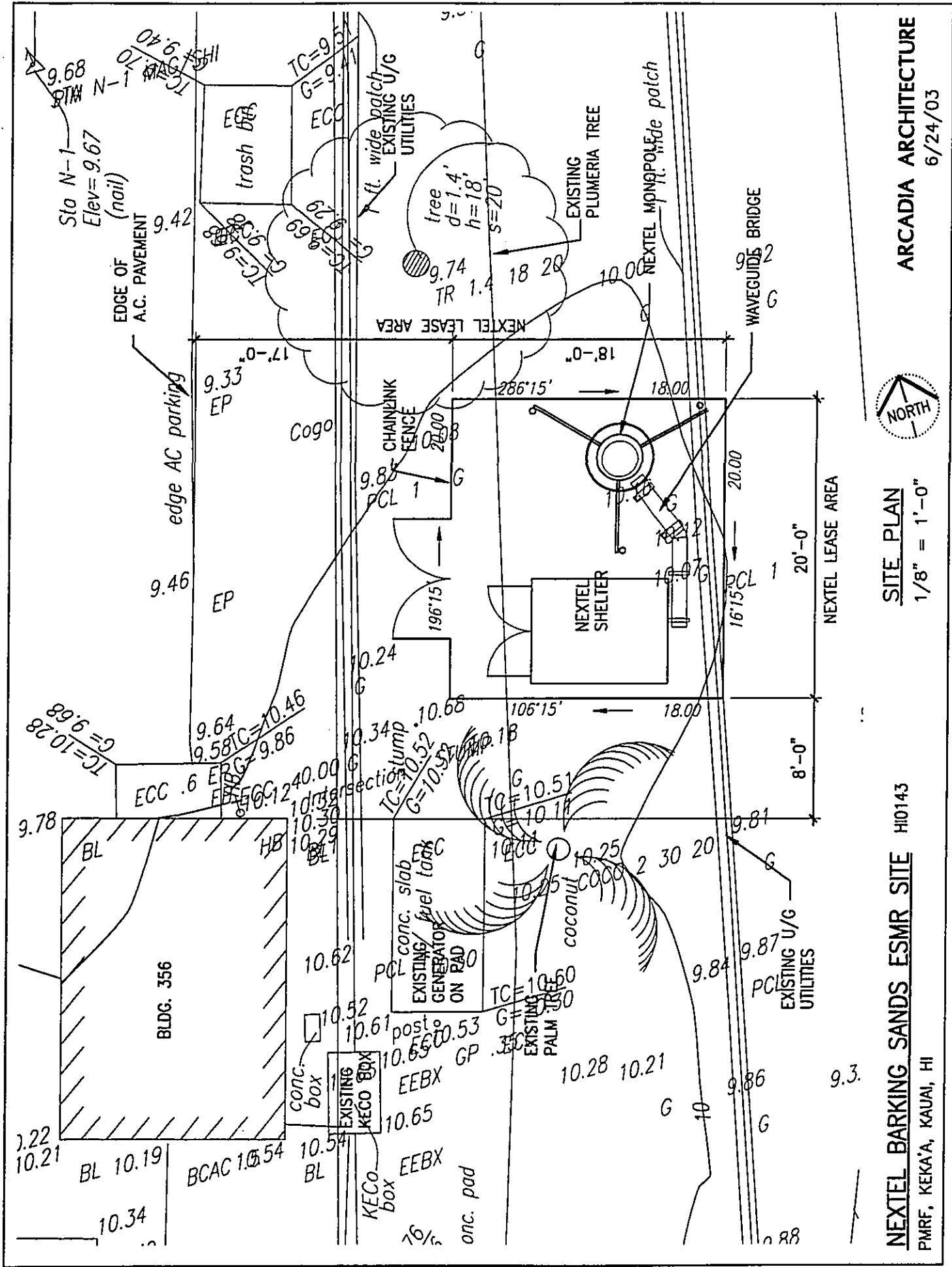


ARCADIA ARCHITECTURE
6/24/03



SITE PLAN
1" = 40'-0"

NEXTEL BARKING SANDS ESMR SITE HI0143
PMRF, KEKA'A, KAUAI, HI

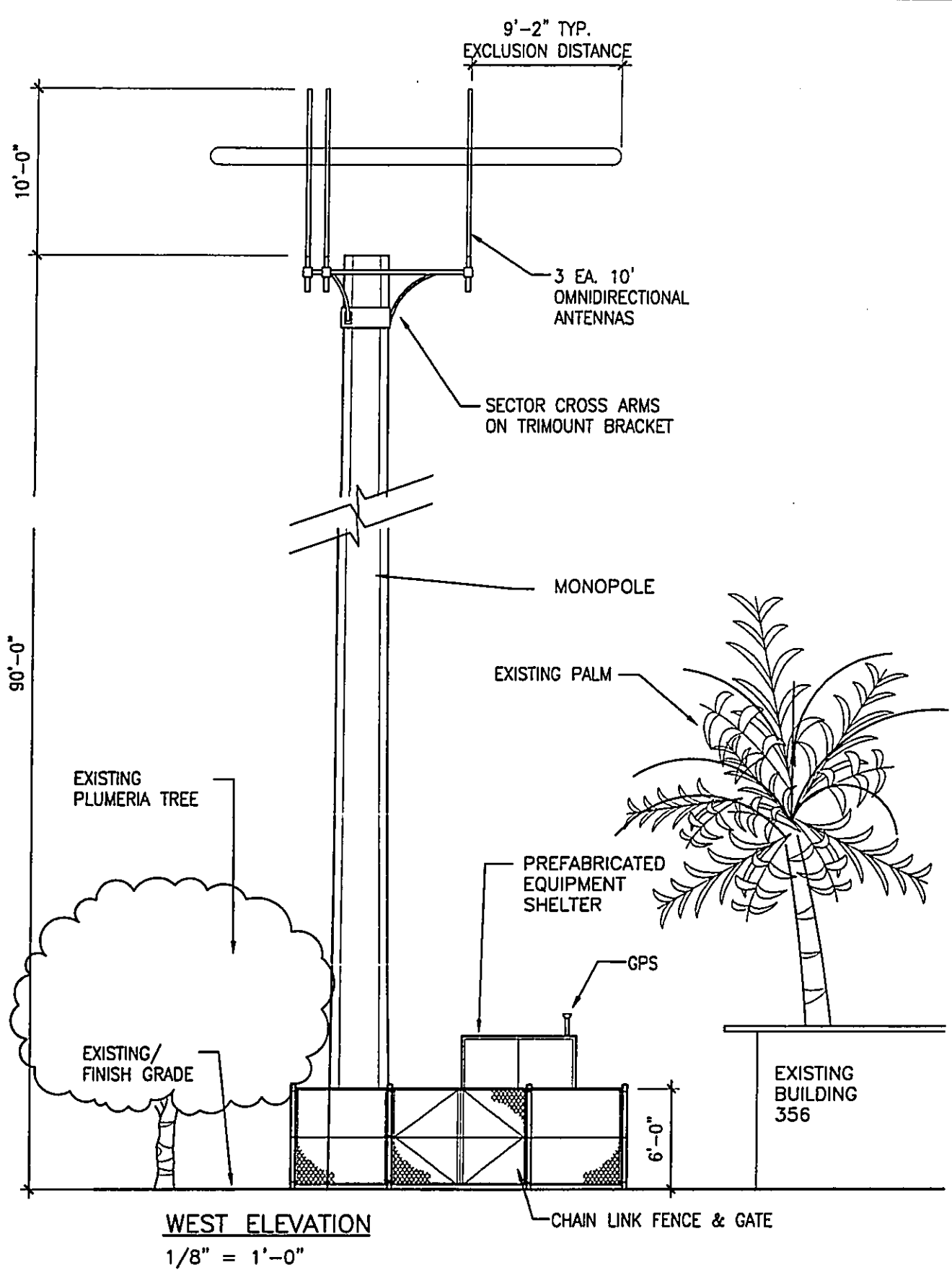


ARCADIA ARCHITECTURE
6/24/03



SITE PLAN
1/8" = 1'-0"

NEXTEL BARKING SANDS ES MR SITE H10143
PMRF, KEKA'A, KAUAI, HI

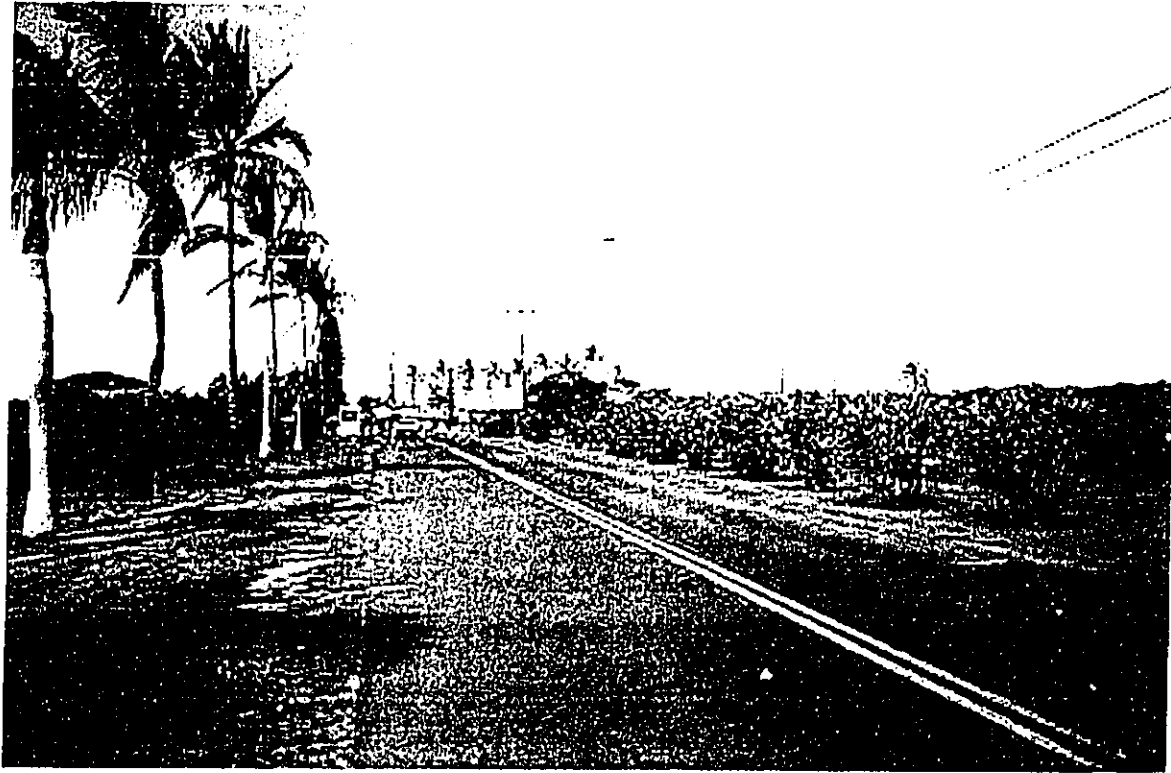


NEXTEL BARKING SANDS ESMR SITE HI0143
PMRF, KEKA'A, KAUAI, HI

ARCADIA ARCHITECTURE
6/24/03

PHOTOGRAPHS

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



Clayton Project No. 85-03287.00	Description	View of PMRF entrance gate & wooden utility poles to right, looking W	Photo 1
	Site Name	PMRF Barking Sands Cell Site, Kekaha, Waimea, Kauai, Hawaii	Photo Date
	Client	NEXTEL PARTNERS	5-20-2003



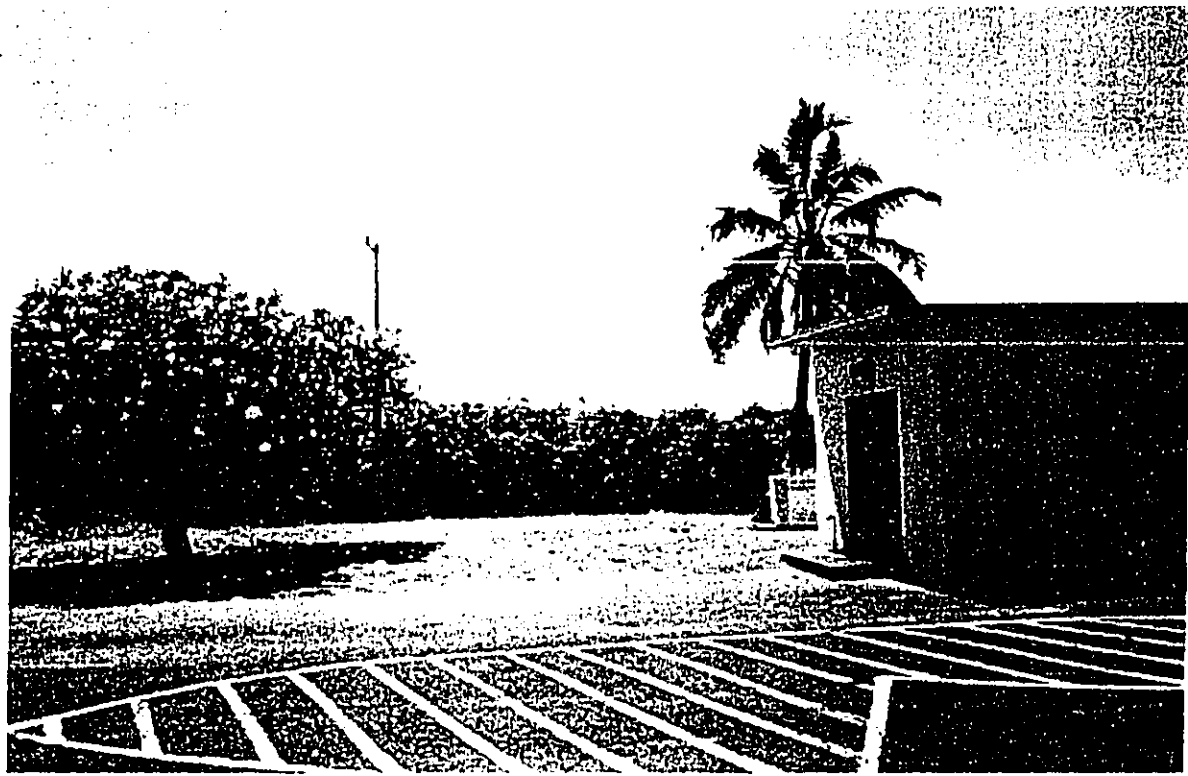
Clayton Project No. 85-03287.00	Description	View of antenna tower and utility poles to N of entrance gate, looking N/NW	Photo 2
	Site Name	PMRF Barking Sands Cell Site, Kekaha, Waimea, Kauai, Hawaii	Photo Date
	Client	NEXTEL PARTNERS	5-20-2003



Clayton Project No. 85-03287.00	Description	Proposed cell site area to left of palm tree and yellow fuel tank, looking S	Photo 3
	Site Name	PMRF Barking Sands Cell Site, Kekaha, Waimea, Kauai, Hawaii	Photo Date 5-20-2003
	Client	NEXTEL PARTNERS	



Clayton Project No. 85-03287.00	Description	Proposed cell site area to right of yellow fuel tank and palm tree, looking N	Photo 4
	Site Name	PMRF Barking Sands Cell Site, Kekaha, Waimea, Kauai, Hawaii	Photo Date 5-20-2003
	Client	NEXTEL PARTNERS	

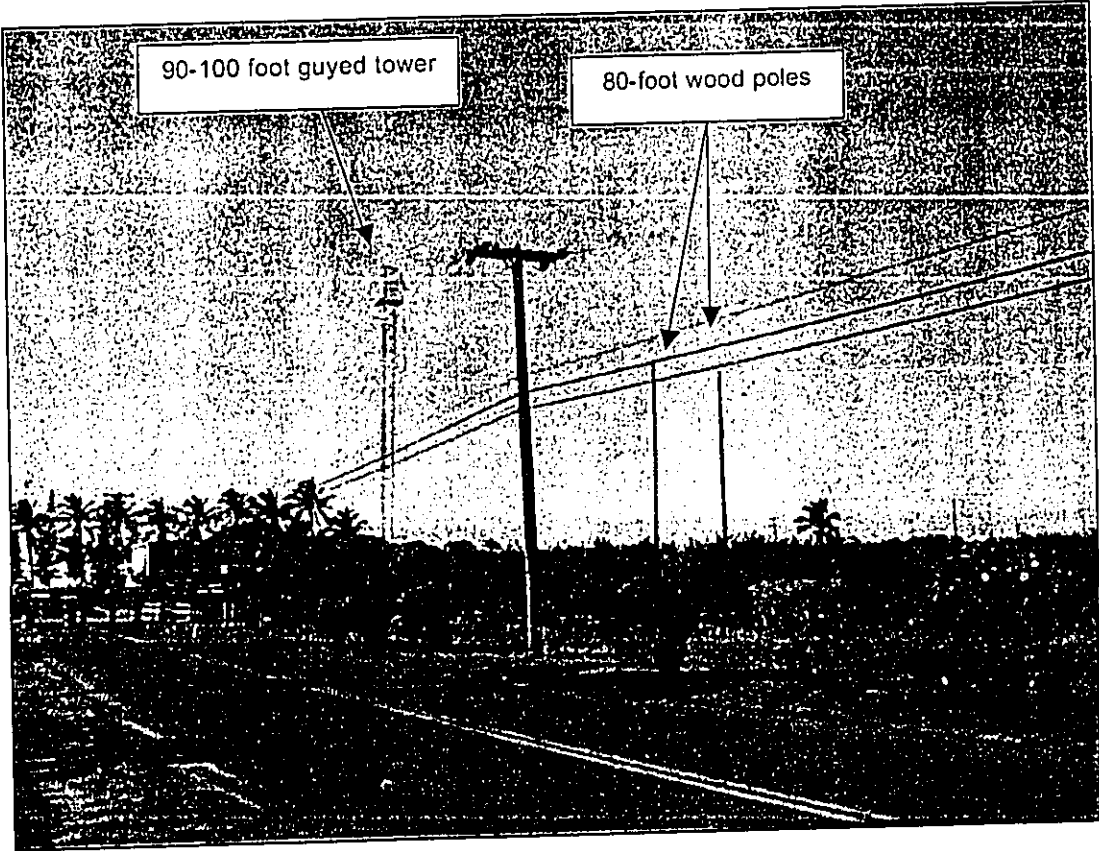


Clayton Project No. 85-03287.00	Description	Proposed cell site to left of PMRF Bldg. 356 and yellow fuel tank, looking E	Photo 5
	Site Name	PMRF Barking Sands Cell Site, Kekaha, Waimea, Kauai, Hawaii	Photo Date
	Client	NEXTEL PARTNERS	5-20-2003

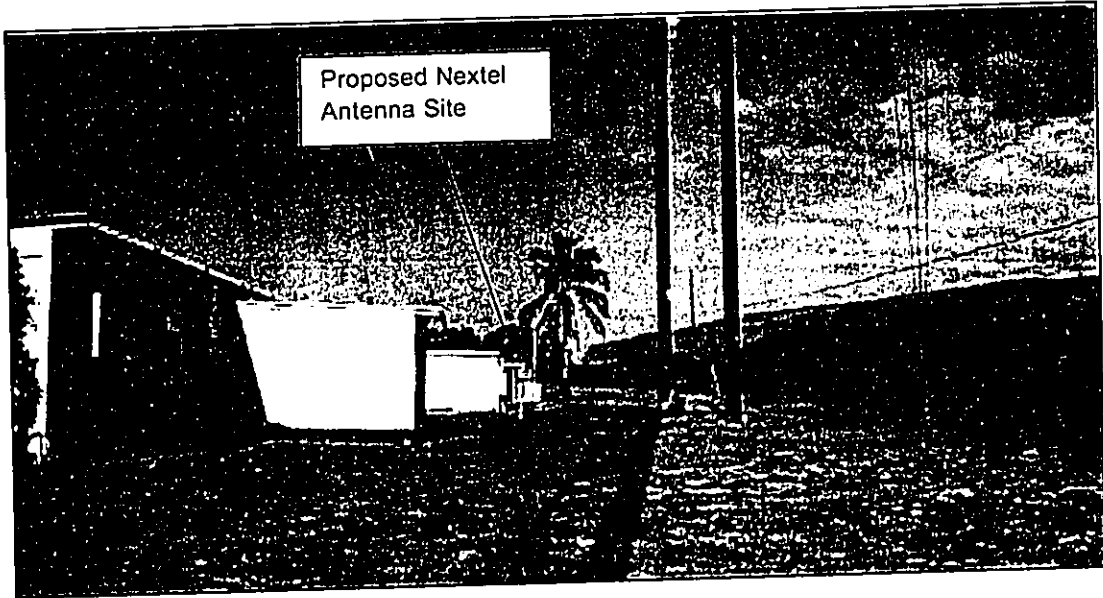


Clayton Project No. 85-03287.00	Description	Proposed cell site to right of PMRF Bldg. 356 and yellow fuel tank, looking W	Photo 6
	Site Name	PMRF Barking Sands Cell Site, Kekaha, Waimea, Kauai, Hawaii	Photo Date
	Client	NEXTEL PARTNERS	5-20-2003

BARKING SANDS – PMRF

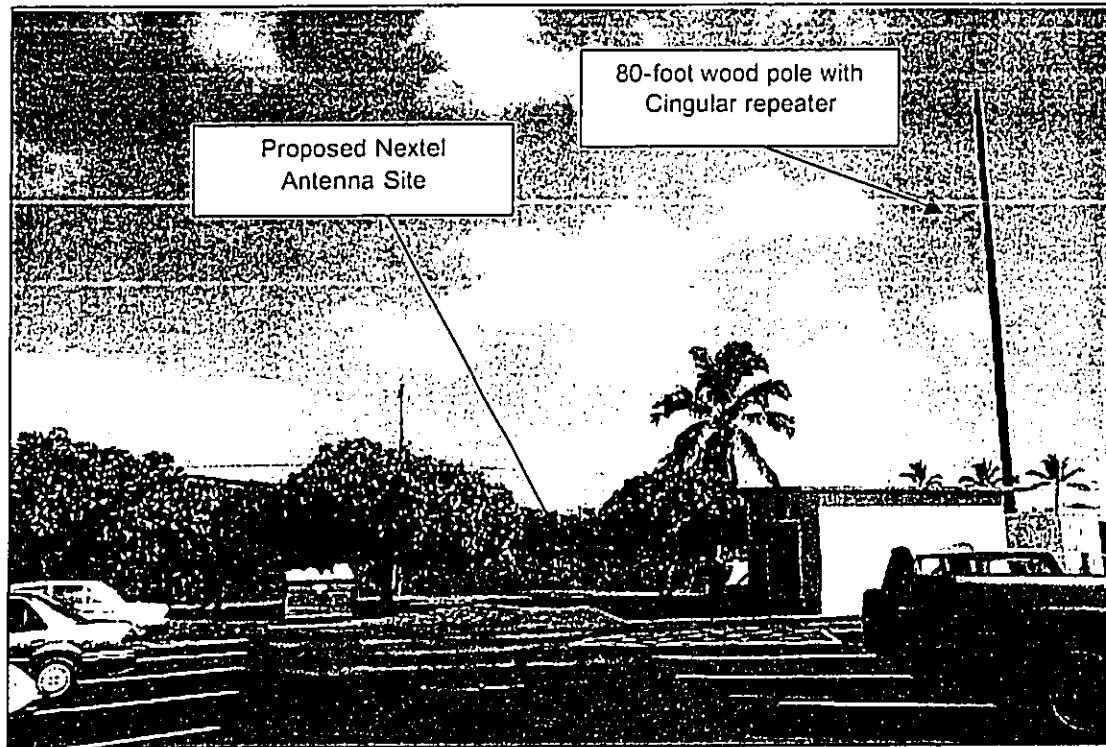


The picture above was taken outside the main gate of the Pacific Missile Range Facility. Verizon Hawaii has a 90-100 foot guyed tower and to the right are two 80-foot wood poles, one with a Cingular repeater located on it.

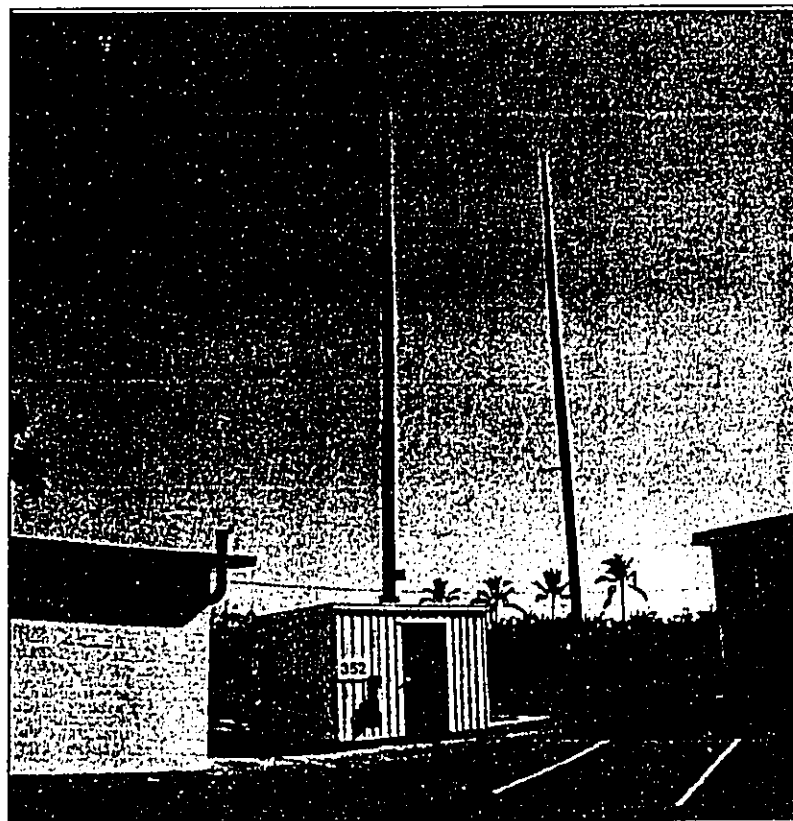


The picture above shows the area in which Nextel proposes to locate the antenna facility. Verizon also plans to locate their antenna facility in the same vicinity. Both companies will replace the wood poles with another monopole.

BARKING SANDS – PMRF



The picture above shows the proposed location of Nextel's antenna site. Also depicted is one of the 80-foot wood poles with Cingular's repeater on it.



APPENDIX A

LIST OF SOURCES/REFERENCES

CONTACTS:

Agency and division/source: FCC Wireless Telecommunications Bureau
Name/title of representative: Mr. Dan Abata, Director / Mr. Frank Stillwell, Asst. Director
Location of Agency: Washington D.C.
Agency Telephone Number: General (888) 225-5322; (202) 418-1538; (202) 418-1892

Agency and division/source: U.S. Fish & Wildlife Service (USFWS)
Name/title of representative: Mr. Paul Henson, Ph.D., Field Supervisor
Location of agency: Honolulu, Oahu, Hawaii
Agency telephone number: (808) 541-3441

Agency and division/source: DLNR – Department of Forestry & Wildlife (DOFAW)
Name/title of representative: Mr. Edwin Petteys, Branch Manager
Location of agency: Lihue, Kauai, Hawaii
Agency telephone number: (808) 274-3433

Agency and division/source: The Nature Conservancy / Hawaii Natural Heritage Program
Name/title of representative: Mr. Roy Kam, Director
Location of agency: Honolulu, Oahu, Hawaii
Agency telephone number: (808) 537-4508

Agency and division/source: DLNR – State Historic Preservation Division (SHPD)
Name/title of representative: Ms. Nancy McMahon, State Archeologist and Case Officer
Location of agency: Lihue, Kauai, Hawaii
Agency telephone number: (808) 742-7033

Agency and division/source: State of Hawaii – Office of Hawaiian Affairs (OHA)
Name/title of representative: Mr. Colin Kippen, Director / Dr. Pua Aiu, Staff
Location of Agency: Honolulu, Oahu, Hawaii
Agency Telephone Number: (808) 594-1756 / 594-1888

Agency and division/source: U.S. Army Corp of Engineers - Honolulu District
Name/title of representative: Mr. George Young, Director / Mr. Bill Lenan, Staff
Location of Agency: Honolulu, Oahu, Hawaii
Agency Telephone Number: (808) 438-1091; (808) 438-6986

CONTACTS (Continued):

Agency and division/source:	Historic Hawaii Foundation (HHF)
Name/title of representative:	Mr. David Scott, Director
Location of Agency:	Honolulu, Oahu, Hawaii
Agency Telephone Number:	(808) 523-2900
Agency and division/source:	Hui Malama
Name/title of representative:	Mr. Kunani Nihipali / President
Location of Agency:	Kailua, Oahu, Hawaii
Agency Telephone Number:	(808) 261-1151
Agency and division/source:	Nextel Partners
Name/title of representative:	Mr. Calvert Chun
Location of Agency:	Honolulu, Oahu, Hawaii
Agency Telephone Number:	(808) 837-4210 / 306-5710
Agency and division/source:	Nextel Partners
Name/title of representative:	Mr. Matt Tobias
Location of Agency:	Honolulu, Oahu, Hawaii
Agency Telephone Number:	(808) 383-8880
Agency and division/source:	County of Kauai Planning & Zoning Department
Name/title of representative:	Staff
Location of Agency:	Lihue, Kauai, Hawaii
Agency Telephone Number:	(808) 241-6677
Agency and division/source:	Kauai Island Burial Council, Division of OHA
Name/title of representative:	Ms. La France Kapaka-Arboleda, Chair
Location of Agency:	P.O. Box 585, Anahola, Kauai, Hawaii
Agency Telephone Number:	808-241-3390
Name/title of representative:	Ms. Vida Mossman, community member
Location of Agency:	P.O. Box 42, Kekaha, Kauai, Hawaii
Agency Telephone Number:	808-241-6390 / 241-6387
Name/title of representative:	Ms. Aletha Kaohi, community member
Location of Agency:	P.O. Box 1000, Waimea, Kauai, Hawaii
Agency Telephone Number:	808-338-1332 / 338-1447

REFERENCES:

- Name of publication: U.S.G.S. 7.5-Minute Series Kekaha, Kauai, Hawaii Quadrangle
Author of publication: United States Geological Survey (USGS)
Date of publication: 1983
- Name of publication: *Archaeological Inventory Survey, Pacific Missile Range Facility, Majors Bay Area, Kaua'i*
Author of publication: Maria T.K. Sweeney, M.A.
Date of publication: November 1994
Pages: 7 to 15
- Name of publication: *Hawaiian Traditional Customs and Practices Study for Kapalawai, Ahupua'a of Makaweli, District of Kona, Kaua'i, Hawaii*
Author of publication: Ka'ohulani Mc Guire, B.A.; Leilani Pyle, B.A.; David W. Shiedeler, M.A., A.B.D.; and Hallett H. Hammatt, Ph.D.
Date of publication: July 1999 and February 2000
Pages: 9 to 16
- Name of publication: *Final Archaeological Inventory Survey at Pacific Missile Range Facility, Barking Sands, Island of Kaua'i, Hawaii*
Author of publication: Michael F. Dega, M.A.; and Randy Ogg, B.A.
Date of publication: February 2000
Pages: 8 to 15, 22, and 23
- Name of publication: *Final Cultural Resources Survey Report in Support of the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement*
Author of publication: Tirzo Gonzalez, B.A., and Paige Peyton, M.A., RPA, Cultural Resources Consultants, (Earth Tech, Inc.)
Date of publication: November 1997 and March 1999
Pages: 7 to 13
- Name of publication: *Archaeological Survey and Testing, Department of Energy, Kauai Test Facility, Barking Sands, Kauai, Hawaii, Supplement for Kauai Test Facility Environmental Assessment, Prepared for Sandia National Laboratories, Albuquerque, New Mexico, Under Contract No. 69-4574*
Author of publication: Tirzo Gonzalez, BA, and Judy Berryman, MA, Advanced Sciences, Inc., San Diego, California, and David Welch, PhD., International Archaeological Research Institute, Inc.
Date of publication: August 1990
Pages: 12 and 16

REFERENCES CITED FROM SOURCE REPORTS

Athens, J. Stephen

- 1983 Prehistoric Pondfield Agriculture in Hawai'i: Archaeological Investigations at the Hanalei National Wildlife Refuge, Kaua'i. Typescript, Bernice P. Bishop Museum Library. Honolulu.

Barrera, W.J.

- 1981 *Final Archaeological Investigation of the Proposed Kitano Hydroelectric Project at Kekaha, Kaua'i*. Chiniago, Inc. Prepared for Kennedy-Jenks, Engineers.
- 1982 Letter Report: *Archaeological Reconnaissance: Kitano Reservoir, Kokee, Waimea, Kekaha, Kaua'i*. Chiniago, Inc. Prepared for Kennedy-Jenks, Engineers.

Bennett, W.C.

- 1931 *Archaeology of Kauai*. Bernice P. Bishop Museum Bulletin 80. Bernice P. Bishop Museum. Honolulu.

Bordner, R.M.

- 1977 *Cultural Reconnaissance Report of Kekaha Beach Shore Protection, Kekaha, Kona, Kaua'i, State of Hawaii*. Archaeological Research Center Hawaii Report 14-107. Prepared for U.S. Army Corps of Engineers.

Char, Tin-Yuke and Wai Jane Char (eds.)

- 1979 *Chinese Historic Sites and Pioneer Families of Kaua'i*. Hawai'i Chinese History Center. Honolulu.

Chinen, Jon J.

- 1961 *Original Land Titles in Hawaii*. Copyright 1961 Jon Jitsuzo Chinen.

Ching, F.

- 1974 State of Hawaii, Department of Land and Natural Resources, Inventory of Historic Sites Records no. 50-30-01-06 through no. 50-30-05-17. On file at the State Historic Preservation Office. Honolulu.
- 1982 *Archaeological Reconnaissance of Three Sites for Proposed Kaua'i Central Sanitary Landfill Project, Kekaha and Kipu, Kona, Kaua'i Island and Kumukumi Puna, Kaua'i Island*. Archaeological Research Center Hawai'i Inc. Honolulu.

Cleeland, B.

- 1975 Cemeteries of West Kauai. *Archaeology on Kauai* IV(2):13-20, Kauai Community College. Lihue.

REFERENCES CITED FROM SOURCE REPORTS (Continued)

- Coan, Reverend Titus
1882 *Life in Hawaii: An autobiographic Sketch (1835-1881)*. Anson D.F. Randolph and Company. New York.
- Conde, Jesse C. and Gerald M. Best
1973 *Sugar Trains: Narrow Gauge Rails of Hawaii*. Glenwood Publishers. Fenton, California.
- Coulter, John Wesley
1931 *Population and Utilization of Land and Sea in Hawaii, 1853*. Bernice P. Bishop Museum Bulletin 88. Honolulu.
- Daws, G.
1968 *Shoal of Time*. University of Hawaii Press. Honolulu.
- Dixon, George
1789 *A voyage round the world...performed in 1785, 1786, 1787 and 1788 in the "King George" and Queen Charlotte.* London: George Goulding.
- Doolittle, James A.
1992 Ground Penetrating Radar Survey, Navy Pacific Missile Range Facility, 19-28 January 1992. Report prepared for the Department of the Navy. Soil Conservation Service. Chester, Pennsylvania.
- Drolet, Robert P.
1993 *Preliminary Report: Archaeological Testing of Aircraft Parking Apron, (Milcon P-047), Pacific Missile Range Facility (PMRF), Barking Sands, Kaua'i, Hawai'i*. Report prepared for the Department of the Navy, Pacific Division, Pearl Harbor. Ogden Environmental and Energy Services Co., Inc. Honolulu.
- 1993a *Preliminary Report: Archaeological Monitoring of Proposed Beach Cottage Constructions at Pacific Missile Range Test Facility, Barking Sands, Hawai'i, Kona District, Kaua'i, Hawai'i*. Report prepared for the Department of the Navy, Pacific Division, Pearl Harbor. Ogden Environmental and Energy Services Co., Inc. Honolulu.
- 1994 *Preliminary Report: Archaeological Monitoring at the Site of Project H-134, New Family Housing, Pacific Missile Range Facility (PMRF), Kaua'i, Hawai'i*. Report prepared for the Department of the Navy, Pacific Division, Pearl Harbor, Ogden Environmental and Energy Services Co., Inc. Honolulu.

REFERENCES CITED FROM SOURCE REPORTS (Continued)

- Earle, T.K.
1978 *Economic and Social Organization of a Complex Chiefdom: The Halele'a District, Kaua'i, Hawai'i*. Anthropological Papers of the Museum of Anthropology No. 63, University of Michigan.
- Emerson, Nathaniel B.
1978 *Pele and Hi'iaka*. Charles E. Tuttle Company. Tokyo, Japan.
- Emory, Kenneth P., W.J. Bonk, and Y.H. Sinoto
1959 *Hawaiian Archaeology: Fishhooks*. Bernice P. Bishop Museum Special Publication 47, Bernice P. Bishop Museum. Honolulu.
- Fitzpatrick, Gary L.
1986 *The Early Mapping of Hawai'i*. Editions Limited. Honolulu.
- Foote, Donald E., Elmer L. Hill, Sakuichi Nakamura and Floyd Stephens
1972 *Soil Survey of Lands of Kaua'i, O'ahu, Maui, Moloka'i and Lana'i, State of Hawai'i*. United States Department of Agriculture Soil Conservation Service, in cooperation with the University of Hawaii Agricultural Experiment Station. Honolulu.
- Folk, W., H. Hammatt, and G. Ida
1994 *Archaeological Inventory Survey and Sub-surface Testing of Houselots on 2.5 Acres at Kekaha, Kaua'i*. Prepared for Makai Properties. Cultural Surveys Hawai'i.
- Giambelluca, T.W., M.A. Nullet, and T.A. Schroeder
1986 *Rainfall Atlas of Hawaii*. Department of Land and Natural Resources, Honolulu.
- Gonzales, Tirzo, Judy Berryman, and David J. Welch
1990 *Archaeological Survey and Testing Report for the United States Army, Strategic Defense Command's Proposed EDX Project, Pacific Missile Range Facility, Barking Sands, Kauai, Hawaii*. Advanced Sciences Inc. and International Archaeological Research Institute, Inc. San Diego and Honolulu.
- Griffin, P.B., R. Bordner, H.H. Hammatt, M. Morgenstein, and C. Stauder
1977 *Preliminary Archaeological Investigations at Ha'ena, Halele'a, Kaua'i Island*. Typescript, Archaeological Research Center Hawaii, Lawa'i.
- Hammatt, H.H., R.M. Bordner, and M.J. Tomonari-Tuggle
1978 *Archaeological and Biological Survey of the Proposed Kiahuna Golf Village Area, Koloa, Kona, Kaua'i Island, Hawaii*. Typescript, Archaeological Research Center Hawaii, Lawa'i.
- Handy, E., S. Craighill, and Elizabeth Green Handy
1972 *Native Planters in Old Hawaii: Their Life, Lore and Environment*. Bernice P. Bishop Museum Bulletin 233, Bishop Museum Press. Honolulu.

REFERENCES CITED FROM SOURCE REPORTS (Continued)

- Hinds, N.E.A.
1930 *The Geology of Kauai and Niihau*. Bernice P. Bishop Museum Bulletin 71. Honolulu.
- Hommon, R.
1994 Hand drawn map of the PMRF, indicating the location of archaeological sites. On file at the Pacific Division Naval Facilities Engineering Command, Pearl Harbor, Honolulu.
- Joesting, Edward
1984 *Kauai: The Separate Kingdom*. University of Hawaii Press. Honolulu.
- Jones, Bruce A.
1991 *Archaeologica Survey and Subsurface Testing for the Tactical Control Squadron Forward Air Control Post Project, Pacific Missile Range Facility, Barking Sands, Kaua'i, Hawaii*. Report prepared for Belt, Collins, and Associates, Inc., Honolulu by International Archaeological Research Institute, Inc. Honolulu.
- Kamakau, S.
1991 *NaMo'olelo a Ka Po'e Kahiko*. Bishop Museum Press. Honolulu.
- Kame'eleihiwa, Lilikala
1992 *Native land and Foreign Deisres: Pehea LaE Pono Ai?* Bishop Museum Press. Honolulu
- Kelly, Marion
1998 "Gunboat Diplomacy, Sandalwood Lust and National Debt". In *Ka Wai Ola o Oha*, Vol. 15, no. 4, April 1998.
- Kennedy, Joseph
1991 *Archaeological Subsurface Testing Results for the Proposed Family Housing Project Area. Pacific Missile Range Facility, Barking Sands, Island of Kauai. TMK: 1-2-02-13, POR. 25*. Report prepared for U.S. Navy and Belt Collins and Associates, Honolulu. Archaeological Consultants of Hawaii, Inc. Haleiwa.
- Kikuchi, William K.
1979 Survey Report, Underwater Communications Project, Nohili Ditch Area, Pacific Missile Range Facility, District of Waimea, Island of Kauai. University of Hawaii, Kauai Community College. Lihue.
1987 The Fish Ponds of Kaua'i. *Archaeology in Kaua'I* 14(1):32. *Kaua'i Community College, Lihu'e, Hawai'i*.
- Kirch, Patrick Vinton
1985 *Feathered Gods and Fishhooks: An Introduction to Hawaiian Archaeology*. University of Hawaii Press. Honolulu.

REFERENCES CITED FROM SOURCE REPORTS (Continued)

- Kirch, P.V. and M. Sahlins
1992 *Anahulu: The Anthropology of History in the Kingdom of Hawaii: The Archaeology of History.* University of Chicago Press: Chicago.
- Knudsen, Eric A.
1992 *Early Days at Waiawa. The Kauai Papers.* Kauai Historical Society. Lihue.
- Knudsen, Eric A. and Gurre P. Noble
1944 *Kanuka of Kauai.* Tongg Publishing Company. Honolulu.
- Knudsen V.
1866 Letter to John Dominis, Commissioner of Lands for the Crown and Land Agent, August 1, 1866. On file at the Hawaii State Archives. Honolulu.
- Kuykendall, R.S.
1938 *The Hawaiian Kingdom.* Vol. 1. The university Press of Hawaii. Honolulu.
- Leidemann, Helen Higman, and Carla H. Kishinami
1990 *Archaeological/Paleontological Survey of the Kawaiete Dunes, Kawaiete, Waimea, Kaua'i Island. TMK: 1-2-02:1.* Report prepared for Forestry and Wildlife Division, Department of Land and Natural Resources, State of Hawai'i. Applied Research Group, Bishop Museum. Honolulu.
- Lisiansky, Urey
1814 *A Voyage Round the World in the Years 1803, 1804, 1805, and 1806.* 1814 Bibliotheca Australiana #2, Da Capo Press. New York.
- Lydgate, John M.
1991 "William Rowell's Reminiscences of Waimea". In *The Kauai Papers.* Kauai Historical Society Publication. Hong Kong.
- Lyons, C.J.
1875 "Land Matters in Hawaii. In *The Islander, Vol. 1.* Honolulu.
1903 *A History of the Hawaiian Government Survey with notes on Land Matters in Hawaii.* Hawaiian Gazette. Honolulu.
- MacDonald, Gordon A.
1960 *Geology and Ground-Water Resources of the Island of Kaua'i, Hawai'i.* Bulletin 13, Hawaii Division of Hydrography.
- Macdonald, G.A., A.T. Abbott, and F.L. Peterson
1970 *Volcanoes in the Sea: The Geology of Hawaii.* University of Hawaii Press. Honolulu.
- Malo, D.
1951 *Hawaiian Antiquities.* Bishop Museum Press. Honolulu, Hawaii.

REFERENCES CITED FROM SOURCE REPORTS (Continued)

- Masterson, I., H. Hammatt, W. Folk, and G. Ida
1994a *Archaeological Inventory Survey of Kekaha Housing Project TMK: 1-2-12:38, 1-2-02:32, 24, and 38.* C.S.H., Inc.
1994b *Archaeological Inventory Survey and Sub-Surface Testing of the Proposes Kekaha Agricultural Park in 157 Acres at Kekaha, Kaua'i.* C.S.H., Inc.
- McGerty, Leann and Robert Spear
1997 *An Inventory Survey with Oral Histories of a Parcel of Land on the Plain of Mana, west of Kekaha in the Ahupua'a of Waimea District of Kona, Island of Kaua'i.* Prepared for Controlled Environment Aquaculture Technology, Inc.
- McGerty, L., and M. Dega
2000 *MSSTIC/UESA Building Inventory Survey, Pacific Missile Range Facility, Barking Sands, Island of Kauai, Hawaii, SC&S, Inc., Honolulu.*
- McMahon, Nancy
1988 *Fieldcheck of Sanding Mine Activities at Kawaiele, Kauai. TMK 1-2-02:1. Memorandum 8/18/88. State Historic Preservation Division. Honolulu.*
1988b *Field Check of Northrup King Digging, Mana, Waimea, Kauai. TMK 1-2-2:40. On file at State Historic Preservation Office, Honolulu, Hawaii.*
- Moffat, Riley M. And Gary L. Fitzpatrick
1995 *Surveying the Mahele.* An Editions Book. Hong Kong.
- Nagata, Ralston
1994 *Memo: Archaeological Site 6027 on PMRF Lands. State Parks, February 14.*
- O'Hare, Constance R. and Paul H. Rosendahl
1993 *Archaeological Subsurface Inventory Survey. IMA Target Facility Project Site, Pacific Missile Range Facility, Barking Sands, Kaua'i.* Report prepared for the Department of the Navy, Pacific Division. Paul H. Rosendahl Inc. Hilo.
- Price, S.
1983 *Climate.* In Atlas of Hawaii, Second Edition, ed. By R.W. Armstrong. University of Hawaii Press: Honolulu.
- Puku'i, M.K.
1983 *'Olelo Noeau, Hawaiian Proverbs & Poetical Sayings. B.P. Bishop Museum Special Publication 71.* Bishop Museum Press, Honolulu.
- Rosendahl, Paul H.
1991 *Archaeological Subsurface Inventory Survey: IMA Target Facility Project Site, Pacific Missile Range Facility, Barking Sands, Kauai.* Report 1 403-080993, Paul H. Rosendahl, Inc. Kurtistown, Hawai'i.
- Schilt, A.R.

REFERENCES CITED FROM SOURCE REPORTS (Continued)

- 1980 Archaeological Investigations in Specified Areas of the Hanalei Wildlife Refuge, Hanalei Valley, Kaua'i. Typescript, Bernice P. Bishop Museum Library. Honolulu.
- Sinoto, Aki
1978 *Cultural Reconnaissance of Rock Borrow Areas near Kekaha, Kauai, Hawaii.* Report prepared for the U.S. Army Engineer District, Pacific Ocean, Honolulu. Department of Anthropology, Bernice P. Bishop Museum. Honolulu.
- Soehren, L.J.
1968 Archaeological Investigations at Nualolo, Kaua'i. Typescript, Department of Anthropology, Bernice P. Bishop Museum. Honolulu.
- Spear, R.L.
1992 *Letter Report Concerning Monitoring for the Sunkiss Shrimp Co., Ltd., Kekaha, Waimea, Kaua'i.* SCS Archaeology, Honolulu.
- Stuiver, M. and P.J. Reimer
1993 Radiocarbon Calibration Program Rev. 3.0. *Radiocarbon*. 35(1):215-230.
- Thrum, T.G.
1907 Tales from the Temples. *Thrum's Hawaiian Annual 1907*. Thos. G. Thrum. Honolulu.
- Van Holt, I.
1985 *Stories of Long Ago: Niihau-Kauai-Oahu.* Daughters of Hawaii. Honolulu.
- Welch, David J.
1990 *Archaeological Survey and Auger Testing of Proposed Roadway and Parking Apron, Kaua'i Test Facility, Barking Sands, Kaua'i, Hawaii.* Appendix D, in *Archaeological Survey and Testing, Department of Energy, Kauai Test Facility, Barking Sands, Kauai, Hawaii.* Advanced Sciences, Inc. and International Archaeological Research Institute, Inc. San Diego and Honolulu.
- Wenkam, R.
1979 *Kaua'i: Hawaii's Garden Island.* Rand McNally. New York.
- Wilkes, Charles
1845 *Narrative of the United States Exploring Expedition, During the Years 1838, 1839, 1840, 1841, 1842.* Volume IV. Lea and Blanchard. Philadelphia.
- Yent, Martha
1982 *Archaeological Reconnaissance: Proposed Kokee Hydropower Project, Kokee State Park, Waimea Canyon State Park, and Upper Kekaha, Waimea District, West Kauai. TMK: 1-4 and 1-2.* Report prepared for Division of Water and Land Development, Department of Land and Natural Resources. Division of State Parks. Honolulu.

APPENDIX B

REGULATORY AGENCY CORRESPONDENCE



DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF

May 1, 2003

Regulatory Branch

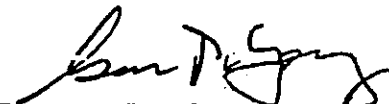
Mr. Douglas Oringer
Clayton Group Services
970 No. Kalaheo Ave., Suite C-316
Kailua, Hawaii 96734

Dear Mr Oringer

This letter responds to your request for a jurisdictional determination for the telecommunications cell site at Pacific Missile Range, Kauai, dated April 15, 2003. Based on the additional information you provided in the form of photographs of the area, I have determined that there are no waters of the United States, including wetlands, at the proposed project site and therefore a Department of the Army (DA) permit will not be required for this project.

If you have any questions concerning this determination, please contact William Lennan of my staff at 438-6986 or FAX 438-4060, and reference File No. 200300399.

Sincerely


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



HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
KAUAI DISTRICT
3080 EIWA STREET, ROOM 308
LIHUE, KAUAI, HAWAII 96766-1875

IN REPLY REFER TO

April 23, 2003

Mr. Douglas Oringer
Clayton Group Services, Inc.
Honolulu Regional Office
970 North Kalaheo Ave. Suite C-316
Kailua, HI. 96734

RE: FCC NEPA 106 Review
Proposed Nextel Communications telecommunications antenna cell site: PMRF

Dear Mr. Oringer:

This responds to your request April, 15, 2003.

1) Is the project site located within a Wilderness Area or Wildlife Preserve? No, the project is not located within a Wilderness Area or Wildlife Preserve. However, we should let you know that the proposed site is situated about a quarter mile south of the Mana Base Pond Waterbird Sanctuary under the management of this agency. The sanctuary is about 9 acres in size. All four endangered water bird species use the area for feeding and/or nesting including the Hawaiian Stilt (*Himantopus H. knudseni*), Hawaiian Coot (*Fulica americana alae*), Hawaiian Gallinule (*Gallinula chloropus sandvichensis*) and Hawaiian Duck (*Anas wyillana*).

2) Is the project site located within a Designated Critical Habitat Area? Please consult with the U.S. Fish and Wildlife Service because this falls under their authority.

3) Will the proposed operation affect any threatened and endangered species or proposed threatened and endangered species?

Water birds:

Although, the proposed antenna site is relatively close to the Mana Base Pond Waterbird Sanctuary, we do not foresee any problems or impacts to endangered water birds. We have not received any water bird mortalities related to collision with the existing antennas on the base.

Seabirds:

Seabirds, such as the threatened Newell's Shearwater (*Puffinus P. newelli*) and the endangered Hawaiian Dark-rumped Petrel (*Pterodroma phaeopygia*) do transit these areas at night, and are prone to striking tall utility towers while flying to and from their mountain nesting grounds and the sea. However, we have not received any seabird (threatened or endangered) mortalities related to collision with the existing antennas on the base, except for a few Laysan Albatrosses (*Diomedea immutabilis*) that have been reported by USDA-Wildlife Services-Kauai which does contract work with the U.S. Navy to remove or haze birds from the airfield. The Laysan Albatross is not listed as an threatened or endangered specie.

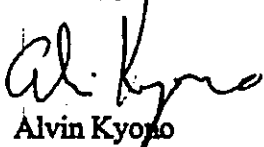
The Newell's Shearwater population on Kauai has taken a significant downturn in recent years. There is a concern that potential mortalities could occur as a result of collisions with towers in brightly lit areas. I'm unfamiliar with the lighting conditions near the proposed antenna cell site. Enclosed is a pamphlet for planners and architects to use when designing development projects on Kauai.

Other species:

The endangered Hawaiian Bat (*Lasiurus cinereus*) is also known to transit the PMRF base, but are not likely to be impacted by a tower structure.

Please contact this office, should you have additional questions.

Sincerely,



Alvin Kyono
Acting Kauai Branch Manager

cc: 2003 Reading Files

Memorandum

April 18, 2003

To: Files
From: William Kramer, PLN232
Subject: PMRF NEXTEL POLE AND ANTENNA – DETERMINATION OF NO EFFECT ON LISTED SPECIES

Nextel Corporation proposes to construct a 90-foot monopole supporting a 10-foot antenna at PMRF adjacent to Building 356. It includes the construction of a small equipment storage shed, and will be surrounded by a 6-foot chain link fence. No floodlights or guy wires are required. A schematic drawing is attached.

Nextel is seeking the various required permits and lease agreements. As such, Navy must consider the possible impacts the project may have on natural resources. The Newell's Townsend's shearwater, a species federally listed as threatened, is known to fly over PMRF, especially during the October-November fledging period. PLN23 was asked to provide an analysis of the possible impacts the proposed construction and operation of the Nextel installation may have on this species.

The predominant threats to the shearwaters are nest predation and fledgling "fallout." When young birds first leave their nests in the interior, high elevation areas of the island, they may crash into man-made structures along the coast, fall to the ground, and be injured or killed by predators. Artificial lighting is believed to be the major factor in this fallout.

Nextel's proposed activities will not affect the Newell's Townsend's shearwaters. We have reached this conclusion based on the following considerations:

- Although the proposed pole and antenna will be 100 feet tall, it presents a very thin profile. As such, the chances for a bird striking it are small.
- No floodlights or guy wires are associated with the proposed pole. Lights are believed to be a critical factor in the attraction of shearwaters to structures.

For the purposes of compliance with Section 7 of the Endangered Species Act, we have determined that the proposed action will not affect any listed species or destroy or adversely modify any proposed or designated critical habitat.



Attachment [PMRF.90FtPole 4-1-03.pdf](#)

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



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

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

OCT - 1 2003

Mr. Douglas Oringer
Clayton Group Service
970 No. Kalaheo Ave., Ste. C-316
Kailua, Hawaii 96734

LOG NO: 2003.1870
DOC NO: 0309NM22

Dear Mr. Oringer:

**SUBJECT: National Historic Preservation Act - Section 106 Compliance Review ---
Draft Environmental Assessment (DEA) Report of the Proposed Nextel
Partners FCC Telecommunications Antenna Cell Site at PMRF
Mana, Waimea, Kaua'i
TMK: (4) - 1-2-002: 013 and 026**

Thank you for submitting on September 5, 2003, the above DEA for our review. As stated in your DEA, cultural deposits and human burials may be present in the shoreline area on PMRF lands. Consequently, construction of the proposed antenna cell site may have an "adverse effect" on such significant historic sites. We believe that mitigation of any "adverse effect" can be achieved through an archaeological monitoring program, if new subsurface construction is planned. We approved an archaeological monitoring plan (Cleghorn 2002, revised 2003) for this project area. The archaeological monitoring plan is an appendix to this DEA. In general, if the revised monitoring plan is implemented as amended, then any "adverse effect" to significant historic sites caused by cell tower construction will be mitigated.

If you have any questions, please call Nancy McMahon at (808) 742-7033.

Sincerely,

Peter T. Young, Chairperson and
State Historic Preservation Officer

c. Chair, Kaua'i/Ni'ihau Islands Burial Council
Kana'i Kapeliela, Burial Sites Program
Chair, Kaua'i Historic Preservation Review Commission

NM:ak

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

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
MAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

MAY 12 2003

Mr. Douglas Oringer
Clayton Group Service
970 North Kalaheo Ave, Suite C-316
Kailua, Hawaii 96734

LOG NO: 2003.0341
DOC NO: 0304NM19

Dear Mr. Oringer:

**SUBJECT: NHPA Section 106 Compliance -- Nextel Communications
FCC Telecommunications Antenna Cell Site at PMRF
TMK: 1-2-02: 26, Mana, Waimea, Kauai**

Thank you for submitting the above project for our review. We received your fax on April 16, 2003. Cultural deposits and human burials may be present in the shoreline area on PMRF lands and could be damaged or destroyed through ground alteration. We believe that the potential adverse effect of the proposed project on historic sites can be mitigated, however, through archaeological monitoring as stipulated below:

A qualified archaeologist shall be hired to conduct monitoring during the project (on-site initially and on-call as needed thereafter). An acceptable monitoring plan (scope of work) shall be submitted to the State Historic Preservation Division for review approval prior to the start of the project. A previously submitted archaeological monitoring plan (Cleghorn, 2002) was approved by our office for a nearby parcel at PMRF and can be used with some minor modifications (e.g. change in the parcel number). If historic sites, including burials, are uncovered during monitoring, construction must stop in the immediate vicinity of the finds. The State Historic Preservation Division shall be promptly notified and given an opportunity to comment on appropriate mitigation measures.

If you have any questions, please call Nancy McMahon 742-7033.

Sincerely,

Peter T. Young, Chairperson and
State Historic Preservation Officer

NM:ak

PHONE (808) 594-1888

FAX (808) 594-1865



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

HRD03/79-12002026

July 7, 2003

Doug Oringer
Clayton Group Services, Inc.
970 North Kalaheo Ave., Ste C-316
Kailua, HI 96734

Re: Proposed Nextel PMRF cell site, PMRF Barking Sands, Kekaha, Waimea, Kauai

Dear Mr. Oringer,

OHA is in receipt of your July 7, 2003 e-mail request for concurrence on the above referenced project. We had also received an earlier packet of materials to which we responded by e-mail on June 3, 2003. Our response to your request for concurrence is below.

OHA is concerned that cultural deposits and human burials may be present in the shoreline area at PMRF. The proposal to hire an archaeologist to monitor the project will provide mitigation for the project. However, we also request that a cultural monitor be used on this project. We suggest that you request assistance from La France Kapaka-Arboleda, Chair, Kauai Island Burial Council, to find an appropriately qualified cultural monitor.

A cultural monitor will be able to ensure that families and culturally affiliated organizations are contacted should iwi or cultural deposits be found during ground excavation. A cultural monitor will also know the proper protocol to use in handling iwi or cultural deposits.

OHA will agree to a "no adverse effect" designation if a cultural monitor is used on this project.

Thank you for this opportunity to comment. If you have further questions, please contact Pua Aiu at 594-1931 or e-mail her at paiu@oha.org.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter L. Yee".

Peter L. Yee
Director
Nationhood and Native Rights

APPENDIX C
ARCHEOLOGICAL MONITORING PLAN

**ARCHAEOLOGICAL MONITORING PLAN
FOR THE PROPOSED
NEXTEL WIRELESS TELECOMMUNICATIONS FACILITY
AT THE
PACIFIC MISSILE RANGE FACILITY
BARKING SANDS, KAUA'I
(TMK 1-2-02:13.)**

Prepared by

Paul L. Cleghorn, Ph.D.

Pacific Legacy, Inc.
332 Uluniu Street
Kailua, Hawaii 96734
Phone (808) 263-4800

Prepared for

Nextel Partners
550 Paiea Street, Suite 210
Honolulu, HI 96819

Submitted to

State Historic Preservation Division
Department of Land and Natural Resources
601 Kamokila Blvd., Suite 555
Kapolei, HI 96707

July 2003

INTRODUCTION

Pacific Legacy, under contract to Nextel Partners, has prepared this archaeological monitoring plan for the proposed telecommunication facilities by Nextel at the Pacific Missile Range Facility (PMRF) at Barking Sands, Kaua'i (Figure 1). This project will be located within 15-20 m north of the proposed Verizon Wireless telecommunications facility, which was the subject of a previously submitted and approved archaeological monitoring plan (Cleghorn 2002). Figure 2 shows the location of the proposed Nextel site; the proposed Verizon Wireless site is located adjacent to Building 352. Because of the close proximity of the two projects, the current plan replicates much of the information contained in the previous archaeological monitoring plan (Cleghorn 2002).

This project is to be conducted under license from the Federal Communications Commission (FCC). Because of the federal participation in this project (FCC licensing), the project should be considered an undertaking and subject to the National Historic Preservation Act of 1966 (NHPA), as amended, and the Native American Graves Protection and repatriation Act (NAGRPA). Nextel Partners, as an agent of the FCC, has been conducting consultations pursuant to Section 106 of the NHPA.

This archaeological monitoring plan will contain the following eight specifications as outlined in the Hawaii Administrative Rules 13§13-279 Rules Governing Minimal Standards for Archaeological Monitoring Studies and Reports (Draft 5/31/01):

- The kinds of remains that are anticipated and where in the project area the remains are likely to be found.
- How the remains and deposits will be documented.
- How the expected types of remains will be treated.
- The archaeologist conducting the monitoring has the authority to halt construction in the immediate vicinity of the find in order to carry out the plan.
- A coordination meeting between the archaeologist and construction crew is scheduled, so that the construction team is aware of the plan.
- What laboratory work will be done on the remains collected.
- Schedule for report preparation.
- Details concerning the archiving of any collections that are made.

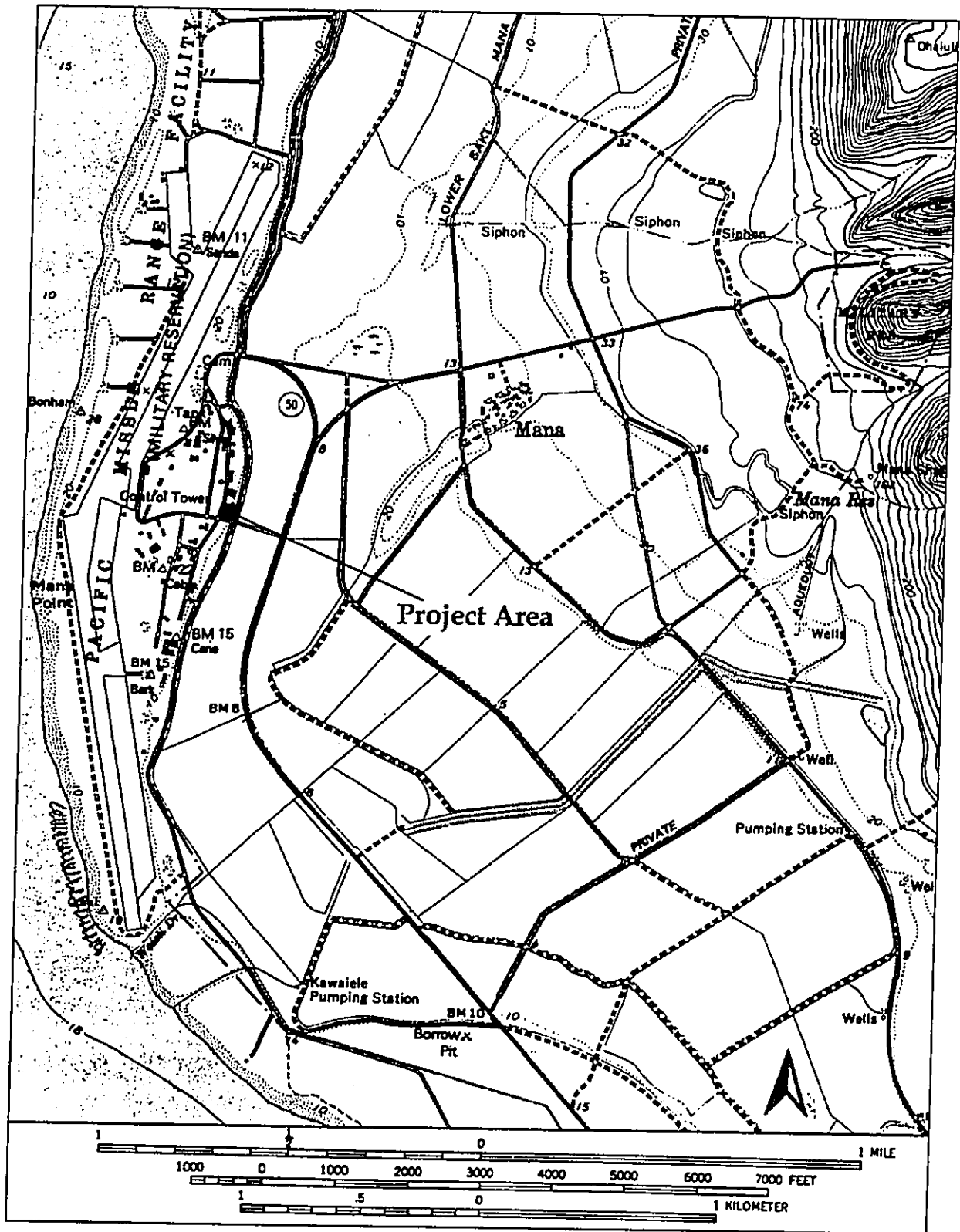


Figure 1. Location of Project Area.
 Archaeological Monitoring Plan
 Nextel Telecommunication Facility
 Pacific Missile Range Facility, Kauai
 July 2003

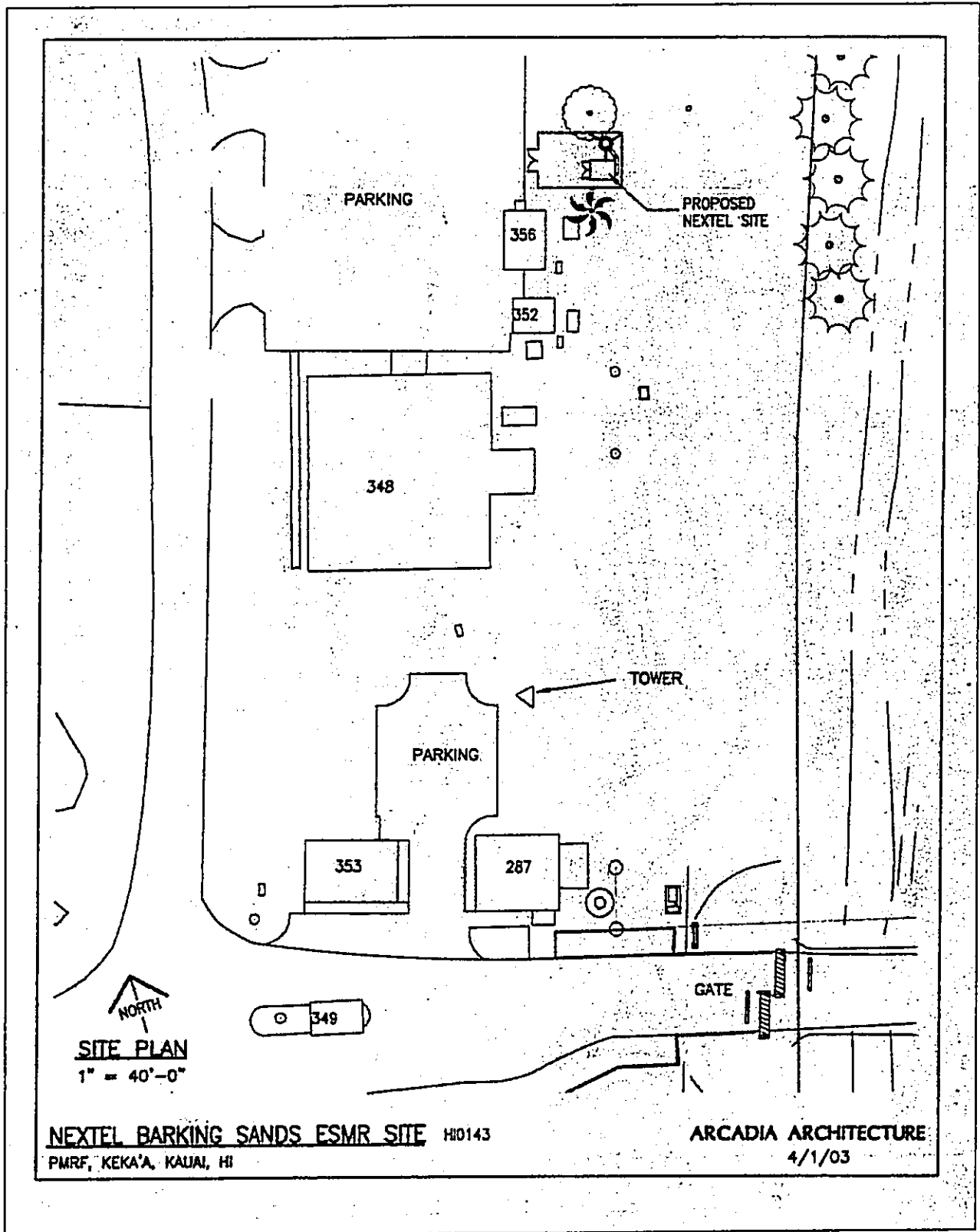


Figure 2. Detailed Location of Project Area.

CONSTRUCTION ACTIVITIES REQUIRING MONITORING

Limited construction excavations will be undertaken as part of this project. These excavations will include:

- trenching for underground utility lines;
- foundation work for an equipment shed; and
- excavations for the antenna monopole.

Archaeological monitoring will be limited to these construction excavation activities. Other construction activities that have little potential of effecting cultural resources will not be archaeologically monitored.

ARCHAEOLOGICAL BACKGROUND

The first archaeological study within the area of Barking Sands area was conducted by T. Thrum in 1907. This was followed by a study conducted by W.C. Bennett in 1928-1929 (Bennett 1931). Bennett's study and the site information it produced, has provided a cornerstone for the projects that would follow. The information listed below focuses mainly within the area known as the Pacific Missile Range Facility (PMRF) at Barking Sands and its vicinity. The following is a brief description of the region and the site information that has been recorded.

In his study of Hawaiian *heiau*, Thrum (1907) noted one *heiau* located on a cove on the inland side of dunes near Barking Sands. This *heiau* was traditionally known as Elekuna Heiau. Thrum noted that no structure was found, the structure was simply a mound of sandstone outcropping with offerings placed at its base. Elekuna Heiau is also noted in Bennett's study.

The majority of known sites in the PMRF vicinity are attributed to W. C Bennett's 1928-1929 archaeological study, which combined nine months of field work with available collections, published literature, and of manuscript notes on file in the Bernice P. Bishop Museum (Bennett 1931). Bennett's findings included a group of sites (1 thru 6) located within PMRF in the Polihale region consisting of Polihale Heiau, house foundations and Kapahula Heiau. Other *heiau* noted within the region include: Elekuna Heiau (site 8); Kahelu Heiau (site 10) described as a small 2 m high structure located along the base of a ridge with remnants of house sites and agriculture structures nearby; Makahoe Heiau and village (site 11) on Niu ridge, Kaunalewa; Hooneenu Heiau (site 12) located along Kaunalewa Ridge; two small *heiau* (site 14); Hauola Heiau in Hoesa valley at the base of Hauola ridge. Sites 7 and 13 consist of dune burials and campsites between Polihale and Barking Sands and the burial caves of Kaunalewa ridge. Sites 9 and 15 include house sites and taro terraces (McGerty and Spear 1997).

In a 1978 Bishop museum reconnaissance survey (Sinoto 1978), five previously unrecorded sites were located within the region. Newly discovered sites included a cairn, small rockshelters,

two small agricultural complexes, and a large cluster of terraces, enclosures, wall segments, and stone piles.

In an archaeological sub-surface inventory survey conducted on the PMRF (Gonzalez, Berryman, and Welch 1990), a U.S. Navy map showing a "major ancient burial ground" is noted. The boundaries of the large burial area extend from a point on the shoreline approximately 400 meters south of the mouth of Nohili ditch, to the Polihale State Park on the northeast. The inland edge of the dunes at Barking Sands demarcates the approximate eastern boundary of the burial ground, while the shoreline forms the western limit. Five other burial sites are also noted, with four of these sites having been verified by the PMRF Public Works Supervisor (C. Kagawa) and base security personnel (K. Del Aire). Also noted within the region directly north of Nohili ditch is an extensive archaeological site with a subsurface component. An 1874 Crown lands survey map (Gay 1874) which included the Kekaha region, indicates a settlement named Moelaoa in proximity to this location. Continual occupation was indicated by the existence of midden deposits and *imu* (ovens). Human remains have also been reported for the area. Site (50-30-05-616), a historic Japanese cemetery within PMRF is also listed in the Gonzalez report.

In 1991 an archaeological subsurface testing project was conducted on PMRF (Kennedy 1991) in which 31 backhoe test trenches were dug. Kennedy notes the existence of the "major ancient burial ground", campsites and burials, all of which are listed above. No cultural layers or materials were discovered in any of the profiles, although modern artifacts were found in two of the trenches. No sign of human burials was found.

In an archaeological survey and sub-surface testing conducted by B. Jones (1992), eighteen test trenches were dug within PMRF. These trenches revealed no evidence of cultural resources, human burials, or other archaeological properties. The report does note a total of 20 archaeological resources listed for the PMRF and vicinity in the U.S. Navy's archaeological files and the Hawaii Department of Land and Natural Resources Historic Preservation files, all of which have been cited above. The range of known sites in the Barking Sands region extends from the coast to the cliffs about 2-3 m to the east, with the majority of sites occurring either along the coast as burials or within the small cliff faces as *heiau*. Jones also references an undated map provided by the U.S. Navy in which the northern portion of the PMRF is sited as a major ancient burial ground (Advanced Sciences Inc. 1990).

In an archaeological inventory survey conducted in 1997 (McGerty and Spear 1997), five environmental zones within a section of nearby Kekaha, were described. These included: marshlands, marshlands at the base of mountains, coastal and sand dunes, cliff slopes and valleys, and upper mountain slopes. Religious features, such as those recorded by Bennett were located around the coastal and sand dune areas, with burials being dominant in the dune areas. Fishponds were located within the marshlands. Permanent habitation and dryland agriculture were located at the base of cliffs or in valleys, and the upper mountain slopes had been home to great forests before the introduction of cattle to the area in 1792. The study identified seven sites within the project area (50-30-05-652 thru 658), which consisted of rock mounds, rock-faced, soil-surfaced terraces, and two historic dirt roads.

ANTICIPATED REMAINS

Previous archaeological studies in the immediate area have provided a background for predicting the types of cultural remains that might be encountered during the Nextel telecommunications facility project. The PMRF and Barking Sands area have been subjected to extensive alterations from military use and thus there is a low likelihood of finding any surface archaeological features in the project area. However, it seems likely that subsurface archaeological resources may be present. These resources probably date to pre-Contact times (i.e., before the arrival of Captain James Cook in 1778) and may include living areas, artifacts, and human burials.

FIELD INVESTIGATIONS

PRE-CONSTRUCTION MEETING

Prior to the initiation of the construction project, the archaeological monitor will meet with the project construction manager and the construction crew to discuss the archaeological monitoring procedures. It will be explained to the construction crew that the archaeological monitor has the authority to halt construction activities in the immediate vicinity of the finding of cultural material (including human remains). The construction crew will also be notified that all encountered cultural material, including historic glass bottles, are the property of the land owner and may not be collected by anyone other than the archaeological monitor unless a written and signed permit has been issued by the land owner for any other collecting.

ARCHAEOLOGICAL MONITORING

An archaeological monitor will be present during all ground disturbing activities where there is a potential of encountering cultural materials. The activities that have been identified are:

- trenching for underground utility lines;
- foundation work for an equipment shed; and
- excavations for the antenna monopole.

All excavated soil material will be inspected as it is removed for the areas that have the potential of containing cultural material. Exposed sidewalls of the excavation areas will be likewise examined for the presence of intact cultural deposits, features, or artifacts. The purpose of archaeological monitoring is to ensure that any previously unrecorded cultural remains are properly recorded and treated. If any such resources are encountered, the following procedures will be followed:

Intact Cultural Deposits and Features

If intact cultural deposits or features are encountered during monitoring, their integrity and significance will be assessed in the field. If deemed potentially significant, consultation with SHPD staff members will be initiated to determine an appropriate mitigation strategy. At a minimum, the deposits or features will be fully described, mapped, and photographed. The stratigraphic context of the deposit or features will be determined, and any important associations with other natural or cultural strata will be noted. Where appropriate, samples for further analyses will be collected.

Artifacts

Potentially significant artifacts observed in the excavations will be collected for further analysis. The provenience of the find will be plotted on a project map of the area, and any observed associations with cultural or natural strata will be noted.

Human Skeletal Remains

If human remains are encountered during excavation, all work in the immediate vicinity will cease and the SHPD archaeological and burials program staff will be notified. Utmost care will be taken to ensure that any associated items or stratigraphic context are not further disturbed. Upon consultation with appropriate Native Hawaiian groups and/or organizations in accordance with Native American Graves Protection and Repatriation Act (NAGPRA), further work to verify the context may be allowed to be documented. All sediment from the vicinity of the human remains shall be screened through 1/8-inch wire mesh. Salient aspects of the burial feature may be accurately recorded in the field and graphically documented in a manner consistent with that recommended by consultations in compliance with NAGPRA.

Stratigraphy

All faces of excavation areas containing cultural materials will be profiled. Photographs of exposed faces will be taken. Stratigraphic descriptions shall be made in conformance with U.S. Soil Conservation Service and Munsell Color notation references.

TREATMENT OF RECOVERED REMAINS

All recovered non-human remains will be transported to Pacific Legacy's Office and Laboratory in Kailua on the island of O`ahu. The disposition of human remains will be determined through consultations in compliance with NAGPRA and consultations with the SHPD.

Laboratory processing will consist of cleaning, sorting, identifying, and documenting the materials collected. A project catalogue shall be generated and presented in the final report.

Artifacts collected will be identified and recorded by sketching, measuring, and photographing. Midden material recovered shall be identified minimally by major class and recorded on standard laboratory forms by weight. This material will be presented in table format in the final report. All recovered samples (soil, charcoal, etc.) will be initially processed and catalogued in Pacific Legacy's laboratory before being sent to specialist laboratories for detailed analyses.

CURATION

Suitable temporary curation facilities for archaeological samples collected during field investigations shall be provided in the Pacific Legacy Hawai'i laboratory and office. Final curation of recovered materials shall be determined at a later date after consultation with the SHPD.

REPORTING

Brief verbal progress reports on completion of field investigations, laboratory analyses, report preparation, and on the discovery of significant findings shall be provided to the SHPD. The following shall be submitted:

- Letter Report at the completion of fieldwork
- Draft Report
- Final Report

REFERENCES CITED

- Advanced Sciences, Inc.
1990a Archaeological Survey and Testing Report for the United States Army, Strategic Defense Command's Proposed EDX Project, Pacific Missile Range Facility, Barking Sands, Kauai, Hawaii. Prepared by Advanced Sciences, Inc., Sand Diego, California and International Archaeological Research Institute, Inc., Honolulu, Hawaii, July 1990.
- Bennett Wendell C.
1931 *Archaeology of Kauai*. B. P. Bishop Museum Bulletin 80. Honolulu.
- Cleghorn, Paul L.
2002 Archaeological Monitoring Plan for the Proposed Verizon Wireless Telecommunications Facility at the Pacific Missile Range Facility Barking Sands, Kaua'i. (TMK 1-2-02:13.). On file at the State Historic Preservation Division, Kapolei, O'ahu.
- Gay, J.
1874 Plan of Survey Including the Crown Lands, Waiawaawa, Makihana, Waimea, Kekaha, Milolii, Nuololo and Waiawa situated on the Island of Kauai. Approved 30th June, 1875, by Duncan McBryde, Commissioner of Boundaries, Island of Kauai, Tracing Map by M.S. Monsanat, Nov. 3, 1875. Map on file with the State of Hawaii, Department of Land and Natural Resources, State Survey Office, Honolulu.
- Gonzalez, T., J. Berryman, and D. Welch.
1990 Archaeological Survey and Testing Report for the United States Army, Strategic Defense Command's Proposed EDX Project Pacific Missile Range Facility Barking Sands, Kauai, Hawaii. Report on file at the State Historic Preservation Office, Kapolei.
- Jones, B.
1992 Archaeological Survey and Subsurface Testing for the Tactical Control Squadron Forward Air Control Post Project, Pacific Missile Range Facility, Barking Sands, Kauai, Hawaii. Report on file at the Hawaii State Historic Preservation Office, Kapolei.
- Kennedy, J.
1991 Archaeological Subsurface Testing Results for the Proposed Family Housing Project Area Pacific Missile Range Facility, Barking Sands, Island of Kauai. Report on file at the State Historic Preservation Office, Kapolei.
- McGerty, L. and R. Spear
1997 An Archaeological Inventory Survey of a Parcel of Land Near Kekaha in the Ahupua'a of Waimea, District of Kona, Island of Kauai. Report on file at the Hawaii State Historic Preservation Office, Kapolei.

Archaeological Monitoring Plan
Nextel Telecommunication Facility
Pacific Missile Range Facility, Kaua'i
July 2003

Rosendahl, P.

1993 Archaeological Subsurface Inventory Survey IMA Target Facility Project Site Pacific Missile Range Facility Barking Sands, Kauai. Report on file at the Hawaii State Historic Preservation Office, Kapolei.

Sinoto, A.

1978 *Cultural Reconnaissance of Rock Borrow Areas Near Kekaha, Kauai, Hawaii*. Prepared for the U.S. Army Engineer District, Pacific Ocean. Honolulu, Hawaii.

Thrum, T.

1907 *The Hawaiian Annual: Heiau and Heiau Sites Throughout the Hawaiian Islands, Tales of the Temple*. Honolulu.

APPENDIX D

EA AGENCY COMMENTS AND RESPONSES

Division of Forestry & Wildlife

1151 Punchbowl Street, Rm. 325 • Honolulu, HI 96813 • (808) 587-0166 • Fax: (808) 587-0160

September 8, 2003

MEMORANDUM

TO: Sam Lemmo, Planning Section Head
Office of Conservation and Coastal Lands

THRU: Dierdre S. Mamiya, Acting Administrator
Office of Conservation and Coastal Lands

FROM: Michael G. Buck, Administrator
Division of Forestry and Wildlife



SUBJECT: CDUA KA-3150, Cell Site at PMRF Barking Sands, Kekaha, Kauai

We have reviewed this subject CDUA document and provide the following comments for your consideration. The attached draft EA of the CDUA by Nextel Partners PMRF Barking Sands Cell Site reports that the consultants (Clayton Group Services, Inc.) requested the assistance from the Kauai DOFAW office to review the project's impacts to the designated wilderness and wildlife preserve areas, and any impacts the project may have on endangered species. The project site will not affect any of DOFAW's management program areas and deferred endangered species reviews to the U.S. Fish and Wildlife Service. However, the attached brochure will explain our concerns for seabird's attraction to lights. Please mitigate the light attraction problems seabirds may have on the planning of this project. Thank you for the opportunity to comment on CDUA KA-3150.

C: Kauai DOFAW Branch

Attachment

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

2003 SEP 12 P 3:33

RECEIVED
LAND DIVISION

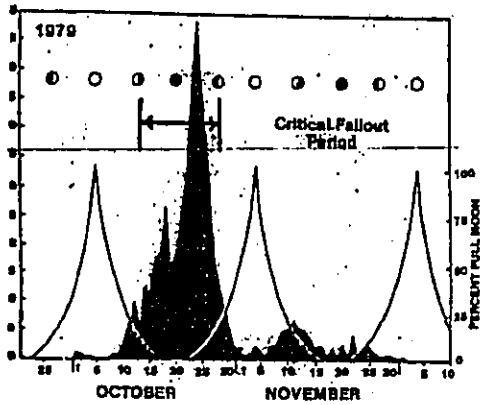


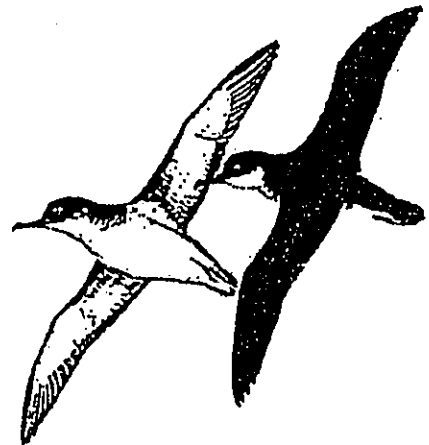
Figure 4. Relationship of shearwater "fallout" to the moon phases. The critical period of fallout occurs during the week before and after the new moon (darkest nights). Dowsing lights that are not absolutely necessary during that period could substantially reduce the annual shearwater fallout problem.

TECHNICAL ASSISTANCE IS AVAILABLE
FOR ADDITIONAL INFORMATION, CONTACT:

State of Hawaii
Department of Land and Natural Resources
Division of Forestry and Wildlife
P.O. Box 1671
Lihue, Hawaii 96766
245-4433

U.S. Dept. of the Interior
Fish and Wildlife Service
P.O. Box 87
Kilauea, Hawaii 96754
828-1413

The Nature Conservancy
of Hawaii
1026 Nuuanu Avenue, Suite 201
Honolulu, Hawaii 96813
537-4508



What To Do If Shearwaters Fall In Your Area

Collect birds as soon as possible to avoid losses to dogs and cats. They are generally docile birds and are easily handled. Take them to the nearest "shearwater aid station" located at county fire stations and at a few private business locations around the island. If birds must be held overnight, keep them in ventilated cardboard box with a secure lid.

Do not release birds by tossing them into the air. They may have unseen internal injuries and could become more badly injured.



DEPARTMENT OF
LAND AND NATURAL RESOURCES

THE NEWELL'S SHEARWATER LIGHT ATTRACTION PROBLEM

A GUIDE FOR ARCHITECTS,
PLANNERS, AND RESORT MANAGERS

INTRODUCTION:

The future of a native Hawaiian seabird, the Newell's Shearwater, is threatened by the growth of new urban developments. Every year on Kauai, nearly 1,500 Newell's Shearwaters are attracted to bright urban lights, fly into unseen objects and fall stunned to the ground. Fortunately, 90% of them are recovered and successfully returned to the wild through the "SOS" (save our shearwater) program which involves the cooperation of the general public.

This brochure is designed to describe the bird, its problems with lights and specifically what architects/planners, resort managers and the general public can do to reduce or avoid the light attraction problem.

THE BIRD

The Newell's Shearwater once nested on all of the major Hawaiian Islands, but the mongoose, introduced to Hawaii, Maui, Molokai and Oahu in the late 1800's is believed to have caused the extinction of shearwaters on those islands. Kauai is the last stronghold for this unique native Hawaiian seabird.

Newell's Shearwaters nest during the spring and summer months in the interior mountains of Kauai. They dig a long burrow in the ground beneath dense vegetation and lay a single egg each year. The eggs hatch during July and August, and the nestlings are reared within the burrow. The adult birds abandon the nestlings a week or two before they are old enough to fly. The nestlings become hungry, and leave the nesting grounds by themselves shortly after nightfall. They head for the open ocean, and must depend upon their instincts to find food. They do not return to their nest, but fly south towards the equator where they will remain all winter on the open seas until the following spring.

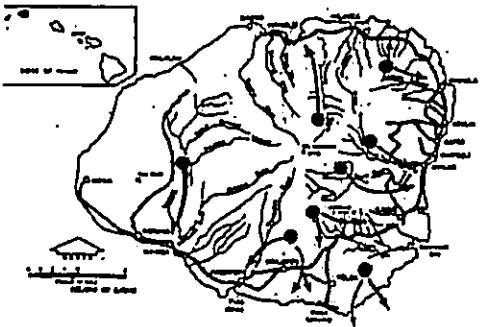


Figure 1. Map showing known nesting areas of the Newell's

THE THREATS:

PREDATORS: Dogs, cats, rats and feral pigs are known to kill some shearwaters and their young on the nesting grounds each year. The accidental establishment of a new predator to Kauai such as the mongoose, could cause the rapid extinction of this bird. Mongoose sightings on Kauai should be reported to wildlife officials promptly.

LIGHT ATTRACTION: Young shearwaters leaving their nests for the first time, do so only after dark. They are inexperienced and have a natural attraction to bright lights. Flying near urban areas, they become temporarily blinded by the lights and fly into unseen objects such as utility wires, trees, buildings and automobiles. Oftentimes they are just confused and exhausted. Most often they are only stunned and fall to the ground, but about 10 percent of them die each year. The problem is growing because of the increased number of urban lights associated with new resort and residential developments. The greatest "fallout" problem occurs near coastal towns, particularly near river mouths.



Figure 2. Avoid these types of lights: A. Unshielded high intensity floodlights on tall structures, B. Street lights without shields, C. Unshielded spotlights, D. Spotlights aimed upwards. Avoid using these types of lighting situations during peak fallout periods (new moon) during October and November. E. Floodlights on roof. F. Spotlights aimed up at vegetation. G. Spotlights

WHAT CAN WE DO TO HELP ?

Architects and Planners

- Be aware of the light attraction problem during the planning stages of new development.
- Make every effort to avoid lighting situations where light glare projects upwards or laterally (see figure 2). Avoid large high-intensity floodlights located on building tops or poles whenever possible.
- Use shielded lights, cut-off luminaires, or indirect lighting whenever possible (see figure 3).
- Avoid locating bright lights near utility wires or other objects that could be difficult for birds to see at night.

Hotel, Resort and Condominium Managers

- When converting to new exterior light fixtures, consider installing shielded lights, cut-off luminaires or indirect lighting.
- Consider installing shields on exterior lights that are known to attract shearwaters. Some light manufacturers offer ready made shields. In some cases inexpensive shields can be fabricated.
- Avoid using unnecessary lighting during the critical shearwater fallout period (October and November each year). Note: The heaviest fallout occurs on and around the new moon, generally for only 10 to 12 days. (See figure 4). Dowsing unnecessary floodlights that light up the surf or shine upward upon buildings or trees for that short period, could significantly reduce shearwater fall-out.

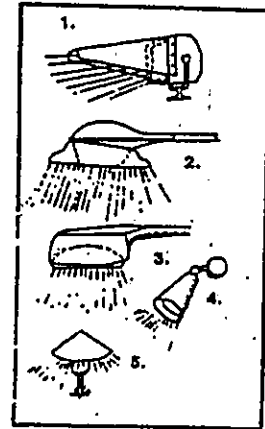


Figure 3. Use these types of lights whenever possible: 1. Shielded floodlights, 2. Shielded streetlights, 3. Cut-off luminaire, 4. Shielded spotlight aimed downwards, 5. Indirect

Environmental Planning Solutions LLC
945 Makaiwa Street
Honolulu, HI 96816

November 14, 2003

Mr. Michael G. Buck, Administrator
Division of Forestry and Wildlife
State Department of Land and Natural Resources
1151 Punchbowl Street, Rm. 325
Honolulu, HI 96813

Dear Mr. Buck:

Subject: CDUA KA-3150, Cell Site at PMRF Barking Sands, Kekaha, Kauai

We have received a copy of your comments dated September 8, 2003 regarding the subject project. We acknowledge your confirmation that the project site will not affect any of DOFAW's management program areas.

With regard to your concerns for seabird's attraction to lights, we appreciate the information enclosed with your memorandum. However, the proposed project will not include any lighting or light fixtures that we are aware are potentially detrimental to these birds. Therefore, no mitigation measures will be necessary with respect to lighting.

We appreciate your comments in the planning phase of this project.

Sincerely,



Colette M. Sakoda
ENVIRONMENTAL PLANNING SOLUTIONS, LLC

cc: Office of Conservation and Coastal Lands
Nextel Partners, Inc.

LINDA LINGLE
GOVERNOR OF HAWAII



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2003 OCT -1 A 10:34
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DEPT. OF LAND AND NATURAL RESOURCES
HISTORIC PRESERVATION DIVISION
NATURAL RESOURCES
STATE OF HAWAII
HIHEWA BUILDING, ROOM 555
601 KAMOKILA BOULEVARD
KAPOLEI, HAWAII 96707
September 25, 2003

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

MEMORANDUM

TO: Dierde S. Mamiya, Administrator
Land Division
Attn: Office of Conservation and Coastal Lands

LOG NO: 2003.1829
DOC NO: 0309NM25

FROM: P. Holly McEldowney, Acting Administrator *P.H.M.*
State Historic Preservation Division

SUBJECT: Chapter 6E Historic Preservation Review--- Conservation District Use
Permit Application (CDUA) KA-3150 of the proposed Nextel Partners FCC
Telecommunications Antenna Cell Site at Pacific Missile Range Facility
(PMRF)
TMK: (4) -1-2-002: 013 and 026
Mana, Waimea, Kauai

Thank you for submitting on September 9, 2003, the above CDUA for our review. As stated in the CDUA, cultural deposits and human burials may be present in the shoreline area on PMRF lands. We believe that mitigation can be achieved through an archaeological monitoring program, if new subsurface construction is planned. We approved an archaeological monitoring plan (Cleghorn 2002 revised 2003) for this project area, and the subject plan is an appendix to this CDUA. In general, if the mitigation is implemented as stipulated in the approved monitoring plan, then we can concur with the proposed FONSI.

If you have any questions about archaeology, please call Nancy McMahon (808) 742-7033. If you have any questions about burial matters, please call Kana'i Kapeliela, Burial Sites Program, at (808) 692-8037.

- c. Chair, Kaua'i/Ni'ihau Islands Burial Council
Chair, Kaua'i Historic Preservation Review Commission
Kana'i Kapeliela, Burial Sites Program
Ian Costa, Director, Dept of Planning, County of Kaua'i

NM:ak

Environmental Planning Solutions LLC
945 Makaiwa Street
Honolulu, HI 96816

November 14, 2003

Ms. P. Holly McEldowney, Acting Administrator
State Historic Preservation Division
Department of Land and Natural Resources
Kakuhihewa Bldg., Rm. 555
601 Kamokila Blvd.
Kapolei, HI 96707

Dear Ms. McEldowney:

Subject: Chapter 6E Historic Preservation Review—Conservation District Use Permit
Application (CDUA) KA-3150, Proposed Nextel Partners FCC
Telecommunications Antenna Cell Site at Pacific Missile Range Facility (PMRF)
TMK: (4) 1-2-002:013 and 026, Mana, Waimea, Kauai

We have received a copy of your comments dated September 25, 2003 regarding the subject project. While it is acknowledged that cultural deposits and human burials may be present in the shoreline area on PMRF lands, we understand that this letter confirms mitigation can be achieved through an archaeological monitoring plan (Cleghorn 2002 revised 2003) approved by your office.

Your comments are appreciated in the planning phase of this project.

Sincerely,



Colette M. Sakoda
ENVIRONMENTAL PLANNING SOLUTIONS, LLC

cc: Office of Conservation and Coastal Lands
Nextel Partners, Inc.

BRYAN J. BAPTISTE
Mayor



IAN K. COSTA
Director of Planning

SHEILAH N. MIYAKE
Deputy Director of Planning

**COUNTY OF KAUAI
PLANNING DEPARTMENT**

Kapule Building
4444 Rice Street Suite A473
Lihu'e, Hawai'i, 96766-1326

TELEPHONE: 808.241.6677
FAX: 808.241.6699

October 3, 2003

Dierdre S. Mamiya
State Department of Land and Natural Resources
Office of Conservation and Coastal Lands
P.O. Box 621
Honolulu, Hawaii 96809

RECEIVED
LAND DIVISION
2003 OCT - 8 A 9:33
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

SUBJECT: Nextel Cell Site at PMRF Barking Sands, Kekaha, Kauai
KA-3150

The following are our comments regarding the subject CDUA permit:

- a. The project is within the County of Kauai Special Management Area (SMA), however is exempt from the SMA regulations.
- b. Other companies should be allowed to share the same cell site to eliminate the need to establish other sites within the same area. This will help to avoid a proliferation of cell phone antennas throughout the island.
- c. We strongly recommend that the applicant consult with the Historic Preservation Division of your Department regarding archaeological sites in the project area and follow their recommendations.

Thank you for allowing us this opportunity to comment. Please feel free to contact Keith Nitta of my staff at 241-6677 if you have any questions on this matter.


IAN K. COSTA
Planning Director

*Environmental Planning Solutions LLC
945 Makaiwa Street
Honolulu, HI 96816*

November 14, 2003

Mr. Ian K. Costa, Planning Director
County of Kauai
Kapule Building
4444 Rice Street, Suite A473
Lihue, HI 96766-1326

Dear Mr. Costa:

Subject: Nextel Cell Site at PMRF Barking Sands, Kekaha, Kauai Cell Site
KA-3150

We have received a copy of your letter dated October 3, 2003 regarding the subject project. The following has been prepared in response to your comments:

- a. It is acknowledged that the project is exempt from the County's SMA regulations.
- b. Nextel's policy is that it supports co-location of telecommunications facilities with other carriers to avoid proliferation of cell phone antennas on scattered sites, and this cell site will be available for such co-location opportunities.
- c. Consistent with your recommendation regarding consultation with the State Historic Preservation Division (SHPD), an archaeological monitoring has been prepared for the project. This plan has been reviewed and approved by the SHPD (please see letter from SHPD dated September 25, 2003 in this FEA). Mitigation will be implemented as stipulated in the approved monitoring plan.

We appreciate your comments in the planning phase of this project.

Sincerely,



Colette M. Sakoda
ENVIRONMENTAL PLANNING SOLUTIONS, LLC

cc: Office of Conservation and Coastal Lands
Nextel Partners, Inc.

LINDA LINGLE
GOVERNOR OF HAWAII

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LAND DIVISION



GENEVIEVE SALMONSON
DIRECTOR

2003 SEP 10 A 8:03 STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE: (808) 586-4185
FACSIMILE: (808) 586-4184
E-mail: oeqc@health.state.hi.us

September 9, 2003

Deirdre Mamiya
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Sam Lemmo

Dear Ms. Mamiya:

Subject: Draft Environmental Assessment (EA)
Nextel PMRF Communication Facility at Barking Sands, Kekaha, Kauai

We have the following comments to offer:

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

Permits and approvals: Is a Special Management Area permit required? In the final EA list all required permits and approvals for this project and give the status of each.

Cultural impacts assessment:

Act 50 was passed by the Legislature in April of 2000. This mandates an assessment of impacts to *current cultural practices* by the proposed project. Section 5.5. of the draft EA discusses impacts to native Hawaiian religious sites. To comply with Act 50 an analysis must be done detailing impacts to *current cultural practices* of not only native Hawaiians, but all local cultural groups. In the final EA include such an assessment.

For assistance in the preparation refer to our *Guidelines for Assessing Cultural Impacts*. Go to our homepage at <http://www.state.hi.us/health/oeqc/guidance/index.html> or contact our office for a paper copy. You will also find the text of Act 50 linked to this section of our homepage.

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

Sincerely,

GENEVIEVE SALMONSON
Director

c: Colette Sakoda

*Environmental Planning Solutions LLC
945 Makaiwa Street
Honolulu, HI 96816*

November 14, 2003

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

Dear Ms. Salmonson:

Subject: Draft Environmental Assessment
Nextel PMRF Communication Facility at Barking Sands, Kekaha, Kauai
KA-3150

We have received a copy of your letter dated September 9, 2003 regarding the subject project. The following has been prepared in response to your comments:

Two-sided pages: The final EA is printed as a double-sided document to reduce bulk and paper.

Permits and approvals: As a result of consultation with the County of Kauai (please refer to the letter from the Planning Department dated October 3, 2003 in this document) it was determined that the project is exempt from County SMA requirements. A list of required permits and approvals for this project is included in the final EA.

Cultural impacts assessment: A cultural impacts assessment has been prepared and is included in the final EA.

We appreciate your comments in the planning phase of this project.

Sincerely,



Colette M. Sakoda
ENVIRONMENTAL PLANNING SOLUTIONS, LLC

cc: Office of Conservation and Coastal Lands
Nextel Partners, Inc.