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NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

An Authority of the State of Hawaii attached to the Department of Business, Economic Development & Tourism

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OFC. OF ENVIRONMENTAL QUALITY CONTROL

February 23, 2011

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

Dear Mr. Hooser:

Subject: **Draft Environmental Assessment, Monk Seal Rehabilitation Facility at NELHA, TMK (3rd) 7-3-043:042, North Kona District, Island of Hawaii**

The Natural Energy Laboratory of Hawaii Authority (NELHA), has reviewed the draft environmental assessment for the subject project, and anticipates a Finding of No Significant Impact (FONSI) determination. Please publish notice of availability for this project in the next available edition of the Environmental Notice. We have enclosed the following:

- One paper copy of the Draft EA
- A CD containing the .pdf file for the EA and a MS Word file with the OEQC transmittal documents, including OEQC Environmental Notice Publication Form, project summary, the distribution list for the Draft EA, and a sample "Dear Participant" letter
- A hardcopy of the OEQC submittal material

Please contact Jeff Nichols, Engineering Projects Coordinator, at 808-329-7341, x237 if you have any questions.

Sincerely,

Laurence Sombardier
NELHA Interim Executive Director

Attach: As noted above

Cc: (w/o attach) Ron Terry, Ph.D., Project Environmental Consultant

73-4460 Queen Kaahumanu Hwy., #101, Kailua-Kona, Hawaii USA 96740-2637
Phone: (808) 329-7341 Fax: (808) 326-3262 Email: nelha@nelha.org Website: http://www.nelha.org

DRAFT ENVIRONMENTAL ASSESSMENT

Monk Seal Rehabilitation Facility at NELHA

TMK (3rd. Div.) 7-3-043:042
North Kona District, Hawai‘i Island, State of Hawai‘i

March 2011

Prepared for:

Natural Energy Laboratory of Hawai‘i Authority (NELHA)
73-4460 Queen Ka‘ahumanu Hwy. #101
Kailua-Kona HI 96740-2637

DRAFT ENVIRONMENTAL ASSESSMENT

Monk Seal Rehabilitation Facility at NELHA

TMK (3rd. Div.) 7-3-043:042
North Kona District, Hawai‘i Island, State of Hawai‘i

APPLICANT:

The Marine Mammal Center
2000 Bunker Road
Fort Cronkhite
Sausalito, CA 94965-2619

APPROVING AGENCY:

Natural Energy Laboratory of Hawai‘i Authority (NELHA)
73-4460 Queen Ka‘ahumanu Hwy. #101
Kailua-Kona, HI 96740-2637

CONSULTANT:

Geometrician Associates LLC
PO Box 396
Hilo HI, 96721

CLASS OF ACTION:

Use of State Land

This document is prepared pursuant to:

The Hawai‘i Environmental Policy Act,
Chapter 343, Hawai‘i Revised Statutes (HRS), and
Title 11, Chapter 200, Hawai‘i Department of Health Administrative Rules (HAR)

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SUMMARY OF THE PROPOSED ACTION, ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The Marine Mammal Center proposes to build a facility for the rehabilitation of endangered Hawaiian monk seals (*Monachus schauinslandi*) on a 2.6-acre property under the control of the Natural Energy Laboratory of Hawai‘i Authority (NELHA), an agency of the State of Hawai‘i, at Keahole Point on the Island of Hawai‘i. The Hawaiian monk seal is a critically endangered species on the verge of extinction. For reasons yet unknown, only one in five newborns survives to reproductive maturity. If the species is to survive, immediate and aggressive intervention is needed to enhance its recovery. The Marine Mammal Center – a non-profit agency that specializes in rehabilitation and care of wild marine mammals – has worked with information and advice provided by the National Marine Fisheries Service to design the facility.

The project will consist of a holding facility with two in-ground, custom-built fiberglass pools and two smaller in-ground pools designed specifically for monk seals. The pools will be surrounded by concrete haul-outs, work areas, and walkways, and the whole area will be covered with a 60 by 120-foot shade structure. The pools will be supplied with both warm and cold NELHA-supplied seawater so that temperature can be precisely regulated. The system will run as a flow through system as open as possible, bringing clean seawater in periodically for the health of the seals. Pool water will be put through an engineered water treatment/life support system in which solids are separated, stored in a tank and periodically transferred offsite for disposal, and treated seawater will either be recirculated to the pools or put into a discharge basin for environmentally safe disposal.

Impacts include grading of the pahoehoe surface and associated minor impacts on sedimentation, dust, noise, and visual quality, all of which will be temporary and mitigated as feasible. A few individuals of the relatively rare plant *maiapilo* are present on and surrounding the site. These plants will be avoided as feasible and *maiapilo* plants will be used for landscaping. No other impacts to rare, threatened or endangered biota will occur. No archaeological sites are present on the site and a nearby archaeological site will be protected during construction and operation of the facility. Like most of NELHA, the site is affected by noise from Kona International Airport, but the sound levels are within the tolerance of the seals and the noise will not adversely affect the project. The site is outside the current and expected future runway protection zone. No adverse impacts to cultural resources will occur.

In recognition of the sensitive cultural, biological and recreational resources of the shoreline, which is used by the public for hiking, fishing and gathering, The Marine Mammal Center sited the project 150 feet from the shoreline on a pahoehoe flat. The project is coordinating with trail organizations and should not affect shoreline resources or access in any way.

PART 1: PROJECT DESCRIPTION, LOCATION AND ENVIRONMENTAL ASSESSMENT PROCESS

1.1 Project Location and Property Ownership

The Marine Mammal Center proposes to build a facility for the rehabilitation of endangered Hawaiian monk seals (*Monachus schauinslandi*) on a 2.6-acre property under the control of the Natural Energy Laboratory of Hawai‘i Authority (NELHA), an agency of the State of Hawai‘i, at Keahole Point on the Island of Hawai‘i (see Figures 1-3 for maps and photos of area).

1.2 Purpose and Need

The Hawaiian monk seal is a critically endangered species on the verge of extinction. Due to a variety of threats, including disease, food limitation, entanglement, and predation only one in five neonates survives to reproductive maturity. If the species is to survive, immediate and aggressive intervention is needed to enhance its recovery. Scientists at the NOAA Fisheries Service Pacific Islands Region and several partner agencies and organizations are trying to improve seal pup survival, and thereby increase the population growth rate, through captive care and release. Until recently these efforts have mostly taken place in remote locations and for relatively short periods of time. Their success has justified an effort in an environment more suited to long-term investment in the approach, as well as closer to seals on the main Hawaiian Islands often in need of medical intervention to ensure their survival. The Marine Mammal Center – a non-profit organization that specializes in rehabilitation and care of wild marine mammals – has worked with information and advice provided by the National Marine Fisheries Service to design the facility for optimal care of the Hawaiian monk seal.

The Marine Mammal Center seeks to develop a facility at the Natural Energy Laboratory of Hawai‘i Authority (NELHA) property to enhance the recovery of the endangered Hawaiian monk seals in three ways: 1) rehabilitation of orphaned, sick and injured seals from across the archipelago; 2) supplemental feeding of undernourished seals ; and 3) quarantine of animals pending or after translocation.

A primary cause of poor juvenile survival is starvation due to insufficient prey availability. Supplemental feeding of young seals could increase survival. Other causes of mortality are injuries from entanglements, fish hooks, gunshots and sharks. A centralized care facility at NELHA would allow feeding, care and treatment of monk seals in a controlled setting with high quality medical equipment at relatively low cost. This would provide an environment where water quality and temperature are stabilized and environmental hazards removed. The facility would promote efficient coordination of medical treatment, supplies, staffing and training. The facility is also designed to minimize the risk of introducing diseases to seals. The public education and outreach that would be possible at the rehabilitation facility would increase support among all segments of the population for this critically endangered and valuable member of the Hawaiian marine ecosystem.

Figure 1 Location Map

Figure 2
TMK Map

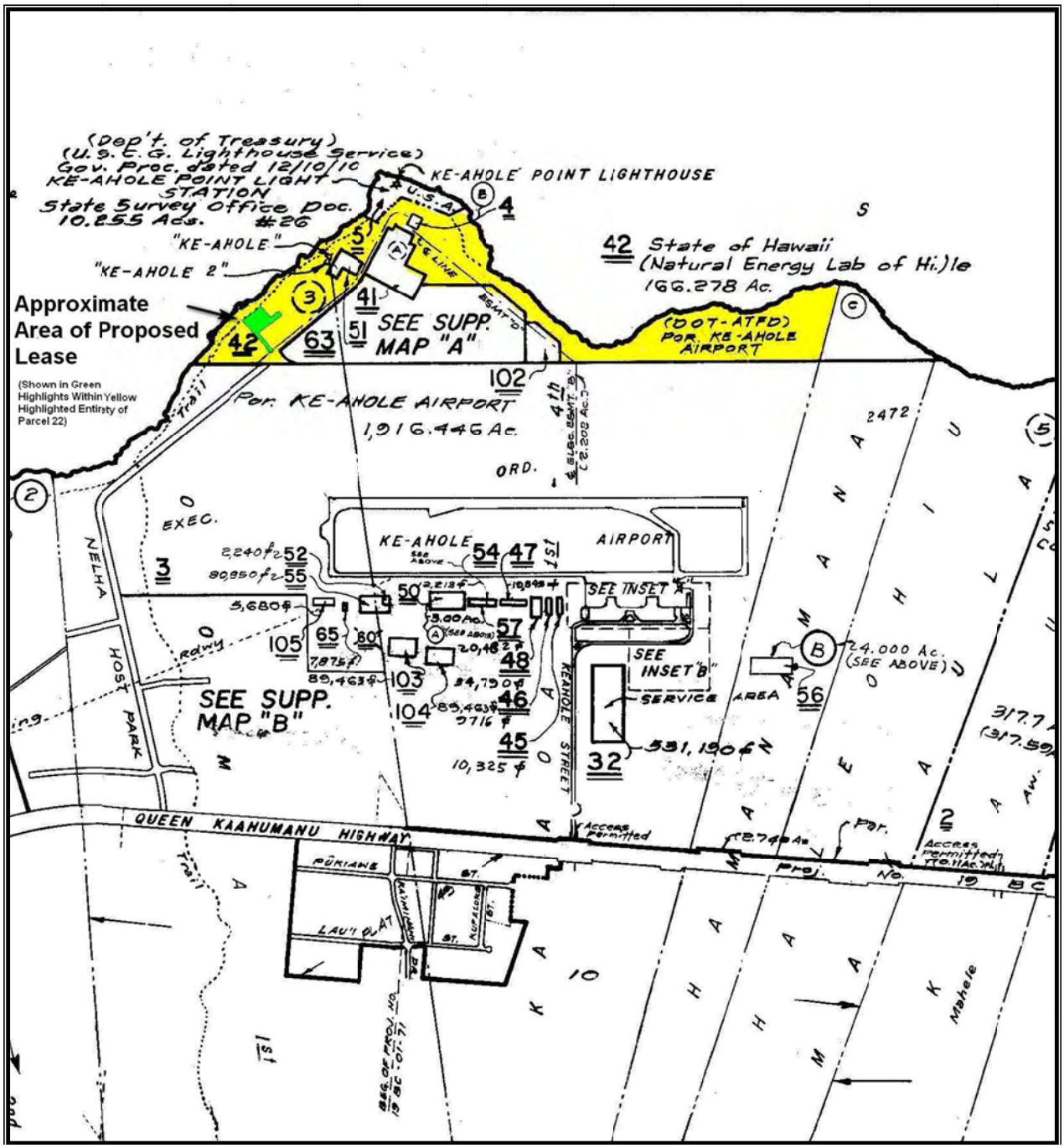


Figure 3 Project Site Photos

Top: Building site, WHEA at right; Middle: Archaeological site; Bottom: Shoreline

1.3 Project Description

In overview, the development of the Monk Seal Rehabilitation Facility will occur in two phases. The first will build a holding facility with two in-ground, custom-built fiberglass Hawaiian monk seal pools, and two smaller in-ground pools for neonatal seals and seals recovering from surgery or anesthesia. The pools will be surrounded by concrete haul-outs, work areas, and walkways, and the whole area will be covered with a 60 by 120-foot shade structure. The pools will be supplied with both warm and cold NELHA-supplied seawater so that temperature can be precisely regulated. The system will run as a flow through system to the greatest extent possible bringing clean seawater in periodically for the health of the seals. Pool water will be put through an engineered water treatment/life support system in which solids are separated, stored in a tank and periodically transferred offsite for disposal, and treated water will either be recirculated to the pools or put into a discharge basin for environmentally safe disposal. It is possible that up to six months of the year the facility will not be occupied by seals, and that other times there will be two to four seals. The facility is designed for a maximum of ten seals.

In a later phase, two concrete block support buildings will be built for use as office, laboratory, clinic, fish kitchen, and other spaces needed to support the care of the seals. A small outdoor visitor pavilion is also proposed to provide education to exclusive groups during small, specially arranged tours about the plight of the monk seal and to support outreach activities. Tow-in modular office trailers will function as the support buildings until construction of the support buildings is complete. The entire center will be operated as a safe and secure quarantine facility, with fences around the pool area and gates to ensure limited and controlled access.

- The two larger, in-ground seal pools will each be roughly 1,000 square feet and vary from 0.5 to 6 feet in depth; the two smaller above-ground pools for neonatal seals will occupy roughly 300 square feet and vary from 0.5 to 3.5 feet in depth.
- NELHA-supplied seawater (both warm surface water and cold deep water), as well as potable water, will be provided via underground water lines installed from the main NELHA road along the access road to a central location in the main enclosure. All piping from the roadway up until the primary point of connection on-site will be high-density polyethylene (HDPE) pipe in order to minimize corrosion and breakage problems associated with alternate materials. Above or below-ground laterals will extend from the main enclosure to feed various uses. Cold seawater could also serve as heat-transfer for the air-conditioning system.
- Electricity (Hawaii Electric Company) and telephone/data service (Hawaiian Telcom) will be provided in underground lines via a trench from the main road along the access road. There will be an aboveground electrical main panel near the facility entrance to allow for meter installation and main disconnects – from there, branch circuits will run to various sub-panels and points of use.

- An Individual Wastewater System (IWS) will be installed underground, utilizing a fiberglass tank, and a dispersion bed sized and engineered to meet the calculated/expected effluent flow rates. Wastewater mains will be installed from the future office location to the IWS. In addition, one or more laterals may be provided to connect the temporary office-trailers that are likely to be on-site up until completion of the support building.

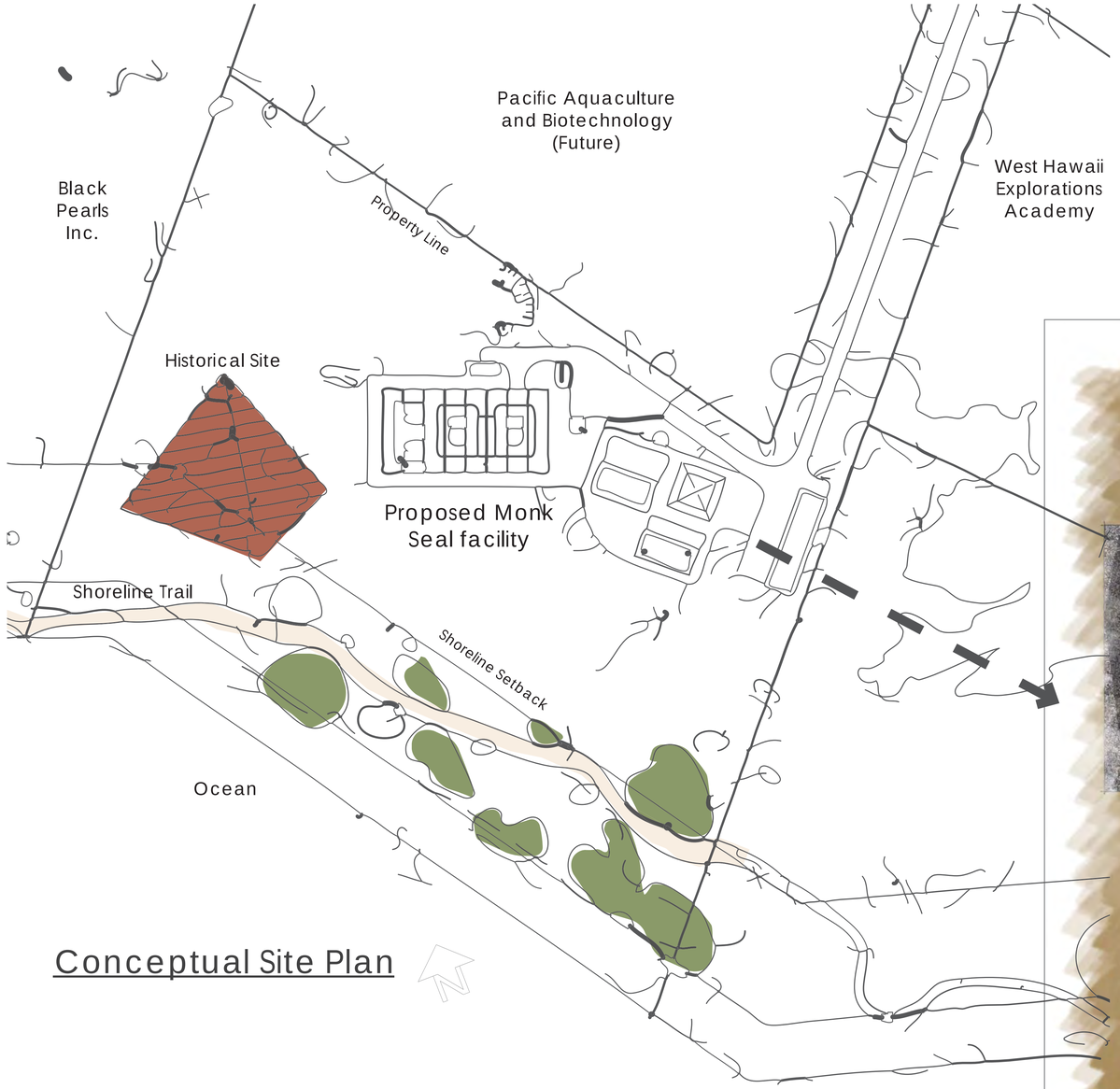
The plan for the facility is to incorporate green design practices including photovoltaic panels, solar-powered air-vents, xeriscape landscaping utilizing native plant species, and seawater-cooled air conditioning, where possible. It has been sited at an elevation of about 11 feet above mean sea level more than 150 feet from the shoreline, as far inland as practical, well outside the zone of high surf, sensitive coastal and cultural environments, and public trails.

1.4 Role of The Marine Mammal Center

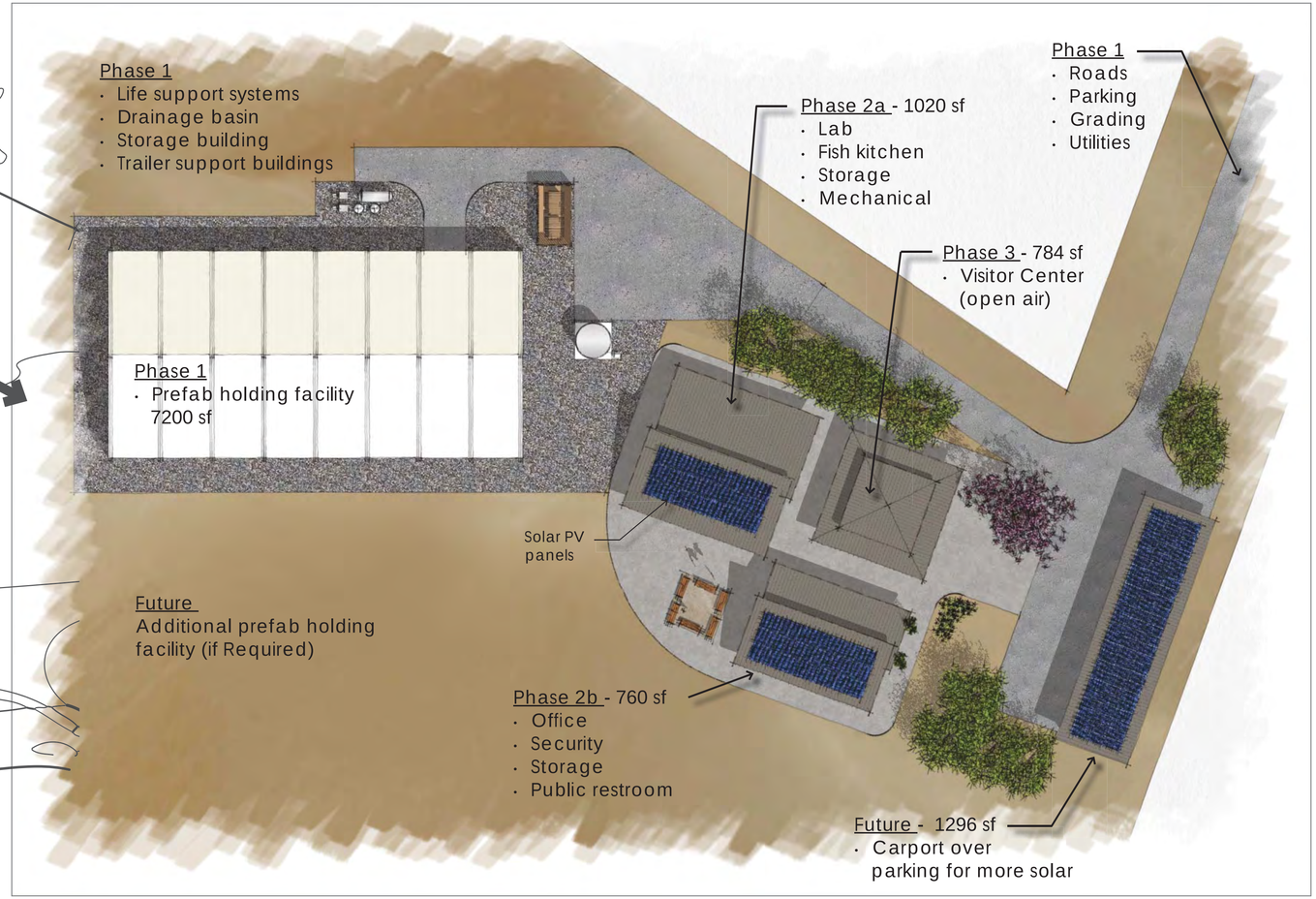
The Hawaiian monk seal is an endangered species, and capture, care and release of this animal is strictly regulated under the Endangered Species Act (16 U.S.C. § 1531-1544 *et seq*.) and the Marine Mammal Protection Act (16 U.S.C. §1361 *et seq*) . The Marine Mammal Center possesses the necessary permits to possess and care for Hawaiian monk seals. The mission of The Marine Mammal Center is to expand knowledge about marine mammals, as well as their health and that of their ocean environment, and to inspire their global conservation. Its core work is the rescue and rehabilitation of sick and injured marine mammals, supported by state-of-the-art animal care and research facilities, a corps of dedicated volunteers, and the community. From headquarters in Sausalito, California, The Marine Mammal Center works throughout the world. Its scientific research program unites veterinary clinicians, pathologists, rehabilitation specialists, wildlife biologists, and research scientists to identify causes of marine mammal strandings and investigate health issues in marine mammals. Its work, often published in scientific journals, has added to the body of knowledge of the health of marine mammals, led to the development of new diagnostic tests and clinical techniques, determined the efficacy of rehabilitation, and revealed the effects of human and other stressors on the marine environment. The center has played a critical role in assisting a number of endangered marine mammals, particularly seals and sea lions.

For the past decade, The Marine Mammal Center has worked closely with federal and State agencies and nonprofit organizations in Hawai‘i, including the Pacific Islands Fisheries Science Center, the Pacific Islands Regional Office of the National Marine Fisheries Service and the Hawai‘i Wildlife Fund, to provide medical assistance to monk seals, often flying out veterinary teams and trained volunteers to provide hands-on medical care in make-shift facilities. The new facility is being built and will be operated by The Marine Mammal Center to provide an advanced facility that will promote the long-term survival of the species.


Otec Rd
Phase 2a - 1,020 sf
Lab / clinic
Fish kitchen
Storage
Mechanical
Phase 2 - 1,764 sf
Visitor center (open air)
Future
Additional prefab holding
facility (if required)
HOLDING FACILITY PHASE 1
Phase 1
Roads
Parking
Grading
Utilities
Future - 12kw sf
Carport over parking
for more solar panels
Phase 1
Life support systems
Drainage basin
12x12 storage building
Trailer supports buildings
Phase 2b - 1,800 sf
Offices
Security room
Storage
Public restroom
50 FEET SETBACK
25 FEET SETBACK
HISTORICAL SITE
125' SHORELINE SETBACK
395 ft
Image © 2010 DigitalGlobe
© 2010 Google
19°43'18.15" N 156°03'17.13" W elev 0 ft
©2009 Google
Eye alt 1377 ft



Conceptual Site Plan



Site Plan

Monk Seal Facility

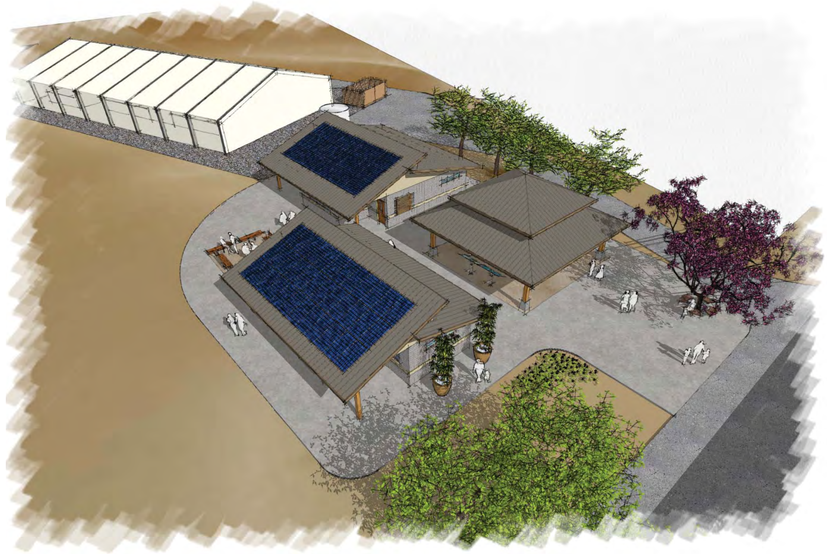
Keahole Point, Kona, Hawaii

The Marine Mammal Center

K&G Architects

View from Road

Visitor Center



Bird’s Eye SE

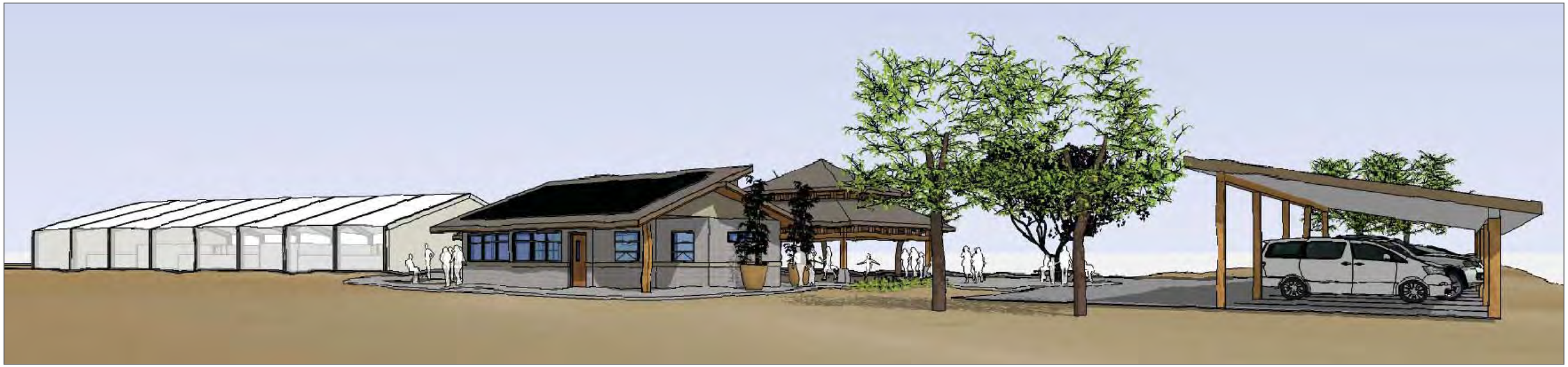
Visitor Center

The Marine Mammal Center

Monk Seal Facility

Keahole Point, Kona, Hawaii

K&G Architects



View from Shoreline Trail

Visitor Center

Seating Area

Office Building

The Marine Mammal Center

Monk Seal Facility

Keahole Point, Kona, Hawaii

K&G Architects

1.5 Environmental Assessment Process

NELHA Background

By Act 236 of the Hawai‘i Revised Statutes, 1974, the State of Hawai‘i established the Natural Energy Laboratory of Hawai‘i (NELH) on 322 acres at Keahole Point on the Island of Hawai‘i. The physical characteristics of the site were considered uniquely suited for several significant State and federal energy programs. NELH was mandated to provide a support facility for research on the ocean thermal energy conversion (OTEC) process and its related technologies. The success of these programs was envisioned as highly significant for the intensive, long-term development of energy source alternatives to fossil fuels.

In 1979, a barge dubbed “Mini-OTEC,” anchored offshore of Keahole Point, demonstrated the world’s first production of net electrical power via closed-cycle OTEC.
A year later, the NELH facilities that draw deep seawater from 2,000 feet and surface seawater from the 45-foot depth were constructed at Keahole Point. By 1984 it had become apparent that the seawater being pumped up for OTEC research could also be channeled into many other profitable uses. New legislation in 1984 legalized commercialization on State property, allowing NELH to host new tenant business ventures. In 1985, the State Legislature created the Hawaii Ocean Science and Technology (HOST) Park on an adjacent 548 acres at Keahole in anticipation of expansion needs of NELH’s growing businesses. In 1990, HOST Park and NELH were melded into one agency, the NELH Authority (NELHA), attached to the Hawai‘i State Department of Business, Economic Development & Tourism. In 1998-99, the Legislature expanded the activities allowed at NELHA to include other business activities that could enhance economic development and generate additional revenues to support the growing park. Today, NELHA is “landlord” to nearly 40 enterprises that generate about $50 million per year in total economic impact, including tax revenues, as well as more than 390 jobs, construction activity and high value product exports. Three pipeline systems constantly pump deep and surface seawater to shore, including the world’s deepest pipeline at 3,000 feet.

The cumulative impacts of long-term operation and expansion of NELHA operations were evaluated in four previously accepted environmental impact statements (EISs):

- Research Corporation of the University of Hawai‘i (RCUH). 1976. *Environmental Impact Statement for the Natural Energy Laboratory of Hawaii at Keahole Point, Hawaii (Phase I).* Prep. by R.M. Towill Corp. for RCUH.
- Hawai‘i State High Technology Development Corporation (HTCD). 1985. *Final Environmental Impact Statement, Development Plan for the Hawaii Ocean Science and Technology Park and Expansion of the Natural Energy Laboratory of Hawaii, Keahole, North Kona, Hawaii*.

- Natural Energy Laboratory of Hawai‘i. 1987. *Final Environmental Impact Statement, Alternative Methods of Seawater Return Flow Disposal, Keahole, North Kona, Hawaii*.
- Natural Energy Laboratory of Hawai‘i. 1992. *Final Environmental Impact Statement, Development of Land Exchange Parcel, Natural Energy Laboratory of Hawaii*. Prep. by GK & Associates for NELHA.

In addition, the following EIS addressed the impacts of land development and proposed aquaculture uses on an adjacent 83-acre parcel obtained by NELHA in a 1986 land exchange:

- Hawai‘i County Planning Department. 1986. *Final Environmental Impact Statement, ‘O’oma II, North Kona, Hawaii.* Prepared for Hawai‘i County Planning Department and Kahala Capital Corporation by Helber, Hastert, Van Horn & Kimura.

As discussed in Section 3.6.4, the project is clearly of a type authorized by HRS Chapter 227D, which stated: “The purpose of the natural energy laboratory of Hawaii authority shall be to facilitate research, development, and commercialization of natural energy resources and ocean-related research, technology, and industry in Hawaii.” However, an Environmental Assessment (EA) is being conducted because the Monk Seal Rehabilitation Facility involves a use of State land of a type not explicitly evaluated in the previous EIS documents for NELHA.

Relationship to Other Actions

On October 4, 2010, the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS), Pacific Islands Regional Office invited a number of parties to participate in the EIS process for a Programmatic Environmental Impact Statement (PEIS) on a proposed research and enhancement program to improve juvenile survival of Hawaiian monk seals (see attachments in letter from the Office of Hawaiian Affairs (OHA) in Appendix 1a for one such letter). The letter stated that NMFS will be the lead agency in preparing the PEIS in accordance with the National Environmental Policy Act (NEPA). The Proposed Action is the Enhanced Implementation Alternative, which considers current recovery activities as well as additional activities to achieve more comprehensive Recovery Plan implementation and improved survival of juvenile seals in the Northwest Hawaiian Islands. These additional activities include, but are not limited to:

- Vaccination research studies (including potential vaccination of Hawaiian monk seals);
- Aversive conditioning (e.g., develop tools to modify undesirable behavior including interaction with humans or domestic animals);
- Archipelago-wide translocation of Hawaiian monk seals to improve juvenile survival; and
- De-worming.

The PEIS under NMFS preparation will assess the direct, indirect, and cumulative effects of implementing the alternative approaches for research and enhancement activities on Hawaiian monk seals, as well as other components of the marine ecosystem and human environment.

In the letter referenced above to the author of this EA, OHA stated that:

> "We do seek clarification from you whether this project is a component of the larger effort which will be subject to the PEIS. If monk seals will be relocated to the facility and then released into the waters around Hawai'i Island, these secondary impacts should be discussed in your DEA as 'effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable' (§ 11-200-2 Hawaii Administrative Rules)."

The Monk Seal Rehabilitation Facility under consideration in this EA is not part of the larger effort by NMFS. Although not funding or directing the project, NMFS has provided information on their plans for the Hawaiian monk seal that has greatly assisted The Marine Mammal Center in creating an optimum design for the needs of recovering the species. Neither the Monk Seal Rehabilitation Facility nor the research and enhancement activities that are the subject of the NMFS PEIS are dependent on each other. Although both projects will benefit the Hawaiian monk seals, each project has independent utility. It is not currently expected that Hawaiian monk seals that are cared for at The Marine Mammal Center will be released in the main Hawaiian archipelago unless they originally came from it. The secondary impacts of NMFS recovery efforts, including specific effects at areas in which they plan releases, are properly dealt with by NMFS, the agency that will be conducting the actions, in the PEIS and in the tiered EAs which are expected to follow the PEIS.

Environmental Assessment Process

This EA process is being conducted in accordance with Chapter 343 of the Hawai'i Revised Statutes (HRS). This law, along with its implementing regulations, Title 11, Chapter 200, of the Hawai'i Administrative Rules (HAR), is the basis for the environmental impact process in the State of Hawai'i. According to Chapter 343, an EA is prepared to determine impacts associated with an action, to develop mitigation measures for adverse impacts, and to determine whether any of the impacts are significant according to thirteen specific criteria.

Part 4 of this document states the finding (anticipated in the Draft EA) that no significant impacts are expected to occur; Part 5 lists each criterion and presents the findings by NELHA, the approving agency. In the EA process, if the approving agency determines after considering comments to the Draft EA that no significant impacts would likely occur, then the agency issues a Finding of No Significant Impact (FONSI), and the action is permitted to occur. If the agency concludes that significant impacts are expected to occur as a result of the proposed action, then an Environmental Impact Statement (EIS) is prepared.

1.6 Public Involvement and Agency Coordination

The following agencies and organizations were consulted in development of the environmental assessment:

Federal:

- Federal Aviation Administration
- National Marine Fisheries Service
- U.S. Army Corps of Engineers

State:

- Department of Land and Natural Resources
  - Land Division and State Historic Preservation Division
- Department of Health,
  - Safe Drinking Water and Clean Water Branches
- Department of Transportation
- National Park Service, Ala Kahakai National Historic Trail
- Office of Hawaiian Affairs, Honolulu and West Hawai‘i

County:

- Civil Defense Agency
- County Council
- Department of Environmental Management
- Fire Department
- Planning Department

Private:

- Keahole Point Hatcheries, LLC
- Cyanotech Corporation
- E Mau Na Ala Hele
- Kona Hawaiian Civic Club
- Kona-Kohala Chamber of Commerce
- Kona Outdoor Circle
- Shrimp Improvement Systems Hawaii LLC
- Sierra Club
- West Hawai‘i Explorations Academy

Copies of communications received during early consultation are contained in Appendix 1a and relevant aspects of reply letters are discussed in the text of the EA.

PART 2: ALTERNATIVES

2.1 Propose Project

The action under consideration is described in Sections 1.1 to 1.3, above.

2.2 No Action

Under the No Action Alternative, endangered Hawaiian monk seals would continue to lack a facility for the systematic, long-term care that regional and national recovery agencies believe is vital to the continued survival of the species.

2.3 Alternate Sites

The Marine Mammal Center worked in consultation with the National Marine Fisheries Service (NMFS) and the Hawaiian Monk Seal Recovery Team to explore existing facilities on the main Hawaiian Islands that might be adapted for a Monk Seal Rehabilitation Facility, as well as vacant land on which to construct a facility. These included existing facilities at an abandoned shrimp farm located in Kahuku, O‘ahu, and at the Pacific Islands Fisheries Science Center operated by NMFS. Although the remote location of the shrimp farm was suitable, the facility was in severe disrepair and the challenges of retrofitting the facility were significant. In addition, permits for wastewater discharge and injection wells had lapsed and there was no easy source of saltwater. The Pacific Islands Fisheries Science Center had severe space constraints and the urban location in Honolulu was not ideal for captive care. Both sites would have presented challenges in terms of designing for National Pollutant Discharge Elimination System permits, and both sites would have required considerable time and investment to make suitable. As the facility needed to be developed in as timely and economic a manner as possible, the NELHA site was clearly superior.

PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Basic Geographic Setting

The NELHA property that will be leased is referred to throughout this EA as the *project site*. The term *project area* is used to describe the general environs in this part of Kona.

The project site is a 2.6-acre portion of TMK 7-3-043:042 located *makai* of the NELHA access road (see Figures 1-3). Adjacent land use consists of the West Hawai‘i Explorations Academy Public Charter School, the Pacific Aquaculture & Biotechnology facility, and property *makai* consisting of a pahoehoe lava flats fronted by a vegetated pahoehoe/sand shoreline area with a public trail and moderate public use for hiking, fishing and gathering. Surrounding areas contain similar land uses associated with NELHA or shoreline recreation. Approximately 2,000 feet east is the nearest runway of the Kona International Airport.

3.1 Physical Environment

3.1.1 Climate, Geology, Soils and Geologic Hazards

Environmental Setting

The climate in the area is warm and arid, with an average annual rainfall of about 20 inches (UH Hilo-Geography 1998:57). Geologically, the site is located at the foot of Hualālai volcano, and the surface consists of barely weathered basalt lava flows dated from 1,500 to 3,000 years ago (Wolfe and Morris 1996). In the dry climate, soil has not yet had time to form (U.S. Soil Conservation Service 1973).

The project site does not appear to be subject to subsidence nor landslides or other forms of mass wasting. The entire Big Island is subject to geologic hazards, especially lava flows and earthquakes. Volcanic hazard as assessed by the U.S. Geological Survey in this area of North Kona is Zone 4, on a scale of ascending risk from 9 to 1 (Heliker 1990:23). The hazard risk is based on the fact that Hualālai has steep slopes and is the third most historically active volcano on the island. Volcanic hazard Zone 4 areas have about 5 percent of their land area covered by lava or ash flows since the year 1800 and less than 15 percent of their land area covered by lava in the past 750 years. They are at lower risk than Zone 3 areas because the frequency of Hualālai eruptions is lower than those of Kilauea and Mauna Loa.

In terms of seismic risk, the entire Island of Hawai‘i is rated Zone 4 Seismic Hazard (*Uniform Building Code, 1997 Edition*, Figure 16-2). Zone 4 areas are at risk from major earthquake damage, especially to structures that are poorly designed or built, as the 6.7-magnitude quake of October 15, 2006, demonstrated.

Impacts and Mitigation Measures

In general, geologic conditions impose no constraints on the project site that would make the proposed project imprudent to implement, as demonstrated by the deep commitment to ocean technology-related infrastructure represented by the NELHA development. Facility design has been accomplished with the assistance of a structural engineer and all appropriate seismic standards would be followed. The fiberglass pools are well-adapted to the seismic setting.

3.1.2 Flood Zones, Coastal Processes and Sea Level Rise

Existing Environment

As illustrated in surface and aerial photos (Figure 3), as well as the Site Plan (Figure 4a), the project site is located more than 150 feet from the ocean. The shoreline in this area consists of low pahoehoe cliffs, backed by shallow and intermittent storm sand beaches that are moderately vegetated, behind which are higher and almost bare pahoehoe flats. Shoreline erosion is not occurring on or near the area proposed for use, which is at an elevation of about 11 feet above mean sea level on the pahoehoe flats.

The Federal Emergency Management Agency's Flood Insurance Rate Map (FIRM) 1551660681 (9/16/1988) shows that the project site is in Flood Zone X, outside the 100-year area of coastal flooding (see Figure 4a for interpretation of Flood Zone boundary relative to development site). Maps printed by the Pacific Tsunami Warning Center and the Hawai'i County Civil Defense Agency show the parcel inside the area that should be evacuated during a tsunami warning (http://www5.hawaii.gov/tsunami/maps.asp). No known areas of local (non-stream or ocean related) flooding are present at the project site.

Of increasing importance to land use approvals in coastal regions throughout the world is future sea level rise. The Earth is warming because of increases in human-produced greenhouse gases such as carbon dioxide and methane, which in turn, has led to a rise in global sea level (http://www.ncdc.noaa.gov/oa/climate/globalwarming.html). According to the National Climate Data Center of the National Oceanic and Atmospheric Administration (NOAA), global mean sea level has been rising at an average rate of 1.7 mm/year (plus or minus 0.5mm) over the past century, a rate which has increased over the last 10 years to 3.1 mm/year (Bindoff et al 2007). NOAA projects an expected range of sea level rise over the next century of between 0.18 and 0.59 m due mainly to thermal expansion and contributions from melting alpine glaciers. However, potential contributions from melting ice sheets in Greenland or Antarctica may yield much larger increases. Dr. Charles Fletcher of the University of Hawai'i, Manoa, estimates that sea level may rise up to one meter by the end of the next century.

In Hawai'i, beach erosion, reef overtopping and consequent higher wave run-up, more devastating tsunami, and full-time submergence of critical coastal areas are likely to occur (http://www.soest.hawaii.edu/coasts/sealevel/). It is particularly important to consider the location of new infrastructure, and the State and counties must consider how to adjust zoning and

setbacks so that large, expensive public buildings are not put in the path of inevitable damage. On the Big Island, eustatic (global) sea level rise is coupled with local effects of subsidence. Since 1946, sea level at Hilo on the Big Island has risen an average of 1.8 ± 0.4 mm/yr faster than at Honolulu on the island of O‘ahu, a figure that has recently decreased. The degree to which this reflects subsidence versus variations in upper ocean temperature is currently not known (Caccamise et al 2005).

Impacts and Mitigation Measures

The project does not involve construction within a flood zone. In terms of flooding from land sources, the project would be required to follow County regulations and policies related to flooding, among them Chapter 27 of the Hawai‘i County Code. Chapter 27 requires the difference between pre-development and post-development runoff to be contained onsite, limiting impacts.

Shoreline locations are subject to natural coastal processes including erosion and accretion, which can be affected by human actions such as removal of sand or shoreline hardening. Erosion may adversely affect not only a lot owner’s improvements but also State land and waters, along with the recreational and ecosystem values they support. Development of shoreline properties also exposes residents and visitors to increased risk of hazardous high waves and tsunami. As discussed above, the improvements are set over 150 feet from the shoreline and the area is not currently subject to coastal processes.

The National Weather Service of the National Oceanic and Atmospheric Administration operates the Pacific Tsunami Warning Center and Alaska Tsunami Warning Center, which monitors sudden earth movements throughout the Pacific Basin. Tsunamis generated from earth movements on the Pacific Rim, including South America, Japan, California and Alaska, would allow for warning times between 4 and 15 hours, sufficient time for evacuation of NELHA. Sudden movement along faults close to Hawai‘i are unpredictable, allowing only minutes or perhaps an hour of warning time, and evacuation would be more problematic. Coastal-depending uses in Hawai‘i such as the facilities at NELHA cannot avoid the tsunami hazard because the entire coast is vulnerable to tsunami. Warning sirens are present and easily audible at the project site. Although there is a risk of damage to property and life, the risk is not unreasonable.

A scenario of modest sea level rise would not likely substantially affect the integrity or use of the proposed facility, which is approximately 11 feet above sea level in an area lacking any protecting reef that could be vulnerable to such a rise. Larger sea level increases, particularly in a case of sudden onset, could certainly affect the facility. If so, it would be among thousands of structures damaged in what would be the largest disaster in the Hawaiian Islands since human settlement. As sea level rise is gradual, there would probably be an opportunity to salvage some or all of the materials for reuse in a safer location. It is understood that in light of sea level rise of an indeterminate magnitude the property may be subject to significant erosion or even submergence. However, the certain benefits of the program over a span of decades would seem to outweigh the expected level of risk over the course of century.

3.1.3 Water Features and Water Quality

Existing Environment

Aside from the Pacific Ocean, the project site is not near perennial surface water bodies. According to maps from the U.S. Fish and Wildlife Service confirmed by field inspection, no wetlands are present (http://www.fws.gov/wetlands/Data/Mapper.html). The nearest mapped wetlands are approximately 2.5 miles south at Kaloko-Honokohau National Historical Park.

The waters off Kona are classified by the State as class AA. Hawai‘i Administrative Rules (HAR) 11-54-03(c)(1) states that class AA waters are

> "high quality waters are those in which water quality is expected to exceed that necessary to support oceanographic research, propagation of aquatic communities and wildlife, compatible recreation and aesthetic enjoyment. It is the objective of class AA waters that these waters remain in their natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from any human-caused source or actions. To the extent practicable, the wilderness character of these areas shall be protected."

Coastal water quality in urban Kona, which lacks the heavy industry, history of intensive agriculture, or other factors that lead to contamination, is generally good (U.S. EPA 2000). However, the Natural Resources Defense Council has reported exceedances (http://www.nrdc.org/water/oceans/ttw/ttw2008.pdf) of bacteria in water quality at certain beaches, which local water quality scientists attribute mainly to wastewater (*Hawai‘i Tribune Herald*: August 6, 2008, p. 1).

Another source of water pollution is runoff from developed properties, which can carry chemicals, sediments and nutrients. Although not a chronic problem, periodic acute episodes have occurred in some construction sites. Proper implementation and enforcement of construction BMPs are important to safeguard water quality. After construction, reducing contamination relies on confining runoff, particularly "first-flush" runoff, which contains most of the contaminants, to drainage structures that capture and retain many of the pollutants, especially sediments.

In terms of groundwater, U.S. EPA and Department of Water Supply Annual Water Quality Reports for wells and water systems indicate no health-based or monitoring violations in at least the past 10 years (http://oaspub.epa.gov/enviro/). Although some chemical contamination has been found in a few, levels have been below maximum EPA-acceptable limits.

Impacts and Mitigation Measures

About an acre of land is required to be graded. The project will be required to conform to Chapter 10 of the Hawai‘i County Code, which requires projects that disturb the ground to

prevent erosion and sedimentation and obtain grubbing/grading permits from the County Department of Public Works. Because the project may disturb an acre or more than one acre of soil, a National Pollutant Discharge Elimination System (NPDES) permit must be obtained by the contractor before the project commences. This permit requires the completion of a Storm Water Pollution Prevention Plan (SWPPP). In order to properly manage storm water runoff, the SWPPP will describe the emplacement of a number of best management practices (BMPs) for the project. These BMPs may include, but will not be limited to, the following:

- Minimization of soil loss and erosion by revegetation and stabilization of slopes and disturbed areas of soil, possibly using hydromulch, geotextiles, or binding substances, as soon as possible after working;
- Minimization of sediment loss by emplacement of structural controls possibly including silt fences, gravel bags, sediment ponds, check dams, and other barriers in order to retard and prevent the loss of sediment from the site;
- Minimizing disturbance of soil during periods of heavy rain;
- Phasing of the project in order to disturb a minimum necessary area of soil at a particular time;
- Application of protective covers to soil and material stockpiles;
- Construction and use of a stabilized construction vehicle entrance, with designated vehicle wash area that discharges to a sediment pond;
- Washing of vehicles in the designated wash area before they egress the project site;
- Use of drip pans beneath vehicles not in use in order to trap vehicle fluids;
- Routine maintenance of BMPs by adequately trained personnel; and
- Clean up of significant leaks or spills and disposal at an approved site, if they occur.

As discussed above, the project will treat and recirculate the seal pool water and pen washdown water through a life-support filtration system to the greatest reasonable extent.

At full capacity of ten seals (a number that will rarely be present), the system would produce a total of about 150 pounds of solids daily, based on about 15 pounds per animal per day. The solids will be stored in a tank and periodically (every few months, as necessary) taken to the Kealakehe Municipal Wastewater Treatment Plant for disposal.

Treated seawater that is not re-circulated to the pools will be disposed of via a pipeline from the treatment tanks to a discharge basin at the *mauka* end of the facility. This feature is still in design but is expected to be a roughly 12 by 50-foot basin with sloping sides and a central hole, lined with crushed rock, similar in design to existing discharge basins in use at NELHA. Although unlikely ever to be needed, a smaller, shallow overflow area will also be constructed adjacent.

The seawater introduced into the discharge basin will be professionally tested according to NELHA protocol to ensure that it meets standards for such disposal. All effluent for NELHA tenants is tested based on State water quality standards contained in Title 11, Chapter 62, Hawai‘i Administrative Rules. Testing is done for four analytes: total suspended solids, biological oxygen demand, total nitrogen, and total phosphorus. Testing will be performed by the

NELHA Water Quality Lab at an initial frequency of once a week for the first month, once a month of the first quarter and then quarterly for the first year. After the first year a review of the data will determine if the facility's effluent will be required to continue testing long term. The goal is to ensure that effluent meets water quality standards and does not degrade the groundwater or marine waters.

The Marine Mammal Center will test pool water for compliance with USDA regulations 9 CFR3.106 regarding water quality for holding marine mammals. The Marine Mammal Center will monitor fecal coliform bacteria weekly and pH daily. Water changes will be done periodically to maintain correct parameters for holding marine mammals. Chemical treatment may be done to comply with water quality standards.

3.1.4 Flora, Fauna and Ecosystems

Existing Environment

The project site is entirely contained on nearly bare pahoehoe lava but is fronted by shoreline vegetation. These two vegetation types are depicted in the photos in Figure 3. An inspection in October 2010 by Dr. Ron Terry found the shoreline vegetation *makai* of the project site to be typical of Kona shorelines. Among the species present are the non-natives tree heliotrope (*Tournefourtia argentea*) and *kiawe* (*Prosopis pallida*), along with the native vines *pohuehue* (*Ipomoea pes-caprae*) and *alena* (*Boerhavia acutifolia*), the native *aki aki* grass (*Sporobolus virginicus*), and the rare native shrub *maiapilo* (*Capparis sandwichiana*). On the project site itself, the natural vegetation is very sparse, consisting of the species listed in Table 1 below. Two are native: the common *'uhaloa* (*Waltheria indica*), which emerges in disturbed areas, and the rare shrub *maiapilo*, mentioned above.

No threatened or endangered plant species were present or would be expected to be present on the site. Although moderately common in the shoreline from Keahole Point through O'oma to the south, *maiapilo* is considered a species of concern by the U.S. Fish and Wildlife Service and is often listed among rare plants in Hawai'i. Although this status does not provide official legal protection, the U.S. Fish and Wildlife Service and the Hawai'i Department of Land and Natural Resources are interested in its protection.

Table 1. Plant Species Detected on Project Site

Scientific Name	Family	Common Name	Life Form	Status*
Capparis sandwichiana	Capparaceae	Maiapilo	Shrub	E
Morinda citrifolia	Rubiaceae	Noni	Shrub	A
Pennisetum setaceum	Poaceae	Fountain grass	Grass	A
Schinus terebinthifolius	Anacardiaceae	Christmas berry	Shrub	A
Waltheria indica	Sterculiaceae	'Uhaloa	shrub	I

* A = alien, E = endemic, I = indigenous

No birds were observed during the site reconnaissance. However, the shoreline area is known to have a number of species. Table 2 below is derived from several days of fieldwork on the Oʻoma property just south of NELHA (Geometrician Associates 2006) and lists the shorebirds and land birds noted or likely to occur on project site. No threatened or endangered birds would likely be present on the site.

Table 2. Bird Species Known from Project Area

Scientific Name	**Common Name**	**Status**
Acridotheres tristis	Common Myna	Alien Resident
Arenaria interpres	Ruddy Turnstone	Indigenous Visitor
Cardinalis cardinalis	Northern Cardinal	Alien Resident
Carpodacus mexicanus	House Finch	Alien Resident
Francolinus pondicerianus	Grey Francolin	Alien Resident
Geopelia striata	Zebra Dove	Alien Resident
Heteroscelus incanus	Wandering Tattler	Indigenous Visitor
Lonchura punctulata	Nutmeg Mannikin	Alien Resident
Nycticorax nycticorax hoactli	Black-Crowned Night-Heron	Indigenous Resident
Paroaria capitata	Yellow-Billed Cardinal	Alien Resident
Passer domesticus	House Sparrow	Alien Resident
Pluvialis fulva	Pacific Golden-Plover	Indigenous Visitor
Serinus mozambicus	Yellow-Fronted Canary	Alien Resident
Sicalis flaveola	Saffron Finch	Alien Resident
Streptopelia chinensis	Spotted Dove	Alien Resident
Tyto alba	Common Barn Owl	Alien Resident
Zosterops japonicus	Japanese White-Eye	Alien Resident

Although not detected during this survey it is possible that small numbers of the endangered endemic Hawaiian Petrel *(Pterodroma sondwichensis),* or *uaʻu,* and the threatened Newell's Shearwater *(Puffinus auricularis newelli),* or *ʻaʻo,* over-fly the project site between the months of May and November. To reduce the potential for interactions between nocturnally flying Hawaiian Petrels and Newell's Shearwaters and external lights and man-made structures, all projects in Hawaiʻi should ensure that any external lighting be shielded, in keeping with Hawaiʻi County Code § 14 – 50 *et seq.* which requires the shielding of exterior lights so as to lower the ambient glare caused by unshielded lighting to the astronomical observatories located on Mauna Kea.

No mammals were observed on the property. With the exception of the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), which might forage in the general area but would not roost on the project site because of the lack of appropriate trees, all terrestrial mammals currently found on the Island of Hawaiʻi are alien species, and most are ubiquitous. Wild cats (*Felis catus*), small Indian mongooses (*Herpestes a. auropunctatus*), and some species of rats and mice,

such as roof rats *(Rattus r. rattus),* Norway rats *(Rattus norvegicus),* Polynesian rats *(Rattus exulans hawaiiensi),* and European house mice *(Mus musculus domesticus),* probably occasionally make use of the project site, as they are common in Kona.

Several threatened or endangered marine species are present in waters off Kona. In particular, threatened green sea turtles (*Chelonia mydas*) are frequently spotted and endangered hawksbill turtles (*Eretmochelys imbricata*) are sometimes seen. Endangered humpback whales (*Megaptera novaeangliae*) winter in Hawaiian waters from December to April. Individuals of the endangered Hawaiian monk seal (*Monachus schauinslandi*), which are much more common in the Northwestern Hawaiian Islands and are the subject of the current project, are also increasingly seen along beaches and tidepools in Kona.

Impacts and Mitigation Measures

The locations of the rare *maiapilo* plants, which are distinct and easily identifiable, have been recorded. Many are outside the project footprint, and construction will avoid these plants to extent feasible and will incorporate existing individuals and/or plant *maiapilo* and other native Hawaiian plants in the facility landscaping.

The project will not involve any unshielded lighting for either construction or operation, in conformance with Hawai‘i County Code § 14 – 50 *et seq,* which will avoid impacts to listed seabirds.

Factors that impair urban Kona’s coastal water quality and potentially affect threatened or endangered marine species are wastewater, chemical contaminants from industrial and commercial uses, and polluted runoff from streets and parking lots. As there are no surface streams in the project area and runoff directly into the ocean is generally not observed, the typical pathway of pollutants is via groundwater, where it is partially remediated through the natural process of slow infiltration through soil and rock.

The facility would not increase runoff from the project site into the ocean and would treat all wastewater in conformance with strict permit requirements in order to avoid pollution. No marked effect to water quality or other marine conditions is expected to occur as a result of the project, and no adverse effect of any sort to any species of marine life is expected. The project, by its nature, will substantially benefit Hawaiian monk seals.

3.1.5 Noise

Environmental Setting

Noise on the project site is moderate to high based on its location about 2,000 feet from the nearest runway of Kona International Airport (KOA). Other minor sources of noise include adjacent aquaculture and educational land uses and the sea. Road noise is not significant, as major roadways are distant from the project site.

The noise descriptor used to assess environmental noise by many federal and State of Hawai‘i agencies, including Department of Housing and Urban Development (HUD), the Federal Aviation Administration (FAA) and the Hawai‘i Department of Transportation (DOT), is the Day-Night Average Sound Level (DNL). DNL is a representation of the average noise during a typical day of the year. DNL levels of 55 or less are typical of quiet rural or suburban areas. DNL exposure levels of 55 to 65 are typical of urbanized areas with medium to high levels of activity and street traffic. DNL exposure levels above 65 are representative of dense urban sites and areas near large highways or airports.

Various agencies have different standards of noise compatibility. HUD standards are as follows[1]:

- **Acceptable**. (DNL not exceeding 65 decibels) The noise exposure may be of some concern but common building constructions will make the indoor environment acceptable and the outdoor environment will be reasonably pleasant for recreation and play.
- **Normally Unacceptable**. (DNL above 65 but not exceeding 75 decibels) The noise exposure is significantly more severe; barriers may be necessary between the site and prominent noise sources to make the outdoor environment acceptable; special building constructions may be necessary to ensure that people indoors are sufficiently protected from outdoor noise.
- **Unacceptable**. (DNL above 75 decibels). The noise exposure at the site is so severe that the construction cost to make the indoor noise environment acceptable may be prohibitive and the outdoor environment would still be unacceptable.

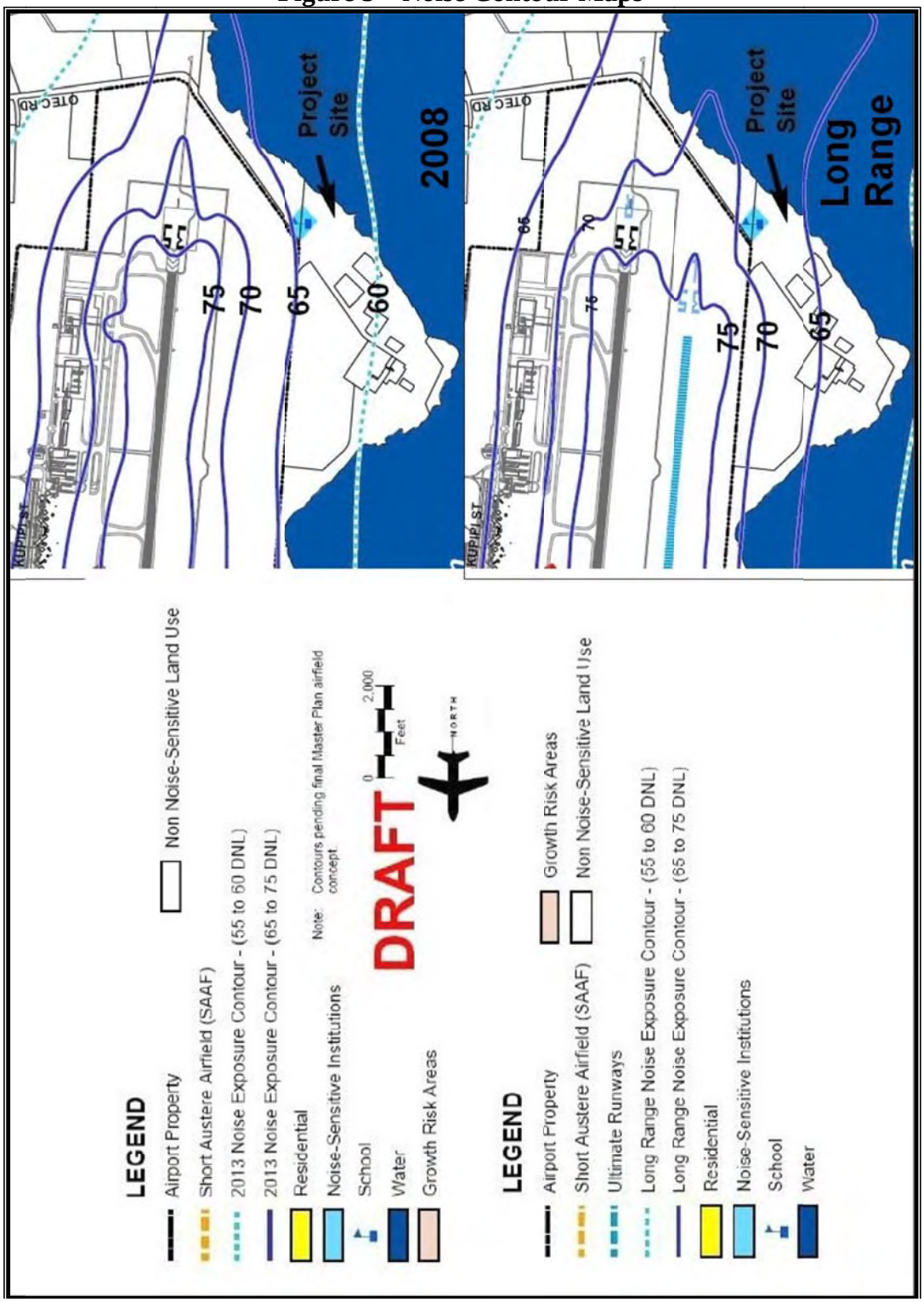
DOT Airports is currently completing its federally-required 14 CFR Part 150 Noise Compatibility Program (NCP) update for KOA. A draft report dated June 2009 is available at: (http://www.kona-airport.com/downloads/KOA%20150%20chpt%207.pdf).

Table 3 of the NCP provides recommendations for local land use compatibility with DNL sound levels. Its standards consider noise levels above 60 DNL generally incompatible with residential land uses without noise level reduction measures that reduce interior noise levels to 45 DNL or less. Commercial and government uses, as well as government services and office buildings serving the public, are considered compatible with noise levels that exceed 65 DNL only if noise reduction measures are incorporated into areas of the facility in which the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.

The 14 CFR Part 150 NCP for KOA also includes aircraft noise contour maps for current conditions (2008) as well as projections for the year 2013 and “long-range” (date undefined). These maps were developed using operational forecasts, existing aircraft flight tracks for the existing runway, and assumed flight tracks for a proposed new runway. Potential noise impacts from additional military operations at KOA were also investigated. Several relevant maps are duplicated in full in Appendix 3 of this EA, and Figure 5 below includes portions of the maps

[1] U.S. Department of Housing and Urban Development’s (HUD) *Noise Assessment Guidelines* (NAG), ; web-based *Day/Night Noise Level Assessment Tool* (V.1), HUD Office of Environment and Energy Environmental Planning Division.

Figure 5 Noise Contour Maps



Source: Figure adapted from 14 CFR Part 150 Noise Compatibility Program Update for Kona International Airport

focusing on the Hawaiian monk seal project site. The project site currently experiences noise less than 65 DNL, a condition which is modeled to persist until at least 2013. Long range, noise will increase substantially to between the 65 and 70 DNL contour, in the range of 68 DNL.

The updated 14 CFR Part 150 NCP for KOA includes measures to abate aircraft noise through pilot education, controlling land development, monitoring the impacts of noise on non-compatible land uses, and implementing and updating the program. As part of the program, DOT seeks to foster coordination between DOT Airports Division, Hawai‘i County, and the State Land Use Commission regarding development, land reclassifications, and rezoning proposals near the airport so that DOT Airports Division can have the opportunity to comment on projects and their potential impact on compatible land use development.

Impacts and Mitigation Measures

Construction would involve grading, compressors, vehicle and equipment engine operation. These activities may generate noise exceeding 95 decibels at times, impacting nearby noise sensitive receptors, including the adjacent West Hawai‘i Explorations Academy Public Charter School. In cases where construction noise is expected to exceed the State Department of Health (DOH) “maximum permissible” property-line noise levels, builders must obtain a permit per Title 11, Chapter 46, HAR (Community Noise Control) prior to construction. DOH reviews the proposed activity, location, equipment, project purpose, and timetable in order to decide upon conditions and mitigation measures, such as restriction of equipment type, maintenance requirements, restricted hours, and portable noise barriers. The Marine Mammal Center and/or its construction contractor will consult with DOH to determine if a permit will be required and what, if any, noise reduction measures are necessary. The Marine Mammal Center will also coordinate with the West Hawai‘i Explorations Academy Public Charter School to minimize inconvenience to the school.

Operationally, the facility would generate only insubstantial amounts of noise, principally from the pumps and filtration equipment, which produce a sustained low level hum. In addition, seals will occasionally bark. No impacts to adjacent uses are expected.

The KOA 14 CFR Part 150 Noise Compatibility Program classifies NELHA as a “non-noise sensitive use”, as shown in Figure 5 (and in more regional detail in the maps in Appendix 3). Regardless, The Marine Mammal Center recognizes the proximity to the airport and the potential for noise near 68 DNL within 20 years. Loud or distracting noise can have a negative impact on seals, but in the judgment of the project planners, who have frequently visited the site and have extensive experience with seal facilities in other urban areas, the noise levels are not significant enough to be a problem.

The Marine Mammal Center has considered DOT Airports land use compatibility criteria in its evaluation of the appropriateness of the site for human use as well. The facility will have office space, which is generally considered incompatible with noise levels exceeding 65 DLN, unless noise reduction measures are incorporated into areas of the facility in which the public is

received, office areas, noise-sensitive areas, or where the normal noise level is low. The facility design includes noise reduction measures in offices, which will have grout-filled concrete block walls, non-louver windows and air conditioning. This design will lower sound levels substantially. There are no noise reduction measures feasible for outdoor areas of the facility.

Through the EA process, The Marine Mammal Center is coordinating with DOT-Airports Division and the Hawai‘i County Planning Department to obtain recommendations on the compatibility of the land use and recommendations for measures that might mitigate noise further than those already planned.

3.1.6 Air Quality and Odors

Environmental Setting

Air quality in Hawai‘i is generally good, below criteria levels for most pollutants in most locations at almost all times. While there are no State DOH air monitoring stations in the immediate vicinity of the proposed facility, air quality in this relatively remote area can be considered to be in compliance with the State’s ambient air quality standards. The nearest DOH monitoring station is at Kealakekua, approximately 15 miles south of Keahole Point. Kealakekua is a more populated area with more motor vehicle traffic but has consistently demonstrated compliance with ambient standards over the years. Air pollution in West Hawai‘i is mainly derived from volcanic emissions of sulfur dioxide, which convert into particulate sulfate and produce a volcanic aerosol haze (vog) that persistently blankets North and South Kona,. The most noticeable degradation of air quality occurs when occasional southerly winds carry the vog into the area.

Impacts and Mitigation Measures

The proposed action will not measurably affect air quality except minimally during grubbing, grading and construction. In order to minimize impacts from dust, The Marine Mammal Center /or its contractor will consult with the Department of Health (DOH) and, if required, will prepare a dust control plan compliant with provisions of Hawai‘i Administrative Rules, Chapter 11-60.1, “Air Pollution Control,” and Section 11-60.1-33, “Fugitive Dust.”

Operationally, the project involves large sea mammals that can produce odors. However, the two to ten seals will be kept in pens cleaned several times a day and in pools with a life support system that constantly filters and cleans water. Solid waste will be kept in covered tanks that will not produce odor. The water disposed of in the discharge basins will already be relatively clean and will not be an odor source. Given these safeguards and the large project site, there is little likelihood that the facility will produce odors that would be offensive to neighboring users.

3.1.7 Scenic Resources

Environmental Setting

The general area around NELHA is a utilitarian landscape devoted to industrial, science and technology and aquaculture uses (see Figure 3). No sites considered significant for their scenic character in the Hawai‘i County General Plan are present nearby. The closest such sites are approximately three miles south at Kaloko Pond and five miles north at Makalawena Beach. While the area is designated for ocean-related industrial operations, a land use where scenic considerations are not paramount, the actual shoreline areas are scenic and used for public recreation. The project site lies between developed educational and aquaculture facilities.

Impacts and Mitigation Measures

The project will not detract from the scenic values of the area, which are focused on the coast rather than the project site, which exists in a context of other developed facilities. As shown in the Site Plan in Figure 4, the project facilities have been designed to be attractive as well as utilitarian.

3.1.8 Hazardous Substances, Toxic Waste and Hazardous Conditions

Existing Environment

No systematic assessment of the project site was conducted to determine if hazardous materials, toxic substances or other hazardous conditions are or may have once been present on the site. Reconnaissance of the very open site during topographic, botanical and design surveys did not reveal evidence of such conditions, nor have there been reports of such conditions. Because there is no evidence that the project site has been previously used or developed for any purpose, the potential for use or storage of regulated or hazardous chemicals onsite is low. Based on this, there does not appear at this time to be any outstanding concern related to these issues. If evidence of suspicious materials or conditions appears during excavation or other construction, The Marine Mammal Center may undertake a systematic assessment of the area in question to determine if further evaluation and remediation are required.

Impacts and Mitigation Measure

The project does not involve large quantities of hazardous materials or toxic substances. Diluted bleach and other disinfectants will be used to clean pens. Bleach or ozone may be used to treat pool water should coliform bacteria or other bacteria levels be out of range of holding guidelines. Small storage tanks with a capacity of less than 20 gallons will be used for these chemicals. All storage will be designed in conformance with appropriate standards. Small quantities of other chemicals such as soda ash and bicarbonate may be used to maintain pool pH. They are relatively low hazard and will not be used or stored in quantities sufficient to trigger government monitoring or reporting.

3.2 Socioeconomic and Cultural

3.2.1 Socioeconomic Characteristics and Land Use Compatibility

The project will not involve any effects on population or other socioeconomic factors. The only social consideration has to do with land use compatibility. As discussed in Section 3.6.2, the project appears to be completely conformant with all land use designations. This section addresses two specific issues: public shoreline recreation and airport operations.

Public Shoreline Recreation

Although the project site itself is 150 feet from the shoreline on a pahoehoe flat not known to be used by the public (see Figure 3 for photos), the area about 75 feet *makai* of the sublease area consists of vegetated pahoehoe/sand backshore with a public trail and moderate public use for hiking, fishing and gathering. In response to early consultation, Debbie Chang of the trail advocacy group E Mau Na Ala Hele affirmed the need to continue to allow lateral transit along a well established trail within this shoreline area (see email of November 1, 2010 in Appendix 1a). This trail area is likely to become a segment of the Ala Kahakai National Historic Trail. The project will not affect shoreline access in any way; avoiding impacts to sensitive cultural, biological and recreational resources of the shoreline was one of the factors in locating the project site well away from the shoreline.

Airport Operations

Compatibility of the facility with the expected noise levels of the airport are considered in Section 3.1.5, above. In relation to the compatibility with other aspects of airport operations, the Federal Aviation Administration (FAA) was consulted during early consultation. Emails from the FAA are contained in Appendix 1a. In brief, the FAA is concerned about the safety of airport operations and users adjacent to the airport. The agency asked for assurances that the facility would not be a wildlife attractant for birds and for demonstration that the area is outside the runway protection zone. Furthermore, because of the proximity to the airport, the FAA requires The Marine Mammal Center to file a Form 7460-1 for the proposed structure and a separate one for any construction crane that will be used. The FAA will conduct an aeronautical study on the proposal.

Consultation of maps and communications from the FAA indicate that the property is outside the current and future proposed runway protection zone. The pools are designed to be under a covered structure to avoid being attractants to birds. The Marine Mammal Center has begun filing the Form 7460-1 for the FAA aeronautical study. From current data, it would appear that the project, as with development that lies immediately adjacent, is compatible with airport operations, and that construction of the operation of the facility will not pose a hazard to the airport, staff, animals or the general public.

3.2.2 Archaeological Resources

Existing Resources

Between 1930 and 1989 there were at least eight archaeological studies conducted that included the current project site (see Appendix 2 for archaeological letter report including detailed background). Within the larger limits of Parcel 42 (which encompasses 166.278 acres and stretches almost a half mile along the shoreline), these studies resulted in the identification of 24 archaeological sites containing more than 60 individual features. Although no sites have been recorded within the actual project site, one site State Inventory of Historic Places (SIHP) Site 10205, is located roughly 50 feet to the west of the project site boundary (see Figure 4a for location and Figure 3b for photo of archaeological site). SIHP Site 10205 is a complex of four features associated with late Precontact/early Historic Period habitation. The southeast corner of the lot created for the Hawaiian monk seal facility was configured partially to avoid disturbance to this existing archaeological site.

In response to early consultation, the State Historic Preservation Division (SHPD) stated:

> "We have been in communication with Mr. Gajadhar of K&G Architects regarding the preliminary plans and lay-out of this facility; and SHPD staff conducted a site visit to the area in connection with an archaeological preserve for SIHP Site 10205. During this consultation, it was suggested that the boundaries of the parcel to be leased for this project would be modified to exclude Site 10205 and a 50 foot setback from the buffer zone that was included in the metes and bounds of the site…. We have no objections to the modification of the leased parcel boundaries in order to avoid the site and its buffer zone. However, this action does not in itself ensure protection of the site, nor does it identify a responsible entity for the maintenance and monitoring of the site. The survey map transmitted to us suggests that the site is being subdivided into a distinct parcel of its own. This could potentially cause unanticipated effects if there are no provisions in place to ensure maintenance and monitoring of site conditions. We recommend that NELHA complete a preservation plan for the site, or delegate this responsibility to a leaseholder.
>
> We also note that we have no records of an updated inventory survey or inspection of the project area to confirm the presence or absence of additional historic properties. Our staff did not conduct an inspection of the entire project area during the prior site visit regarding Site 10205. We have found that the earlier archaeological surveys conducted of this area missed sites, or did not record certain categories of sites. We therefore request that the EA include a report of a field inspection of the property by a qualified archaeologist. If additional historic properties are identified, an inventory survey report will be requested by our office" (see full response in Appendix 1a).

In response to the SHPD request, the entire 2.6-acre project site was intensively resurveyed for archaeological sites by Rechtman Consulting, LLC in December 2010. As detailed in Appendix 2, no new archaeological sites were identified, and the location of Site 10205 outside of the project site boundary was confirmed.

Impacts and Mitigation Measures

No archaeological resources are present on the project site and thus none will be affected by ground disturbing activities. Construction plans will include specifications to avoid direct or indirect disturbance to Site 10205. Prior to construction, Site 10205 will be marked and enclosed with orange construction fencing to clearly demarcate construction limits and assist in avoiding disturbance. With regard to the permanent preservation, Site 10205 has been approved for preservation and it is situated within a portion of the shoreline area that NELHA has monitored and maintained for decades with no disturbance. NELHA officials stated that they are planning to complete a preservation plan for this site within the next year.

In addition, in the unlikely event that archaeological resources or human remains are encountered during construction or operation of the facility, work in the immediate area of the discovery will be halted and SHPD contacted as outlined in Hawai‘i Administrative Rules 13§13-275-12.

3.2.3 Cultural Practices and Sites

Cultural-Historical Background

According to the model developed by Kirch (1985), the Settlement or Colonization period of Hawai‘i was between A.D. 300-600, with colonists possibly from the southern Marquesas Islands. Early Hawaiian farmers developed new subsistence strategies during this period, adapting familiar patterns and traditional tools for use in their new environment. Order was kept through adherence to their ancient and ingrained philosophy of life and through the principle of genealogical seniority. Hawaiians brought from their homeland a variety of Polynesian customs including the major gods of Kane, Ku and Lono; the kapu system of law and order; *pu‘uhonua* or places of refuge or asylum; the *‘aumakua* concept of a family or ancestral spirit and the concept of *mana*.

The Development Period, which lasted from A.D. 600-1100, brought changes that included an evolution of traditional tools as well as some distinctly Hawaiian inventions. The evolution of the adze was an example of the former, while the latter included the two-piece fishhook and the octopus-lure breadloaf sinker. Another invention was the *lei niho palaoa*, an item worn by those of high rank which represented a trend toward greater status differentiation.

The Expansion Period from A.D. 1100 to 1650 saw an increase in social stratification and major socioeconomic changes. It also was a time of expansive settling, with the development of the most favorable windward areas as well as more marginal areas on the island’s leeward side. This was the time of the greatest population growth as large, irrigated field systems were developed and expanded into more arid areas. *Loko* or fishpond aquaculture also flourished during this period, excellent examples of which are contained three miles south of Keahole Point at Kaloko. The second major migration to Hawai‘i also occurred during the Expansion Period, with the settlers for this expansion coming from Tahiti in the Society Islands.

The concept of the *ahupua‘a* was established in Hawai‘i during the 15th century, adding a new component to what was already a well-stratified society. *Ahupua‘a* were usually wedge or pie-shaped, encompassing all of the eco-zones from the mountains to the sea and extending several hundred yards beyond the shoreline, assuring a diverse subsistence resource base. This land unit became the equivalent of a local community with its own social, economic and political significance.

Ahupua‘a were ruled by *ali‘i ‘ai ahupua‘a* or lesser chiefs and managed by a *konohiki*. *Ali‘i* and *maka‘ainana*, or commoners, were not confined to the boundaries of *ahupua‘a* as resources were shared when a need was identified. Ahupua‘a were further divided into smaller sections such as *‘ili, mo‘o‘aina, pauku‘aina, kihapai, koele, hakuone and kuakua*. The chiefs of these land units have their allegiance to a territorial chief or *mo‘i* (often translated as king).

An increase in war marked the Proto-Historic Period (A.D. 1650-1795), both locally and between islands. Hawai‘i’s history took a sharp turn on January 18, 1778 with the arrival of British Capt. James Cook in the islands. On a return trip to Hawai‘i 10 months later, with the Maui turmoil still raging, Kamehameha visited Cook aboard his ship the *Resolution* off the east coast of Maui and helped Cook navigate his way to Hawai‘i Island. Cook exchanged gifts with Kalaniopu‘u at Kealakekua Bay the following January, and Cook left Hawai‘i in February. However, Cook’s ship then sustained damage to a mast in a severe storm off Kohala and returned to Kealakekua, setting the stage for his death on the shores of the bay.

The following year, in 1780, Kalaniopu‘u designated his son, Kiwalao, to be his successor, and granted Kamehameha guardianship of the war god Kuka‘ilimoku. When it appeared Kiwalao was not honoring his land claims, Kamehameha usurped Kiwalao’s authority with a sacrificial ritual and retreated to his district of Kohala where he farmed the land, growing taro and sweet potatoes. Civil war broke out when Kalaniopu‘u died in 1782 and Kiwalao was killed. The wars between Maui and Hawai‘i Island would continue until 1795.

Two American vessels visited Hawaiian waters in 1790. The crew of one of the ships, the *Eleanor*, massacred more than 100 Hawaiians at Olowalu on Maui before leaving crewmember John Young on land. The other vessel, the *Fair American*, was captured off the western coast of Hawai‘i and its entire crew – with the exception of Isaac Davis – was killed. Kamehameha did not take part but kept the *Fair American* as part of his fleet. Young eventually made his way to Hawai‘i Island where he became governor, living at Kawaihae.

By 1796, Kamehameha had conquered every island kingdom except Kauai, but it wasn’t until 1810, after Kaumuali‘i of Kauai pledged his allegiance to Kamehameha, that all of the Hawaiian Islands were unified under a single ruler. Subsequently there was a continuation of the trend toward intensification of agriculture, *ali‘i*-controlled aquaculture, settling of upland areas and development of traditional of oral history. However, the western influence was being felt in the introduction of trade for profit and a market-system economy. By 1810, the sandalwood trade established by Europeans and Americans twenty years earlier was flourishing. That contributed to the breakdown of the traditional subsidence system, as farmers and fishermen were required to toil at logging which resulted in food shortages and a decline in population.

Following the death of Kamehameha I in 1819, the customary relaxing of *kapu* took place. But with the introduction of Christianity shortly thereafter, his successor, Kamehameha II, renounced the traditional religion and ordered that *heiau* structures either be destroyed or left to deteriorate. The family worship of *ʻaumakua* images was allowed to continue.

The Protestant missionaries who arrived from Boston in 1820 soon were rewarded with land and government positions as many of the *aliʻi* were eager to assimilate western-style dress and culture. But at the same time, the continuing sandalwood trade was becoming a heavier burden on commoners. The rampant sandalwood trade resulted in the first Hawaiian national debt, as promissory notes and levies granted by American traders were enforced by American warships. The assimilation of Western ways continued with the short-lived whaling industry to the production of sugarcane, which was more lucrative but carried a heavy environmental price.

The Mahele ʻAina that took place in 1848 placed all land in Hawaiʻi into three categories: Crown Lands, Government Lands and Konohiki Lands. Ownership rights were "subject to the rights of the native tenants," or those individuals who lived on the land and worked it for their subsistence and for their chiefs. This land tenure change, while useful for promoting a western-style economy, led to alienation of many Hawaiians from the land and disrupted the older subsistence economy and culture. By the late 19th century, Hawaiʻi was no longer an independent kingdom, having been annexed by the United States as part of its imperial expansion in the Pacific.

The next significant change in the Territory and later State of Hawaiʻi was the beginning of tourism and the influence of the military, leading to urbanization and modernization, in the context of a multi-ethnic society that had been created by the immigration of sugar cane laborers. For rural areas of Hawaiʻi such as Kona, the first half of the 20th century years saw less urbanization and instead was dominated by agriculture, cattle ranching, and the initial phases of tourism. Just as native Hawaiian cultural practices became severely threatened by encroaching land use and loss of the language and culture, the native Hawaiian renaissance from the 1970s onward re-energized the culture.

Kalaoa and Kekaha

The project site is located in the *ahupuaʻa* of Kalaoa in the district of North Kona. The cultural context of Kalaoa must take into account its place within northernmost portion of North Kona, called "Kekaha", a term used to describe an arid coastal region. Native residents of the region affectionately referred to their home as Kekaha-wai-ʻole o nā Kona ("Waterless Kekaha of the Kona district"), or simply as the *ʻāina kaha*. Kepā Maly conducted a study of the lands of Honokōhau in 2000. His report is an excellent source of cultural information for all lands in Kekaha. The study used both archival-historical research and oral history interviews with descendants of the native Hawaiian families and others who were known to be familiar with the natural and cultural landscape and history of land use in Honokōhau and the Kekaha region.

Kona was apparently first settled along the sheltered and watered bays in the region extending south from Kailua. As population increased, people began establishing permanent settlements in

arid Kekaha. Kona, like other large districts on Hawai‘i, was divided into ‘*okana* or *kalana* (ancient regions). In the region now known as Kona ‘akau (North Kona), there are several *kalana*. The southern portion of North Kona was known as “Kona kai ‘ōpua” (interpretively translated by Maly as “Kona of the distant horizon clouds above the ocean”), and included the area extending from Lanihau (the present-day vicinity of Kailua Town) to Pu‘uohau. The inhabitants of Kekaha developed unique relationships of harmony with their delicate environment, scarce in fresh water but rich in marine resources. They built extensive fishponds at ‘Aimakapā and ‘Ai‘ōpio, practiced salt making in various locations, carefully nurtured *mauka* agricultural field systems, and gathered diverse forest and mountain resources. A number of *wahi pana* or storied places associated with history and legend are present, and there are also *heiau* and other features that have vital functions in symbolizing and enabling the relationship among the Hawaiian people, resources, and spiritual activities.

As with many other regions of rural Hawaii, the cumulative effects of cultural change, market economies, the attractions of larger towns such as Honolulu and Lahaina and the wider world, and the scourge of Western diseases served to depopulate Kekaha. By the time of the *Māhele,* Kalaoa was divided into five *ahupua‘a*, Kalaoa 1st through 5th. All five of the Kalaoa *ahupua‘a* were retained as Government lands. No *kuleana* (plots claimed by commoners or *maka‘ainana* for residence or farming) were claimed in the Keahole Point area.

In 1924 J.W.H.I. Kihe wrote of schools that existed around 1870 when at Kiholo, Makalawena, Kalaoa and Kaloko, and the changes that took place:

> “It was when they stopped teaching in Hawaiian, and began instructing in English, that significant changes took place among our children. Some of them became puffed up and stopped listening to their parents. The children spoke gibberish (English) and the parents couldn’t understand (na keiki namu). Before that time, the Hawaiians weren’t marrying too many people of other races. The children and their parents dwelt together in peace with the children and parents speaking together ....”

Kihe also spoke of the loss of residents in the area since the time of his youth:

> “The lands of Honokohau were filled with people in those days, there were many women and children with whom I traveled with joy in the days of my youth. Those families are all gone, and the land is quiet. There are no people, only the rocks remain, and a few scattered trees growing, and only occasionally does one meet with a man today [1924]. One man and his children are all that remain.”

A survey by John Reinecke for Bishop Museum also found the shoreline along Kekaha had historically been a desirable place to live when fishing was a mainstay of the region. However, by the time Reinecke carried out his survey in 1930, the population along the coast from Kailua to Kawaihae had dwindled to less than 75. He also found a paucity of archaeological sites, which he attributed to several factors, including destruction by man and cattle-grazing, and to storms that swept over the low-lying coast.

At least two trails of regional importance passed through the lands of Kalaoa including the *alaloa***,** parts of which were later modified beginning in the 1840s into what is now known as the *Alanui Aupuni* (Government Road) or Mamalahoa Trail or King's Highway. The trail crossed the *makai* lands to link royal centers and coastal communities and remained in use in some form through the 1970s. Remnants of the trail are present about a mile *mauka* of the Hawaiian monk seal project site. Construction of the airport removed the extension north across Kalaoa. It was not until the Queen Kaʻahumanu Highway was opened in the early 1970s that travel for the general public was possible across the shoreward plains of much of Kekaha.

The other major thoroughfare of the region was the Kealaehu (the path of Ehu) which passes through the uplands, generally a little above the *mauka* Government Road and then shifts down to Kiholo. There were also various trails from the uplands to the coast known as *ala piʻi uka* or *ala piʻi mauna* (trails that ascend to the uplands or mountains), including one leading to Honokōhau and another near the Kaloko-Kohanaiki boundary. Use of these trails continued through the 1950s.

Cattle ranching, which began in the mid-1800s, changed traditional agricultural practices and necessitated construction of rock walls to control the movement of livestock. Even the arid district of Kekaha saw considerable grazing.

20th century trends in Kona paralleled those in other districts of Hawaiʻi, but its rural nature insulated it to some degree from severe change at first. Cattle ranching and coffee farming continued their importance. The development of tourism was slower in Kona, with the first major hotel, the Kona Inn, not being built until 1928. Starting in the 1960s, the area between Kailua-Kona and Keauhou became increasingly dedicated to resort residential land use, while Kekaha for many decades had only one hotel, the Kona Village. Despite this, Kekaha became intimately involved in tourism with the development of the Kona International Airport (to replace the small airport just north of Kailua) along with construction of the Queen Kaʻahumanu Highway, which provided a *makai* link between the resort areas of Kona and Kohala.

As the 20th century wore on, the isolated beaches of Kekaha that were formerly enjoyed only by Hawaiian families and ranchers (whose members frequently overlapped) were converted to easily accessible public parks and the "backyards" of hotels and resort residential housing. Nevertheless, even in this somewhat challenging and transformed environment, native Hawaiians continue their cultural practices, in the form of fishing, gathering, and ceremonial uses. The importance of perpetuating access for these practices and the rights of native Hawaiians to continue them have been affirmed in several Hawaiʻi Supreme Court decisions involving land use in Kona.

Cultural Resources

Valued natural, cultural and historical resources are still present and used in various parts of Kekaha, including Kalaoa. On the widest level, the entire range of *wao* that make up the *ahupuaʻa*, from the *kahakai* (shoreline) to the *wao akua* (cloud forests), have a level of cultural

importance. More specifically, *koa* fishing grounds and the natural landmarks such as *pu‘u* (hills) that guide fishermen to them are examples. Springs, ponds, and other coastal water features may have not only biological but also cultural significance. Burial sites for *‘iwi kupuna*, including caves, are important resources to protect, as are some other archaeological resources.

No such resources exist on the project site. No caves, springs, *pu‘u*, gathering resources or other natural features are present on or near the project site that would support any traditional resource uses. The archaeological sites that are present near but not on the project site will be protected (see Section 3.2.2 for discussion). There are no known burials on or near the project site. Aside from activities on the shoreline, which will in no way be affected for infringed upon, no Hawaiian customary and traditional rights or practices are known to be associated with the area. The rare plant *maiapilo* (*Capparis sandwichiana*), used in traditional Hawaiian medicine, is present in and surrounding the project site. As discussed in Section 3.1.4, the locations of *maiapilo* plants have been recorded. Many are outside the project footprint, and construction will avoid all plants to extent feasible and will incorporate existing individuals and/or plant *maiapilo* and other native Hawaiian plants in the facility landscaping. Continued traditional use of *maiapilo* can occur through plants surrounding the project site.

The Office of Hawaiian Affairs in Honolulu and West Hawai‘i, the trail advocacy group E Mau Na Ala Hele, and the Kona Hawaiian Civic Club were consulted by letter on October 26, 2010, to determine whether they have any information concerning whether cultural resources or practices might nevertheless be present. Response letters to date have not indicated any specific resources or practices.

Impacts and Mitigation Measures

As there appear to be few natural resources of a potential traditional cultural nature (i.e., landform, vegetation, etc.), and none that would be significantly impacted, and no evidence of any traditional gathering uses or other cultural practices on this industrial albeit near the shoreline lot, and because design has ensured that archaeological sites will be fully protected during construction and operation, the proposed construction of the monk seal rehabilitation facility would not likely impact any culturally valued resources or cultural practices.

It is also important to note that recovery of the Hawaiian monk seal has cultural importance to many native Hawaiians. William Ailā Jr., a former Wai‘anae harbor master, member of Hawai‘i’s federally appointed Monk Seal Recovery Team, and newly-nominated Chair of the Hawai‘i Board of Land and Natural Resources, stated in an article in the Office of Hawaiian Affairs online magazine that although Hawaiian monk seals may not be as prominent in Hawaiian legend and *oli* as other sea creatures, like turtles and sharks, he believes that translation of more ‘ōlelo, Hawai‘i newspapers and other written materials may reveal a greater import. According to Ailā, “Monk seals should be regarded as our brothers and sisters in the sea and accorded the right respect” (Simon 2010).

The Office of Hawaiian Affairs was supplied a copy of the Draft EA for its comment on these findings.

3.3 Infrastructure

3.3.1 Utilities and Public Services

Existing Facilities and Services,

Electrical power to the facility would be supplied to the project area by Hawai‘i Electric Light Company (HELCO), a privately owned utility company regulated by the State Public Utilities Commission, via a line on the NELHA Access Road. Telephone and data service is available from Hawaiian Telcom. Water service is available via at the existing water line along the main NELHA road.

No sanitary sewer system or other wastewater treatment is available on or near the project site.

Fire, police and emergency management services are readily available in this part of Kona. A police substation is located in Kealakehe, about five road miles way. A fire station is located on Palani Road, approximately seven miles away by road, and there is also a fire station at Kona International Airport, just north of NELHA. EMT services are provided by the Hawai‘i County Fire Department. Acute care services are available at Kona Hospital, approximately 15 miles to the south.

Impacts and Mitigation Measures

As discussed in more detail in Section 1.3, electricity and telephone/data service will be installed in underground lines via a trench from the NELHA main road along the project site access road. NELHA-supplied cold and warm seawater, as well as potable water, will be provided via underground water lines installed from the main road along the access road. Although still in design, it is anticipated that potable water will be supplied via a 3-inch or 6-inch line, warm seawater via a six-inch line, and cold seawater via a four-inch line. An Individual Wastewater System (IWS) will be installed for human wastewater. Solid waste from the facility will be minimal, and the facility will have an aggressive recycling policy. Disposal of residual waste will be by a commercial refuse company. Solid waste generated during construction will be dealt with appropriately. A solid waste management plan is in development for review by the County Department of Environmental Management. The reader is referred to Section 3.1.3 for discussion of seal wastewater and solid waste.

3.3.2 Transportation

The facility will generate minimal traffic, with an estimated maximum of eight paid and volunteer workers at any given time. Small groups of visitors will periodically be accommodated by special appointment. A total of eight parking stalls is proposed. Traffic during construction will also be minimally disruptive, and no mitigation measures are warranted.

3.4 Secondary and Cumulative Impacts

The proposed project is minor and does not appear to have the potential to involve any secondary impacts, such as population changes or effects on public facilities. Cumulative impacts result when implementation of several projects that individually have limited impacts combine to produce more severe impacts or conflicts in mitigation measures.

The adverse effects of the project are very limited in severity, nature and geographic scale. At the current time there appear to be very few roadway, utility or development projects being undertaken in the NELHA area that would combine in such a way as to produce adverse cumulative effects related to the construction phase, such as dust, water quality, or traffic congestion.

The multiple-use O‘oma Beachside Village, which lies directly to the south and for which a number of studies were prepared during 2008-2010, has been rejected by the State Land Use Commission and will not proceed. Various projects to expand and improve the Kona International Airport are likely to occur over the next years, but none would interact in any substantial way with the Monk Seal Rehabilitation Facility (see discussion on the special case of noise in 3.1.5, above). Further improvement to the Queen Ka‘ahumanu Highway (State Highway 19) will also be undertaken over the next 10 years, but again, these would not interact in any substantial way with the proposed facility. Additional facilities at NELHA are also anticipated, including the relocation of the West Hawaii Explorations Academy Public Charter School, but even if several projects occur at once the relatively minor scale of the projects and the spacing of lots within NELHA would prevent adverse affects from accumulating.

The principal cumulative impact is beneficial. With establishment of the facility, separate efforts by Pacific Islands Fisheries Science Center and other agencies and organizations will combine to improve seal pup survival, increase the population growth rate, and increase the chances of the recovery of the endangered Hawaiian monk seal. This will help counter the combination of factors that has reduced a population of unique mammals that has inhabited the Hawaiian archipelago for millions of years.

3.5 Required Permits and Approvals

The project requires granting the following permits and approvals:

- County of Hawai‘i, Department of Public Works, Building Division Approval and Building Permit
- County of Hawai‘i, Department of Public Works, Engineering Division, Grading Permit
- County of Hawai‘i, Planning Department Plan Approval
- County of Hawai‘i, Special Management Area Permit (obtained in previous approvals)
- State Department of Health, National Pollutant Discharge Elimination System Permit and Individual Wastewater System Permit
- Natural Energy Laboratory of Hawaii and Hawaii Authority, Development and Design Guidelines Approval
- State Historic Preservation Division, Chapter 6e Historic Sites Clearance
- Federal Aviation Administration, Aeronautical Study Clearance

3.6 Consistency with Government Plans and Policies

3.6.1 Hawai‘i State Plan and Hawai‘i State Land Use Law

Adopted in 1978 and last revised in 1991 (Hawai‘i Revised Statutes, Chapter 226, as amended), the Plan establishes a set of themes, goals, objectives and policies that are meant to guide the State's long-run growth and development activities. The three themes that express the basic purpose of the *Hawai‘i State Plan* are individual and family self-sufficiency, social and economic mobility and community or social well-being. The proposed facility would improve community well-being by helping recover an endangered species.

Chapter 205 Hawai‘i Revised Statutes classifies all land in the State of Hawai‘i into one of four land use categories – Urban, Rural, Agricultural, or Conservation – and determines permissible uses in each district. The project site is in the State Land Use Urban District. The proposed use is consistent with intended uses for this land use district.

3.6.2 Hawai‘i County Zoning, General Plan and Special Management Area

The project site is zoned MG, General Industrial. According to the Hawai‘i County Code, Zoning, Section 25-5-152, "Permitted Uses", the following uses shall be permitted in the MG district:

(3) Animal hospitals.
(4) Animal quarantine stations.

The proposed project is consistent with the permitted uses of this zoning district.

The *General Plan* for the County of Hawai‘i is a policy document expressing the broad goals and policies for the long-range development of the Island of Hawai‘i. The plan was adopted by ordinance in 1989 and revised in 2005 (Hawai‘i County Planning Department). The *General Plan* itself is organized into thirteen functional elements. In general, the proposed project would be consistent with the goals, policies and objectives, standards, and principles for several functional areas. This section addresses the consistency of the proposed action with relevant policies of the County.

Economic Goals

- Economic development and improvement shall be in balance with the physical and social environments of the island of Hawai‘i.

Economic Policies:

- The County of Hawai‘i shall continue to encourage the expansion of the research and development industry by working with and supporting the university, private sector, and other agencies’ programs developed to aid the County of Hawai‘i.
- The County shall promote a distinctive identity for the island of Hawai‘i to enable government, business and travel industries to promote the County of Hawai‘i as an entity separate and unique within the State of Hawai‘i.

Discussion: The proposed project is consistent with the economic goals and policies of the General Plan. The proposed action would be operated by a non-profit entity devoted to the care of marine mammals and would provide jobs and promote conservation and education for the benefit of all residents of the State and County of Hawai‘i.

Environmental Quality Goals:

- Define the most desirable use of land within the County that achieves an ecological balance providing residents and visitors the quality of life and an environment in which the natural resources of the island are viable and sustainable.
- Maintain and, if feasible, improve the existing environmental quality of the island.
- Control pollution.

Environmental Quality Policies:

- Take positive action to further maintain the quality of the environment.

Discussion: The proposed facility incorporates measures to prevent pollution and has as its mission the improvement of environmental quality through the recovery of a critically endangered species.

Historic Sites Goals:

- Protect and enhance the sites, buildings and objects of significant historical and cultural importance to Hawai‘i. Access to significant historic sites, buildings and objects of public interest should be made available.

Discussion: No archaeological sites are present and the project will incorporate measures to prevent damage to an existing historic site located off the property.

Natural Beauty Goals:

- Protect scenic vistas and view planes from becoming obstructed. Maximize opportunities for present and future generations to appreciate and enjoy natural and scenic beauty.

Natural Beauty Policies:

- Increase public pedestrian access opportunities to scenic places and vistas.

Discussion: The proposed facility would not degrade the scenic environment of the shoreline nor inhibit public pedestrian access along the shoreline trail.

Natural Resources and Shorelines Goals:

- Protect and promote the prudent use of Hawaii's unique, fragile, and significant environmental and natural resources.

Natural Resources and Shorelines Policies:

- Require users of natural resources to conduct their activities in a manner that avoids or minimizes adverse effects on the environment.
- Protect the shoreline from the encroachment of man-made improvements and structures.
- Ensure public access is provided to the shoreline, public trails and hunting areas, including free public parking where appropriate.

Natural Resources and Shorelines Standards

The following shall be considered for the protection and conservation of natural resources.

- Areas necessary for the protection and propagation of specified endangered native wildlife, and conservation for natural ecosystems of endemic plants, fish and wildlife.

Discussion: The proposed project would not degrade the scenic environment of the shoreline nor inhibit access to the shoreline. It would help protect and maintain the propagation of endangered native wildlife.

Land Use Goals:

- Designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County.
- Protect and preserve forest, water, natural and scientific reserves and open areas.

Land Use Standards

- The designated land uses will be delineated on the General Plan Land Use Pattern Allocation Guide Map. The broad-brush boundaries indicated are graphic expressions of the General Plan policies, particularly those relating to land uses. They are long-range guides to general location and will be subject to: a) existing zoning; and b) State Land

Use District. Similarly, the acreages allocated represent alternatives for the various levels of economic activity and supporting functions, such as resort, residential, commercial and industrial activities. Land required for community and governmental services and programs as well as new towns and resort centers may be accommodated within the allocated acreages.

Discussion: The *Hawai‘i County General Plan Land Use Pattern Allocation Guide (LUPAG) and Facilities Map* components of the *General Plan* are graphic representations of the Plan's goals, policies, and standards as well as of the physical relationship between land uses. They also establish the basic urban and non-urban form for areas and the planned public and cultural facilities, public utilities and safety features, and transportation corridors. The project site is classified as Industrial in the LUPAG. The proposed project is consistent with this designation. The proposed facility would be conveniently located with respect to utilities, public services and access.

The project site is within the Special Management Area of the Hawai‘i Coastal Zone. According to a letter from the Hawai‘i County Planning Department in response to early consultation (see Appendix 1a), the project was previously determined by the Department to be covered by SMA permit No. 77, as amended, which allows for ocean energy and allied research and development facilities and related improvements on the subject parcel.

3.6.3 Kona Community Development Plan

The Kona Community Development Plan (CDP) encompasses the judicial district of North and South Kona, and was developed under the framework of the February 2005 County of Hawai‘i General Plan. Community Development Plans are intended to translate broad General Plan Goals, Policies, and Standards into implementation actions as they apply to specific geographical regions around the County. CDPs are also intended to serve as a forum for community input into land-use, delivery of government services and any other matters relating to the planning area.

The General Plan now requires that a Community Development Plan shall be adopted by the County Council as an "ordinance," giving the CDP the force of law. This is in contrast to plans created over past years, adopted by "resolution" that served only as guidelines or reference documents to decision-makers. The Kona CDP was adopted in September 2008 by the County Council. The version referenced in this Environmental Assessment is at:
http://www.hcrc.info/community-planning/north-and-south-kona-cdp/cdp-final-drafts/Final%20KCDP_Sept%202008_text.pdf

The Plan has many elements and wide-ranging implications, but there are several major strategies that embody the guiding principles related to the economy, energy, environmental quality, flooding and other natural hazards, historic sites, natural beauty, natural resources and shoreline, housing, public facilities, public utilities, recreation, transportation and land use.

The Monk Seal Rehabilitation Facility is generally consistent with all aspects of the Kona CDP. It is in keeping with the plan's guiding principles in Chapter 3, including particularly item No. 1:

> **Protect Kona's natural resources and culture.**

It also conforms with item No. 7:

> **Encourage a diverse and vibrant economy emphasizing agriculture and sustainable economies.**

The project is also consistent with aspects of the economic development strategy expressed in Section 4.8, particularly in it support of initiatives such as:

> **Ecosystem Services. The concept of ecosystem services attempts to make conservation a viable business option. The policies encourage the further exploration and development of this concept.**

In recognition of the sensitive cultural, biological and recreational resources of the shoreline, The Marine Mammal Center sited the project 150 feet from the shoreline on a pahoehoe flat about 75 feet *mauka* of a vegetated pahoehoe/sand backshore with a public trail and moderate public use for hiking, fishing and gathering. Through the EA process the project is coordinating with the trail advocacy group E Mau Na Ala Hele and the National Park Service's Ala Kahakai National Historic Trail. The project will not affect shoreline access in any way, and it is not inconsistent with efforts in the CDP to encourage larger shoreline setbacks and protect public use of shoreline areas:

> **Action LU–1.5 b: Identify priority shorelines for increased setback as part of Policy ENV-2.1 Open Space Network Program (PD, PR, 1-2).**
>
> **Policy LU-1.6: 17-Mile Protected Coastline**: As part of any discretionary land use approvals such as SMA major permits, rezonings, and state land use boundary amendments, implement the vision of a 15 mile long protected stretch of open coastline from Makaeo north to Kikaua Pt. at the Kuki‘o development. Most of this area is already publicly owned and much of it has already been set aside for park purposes. This incorporates the Kaloko-Honokōhau National Historical Park, the portion of Kohanaiki that will be deeded to the County under the terms of the existing SMA permit, the makai portion of O‘oma 2, NELHA and state lands makai of the airport runway, to the extent that they can be used for public recreation consistent with the requirements of NELHA and the airport, the Kekaha Kai State Park, and Makalawena.

3.6.4 Consistency with HRS Chapter 227-D

HRS Chapter 227D states the following:

> **"§227D-2 Establishment of the natural energy laboratory of Hawaii authority; purpose.** (a) There is established the natural energy laboratory of Hawaii authority, which shall be a body corporate and politic and an instrumentality and agency of the State. The authority shall be placed within the department of business, economic development, and tourism for administrative purposes, pursuant to section 26-35. The purpose of the natural energy laboratory of Hawaii authority shall be to facilitate
> research, development, and commercialization of natural energy resources and ocean-related research, technology, and industry in Hawaii and to engage in retail, commercial, or tourism activities that will financially support that research, development, and commercialization at a research and technology park in Hawaii. Its duties shall include:"
>
> 1) Establishing, managing, and operating facilities that provide sites for:
> (A) Research and development;
> (B) Commercial projects and businesses utilizing natural resources, such as ocean water or geothermal energy;
> (C) Compatible businesses engaged in scientific and technological investigations, or retail, commercial, and tourism activities; and
> (D) Businesses or educational facilities that support the primary
> projects and activities…"

Aside from its importance in recovering a critically endangered species, the proposed project is consistent with the ocean-related research objectives of NELHA. A Monk Seal Rehabilitation Facility would be a legal and suitable tenant of NELHA.

PART 4: DETERMINATION

Based on the findings below, the Natural Energy Laboratory of Hawaii Authority is expected to determine that the project will not significantly alter the environment, as impacts will be minimal, and is expected therefore to issue a Finding of No Significant Impact (FONSI). A final determination will be made upon consideration of comments to the Draft EA.

PART 5: FINDINGS AND REASONS

Chapter 11-200-12, Hawai‘i Administrative Rules, outlines those factors agencies must consider when determining whether an Action has significant effects:

1. *The proposed project will not involve an irrevocable commitment or loss or destruction of any natural or cultural resources.* No valuable natural or cultural resources would be committed or lost. A few individuals of the relatively rare plant *maiapilo* are present on and surrounding the site. These plants will be avoided as feasible and new *maiapilo* will be used for landscaping. Cultural resources have been inventoried, and no significant resources are present. A nearby archaeological site will be protected during construction and operation of the facility.
2. *The proposed project will not curtail the range of beneficial uses of the environment.* The proposed project expands and in no way curtails beneficial uses of the environment.
3. *The proposed project will not conflict with the State's long-term environmental policies*. The State’s long-term environmental policies are set forth in Chapter 344, HRS. The broad goals of this policy are to conserve natural resources and enhance the quality of life. The project is minor and fulfills aspects of these policies calling for an improved environment. It is thus consistent with all elements of the State’s long-term environmental policies.
4. *The proposed project will not substantially affect the economic or social welfare of the community or State.* The project will not adversely affect the social welfare of the community and will contribute to the economy and social welfare.
5. *The proposed project does not substantially affect public health in any detrimental way.* The project will not affect public health in any way; wastewater and stormwater will be appropriately treated. Noise has been taken into careful consideration in project siting and design.
6. *The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities*. No adverse secondary effects are expected to result from the project.
7. *The proposed project will not involve a substantial degradation of environmental quality*. The project is minor, and would thus not contribute to environmental degradation.
8. *The proposed project will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat.* A few individuals of the relatively rare plant *maiapilo* are present on and surrounding the site. These plants will be avoided as feasible and new *maiapilo* will be used for landscaping. Impacts to threatened or endangered species of flora or fauna will not occur, and the project will assist in the recovery of endangered Hawaiian monk seals.

9. *The proposed project is not one which is individually limited but cumulatively may have considerable effect upon the environment or involves a commitment for larger actions.* The project is not related to other activities in the region in such a way as to produce adverse cumulative effects or involve a commitment for larger actions. The principal cumulative impact is beneficial. With establishment of the facility, separate efforts by Pacific Islands Fisheries Science Center and other agencies and organizations will combine to improve seal pup survival, increase the population growth rate, and increase the chances of the recovery of the endangered Hawaiian monk seal. This will help counter the combination of factors that has reduced a population of unique mammals that has inhabited the Hawaiian archipelago for millions of years.
10. *The proposed project will not detrimentally affect air or water quality or ambient noise levels.* No adverse effects on air quality or noise would occur. Noise levels on the site are high but acceptable to the proposed use.
11. *The project does not affect nor would it likely to be damaged as a result of being located in environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal area.* Although the property is located in an area with volcanic and seismic risk, the entire Island of Hawai‘i shares this risk, and the project is not imprudent to construct. The property is adjacent to the shoreline but outside the flood zone.
12. *The project will not substantially affect scenic vistas and viewplanes identified in county or state plans or studies.* No scenic vistas and viewplanes identified in the Hawai‘i County General Plan will be adversely affected by the project. Scenic effects to the shoreline have been avoided by project siting and design.
13. *The project will not require substantial energy consumption.* The project includes measures to conserve energy, including using cold seawater for heat transfer in the air conditioning.

REFERENCES

Bindoff, N.L. et al. 2007. "Observations: Oceanic Climate Change and Sea Level". *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.* Cambridge University Press.

Caccamise, D. J., II, M. A. Merrifield, M. Bevis, J. Foster, Y. L. Firing, M. S. Schenewerk, F. W. Taylor, and D. A. Thomas. 2005. "Sea level rise at Honolulu and Hilo, Hawaii: GPS estimates of differential land motion". *Geophys. Res. Lett*. 32.

Clark, P.U., A.J. Weaver, E. Brook, E.R. Cook, T.L. Delworth, and K. Steffen. 2008. *A report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research Abrupt Climate Change*. Reston, VA: U.S. Geological Survey.

Ellis, W. 1969 *Polynesian Researches Hawaii*. Rutland, Vermont: Charles E. Tuttle Company.

Gagne, W., and L. Cuddihy. 1990. "Vegetation," pp. 45-114 in W.L. Wagner, D.R. Herbst, and S.H. Sohmer, eds., *Manual of the Flowering Plants of Hawai'i.* 2 vols. Honolulu: University of Hawai'i Press.

Geometrician Associates (Ron Terry, Ph.D. and Patrick J. Hart, Ph.D.). 2006. *Botanical Survey, TMKs 7-3-09:04 and 22, O'oma, North Kona, Island of Hawai'i.* Prepared for PBR Hawaii

Hawai'i County Planning Department. 2005. *The General Plan, County of Hawai'i.* Hilo.

Hawai'i State High Technology Development Corporation (HTCD). 1985. *Final Environmental Impact Statement, Development Plan for the Hawaii Ocean Science and Technology Park and Expansion of the Natural Energy Laboratory of Hawaii, Keahole, North Kona, Hawaii*.

Heliker, C. 1990. *Volcanic and Seismic Hazards on the Island of Hawai'i.* Washington: U.S. GPO.

I'i, J.P. l959. Fragments of Hawaiian History. Honolulu: Bishop Museum Press.

Kamakau, S. 1961. *Ruling Chiefs of Hawai'i*. Honolulu: The Kamehameha Schools Press.

Kihe, J.W.H.I. 1924. *Ka Hōkū o Hawai'i*.

Kirch, P. 1985. *Feathered Gods and Fishhooks: An Introduction to Hawaiian Archaeology and Prehistory*. Honolulu: University of Hawai'i Press.

Maly, K. 2000. *Nā Honokōhau: Nā Hono I Nā Hau 'Elua (Honokōhau: Bays of the Two Wind-born Dews)* 2 Vols. Hilo: Kumu Pono Associates.

Natural Energy Laboratory of Hawai‘i. 1987. *Final Environmental Impact Statement, Alternative Methods of Seawater Return Flow Disposal, Keahole, North Kona, Hawaii*.

_____. 1992. *Final Environmental Impact Statement, Development of Land Exchange Parcel, Natural Energy Laboratory of Hawaii*. Prep. by GK & Associates for NELHA.

PBR Hawaii. 2009. *O‘oma Beachside Village Final Environmental Impact Statement.* Honolulu.

Pukui, M., S. Elbert, and E. Mo‘okini. 1974. *Place Names of Hawaii*. *Revised and Expanded Edition.* Honolulu: University of Hawai‘i Press.

Reinecke, J. n.d. *Survey of Hawaiian Sites*, 1929-1930. Manuscript in Department of Anthropology, B.P. Bishop Museum, Honolulu.

Research Corporation of the University of Hawai‘i. 1976. *Environmental Impact Statement for the Natural Energy Laboratory of Hawaii at Keahole Point, Hawaii (Phase I).* Prep. by R.M. Towill Corp. for RCUH.

Simon, L. 2010. “Rescuing the Hawaiian monk seal with the right information.” *Ka Wai Ola Loa: The Living Water of OHA.*

U.S. Dept. of Commerce, Bureau of the Census. 2001. http://factfinder.census.gov/.

U.S. Soil Conservation Service. 1973. *Soil Survey of Island of Hawai‘i, State of Hawai‘i.* Washington: U.S.D.A. Soil Conservation Service.

University of Hawai‘i at Hilo, Dept. of Geography. 1998. *Atlas of Hawai‘i.* 3rd ed. Honolulu: University of Hawai‘i Press.

U.S. Environmental Protection Agency (EPA). 2000. *National Water Quality Inventory Report to Congress*. 2000, EPA. p. 100-101: Chapter 10: “State and Territory Summaries: Hawaii.”

U.S. Fish and Wildlife Service (USFWS). 2008. *USFWS Threatened and Endangered Species System (TESS).* Washington: GPO. http://ecos.fws.gov/tess_public/StartTESS.do

Wolfe, E.W., and J. Morris. 1996. *Geologic Map of the Island of Hawai‘i.* USGS Misc. Investigations Series Map i-2524-A. Washington, D.C.: U.S. Geological Survey.

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ENVIRONMENTAL ASSESSMENT

Monk Seal Rehabilitation Facility at NELHA

North Kona District, Hawai‘i Island, State of Hawai‘i

APPENDIX 1a
Comments in Response to Pre-Consultation

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Aloha Ron,

Thank you for allowing us to review the Marine Mammal Center proposal (attached). I have made a pdf copy and will distribute to other FAA offices for review/comments via this email. If they have comments, they will send to me for consolidation by 11/8/10.

Here's some comments from my office for starters:

1. Ensure the facility is not a wildlife attractant for birds.
2. The property appears to be outside the future runway protection zone.
3. Need to file Form 7460-1 for the proposed structure and a separate one for the construction crane. Instructions are as follows:

Please file on-line for an aeronautical study to evaluate your proposal.

1. Website: www.oeaaa.faa.gov
2. Register as a New User and establish a password.
3. Fill out the data blanks for your proposal to include site latitude/longitude, elevation.
4. Verify the website generated maps are consistent with your proposed locations.
5. Then attach a site map (pdf file) and any documentation of your proposed structure. The site map should try to capture the nearest rwy and the proposed site.
6. Provide lat/lon for the closest site to any rwy.
7. Give us 30 days to review, then we'll issue a determination letter to your file.

(See attached file: nelha monk seal ea 10-26-10-1.pdf)

Please call me if you have any questions.

Thank you.

Steven Wong
Program Manager
FAA, Honolulu Airports District Office
(808) 541-1225

Aloha Ron,

Here are FAA comments for the Environmental Assessment for the Proposed Marine Mammal Center Monk Seal Facility.

1. Ensure the facility is not a wildlife attractant for birds.
2. The property appears to be outside the future runway protection zone.
3. Need to file Form 7460-1 for the proposed structure and a separate one for the construction crane. The FAA will conduct an aeronautical study on the proposal.
4. The building height must not also impact proposed parallel (ocean side) runway Runway Safety Area.
5. The proposed location is within the 70 DNL noise impacted area. Mitigation measures will not be the responsibility of the airport. The proponent must consider the mitigation if its demonstrated that the Monk seal is affected by noise.

Please call me if you have any questions.

Thank you.

Steven Wong
Program Manager
FAA, Honolulu Airports District Office
(808) 541-1225

Aloha Ron,

We do not need to review this EA if you are using a County water source. If you are developing your own water source (well or desalinated water) for human consumptive uses, then we will need to review the EA. You may apply this criteria to all of your clients' EA or EIS documents.

Michael Miyahira, P.E.
Engineering Section Supervisor
Hawaii Safe Drinking Water Branch
ph: 808-586-4258

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

REPLY TO
ATTENTION OF:

November 5, 2010

Regulatory Branch

File No. POH-2010-00306

Ron Terry
Principal
Geometrician Associates, LLC
PO Box 396
Hilo, HI 96721

Dear Mr. Terry:

This responds to your request for written comments for the preparation of a draft Environmental Assessment (dEA) which will address activities and impacts of the proposed Marine Mammal Center Monk Seal Facility Project located at Keahole Point, North Kona, Hawaii Island. The proposed project area encompasses as much as 2.6 acres of 4.7 acres land controlled land by the Natural Energy Laboratory of Hawaii Authority.

The proposed dEA will be reviewed pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 requires that a Department of Army (DA) permit be obtained for certain structures or work in or affecting navigable waters of the United States (U.S.), prior to conducting the work (33 U.S.C. 403). Navigable waters of the U.S. are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified as navigable by the Honolulu District. In addition, a Section 10 permit is required for structures or work outside this limit if they affect the course, location, or condition of the waterbody as to its navigable capacity.

Section 404 requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). For regulatory purposes, the U.S. Army Corps of Engineers (Corps) defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The area of Corps jurisdiction under Section 404 extends to the Ordinary High Water Mark (OHWM) for navigable waters other than the Pacific Ocean, and to the upland boundary of any adjacent wetlands.

The dEA should indicate where waters of the United States, as typically represented by navigable waters, intermittent, ephemeral drainageways, wetlands, and anchialine ponds are in, or adjacent to, or absent from, the proposed project area. The dEA should state in appropriate sections whether there is the potential for waters of the U.S. to be impacted by construction of project structures and associated ground disturbing activities, such as temporary access and egress, intake and outflow structures, across or within waters of the U.S. to accomplish the proposed work. Information for delineations of wetlands and anchialine ponds, if present, should be provided as technical appendices in the dEA. Finally, a proposed project of this magnitude should articulate a Best

Management Practices Plan (BMPP) for the protection, management and measures for the avoidance, minimization and mitigation of potential impacts of the aquatic environment.

This additional information would enable the Corps to determine the scope of this activity and determine whether a discharge of fill material and/or work in navigable waters may require DA permit authorization. You will need to apply for and receive authorization from the Corps prior to the installation structures that could be construed as fill material into waters of the U.S..

A copy of the dEA is requested for final review and comment by our program.

Thank you for giving us the opportunity to review this proposal and for your cooperation with our regulatory program. You are encouraged to provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at http://per2.nwp.usace.army.mil/survey.html.

Should you have any questions, please contact Mr. Farley Watanabe of this office at the above address, by telephone 808-438-7701 (FAX: 808-438-4060), or by e-mail at Farley.K.Watanabe@usace.army.mil. Please refer to **File No. POH-2010-00306** in all future communications with this office regarding this or other projects at this location.

Sincerely,

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

LINDA LINGLE
GOVERNOR OF HAWAII

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

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

In reply, please refer to:
EMD / CWB

11027PMT.10

November 9, 2010

Mr. Ron Terry
Principal
Geometrician Associates. LLC
P.O. Box 396
Hilo, Hawaii 96721

Dear Mr. Terry:

SUBJECT: Pre-Consultation for Draft Environmental Assessment (DEA)
Proposed Marine Mammal Center Monk Seal Facility
NELHA, North Kona District, Island of Hawaii, Hawaii
TMK: (3) 7-2-043: 042 (por.)

The Department of Health (DOH), Clean Water Branch (CWB), has reviewed the subject pre-consultation for the preparation of DEA letter dated October 26, 2010, and offers these comments on your project. Please note that our review is based solely on the information provided in the subject document and its compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf.

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

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

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

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

2. The Pacific Ocean open coastal waters offshore of the proposed project site is classified by the DOH as a Class AA, Marine Water. It is the objective of Class AA waters that these waters remain in their natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from any human-caused source or actions. To the extent practicable, the wilderness character of these areas shall be protected. Accordingly, the operations and construction related activities of the proposed facility shall not alter the water quality of the adjacent open coastal waters. Also, the operations of the subject facility shall not result with the water quality of the adjacent ocean waters to exceed or non-comply with the HAR, Section 11-54-8(b), specific criteria for marine recreational waters.

3. You are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

   a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale.

   b. Hydrotesting water.

   c. Construction Activity Dewatering.

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

4. For types of wastewater not listed in Item 3 above or wastewater discharging into Class 1 or Class AA waters, you may need an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html.

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

If you have any questions, please visit our website at http://www.hawaii.gov/health/environmental/water/cleanwater/index.html, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,

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

MT:ml

William P. Kenoi
Mayor

BJ Leithead Todd
Director

Margaret K. Masunaga
Deputy

County of Hawai'i

PLANNING DEPARTMENT
Aupuni Center • 101 Pauahi Street, Suite 3 • Hilo, Hawai'i 96720
Phone (808) 961-8288 • Fax (808) 961-8742

November 17, 2010

Mr. Ron Terry
Geometrician Associates
P.O. Box 296
Hilo, HI 96721

Dear Mr. Terry:

SUBJECT: Early Consultation for Draft Environmental Assessment
Project: Marine Mammal Center Monk Seal Facility
TMK: (3) 7-3-043:042; North Kona, Hawai'i

Thank you for your letter dated October 26, 2010 requesting comments from this office regarding the preparation of a Draft Environmental Assessment (DEA). The Marine Mammal Center is proposing a facility for the rehabilitation of endangered Hawaiian monk seals.

The project site is consists of a 2.6 acre portion of a 166.278 acre parcel at the Natural Energy Laboratory of Hawai'i Authority (NELHA) site. The subject property is zoned MG-1a (General Industrial-1 acre minimum lot size). The property is situated within the State Land Use Urban district. The subject area is within the Special Management Area (SMA).

Please note that this project was previously determined to be covered by SMA permit No.:77, as amended, which allows for ocean energy and allied research and development facilities and related improvements on the subject parcel. While further review of the construction of the proposed improvements against the Special Management Area rules and regulations will not be required, all other applicable Zoning and Building Code requirements must be satisfied. In addition, Plan Approval shall be required for all new structures in the MG District.

We have no further comments to offer, at this time. However, please keep us informed and provide our department with a copy of the Final Environmental Assessment for our records.

If you have any questions or if you need further assistance, please feel free to contact Bethany Morrison of this office at 961-8138.

Sincerely,

for BJ LEITHEAD TODD
Planning Director

BJM:cs
P:\wpwin60\Bethany\EA-EIS Review\preconsultdrafteaMarine Mammal Center Monk Seal Facility.doc

William P. Kenoi
Mayor

Darryl J. Oliveira
Fire Chief

Glen P. I. Honda
Deputy Fire Chief

County of Hawai'i
HAWAI'I FIRE DEPARTMENT
25 Aupuni Street • Suite 2501 • Hilo, Hawai'i 96720
(808) 932-2900 • Fax (808) 932-2928

November 18, 2010

Mr. Ron Terry
Geometrician Associates
PO Box 396
Hilo, HI 96721

SUBJECT: ENVIRONMENTAL ASSESSMENT for Proposed Marine Mammal Center Monk Seal Facility, NELHA, TMK (3rd) 7-2-043:042 (por.)

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

DARRYL OLIVEIRA
Fire Chief

RP:lpc

LINDA LINGLE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 29, 2010

Geometrician Associates, LLC
Box 396
Hilo, Hawaii 96721

Attention: Mr. Ron Terry, Principal

Ladies and Gentlemen:

Subject: Environmental Assessment for Proposed Marine Mammal Center Monk Seal Facility at the Natural Energy Laboratory of Hawaii Authority

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

Other than the comments from Division of Boating & Ocean Recreation, Division of State Parks, Commission on Water Resource Management, Office of Conservation & Coastal Lands, Land Division-Hawaii District, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0414. Thank you.

Sincerely,

Russell Y. Tsuji
Administrator

LINDA LINGLE
G ERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 4, 2010

MEMORANDUM

~~TO:~~ From:

DLNR Agencies:

x ~~Div. of Aquatic Resources~~
x Div. of Boating & Ocean Recreation
x ~~Engineering Division~~
x Div. of Forestry & Wildlife
x Div. of State Parks
x Commission on Water Resource Management
x Office of Conservation & Coastal Lands
x Land Division –Hawaii District
x Historic Preservation

To: ~~FROM:~~ Charlene Unoki, Assistant Administrator
SUBJECT: Pre-Consultation for Environmental Assessment for Proposed Marine Mammal Center Monk Seal Facility at NELHA
LOCATION: Island of Hawaii
APPLICANT: Geometrician Associates, LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 29, 2010.

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

Attachments

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

Signed: [signature]
Date: 11/5/10

LINDA LINGLE
GOVERNOR OF HAWAII

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

RECEIVED
LAND DIVISION
2010 NOV 12 P 2:46

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 4, 2010

MEMORANDUM

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

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Pre-Consultation for Environmental Assessment for Proposed Marine Mammal Center Monk Seal Facility at NELHA
LOCATION: Island of Hawaii
APPLICANT: Geometrician Associates, LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 29, 2010.

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

Attachments

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

Signed: _____
Date: 11/8/10

LINDA LINGLE
GOVERNOR OF HAWAII

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

PAUL J. CONRY
ACTING FIRST DEPUTY

LENORE N. OHYE
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

REF:OCCL:AB

Correspondence: HA-11-106

NOV 18 2010

MEMORANDUM

TO: Charlene Unoki, Assistant Administrator
Land Division

FROM: Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

SUBJECT: Pre-Consultation for an Environmental Assessment for the Proposed Marine Mammal Center Monk Seal Facility,
LOCATION: NELHA, North Kona, Hawaii, TMK: (3) 7-3-043:042
APPLICANT: Geometrician Associates, Inc.

The Department of Land and Natural Resources (DLNR), Office of Conservation and Coastal Lands (OCCL) has reviewed the information regarding the proposed Environmental Assessment (EA) for the Marine Mammal Center Monk Seal Facility, located at NELHA, North Kona, Hawaii, TMK: (3) 7-3-043:042.

According to the information, the applicant is proposing a facility to be operated by the Marine Mammal Center for the rehabilitation of endangered Hawaiian monk seals. The monk seal facility will be constructed on a 2.6-acre portion of a 4.7-acre NELHA property at Keahole Point.

The proposed facility will include a holding facility with two in-ground, custom-built fiberglass monk seal pools, and too smaller above-ground pools. The pools will be surrounded by concrete haul-outs, work areas, and walkways, and the entire area will be covered by a tensioned shade structure. The pools will be supplied with seawater put through water treatment/life support system, and then emptied into a discharge basin. The project will also include an underground, fiberglass tank individual wastewater system with a dispersion bed. At a later phase, the project will include two concrete block support buildings for office, lab, clinic, kitchen, and other related support. An outdoor educational pavilion is also proposed.

According to OCCL records, portions of the subject parcel are located in the State Conservation District. However, it is unclear whether the proposed monk seal facility is located in the State Conservation District portion of the property. Please include a State Land Use Zoning map in the EA indicating where the proposed facility is in relation to the Conservation District.

In addition, if any part of the facility will be located seaward of the shoreline, those improvements would be located in the State Conservation District, Resource subzone. This includes structures related to the pools and water systems that may have pipes and pumps in the ocean.

If the proposed project will be located in the State Conservation District, which is under the jurisdiction of the State of Hawaii, the filing of a Conservation District Use Application (CDUA) may be required, and the EA should indicate this as a required permit. In addition, the EA should discuss the project's compliance with the Conservation District regulations, Hawaii Administrative Rules 13-5.

Should you have any questions about this correspondence, you may contact Audrey Barker of our office at (808) 587-0377 or audrey.t.barker@hawaii.gov.

LINDA LINGLE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

75 Aupuni Street, Room 204
Hilo, Hawaii 96720
PHONE: (808) 974-6203
FAX: (808) 974-6222

November 18, 2010

MEMORANDUM

TO: Charlene Unoki, Assistant Administrator
Land Division

FROM: Kevin E. Moore, Hawaii District Land Agent

SUBJECT: Request for Comments, Pre-Consultation for Environmental Assessment for Proposed Marine Mammal Center Monk Seal Facility at NELHA

LOCATION: North Kona, Hawaii

APPLICANT: Geometrician Associates, LLC

Pursuant to your request for comments on the above matter, we offer the following:

The subject land is leased to the Natural Energy Laboratory of Hawaii Authority (NELHA) pursuant to General Lease No. S-5619 dated July 13, 2001 between the State of Hawaii and NELHA, as amended. The character of use provision of the lease provides for "an ocean-related high technology industrial park in accordance with Chapter 206M, Hawaii Revised Statutes, and to allow for ancillary and accessory uses that will assist the development to become self-sufficient."

We note that HRS Section 206M-1 provides the following definitions for "high technology" and "industrial park."

> "High technology" means industries that are technology-intensive, including but not limited to electronics, biotechnology, software, computers, telecommunications, and other computer-related technologies.
>
> "Industrial park" means a tract of real property determined by the board as being suitable for use as building sites for projects by one or more industrial, processing, or manufacturing enterprises engaged in high technology, including research, training, technical analyses, software development, and pilot plant or prototype product development, and may include the installation of improvements to the tract incidental to the use of real property as an industrial park, such as

> water, sewer, sewage and waste disposal, and drainage facilities, sufficient to adequately service projects in the industrial park, and provision of incidental transportation facilities, power distribution facilities, and communication facilities. Industrial parks shall not include any buildings or structures of any kind except for buildings or structures incidental to improvements to the industrial park.

It is not clear whether the proposed facility would be consistent with the character of use provision under the lease or the requirements of HRS Chapter 206M. The applicant should address this item in the draft environmental assessment and the particular land disposition that will be required for the facility.

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

November 10, 2010

TO: Russell Tsuji, Administrator
Land Division

FROM: Lenore N. Ohye, Acting Deputy Director
Commission on Water Resource Management

SUBJECT: EA for Proposed Marine Mammal Center Monk Seal Facility at NELHA

FILE NO.: N/A
TMK NO.: 7-2-043:042 (por.)

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at http://www.hawaii.gov/dlnr/cwrm.

Our comments related to water resources are checked off below.

☒ 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

☐ 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

☐ 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.

☐ 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at http://www.usgbc.org/leed. A listing of fixtures certified by the EPA as having high water efficiency can be found at http://www.epa.gov/watersense/pp/index.htm.

☐ 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at http://hawaii.gov/dbedt/czm/initiative/lid.php.

☐ 6. We recommend the use of alternative water sources, wherever practicable.

☒ 7. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM:
Additional information and forms are available at http://hawaii.gov/dlnr/cwrm/resources_permits.htm.

☐ 8. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water.

☒ 9. A Well Construction Permit(s) is (are) required any well construction work begins.

☒ 10. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.

☐ 11. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.

☐ 12. Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.

☐ 13. A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.

☐ 14. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered.

☐ 15. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.

☐ 16. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

☐ OTHER:

If there are any questions, please contact Roy Hardy at 587-0274.

LINDA LINGLE
GOVERNOR OF HAWAII

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

PAUL J. CONRY
ACTING FIRST DEPUTY

LENORE N. OHYE
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

December 2, 2010

Mr. Ron Terry
Geometrician Associates
P. O. Box 396
Hilo, Hawaii 96721
(rterry@hawaii.rr.com)

LOG NO: 2010.3595
DOC NO: 1012TD06
Archaeology

Dear Mr. Terry:

Subject: **Chapter 6E-8 Historic Preservation Review –**
Notice of Preparation, Environmental Assessment for a Monk Seal Facility
Kalaoa Ahupua'a, North Kona District, Island of Hawai'i
TMK: (3) 7-2-043: 042 (por.)

Thank you for notifying us of this proposed project, which will involve a new rehabilitation facility for monk seals within a 2.6 portion of a 4.7-acre property within the Natural Energy Laboratory Authority (NELHA) area.

We have been in communication with Mr. Gajadhar of K&G Architects regarding the preliminary plans and lay-out of this facility; and SHPD staff conducted a site visit to the area in connection with an archaeological preserve for SIHP Site 10205. During this consultation, it was suggested that the boundaries of the parcel to be leased for this project would be modified to exclude Site 10205 and a 50 foot setback from the buffer zone that was included in the metes and bounds of the site. A map prepared by KKM Surveys was transmitted to us from Mr. Gajadhar. We have no objections to the modification of the leased parcel boundaries in order to avoid the site and its buffer zone. However, this action does not in itself ensure protection of the site, nor does it identify a responsible entity for the maintenance and monitoring of the site. The survey map transmitted to us suggests that the site is being subdivided into a distinct parcel of its own. This could potentially cause unanticipated effects if there are no provisions in place to ensure maintenance and monitoring of site conditions. We recommend that NELHA complete a preservation plan for the site, or delegate this responsibility to a leaseholder.

We also note that we have no records of an updated inventory survey or inspection of the project area to confirm the present or absence of additional historic properties. Our staff did not conduct an inspection of the entire project area during the prior site visit regarding Site 10205. We have found that the earlier archaeological surveys conducted of this area missed sites, or did not record certain categories of sites. We therefore request that the EA include a report of a field inspection of the property by a qualified archaeologist. If additional historic properties are identified, an inventory survey report will be requested by our office.

Please contact me at (808) 933-7653 or at Theresa.K.Donham@hawaii.gov if you have any questions.

Aloha,

Theresa K. Donham
Acting Archaeology Branch Chief
Historic Preservation Division

cc: Steve Gajadhar, K&G Architects

LINDA LINGLE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 2, 2010

Geometrician Associates, LLC
Box 396
Hilo, Hawaii 96721

Attention: Mr. Ron Terry, Principal

Ladies and Gentlemen:

Subject: Environmental Assessment for Proposed Marine Mammal Center Monk Seal Facility at the Natural Energy Laboratory of Hawaii Authority

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

The Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0414. Thank you.

Sincerely,

Charlene Unoki
Assistant Administrator

LINDA LINGLE
GOVERNOR OF HAWAII

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

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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 330
HONOLULU, HAWAII 96813

November 29, 2010

TO: Charlene Unoki, Assistant Administrator
Land Division, DLNR

THROUGH: Robert Nishimoto, Program Manager

FROM: Earl Miyamoto, ITP Coordinator

SUBJECT: Pre-Consultation for Environmental Assessment for Proposed Marine Mammal Center Monk Seal Facility at NELHA

The Division of Aquatic Resources (DAR) fully supports the establishment of a Hawaiian monk seal rehabilitation facility at Keahole Point on the Island of Hawaii. In addition to federal protection listing the Hawaiian monk seal as critically endangered, monk seals are also listed as endangered under Hawaii state wildlife law HRS 195D. The monk seal population continues to decline despite the regulations in place. Federal and State agencies are mandated by these wildlife regulations to protect and enhance the endangered, endemic monk seals. To work towards that purpose, captive care and release is a solution that needs to be tested and extended to the main Hawaiian Islands.

As a partner in the effort to promote juvenile monk seal survival, DAR supports the development of a rehabilitation facility operated by the Marine Mammal Center (MMC). DAR administratively houses two full-time staff dedicated to monk seal responses and outreach/education on the islands of Kauai and Hawaii. Two additional staff work from the Oahu DAR offices to conduct outreach, develop a State conservation plan, and assist with response efforts for monk seals. For successful recovery of this highly endangered species, DAR would like to continue collaborating with other government agencies and non-governmental organizations.

DAR would like to be notified when the EA becomes available. We welcome the opportunity to partner with NOAA, MMC, and other interested parties to protect and enhance the Hawaiian monk seal population.

LINDA LINGLE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 4, 2010

MEMORANDUM

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

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Pre-Consultation for Environmental Assessment for Proposed Marine Mammal Center Monk Seal Facility at NELHA
LOCATION: Island of Hawaii
APPLICANT: Geometrician Associates, LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 29, 2010.

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

Attachments

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

Signed:
Date: 11/16/10

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Charlene Unoki
REF: Pre-Consultation for EA for Proposed Marine Mammal Ctr Monk Seal Fac at NELHA Hawaii.014

COMMENTS

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

(X) Please take note that the shoreline area of the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone AE. The National Flood Insurance Program regulates developments within Zone AE as indicated in bold letters below.

The remainder of the project site is located in Flood Zone X. The National Flood Insurance Program does not have any regulations for developments within Zone X.

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

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

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

( ) Mr. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.

(X) Mr. Carter Romero at (808) 961-8943 of the County of Hawaii, Department of Public Works.

( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.

( ) Ms. Wynne Ushigome at (808) 241-4890 of the County of Kauai, Department of Public Works.

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

(X) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: _____

_____

(X) Other: The Tax Map Key (TMK) listed in Geometrician Associates' October 26, 2010 pre-consultation letter is incorrect. Correct TMK is 3rd Div., 7-3-043: por. 042.

Should you have any questions, please call Mr. Dennis Imada of the Planning Branch at 587-0257.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: 11/16/10

William P. Kenoi
Mayor

William T. Takaba
Managing Director

Frank J. DeMarco, P.E.
Director

Ivan M. Torigoe
Deputy Director

County of Hawai'i
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
25 Aupuni Street • Hilo, Hawai'i 96720
(808) 961-8083 · Fax (808) 961-8086
http://co.hawaii.hi.us/directory/dir_envmng.htm

December 1, 2010

Mr. Ron Terry
Principal
GEOMETRICIAN ASSOCIATES, LLC
P. O. Box 396
Hilo, HI 96721

RE: Environmental Assessment for Proposed Marine Mammal Center Monk Seal Facility, NELHA, TMK: 7-2-034:043 (por.), North Kona District, Island of Hawai'i

Dear Mr. Terry,

We have no comments to offer on this project.

Thank you for allowing us to review and comment on this project.

Sincerely,

Frank DeMarco

Frank J. DeMarco, P.E.
DIRECTOR

PHONE (808) 594-1888

FAX (808) 594-1865

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

COPY

HRD10/5365

December 6, 2010

Ron Terry
Geometrician Associates
P.O. Box 396
Hilo, Hawai'i 96721

Re: Pre- Draft Environmental Assessment
Proposed Monk Seal Facility
Natural Energy Laboratory of Hawai'i Authority. Kona, Island of Hawai'i

Aloha e Mr. Terry,

The Office of Hawaiian Affairs (OHA) is in receipt of your October 26, 2010 request for comments ahead of a draft environment assessment (DEA) to support the proposed construction of a facility for the rehabilitation of endangered Hawaiian monk seals (project) which will be operated by the Marine Mammal Center. The facility will be constructed on 2.6 acres of a larger 4.7 acre parcel at the Natural Energy Laboratory Hawai'i Authority. Based on the information contained within your letter, the National Marine Fisheries Service (NMFS) is providing support for the project.

While OHA has no comment on the actual construction of the facility at this time, we would like to offer the following comments on the effort the facility is intended to support:

Via a letter dated October 4, 2010, NMFS (attachment 1) notified OHA of their intent to prepare a Programmatic Environmental Impact Statement (PEIS) on a proposed research and enhancement program to improve juvenile survival of Hawaiian monk seals. NMFS is the lead federal agency in preparing the PEIS in accordance with the National Environmental Policy Act. It is our understanding that one of the potential alternatives to be discussed in the PEIS, the "Enhanced Implementation Alternative (Proposed Action)," includes activities which will support the "*archipelago-wide translocation of Hawaiian monk seals to improve juvenile survival.*"

Via a letter dated October 26, 2010 (attachment 2), OHA responded to the NMFS letter. We do seek clarification from you whether this project is a component of the larger effort which will be subject to the PEIS. If monk seals will be relocated to the facility and then released into the waters around Hawai'i Island, these secondary impacts should be discussed in your DEA as "effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable" (§ 11-200-2 Hawaii Administrative Rules).

OHA advocates that the interests of the Native Hawaiian community be afforded appropriate consideration as Hawaiian monk seal recovery efforts are implemented.

Thank you for initiating consultation at this early stage. We look forward to reviewing the DEA. Should you have any questions or concerns, please contact Keola Lindsey at 594-0244 or keolal@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Chief Executive Officer

Attachments (2) 10/4/10 NMFS letter (4 pages) and 10/26/10 OHA letter (1 page)

C: OHA- East and West Hawai'i Community Outreach Coordinators w/attachments

10-5900
10-26-2010

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Pacific Islands Regional Office
1601 Kapiolani Blvd., Suite 1110
Honolulu, Hawaii 96814-4700
(808) 944-2200 • Fax (808) 973-2941

OFFICE OF HAWAIIAN AFFAIRS

OCT - 4 2010

2010 OCT -8 A 9:21

Mr. Clyde Nāmu'o
Office of Hawaiian Affairs
711 Kapi'olani Blvd.
Suite 500
Honolulu, HI 96813

Dear Mr. Nāmu'o:

The National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS), Pacific Islands Regional Office is beginning to prepare a Programmatic Environmental Impact Statement (PEIS) on a proposed research and enhancement program to improve juvenile survival of Hawaiian monk seals (*Monachus schauinslandi*). NMFS will be the lead agency in preparing the PEIS in accordance with the National Environmental Policy Act (NEPA). The purpose of this letter is to invite you and your agency to participate in the PEIS process and to provide some background information on Hawaiian monk seal research and enhancement. Please see the enclosed document for additional background information. NMFS recognizes the knowledge and expertise within your agency and welcomes your participation in this effort.

The process of preparing the PEIS formally began with publication of the Notice of Intent to prepare the PEIS in the Federal Register on October 1, 2010. The process is tentatively scheduled to be completed by December 2011. Public scoping meetings will be held October 20-27, 2010, in Honolulu, Hilo, Kihei, Kaunakakai, and Lihu'e. We also will be holding an additional scoping meeting specifically for government agencies and we would like to invite you and/or your representative to attend this meeting. The purpose of the agency scoping meeting is to brief you on preparation of the PEIS and to solicit your agency's comments and suggestions. The meeting will be held on October 20, 2010, from 10:00 to 11:00 a.m., at our offices at 1601 Kapiolani Blvd., Suite 1110. In accordance with NEPA, NMFS requests any comments you may have about potential management actions and associated research and enhancement program activities that may be performed on Hawaiian monk seals in an effort to recover the species.

If you would like to participate in the PEIS agency scoping meeting, please notify Jeff Walters, our Hawaiian monk seal recovery coordinator, by phone (808-944-2235) or by e-mail (jeff.walters@noaa.gov). We would appreciate being notified by October 15, 2010. Whether or not you are able to participate in this meeting, your written comments and/or recommendations are welcome and can be sent to monkseal@noaa.gov or 1601 Kapiolani Boulevard, Suite 1110, Honolulu, HI 96814. Please send your scoping comments and/or recommendations no later than November 15, 2010. We look forward to seeing you at the agency scoping meeting and/or to receiving your comments regarding the PEIS.

Sincerely,

Michael D. Tosatto
Acting Regional Administrator

Enclosure

Hawaiian Monk Seal Research and Enhancement Activities
Programmatic Environmental Impact Statement

National Marine Fisheries Service
Pacific Islands Regional Office
October 1, 2010

Background Information

The National Marine Fisheries Service (NMFS), Pacific Islands Regional Office (PIRO) is preparing a Programmatic Environmental Impact Statement (PEIS) in accordance with the National Environmental Policy Act (NEPA). As part of the PEIS preparation process, NMFS is soliciting scoping comments on a proposed research and enhancement program for Hawaiian monk seals (*Monachus schauinslandi*).

NMFS is the federal agency responsible for management of Hawaiian monk seals under the Endangered Species Act (ESA) (ESA; 16 U.S.C. 1531 *et seq.*) and the Marine Mammal Protection Act (MMPA) (MMPA; 16 U.S.C. 1361 *et seq.*). In 1976, NMFS listed Hawaiian monk seals as "endangered" under the ESA and "depleted" under the MMPA. As required under Section 4 of the ESA, NMFS published a Recovery Plan for the species in 1983, which was revised in 2007.

Section 7(a)(2) of the ESA, as amended (ESA; 16 U.S.C. 1531 *et seq.*), requires NMFS to ensure that any action it authorizes, funds or carries out (such as research or enhancement), is not likely to jeopardize the continued existence of any threatened or endangered species, or result in destruction or adverse modification of critical habitat. Permits for research and enhancement activities are issued by NMFS pursuant to the provisions of Section 10(a)(1)(A) of the ESA, Sections 104 (c)(3)(A) and 104 (c)(4)(A) of the MMPA, and NMFS regulations implementing these statutes.

The proposed research and enhancement program is being specifically designed to improve the survival of juvenile Hawaiian monk seals in the Northwestern Hawaiian Islands (NWHI). To achieve improved juvenile seal survival in the NWHI, the proposed program is expected to entail an integrated suite of research and enhancement activities for implementation in the NWHI and Main Hawaiian Islands. The intent of the PEIS discussed here is to evaluate, in compliance with the NEPA (40 CFR Parts 1500-1508), the potential direct, indirect, and cumulative impacts on the human environment of the proposed research and enhancement activities under the Hawaiian monk seal recovery program.

Purpose and Need

NMFS is responsible for management, conservation, and protection of Hawaiian monk seal, under the ESA and the MMPA. The NMFS PIRO and NMFS Pacific Islands Fisheries Science Center (PIFSC) are responsible for implementation of the Hawaiian monk seal Recovery Plan (NMFS 2007) and the proposed action, which includes implementation of specific management actions and administering the associated research and enhancement program. The purpose of the proposed action is commensurate with the goal of the Recovery Plan to assure the long-term viability of the HMS in the wild, initially supporting a reverse in overall population decline, eventually allowing for reclassification of Hawaiian monk seals to threatened status, and ultimately, allowing for removal of the species from the List of Endangered and Threatened Wildlife.

The need for the proposed Hawaiian monk seal research and enhancement program is rooted in fundamental biological and ecological factors that are now limiting the population. The Hawaiian monk seal population has experienced a prolonged decline and currently, only around 1,200 monk seals remain. Numerous threats to the survival of Hawaiian monk seals are identified in the Recovery Plan. In the NWHI, young seals are starving, pups are being killed by sharks, seals are getting entangled in marine debris, and sea level rise threatens terrestrial habitats. Low juvenile survival is the primary cause of the population's decline over the past two decades. There is insufficient recruitment of healthy female seals into the breeding population, and the population decline will almost certainly continue without enhanced intervention. Research and enhancement activities, including but not limited to translocating seals from areas of lower to higher survival probability within the NWHI, have been tested and show promise for improving juvenile survival. Additional translocation activities are being considered, along with a suite of other research and enhancement activities, to improve juvenile survival in the NWHI and the overall health of the population.

In the Main Hawaiian Islands, incidents such as disturbance of seals on beaches, hooking and entanglement in fishing gear, and intentional killings (e.g., shootings) counteract recovery efforts. Improved public outreach and education, enforcement of federal statutes, and other actions to protect seals from harmful situations and reduce negative human/seal interactions are essential to minimize impacts in the Main Hawaiian Islands.

A comprehensive research program enables NMFS to recognize, and possibly quantify, factors limiting the population in order to designate appropriate actions to minimize impacts of human-induced activities and other factors affecting Hawaiian monk seal survival. Data and analyses derived from research lead to improved decision-making and strategic management and enhancement activities that promote population recovery, prevent harm, and avoid jeopardy or continued disadvantage to the species. Research and monitoring will continue to play a key role in determining whether enhancement activities achieve their desired outcomes.

Proposed Action and Possible Alternatives

The final scope and structure of the alternatives presented in the PEIS will reflect the combined input from the public, research institutions, affected State and Federal agencies, and NMFS administrative and research offices. The number and structure of the alternatives that are analyzed in the PEIS will be determined after scoping. Themes to include in the range of potential alternatives are presented here to provide a framework for your comments:

- No Action Alternative: Existing permitted research and enhancement activities would continue until expiration of the permit in 2014. Recovery Plan actions beyond 2014 would not be implemented. Currently, the existing research and enhancement activities include, but are not limited to:
    - Population assessment (e.g., counting, resighting, marking for identification, flipper tags, etc.);
    - Health and disease studies (e.g., tissue sampling, morphometric measurements, etc.);
    - Foraging studies (e.g., telemetry, scat collection, etc.);
    - De-worming research (e.g., fecal samples, testing anti-parasite treatments, etc.);

- Translocation of weaned pups within the Northwestern Hawaiian Islands to improve juvenile survival;
- Mitigation of fishery interactions (e.g., disentanglement, removal of fishing hooks, etc.); and
- Mitigation of adult male aggression (e.g., removal of aggressive males).

- Status Quo Alternative: The existing types and scope of research and enhancement activities would continue beyond 2014 under a new permit.
- Enhanced Implementation Alternative (Proposed Action): This alternative considers implementation of activities under the Status Quo, as well as additional activities to achieve more comprehensive Recovery Plan implementation and improved survival of juvenile seals in the NWHI. These additional activities include, but are not limited to:
  - Vaccination research studies (including potential vaccination of Hawaiian monk seals);
  - Aversive conditioning (e.g., develop tools to modify undesirable behavior including interaction with humans or domestic animals);
  - Archipelago-wide translocation of Hawaiian monk seals to improve juvenile survival; and
  - De-worming.

The PEIS under NMFS preparation will assess the direct, indirect, and cumulative effects of implementing the alternative approaches for research and enhancement activities on Hawaiian monk seals, as well as other components of the marine ecosystem and human environment. Anyone seeking to provide information for NMFS to consider in its analysis is requested to provide a description of that information along with complete citations for any supporting documents.

PHONE (808) 594-1888

COPY

FAX (808) 594-1865

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

HRD10/5300

October 26, 2010

National Marine Fisheries Service, Pacific Island Regional Office
Attention: Michael D. Tosatto, Acting Regional Administrator
1601 Kapi'olani Boulevard, Suite 1110
Honolulu, Hawai'i 96814

Re: Hawaiian Monk Seal Recovery Actions Programmatic Environmental Impact Statement

Aloha e Mr. Tosatto:

The Office of Hawaiian Affairs (OHA) is in receipt of your October 4, 2010 request for comments on the above-referenced project. We thank you for the opportunity to provide input into the decision-making process.

OHA understands that the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS), Pacific Islands Regional Office issued a Notice of Intent to prepare a Programmatic Environmental Impact Statement (PEIS) for a research and enhancement program to improve juvenile survival of the Hawaiian monk seal (*Monachus schauinslandi*). OHA also received a letter from NMFS that solicited agency participation in the preparation of the PEIS. Based on the documentation provided, we note that no new fishing or access restrictions will result from the proposed recovery actions for the Hawaiian monk seal.

At this stage of the review process, OHA does not have any substantive comments to offer. We look forward to reviewing and providing comments on the draft PEIS in early 2011.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Chief Executive Officer

NEIL ABERCROMBIE
GOVERNOR

JEFFREY CHANG
ACTING DIRECTOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HAWAII DISTRICT
50 MAKAALA STREET
HILO, HAWAII 96720
TELEPHONE: (808) 933-8866 • FAX: (808) 933-8869

IN REPLY REFER TO:

HWY-H 10-2.0538

December 13, 2010

Mr. Ron Terry
Principal
Geometrician Associates, LLC
HC 2 Box 9575
Kea'au, Hawai'i 96749

Dear Mr. Terry:

SUBJECT: Environmental Assessment for Marine Mammal Center – Proposed Monk Seal Facility
T.M.K. 3rd Div. 7-3-043:042 por.
Project No. FAP 19BC-01-71
Route 19, Queen Kaahumanu Highway
Ooma 1, North Kona, Island of Hawai'i, Hawai'i

Please be informed that this section of Queen Kaahumanu Highway is under the jurisdiction of the Department of Transportation, Highways Division. Please include in the assessment a detailed description of the operation, number of anticipated employees and visitors and any future plans for expansion.

Please send copies of the Environmental Assessment to our Department for review and comment.

Our Department will then further distribute the copies to the appropriate divisions and branches at which time we will review and provide comments. After all comments are received and coordinated, a response from the director will be sent to the County Department approving agency.

Please note that at this time we will not be able to provide comments without pre-empting the departmental response.

If you have any questions please call Mr. Clinton Yamada at (808) 933-1951.

Very truly yours,

STANLEY M. TAMURA
Hawai'i District Engineer

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ENVIRONMENTAL ASSESSMENT

Monk Seal Rehabilitation Facility at NELHA

North Kona District, Hawai‘i Island, State of Hawai‘i

APPENDIX 2
Archaeological Letter Report

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RECHTMAN CONSULTING, LLC
507-A E. Lanikaula St. Hilo, Hawaii 96720
phone: (808) 969-6066 fax: (808) 443-0065
e-mail: bob@rechtmanconsulting.com
ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL STUDIES

December 28, 2010

RC-0728

Theresa Donham, M.A.
Acting Archaeology Branch Chief
DLNR-SHPD
40 Po‘okela Street
Hilo, HI 96720

Dear Theresa:

In response to a DLNR-SHPD comment letter (DOC NO: 1012TD06) concerning the preparation of an environmental assessment for a new rehabilitation facility for monk seals, Tony Promessi of the Marine Mammal Center asked Rechtman Consulting, LLC to conduct a field inspection of a roughly 2.6 acre lot (portion of TMK:3-7-2-43:042) within the HOST park at NELHA, Kalaoa 5th Ahupua‘a, North Kona, Island of Hawai‘i. The study lot is situated just inland of the NELHA shoreline management area between two already developed lots and *makai* of a fully graded yet undeveloped lot (Figure 1). Between 1930 and 1989 there were at least eight archaeological studies (Barrera 1985, 1989; Clark 1984; Cordy 1975, 1985; Reineke 1930; Rogers-Jordane 1978; Rosendahl and Kirch 1975) conducted that included the current project area. Within the larger limits of Parcel 42, these studies resulted in the identification of twenty-four archaeological sites containing more than sixty individual features. Although no sites have been recorded within the current study area, one site (SIHP Site 10205) is located roughly eighty feet to the west of the current study lot. SIHP Site 10205 (also known as Bishop Museum No. D15-12) is a complex of four features associated with late Precontact/early Historic Period habitation. This site has been slated for preservation.

On December 22, 2010, Robert B. Rechtman, Ph.D. and Christopher Hand, B.A. conducted a thorough surface examination of the study Lot. Ground visibility was excellent throughout, with the bulk of the proposed development area exposed *pāhoehoe* (Figure 2). The extreme coastal portion of the study lot has a thin layer of coral-derived sand over the *pāhoehoe* and supports a modest growth of heliotrope tree (*Messerschmidia argentea*) (Figure 3). As a result of the fieldwork, the location of Site 10205 (Figure 4) outside of the current study boundary was confirmed. The boundary of the study lot is 50 feet away from the preservation buffer established for the site, and the site is situated within a portion of the shoreline area that for decades has been and will continue to be under the maintenance and monitoring of NELHA. As part of the new development, chain link fencing will be constructed along the property line in the vicinity of Site 10205 adding further protection from inadvertent impacts by activities of the facility. Additionally, prior to construction of the chain link fence, temporary construction fencing will be placed along the lot boundary in the vicinity of Site 10205.

As for the study lot itself, there were no surface archaeological resources observed during the field investigation and the likelihood of encountering subsurface resources is extremely remote. Based on these negative findings, on behalf of our client, we are requesting that DLNR-SHPD issue a written determination of “no historic properties affected” in accordance with HAR 13§13-284-5(b)1.

In the unlikely event that archaeological resources are encountered during subsurface development activities within the current study lot, work in the immediate area of the discovery will be halted and DLNR-SHPD contacted as outlined in Hawai‘i Administrative Rules 13§13-275-12.

Should you require further information, or wish to visit the lot, please contact me directly.

Respectfully,

Bob Rechtman, Ph.D.
Principal Archaeologist

References Cited

Barrera, W.
1985 Ke-ahole Point, Hawaii: Archaeological Reconnaissance. Historic Sites Section, Division of State Parks, Department of Land and Natural Resources, State of Hawaii. Chiniago Inc., Honolulu.

Clark, S.
1984 An Archaeological Reconnaissance of Natural Energy Laboratory Hawaii (NELH) Property, Keahole Point, North Kona, Hawai‘i. Manuscript 110784. Department of Anthropology, B.P. Bishop Museum, Honolulu.

Cordy, R.
1975 Site Maps with Interpretations and Dates for Sites in Ooma 1, Ooma 2, Kalaoa 4, and Kalaoa 5, North Kona, Hawaii Island (TMK: 7-3-09, 10). Ph.D. work.

1985 Working Paper I: Hawaii Island Archaeology, Ooma and Kalaoa Ahupua‘a, Kekaha, North Kona (TMK:7-3). Historic Sites Section, Division of State Parks, Department of Land and Natural Resources, State of Hawaii.

Reinecke, J.
1930 Survey of West Hawaiian Sites: From Kailua, Kona, to Kalahuipuaa, Kohala. Manuscript. Department of Anthropology, B.P. Bishop Museum, Honolulu.

Rogers-Jourdane, E.
1978 Archaeological Reconnaissance Survey of NELH Facilities Area at Keahole Point, North Kona, Hawaii. Manuscript 061378. Department of Anthropology, B.P. Bishop Museum, Honolulu.

Rosendahl, P., and P. Kirch
1975 Archaeological Reconnaissance Survey of the Ke-ahole Point Natural Energy Laboratory Sites, North Kona, Hawaii Island. Department of Anthropology, Bernice P. Bishop Museum. Honolulu.

Figure 1. Current study lot and surrounding area.

Figure 2. Typical exposed *pāhoehoe* throughout most of the study lot.

Figure 3. Typical vegetation and sand in extreme coastal portion of the study lot.

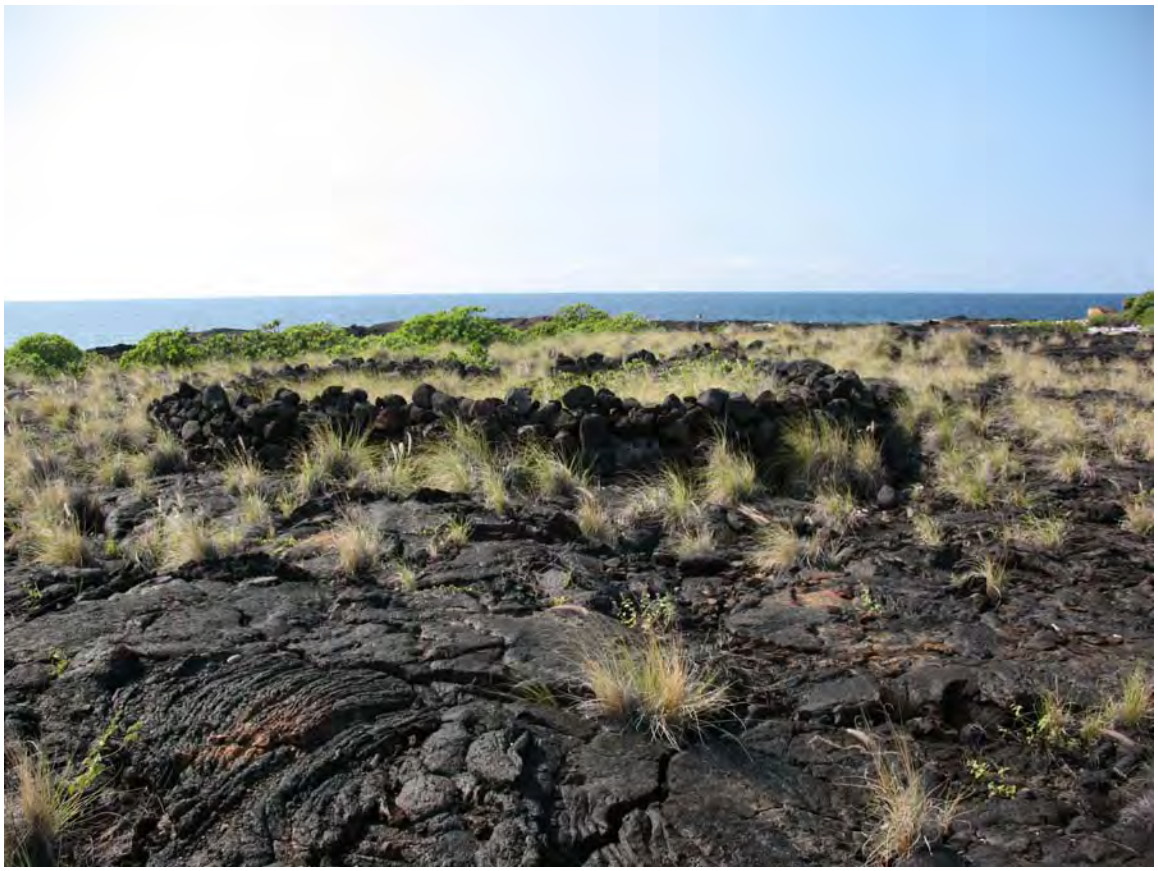

Figure 4. SIHP Site 10205 *makai* of study lot, view to the west.

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ENVIRONMENTAL ASSESSMENT

Monk Seal Rehabilitation Facility at NELHA

North Kona District, Hawai‘i Island, State of Hawai‘i

APPENDIX 3
14 CFR Part 150 Noise Compatibility Program Update
Noise Contour Maps for Kona International Airport

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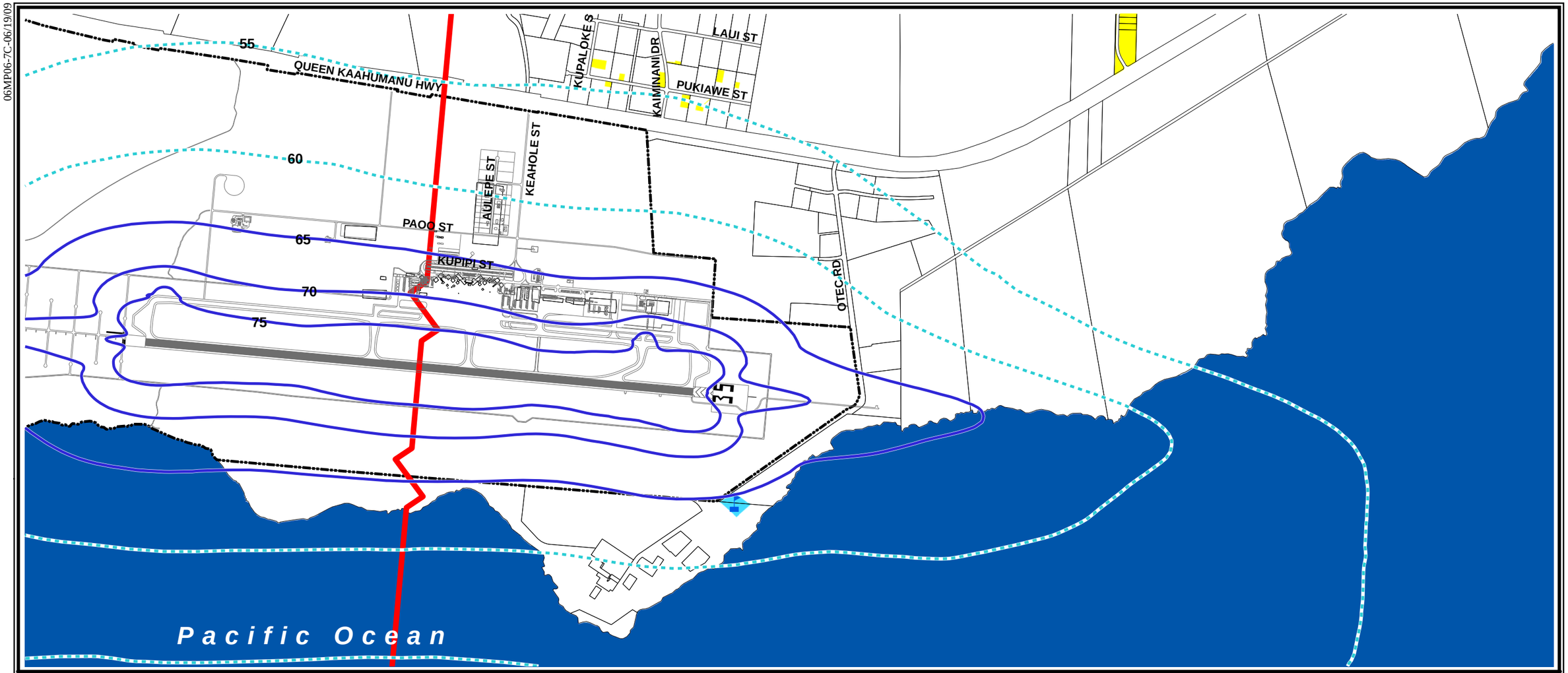
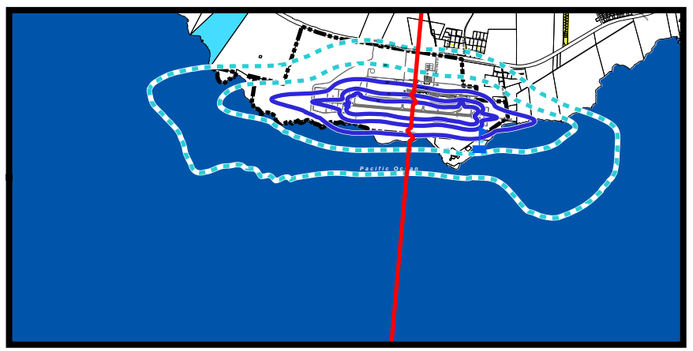
06MP06-7C--06/19/09



LEGEND

- Airport Property
- 2008 Noise Exposure Contour - (55 to 60 DNL)
- 2008 Noise Exposure Contour - (65 to 75 DNL)
- Residential
- Noise-Sensitive Institutions
- School
- Water
- Non Noise-Sensitive Land Use



North South

Source: Prepared by Coffman Associates.

Note: Contours pending final Master Plan airfield concept.

NORTH

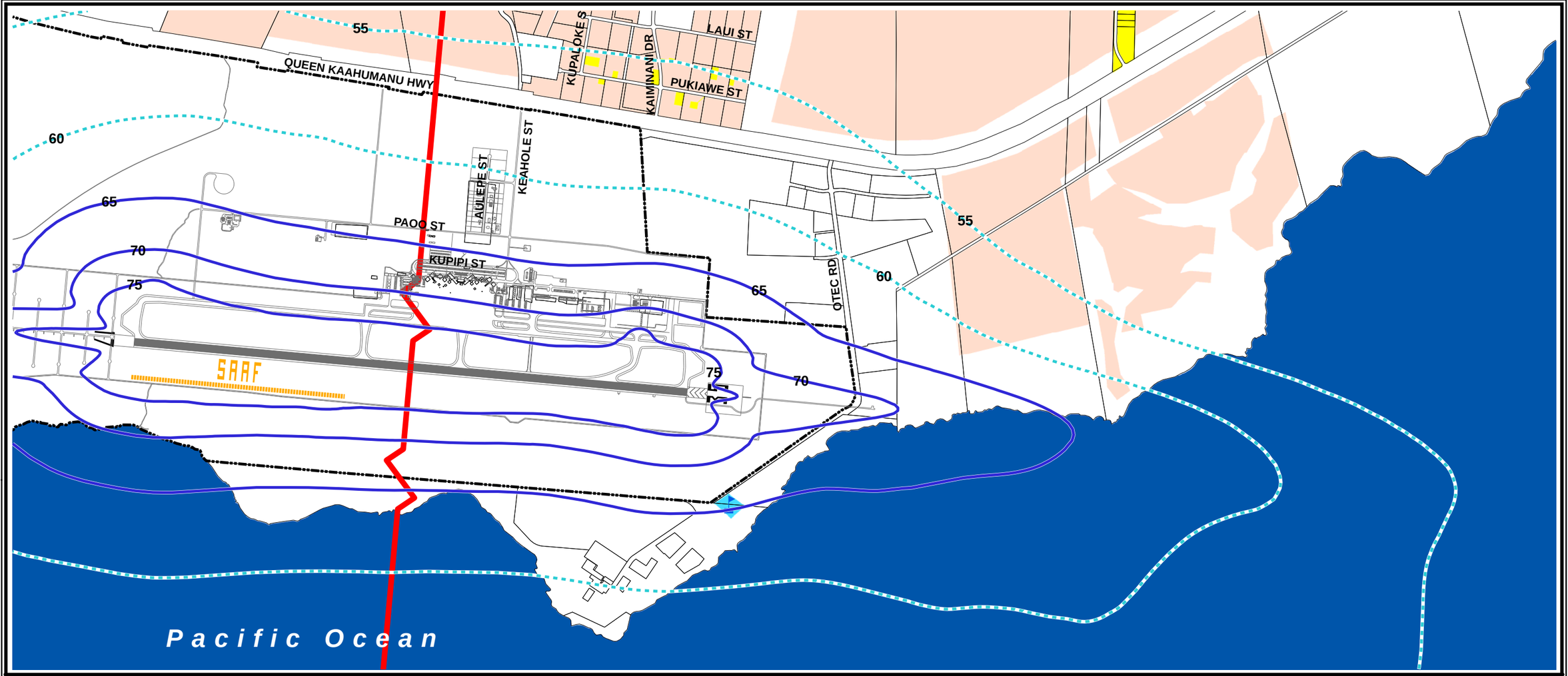
0 2,000

Feet

DRAFT

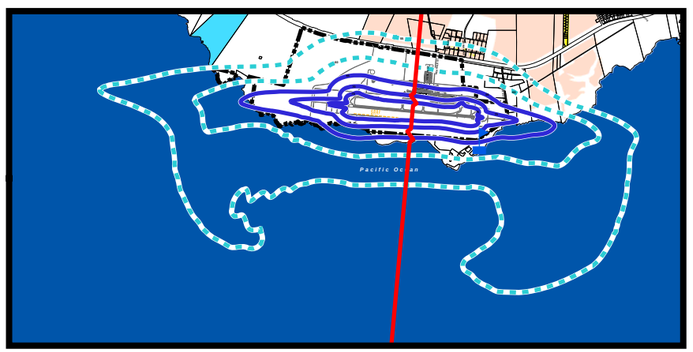
Exhibit 7C (Con't)
2008 NOISE EXPOSURE CONTOURS
WITH LAND USE (SOUTH)

06MP06-7D-06/19/09



LEGEND

- Airport Property
- Short Austere Airfield (SAAF)
- 2013 Noise Exposure Contour - (55 to 60 DNL)
- 2013 Noise Exposure Contour - (65 to 75 DNL)
- Residential
- Noise-Sensitive Institutions
- School
- Water
- Growth Risk Areas
- Non Noise-Sensitive Land Use



North South

Source: Prepared by Coffman Associates..

Note: Contours pending final Master Plan airfield concept.

NORTH

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Feet

DRAFT

Exhibit 7D (Con't)
2013 NOISE EXPOSURE CONTOUR
WITH LAND USE (SOUTH)

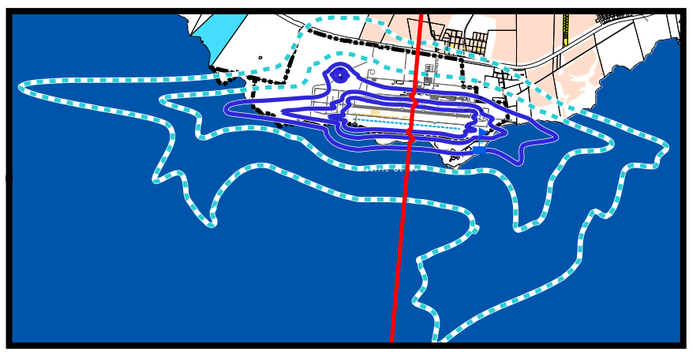
06MP06-7E-06/19/09

QUEEN KAAHUMANU HWY
KUPALOKE ST
KAIMANANI DR
LAUI ST
PUKIAWE ST
KEAHOLE ST
AULEPE ST
PAOO ST
KUPIPI ST
OTEC RD
SAAF
17L
17R
35L
35R
55
60
65
70
75

Pacific Ocean

LEGEND

- Airport Property
- Short Austere Airfield (SAAF)
- Ultimate Runways
- Long Range Noise Exposure Contour - (55 to 60 DNL)
- Long Range Noise Exposure Contour - (65 to 75 DNL)
- Residential
- Noise-Sensitive Institutions
- School
- Water
- Growth Risk Areas
- Non Noise-Sensitive Land Use



North South

Source: Prepared by Coffman Associates.

Note: Contours pending final Master Plan airfield concept.

NORTH

0 2,000
Feet

DRAFT

Exhibit 7E (Con't)
LONG RANGE NOISE EXPOSURE
CONTOURS WITH LAND USE (SOUTH)

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