

DRAFT ENVIRONMENTAL ASSESSMENT

‘ĀHIHI-KĪNA‘U NATURAL AREA RESERVE
BOUNDARY BUOY INSTALLATION PROJECT

‘Āhihi-Kīna‘u Natural Area Reserve
Mākena District
Island of Maui

In accordance with
Chapter 343, Hawai‘i Revised Statutes

Proposed by:

State of Hawai‘i
Department of Land and Natural Resources
Division of Forestry and Wildlife
Natural Area Reserves System
1151 Punchbowl Street, Room 325
Honolulu, Hawai‘i 96813

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I. SUMMARY

<u>Project Name</u>	‘Āhihi-Kīna‘u Natural Area Reserve Boundary Buoy Installation Project
<u>Project Location</u>	‘Āhihi-Kīna‘u Natural Area Reserve Makawao District Island of Maui TMK (2)-2-1-004:073
<u>Land Use</u>	Conservation District Protective Subzone
<u>Proposing Agency</u>	State of Hawai‘i Department of Land and Natural Resources Division of Forestry and Wildlife Natural Area Reserves System
<u>Approving Agency</u>	State of Hawai‘i Department of Land and Natural Resources
<u>Anticipated Determination</u>	Finding of No Significant Impact
<u>Agencies Consulted</u>	
Federal:	U.S. Department of Agriculture, Natural Resources Conservation Service U.S. Department of Interior, Fish and Wildlife Service U.S. Department of the Army, Regulatory Branch U.S. Coast Guard Hawaiian Islands Humpback Whale National Marine Sanctuary National Marine Fisheries Service
State:	Department of Land and Natural Resources Division of Conservation & Resources Enforcement Division of Aquatic Resources Division of Boating and Ocean Recreation Division of Forestry and Wildlife Historic Preservation Division Land Division Office of Conservation and Coastal Lands State Parks Hawaii Tourism Authority Office of Hawaiian Affairs
County:	Department of Public Works and Environmental Management Department of Planning
Other:	Bishop Museum Community Work Day Program Ilio‘ulaokalani Coalition

Kahea – the Hawaiian Environmental Coalition
The Nature Conservancy of Hawai'i
Ulupalakua Ranch
Hawaiian Ecosystems at Risk
Sierra Club, Maui Group
REEF
Malama Kai
Historic Hawaii Foundation
Na Kapuna O Maui
Hawaii Audubon Society
Action Adventures
Blue Water Rafting
Pacific Coast Kayak
Makena Stables
Maui Eco Tours
Maui Kayaks
South Pacific Kayaks
Hawaii Wildlife Fund
Maui Shorecasting Club
Kahu Charles Kauluwehi Maxwell
Mr. Dino Ventura
Mr. Rob Parsons
Mr. Jim Hylkema
Mr. Pat Borge
Mr. John Barclay
Mr. Joe Sugarman
Mr. Douglas Schatz
Mr. Stuart Dapitan
Mr. Ed Chang
Ms. Dana Naone Hall
Ms. Leslie Kuloloio
Ms. Mary Evanson
Ms. Toni Davis
Mr. Brian Oshikawa
Mr. William Tabon
Ms. Terryl Venc
Mr. Booby Luuwai
Mr. Henry Lau
Mr. Nathan Varns
Mr. Fred Constance
Mr. Kevin Cacho

Summary of Proposed Action

The Hawai'i Department of Land and Natural Resources, Division of Forestry and Wildlife, Natural Area Reserve System proposes the installation of boundary buoys along the marine boundary of 'Āhihi-Kīna'u Natural Area Reserve (NAR), Maui. Use of motorized vessels within a Natural Area Reserve is prohibited under current State administrative rules, and the establishment of boundary buoys will provide visual cues for boaters to prevent unintentional entry. Potential impacts of installing boundary buoys in the marine waters of

‘Āhihi-Kīna‘u NAR include possible disturbance and damage to colonized bottom, alteration of the viewshed, and the addition of a new light source in the immediate area. Impact mitigation measures include using information from seabed surveys to select anchoring sites.

II. PROJECT PURPOSE AND NEED

The Natural Area Reserves System was established in 1970 by the State Legislature to “preserve in perpetuity specific land and water areas which support communities, as relatively unmodified as possible, of the natural flora and fauna, as well as geological sites, of Hawai‘i” (Hawaii Revised Statutes (HRS), Chapter 195). There are currently 19 Natural Area Reserves covering approximately 109,000 acres on Kaua‘i, O‘ahu, Moloka‘i, Maui, and the island of Hawai‘i. Although the Natural Area Reserves System encompasses less than three percent of the State’s land area, it represents the greatest concentration of protected biodiversity in the nation.

The 2,045-acre ‘Āhihi-Kīna‘u Natural Area Reserve was established in 1973. It is the first reserve in the State Natural Area Reserve System and is unique in that it is the only reserve that contains a marine area. ‘Āhihi-Kīna‘u NAR consists of four main components: (1) lava flows with dryland vegetation that represent the most recent volcanic activity on Maui; (2) brackish anchialine pools with unique invertebrates and environmental character; (3) a pristine nearshore ecosystem containing a diverse array of marine life; and (4) offshore marine waters, containing rare marine cave ecosystems and serving as a buffer zone to protect the fragile nearshore coastal component.

One of the justifications for including marine waters up to one-half mile offshore as part of the Reserve was to ensure an adequate buffer zone and enhance protection of the unique and sensitive features found in the nearshore waters along the coastline. The convoluted coastline within the NAR stretches approximately 2.5 miles. Geologic formations along the coastline created a series of coves and shallow bays in which fish, algae, coral, and other invertebrates can grow and reproduce protected from wave action. The coastline of the NAR is a protected breeding and nursery area, a baseline against which to evaluate unprotected areas (in accordance with Act 139) and a priceless area for scientific research. ‘Āhihi-Kīna‘u contains one of the most intact coral reef ecosystems in the main Hawaiian Islands whose quality equals that of the reefs in the northwestern Hawaiian Islands.

Management policies and administrative rules for the Natural Area Reserves System (NARS) recognize the importance of protecting the unique natural resources found within these reserves and prohibit certain activities due to their potential impact on the sensitive environment. Of particular relevance to ‘Āhihi-Kīna‘u is the prohibition on fishing, motorized watercraft use, and commercial activity of any kind (HAR § 12-209-4), as these activities may impact the marine environment, including fish populations and coral health. State boating rules also limit the operation, anchoring or mooring of vessels in ‘Āhihi-Kīna‘u (HAR § 13-244-32).

In the past, however, funding has not been available to fully support the active management needed to protect marine natural resources in Ahihi-Kinau from damage by visitors or illegal activities. Illegal activities such as poaching, motorized watercraft use, and anchoring have occurred in the past and are likely to continue until boundary buoys are installed. For example, between September 2004 and August 2006, 54 incidents of poaching, 44 incidents of boats illegally entering reserve waters, and nine incidents of anchoring within reserve waters were observed by DOFAW staff.

Currently, it is difficult to determine the reserve boundary while in marine waters; thus, unintentional violations of the rules are not uncommon. Although citations have been delivered to offenders who illegally operate motorized watercraft or illegally fish from a boat within the marine portions of the reserve, several of these citations have been dismissed due to “insufficient notice” of reserve boundaries. It has been indicated that similar cases will not be prosecuted until the reserve boundaries are adequately marked.

The installation of boundary buoys will significantly reduce the number of unintentional violations and improve enforcement capacity against those intentionally violating the restrictions on activities within the NAR. The visual presence of the buoys should address the existing risk of harm to sensitive marine resources posed by anchoring or mooring vessels unaware of the presence of the NAR and the sensitive features it was established to protect. In addition, the buoys may provide an opportunity to inform and educate members of the boating community about the unique marine resources found in Hawaii and the corresponding role each individual can play in protecting these resources. Installation of buoys will enhance enforcement capacity by adequately marking the borders of the reserve. Finally, installation of boundary buoys may improve safety for recreational users of the marine waters of the reserve, by minimizing the possibility of a boat entering the reserve and mistakenly hitting a snorkeler, diver, or swimmer.

Overall, the proposed buoy installation is anticipated to have a positive impact on the long-term protection of the marine and coastal resources. It will improve the general health of the marine ecosystem by reducing the number of unintentional entries in the reserve and increasing visitor safety.

‘Āhihi-Kīna‘u Natural Area Reserve occurs on State owned lands and marine waters within the Conservation District and State funding will be used to implement this project. These conditions trigger the need for an Environmental Assessment to be written in accordance with Chapter 343, HRS.

III. SUMMARY DESCRIPTION OF AFFECTED ENVIRONMENT

Location

The project area is located within ‘Āhihi-Kīna‘u Natural Area Reserve in south Maui. ‘Āhihi-Kīna‘u Natural Area Reserve occupies 1,238 acres on land and 807 acres in the ocean. The reserve is surrounded by State-owned land on the east and north occupying approximately 970 acres, Hawaiian Home lands to the northwest occupying approximately 88 acres, and the Pacific Ocean to the

west and south. Some private inholdings also exist within the reserve and along the road before entry into the NAR.

The reserve is accessible to the public by way of a paved Mākena-Keone'ō'io Road that bisects the reserves and by ocean navigation. Mākena-Keone'ō'io Road is frequently used by hikers, snorkelers, divers, surfers, fishermen, and other user groups from the area. Visitors to the marine portions of the NAR typically swim from shore or use kayaks to sightsee along the coastline. In addition to NAR users, ocean vessels often pass through the corners of the marine boundary.

The proposed location of the buoy anchor sites is approximately one-half (.5) mile off the coast, within the Protective Subzone of the Conservation District. A map of the project area, describing the proposed buoy sites, is included in Appendix A.

Marine Resources

The NAR contains fragile coral reefs, sandy beaches, and a number of isolated coves that represent unique marine habitats for the south Maui coastline.

The ocean bottom at the proposed buoy anchor sites ranges in depth from approximately 44 feet to 120 feet. Based on information gathered from other sources and from preliminary surveys, the benthic habitat in the general area of the proposed buoy anchor sites is primarily uncolonized hardbottom (hard substrate composed of relict deposits of calcium carbonate or exposed volcanic rock) with sand patches and colonized hardbottom (hardened substrate of unspecified relief formed by the deposition of calcium carbonate by reef building corals and other organisms (relict or ongoing) or existing as exposed bedrock or volcanic rock) with sand. In comparison to the nearshore marine habitat, the proposed anchor locations contain a low diversity of coral and marine species.

Fish species typically observed in the marine waters near the reserve boundary include jacks (*Carangidae*), snappers (*Lutjanidae*), wrasses (*Labridae*), surgeonfish (*Acanthuridae*), and other common fish species. Humpback whales (*Megaptera novaeangliae*), spinner dolphins (*Stenella longirostris*), several requiem shark species (*Carcharhinidae*), and green turtles (*Chelonia mydas*) have also been known to traverse the area.

Significant and Sensitive Habitats

The entire 'Āhihi-Kīna'u Natural Area Reserve is considered to be a sensitive habitat by virtue of being a Natural Area Reserve. In addition, the marine waters of 'Āhihi-Kīna'u are within class AA waters, as defined in HAR Chapter 11-54. 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. Finally, the marine waters of 'Āhihi-Kīna'u are within the Hawaiian Island Humpback Whale National Marine Sanctuary.

Archaeological Sites and Cultural Practices

Based on a review of publicly available information and consultation with State Historic Preservation and Hawaiian organizations, it is believed that there is one known archaeological or cultural site in the project area. In 1994, a private individual catalogued and documented traditional stone fishing sinkers and octopus lure sinkers that had been collected by local divers from six locations within the general area of 'Āhihi Bay. The collection sites were located 300 to 1,200 feet offshore in waters ranging from 30 to 130 feet deep. These sites have been listed on the State Inventory of Historic Places as traditional fishing grounds (SIHP No. 50-55-00-2921). It is believed that there is a possibility that additional coral encrusted stone fishing and octopus lure sinkers and/or (*palu*) bait stones may exist in the area, but to date, there have been no systematic study of the offshore waters. There may also be underwater piles of stones (*imu* or *umu*) that were built as shelters and feeding areas for fish.

Cultural features were not observed during initial reconnaissance surveys by DAR staff of the five initially proposed buoy anchor sites. However, prior to the installation of the buoy anchors, special care will be taken to dive and inspect the locations to identify and catalogue any cultural artifacts that may be impacted by the anchors. If any underwater sites are identified, buoy anchor locations will be moved to preserve the integrity of the sites.

In addition, the Department recently contracted for the development of a Cultural Resources Management Plan for the entire 'Āhihi-Kīna'u NAR. While this plan focuses primarily on the terrestrial portion of the reserve (which includes a former Hawaiian fishing village), work associated with this plan may encounter additional information relevant to the development and installation of marine boundary buoys. If so, the information will be used to avoid or minimize any impact to cultural or historic features.

Under current Natural Area Reserve administrative rules, traditional and cultural gathering is allowed by permit. A Special Use Permit for traditional and cultural activities within 'Āhihi-Kīna'u Natural Area Reserve was granted to a family allowing them to fish from shore in the reserve, but no permit applications have been received nor permits issued for any cultural activities in the offshore area.

Human Use

For several years, the number of visitors to 'Āhihi-Kīna'u has increased, with a corresponding increased impact to the natural resources of the reserve. Recognizing that uncontrolled increases of unsupervised visitors could eventually destroy the very features that attract users, the Division instituted short-term actions and began long-term planning for the future of the area. One important element was the hiring of two rangers in 2004 through funding received from the Hawaii Tourism Authority to provide an on-site presence. In

addition to acting as an information resource to users, these rangers respond to minor first-aid concerns, supervise volunteers, deter resource violations, and record incidents occurring in the reserve. Based on Ranger and volunteer observations, approximately 700 people a day visit 'Āhihi-Kīna'u to view the coastline, hike to remote coastal coves, and snorkel and dive in the nearshore marine waters to view the marine life. Most of the water users remain in the nearshore area and do not venture out to the marine boundary. However, commercial boats often pass 'Āhihi-Kīna'u as part of regular sight-seeing, snorkeling, and diving tours.

IV. PROJECT DESCRIPTION

General

The Department proposes to install Coast Guard approved, lighted can shaped buoys just inside the marine boundary in 'Āhihi-Kīna'u Natural Area Reserve. A pole will also be installed on land on each coastal boundary to act as a marker. Depending on the depth and composition of the ocean bottom at each buoy anchor site, either a hard/soft bottom anchoring system or a concrete block anchor will be utilized. The buoys are intended solely to mark the marine boundary of 'Āhihi-Kīna'u.

Site Selection

The Executive Order that defines the boundaries of the Natural Area Reserve was used as a reference in determining the initial five (5) coordinates for proposed buoys. These locations represent the corners of the Reserve boundary.

It is anticipated that significant lateral and vertical buoy movement will occur due to changes in tide, wave action, and currents. Thus, potential anchoring sites were preliminarily selected to ensure that surface buoys will remain on or just inside the boundary of the reserve. Another criteria used during preliminary site selection was locations where there is solid substrate and where there is no live coral immediately surrounding the site.

A GPS instrument and navigational charts were then used to dive the preliminary anchor locations to determine the feasibility of the project given the current ocean bottom habitat. Preliminary surveys conducted by Division of Aquatic Resources staff indicate that installation of buoy anchors in this location would have minimal impact on the benthic habitat.

During pre-consultation, the Division received comment expressing concern about the long distance between the three (3) northern buoys. The distance between the northernmost buoy and the buoy location off of Nuku'ele Point is approximately 1.37 miles. The distance between the second buoy and that off of Pōhakupaea is approximately .95 miles. These distances are nearly double the distance of the separation between the other buoys, and there is concern that two long unmarked distances will be confusing for ocean goers who may not be able to distinguish the marine boundary.

The Division will make a final decision on whether or not to add two additional buoys based on availability of funding and information from surveys of the ocean floor at the additional two sites.

Prior to actual installation, all anchor sites will be carefully surveyed once more to identify specific locations for anchors and to minimize potential impacts. Final sites will be marked with a nail and tagged for the installation team. The sites will be reviewed with DLNR staff (including consultation as appropriate with staff with the Division of Forestry and Wildlife, Natural Area Reserves program, the Division of Aquatic Resources, and the Historic Preservation Division) to ensure that the installation will occur with minimal environmental impact.

Site selection for the land-based boundary markers will begin at the GPS location of the boundary of the natural area reserve. Staff will ensure that the location is visible from the ocean and conduct an archaeological survey and botanical survey to ensure that sensitive archaeological features are not damaged or harmed by installation and sensitive botanical resources are avoided.

Buoys

The Department proposes to use Coast Guard approved, lighted can buoys capable of withstanding open ocean currents and conditions. These buoys will be approximately five to seven (5-7) feet tall, and four-six (4-6) feet wide. They will be painted, lighted, and signed in accordance with Coast Guard and DOBOR regulations. Signage will include information notifying users of the “no mooring,” “no motorized vessels,” and “no fishing” rules within the Natural Area Reserve. Actual models will be selected based on considering the wilderness character of the area, the need for day and night visibility, the sturdiness of construction, the use of lightweight materials, and the cost to allow ease of installation, maintenance, and replacement if necessary.

Installation

The mooring system for the boundary buoys has two components: (1) anchoring to the ocean floor; and (2) a line extending toward the ocean surface and attached to the surface buoy. The most likely anchoring method is to use concrete blocks as anchors for the buoy anchor sites deeper than 100 feet and anchoring pins for the buoy anchor sites shallower than 100 feet. The final determination on the installation will be made in consultation with the Army Corps of Engineers, Coast Guard, and Division of Aquatic Resources.

The method of installing concrete blocks as an anchor involves transporting heavy concrete blocks to the proposed anchor site by boat and lowering the block, with the mooring line attached, into the water to the desired location on the ocean floor.

The anchoring pin system utilizes a stainless steel eyebolt for a single buoy pin (or two pins with a bridle for a two-point system) that is inserted into a 1-inch diameter hole drilled into solid bottom. For soft bottoms such as sand,

Manta Ray® sand anchors will be installed using a similar technique. Each anchor pin will require the drilling of a hole approximately 1 inch in diameter and 18 inches deep. For a two-point mooring, two holes are required. The holes are drilled using an underwater hydraulic drilling unit that consists of an onboard portable hydraulic unit, hydraulic line, and an underwater drilling unit. The underwater team consists of one person handling the drilling unit and the other as an alternate operator and dive buddy. After the holes are drilled, pressurized air is injected into the hole to clear out debris. A suitable underwater grout, such as Quikcrete®, is inserted into the hole; a threaded stainless steel eyebolt, approximately 7/8-inch in diameter, is then implanted and left for about 24 hours to properly set. After sufficient time for the grout to cure, a testing team pull-tests the pin by applying at least 5,000 pounds of vertical force. Following successful testing, a mooring chain and buoy is attached.

Two installation methods are proposed to address the concerns associated with the installation of the mooring system. Anchor pins impact the surrounding substrate considerably less than large concrete blocks, which have the potential of being lifted and moved during rough seas or during installation, acting like a “hammer” upon a reef. In a reserve, all impacts to the natural resources should be minimized; however, the use of anchor pins in depths greater than 100 feet provide a safety concern for those who are installing the pins. Because concrete blocks are lowered into place, this installation method is without the hazards associated with scuba diving at depths greater than 100 feet. However, this installation method is costly in terms of supplies, installation, and potential impact on the surrounding ocean floor. Due to the varying depths of the proposed anchor locations, it is proposed that concrete blocks be used only at locations deeper than 100 feet to enhance safety during installation and to minimize damage to the ocean substrate.

Alternative buoy anchoring methods used elsewhere were considered, including the use of heavy chains wrapped around rock formations, engine blocks, or other debris. These were considered unacceptable due to the potential impact on the surrounding marine environment.

The installation method for the two land-based markers is to drill into the ground, insert the boundary pole, and pour concrete to hold the pole upright.

Long-term Maintenance

The Division of Forestry and Wildlife will be responsible for the long-term maintenance of the boundary markers. When acquiring the initial materials needed for installation of the buoys, the Division will purchase additional items to have on hand in case of vandalism or damage during the first year after installation.

Timing & Costs

The installation of the buoys is expected to take approximately 16 to 18 months to complete. Funding available for the project is approximately \$60,000. Funds for the buoys and their installation are provided through the

State Natural Area Reserve Special Fund. Procurement for the buoy construction and the buoy installation will proceed as soon as all necessary approvals have been granted.

V. ALTERNATIVES CONSIDERED

Preferred Alternative: Installation of Boundary Markers

The preferred alternative of installing boundary markers to mark the marine boundary of 'Āhihi-Kīna'u Natural Area Reserve is anticipated to significantly reduce the number of unintentional motorized boat entries into the reserve and improve enforcement capacity against those intentionally violating the restrictions on activities within the NAR. Marking the boundary is critical to successful enforcement of reserve rules. Marking the boundary is anticipated to also provide a public safety benefit by deterring boater entry into the protected waters, reducing the threat of a boat mistakenly hitting a snorkeler, diver, or swimmer is significantly reduced.

Overall, the proposed buoy installation is anticipated to have a positive impact on the long-term protection of the marine and coastal resources. It will improve the general health of the marine ecosystem by reducing the number of unintentional entries in the reserve and increasing visitor safety.

The preferred alternative combines two installation options: use of concrete block anchors for deep waters and anchor pins for shallow waters. Alternative buoy anchoring methods currently used in Hawaii such as the use of heavy chains wrapped around rock formations, or engine blocks and other debris, are not being considered as they are visually unaesthetic and potentially damaging to corals (i.e., lifting and dropping of weights act like a "hammer" upon the reef).

Alternative #2: No Action

The "no action" alternative maintains the status quo of no boundary distinction. The no-action alternative is not preferred as it does not provide any significant long-term protection to the unique natural marine resources of the Natural Area Reserve. It would hinder the protection of the ecosystem by facilitating continued illegal fishing, anchoring, and motorized watercraft use, both unintentional and intentional. Further, by allowing continued degradation of the Natural Area Reserve, it could reduce the long-term viability of many species found within the project area.

An alternative of no action is inconsistent with the NARS mandate to protect native ecosystems and geological sites in perpetuity, pursuant to Chapter 195, HRS. The no-action alternative effectively accepts the deterioration and eventual loss of unique and rare marine species and would preclude coral reef recovery efforts in the Reserve. In addition, a no-action alternative will continue to threaten the safety of snorkelers, divers, and swimmers in the area due to illegal motorized watercraft use. Without boundary markers, boat drivers have no way of identifying the reserve and could possibly run over ocean users.

VI. GENERAL DESCRIPTION OF THE ACTION INCLUDING ENVIRONMENTAL AND SOCIOECONOMIC CHARACTERISTICS

Environmental Impacts

The primary short-term environmental impacts of the proposed action are associated with installation of buoy pins and concrete anchor blocks. Installation will require some disturbance of the ocean bottom and displacement of some common coral reef species in the immediate vicinity of the buoy pins or concrete blocks. Where possible, anchoring sites will be located where there is uncolonized hard bottom to minimize damage to live coral. Areas with sensitive biological resources would be avoided. Due to the minimal amount of coral growing at depths greater than 100 feet, little to no impacts to live coral are anticipated from the installation of concrete anchor blocks.

Installation of anchor pins involves the drilling of a hole approximately one inch in diameter and 18 inches deep. After the holes are drilled, pressurized air is injected into the hole to clear out debris. Thus, drilling associated with the installation of anchor pins will temporarily release fine sediments into the water column. The sediment is anticipated to disperse with prevailing currents. There is also the possibility of minimal amounts of hydraulic oil being released into the ocean in the event of a failure in the hydraulic line.

After installation, the possibility exists that coral species may be damaged by contact with the chain during extreme low tides, but this would rarely, if ever, occur, and total damage is not expected to be significant. In addition, the possibility exists for marine life entanglement with the buoy mooring chains. Due to the nearshore location of boundary buoys, the risk of entanglements is not considered high.

Noise and water pollution from motorized vessels and the use of small power tools would be unavoidable during buoy pin and concrete anchor installation. Increased human activity in the project area resulting from buoy pin and concrete anchor installation would be necessary and may temporarily disturb marine life in the immediate vicinity of the installation.

The five boundary markers would constitute a new visual element on the marine landscape, and the lighting of the buoy to ensure visibility may be seen from shore at night. The lighting may also confuse or distract marine life in the immediate area. These impacts are unavoidable, but are not anticipated to be significant based on observations of other marker buoys.

The long-term environmental impacts of the proposed action associated with the proposed buoy installation are the long-term benefits associated with the reduction in fishing, anchoring, and the motorized vehicles within the natural area reserve. Populations of marine life should increase in numbers once boundary buoys are installed and illegal activities are reduced stopped. In addition, the installation of boundary buoys may provide an additional breeding

habitat for fish much like the environments provided by fish aggregating devices.

Socio-Economic Impacts

The proposed action involves the expenditures of funds necessary to complete the project, including the purchase of buoys, buoy lights and accessories, pins and anchoring accessories, and the labor necessary for surveys and installation.

The total budget for the buoy installation project is \$60,000. Positive economic impacts would result from the release of project funds into the State economy through the purchase of buoy materials and employment of installation crews. The proposed action may attract additional funding for future research and marine management efforts.

Appropriate public access to, and use of, the area would not be affected by the proposed action. The project area would remain open space for legal users and would continue to be managed as a natural area reserve. Public swimming, snorkeling, scuba diving, kayaking, nature study, research, and other permitted activities would still be allowed in the 'Āhihi-Kīna'u Natural Area Reserve.

There could be a short-term impact to the marine boating community as they become aware of the existing rules relating the natural area reserve and the location of the actual reserve boundary, as they have to modify their normal boating routes.

Finally, the long-term socio-economic impacts of the proposed action include protecting marine habitat on Maui. The proposed buoy installation would contribute to the management and recovery of a unique marine habitat and help to protect opportunities for nature appreciation, education, and research.

Fishing Impacts

The project area falls within 'Āhihi-Kīna'u Natural Area Reserve. Under the current NARS rules, fishing of any kind is prohibited in the Reserve; therefore, the proposed action will not have a negative effect on fishing activities within the Reserve. Over the long-term, the proposed action would result in an increase of fish populations in the surrounding areas by providing an additional breeding habitat along the buoy chains and an increased protection for breeding populations of fish within the Reserve.

Cultural Impacts

The proposed action is not expected to affect traditional or cultural practices. There are no known traditional and cultural activities associated with the project area that might be impacted by buoy installation. Because public access for legal activities would not be affected in the long-term by the

proposed action, it should not impact access for Native Hawaiian cultural practices that may be in existence but are currently unknown. There may be cultural features, including sinkers and bait stones, in the area surrounding the proposed anchor sites, but none have been observed in the immediate project area to date. Because additional surveys will be made before final anchor site selection and the anchor site will be moved if any features are found, no impact to these features is anticipated.

VII. MITIGATION MEASURES

Although the proposed action is not expected to have any significant impacts on the environment, the following measures are proposed to mitigate any potential negative impacts resulting from the project.

The primary concern associated with this project is the possible impact that may occur to the ecosystems around the buoy anchor locations. In order to minimize these impacts, knowledgeable divers from DLNR will reassess the anchor locations prior to the actual installation.

A secondary concern involves the safety of the installation teams as well as the ocean goers after the installation of the buoys. It is likely that the installation of the buoys will be contracted to trained individuals who routinely install similar anchors. Procurement regulations will be followed to ensure that experienced and highly qualified individuals are contracted for the work. Previous to, during, and upon the completion of the project, significant effort will be made towards the notification of the public. Signs will be installed in harbors throughout Maui, the Department will contact local media to assist in notifying the public of the new boundary buoys, and the Coast Guard will be consulted to ensure that the new buoy locations are included in upcoming nautical charts.

Visual impacts of the buoys cannot be completely avoided, as the buoys need to be noticeable to be effective. Buoys and lighting schemes will be selected, however, so that the visual impact does not adversely affect the community or marine life any more than necessary for safety.

While there are no known archaeological or cultural sites affected by the proposed action, should evidence of any archaeological or culturally significant sites be encountered during buoy installation, all activity would immediately cease and the Division of Historic Preservation will be consulted immediately. Cultural practices such as the gathering of fish are already regulated by existing NARS rules, and the installation of buoys is not anticipated to affect these regulations.

VIII. ANTICIPATED DETERMINATION

It is not expected that this project will have a significant negative impact on the surrounding environment, and the proposed action is anticipated to result in a Finding of No Significant Impact.

IX. FINDINGS AND REASONS SUPPORTING EXPECTED DETERMINATION

The goal of the proposed action is to benefit the offshore marine ecosystem as well as the nearshore coastal ecosystem including a variety of rare marine flora and fauna. Creating a visible marine boundary will deter unintentional violations of State law and assist enforcement against illegal activity within reserve waters.

The anticipated Finding of No Significant Impact is based on the evaluation of the project in relation to the following criteria identified in the Hawai'i Administrative Rules § 11-200-12:

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

The proposed action does not involve an irrevocable commitment to loss or destruction of any natural or cultural resource. Instead, the proposed boundary buoy installation will provide long-term protection for the offshore marine and coastal habitat for native marine plants and animals, including endangered species. The positive results of the project are expected to more than offset any short-term damage incurred during installation of the buoys.

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

The proposed action will not curtail beneficial uses of the environment. Instead, the project will improve and protect one of the best examples of an intact protected coastal ecosystem in the State of Hawai'i that also hosts many plants and animals, including endangered species. The installation of boundary buoys will help to ensure that the range of beneficial uses continue in 'Āhihi-Kīna'u Natural Area Reserve.

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

The proposed action is consistent with the following: a) environmental policies established in Chapter 344, Hawai'i Revised Statutes (HRS); b) the State's mandate for the NARS set forth in Chapter 195, HRS and guidelines for activities in the Natural Area Reserves; and c) the State's mandate to conserve threatened and endangered species, as required by Chapter 195D, HRS.

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

The proposed action will not adversely affect the economic or social welfare of the community or state. The ecosystem protection goals of the project will directly benefit the economic, cultural, educational, and recreational interests of the community and State.

- 5) *Substantially affects public health.*

Public health will not be harmed by the proposed action. The proposed action will have a positive impact on public health by enhancing protection for native marine resources and by providing a well-marked “free swim” zone where users do not have to worry about encounters with motorized vessels.

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

The proposed action will not result in any substantial secondary impacts, such as population changes or effects on public facilities.

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

The proposed action does not involve a substantial degradation of environmental quality. Instead, environmental quality will improve with the implementation of the proposed action. Buoy installation and the deterrence of motorized vessels will enhance environmental quality by keeping harmful byproducts associated with motorized vessel use out of the reserve and by enhancing enforcement capacity against illegal poaching within reserve boundaries.

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

The proposed action is limited to buoy installation. The protection of marine resources will offset any short-term disturbance to substrate or marine life during buoy installation.

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

The proposed action will positively affect the species within the marine portions of Reserve. If no action is taken, impacts associated with poaching and motorized vessel use in the Reserve will continue to threaten marine mammals, corals, and fish species.

- 10) *Detrimentially affects air or water quality or ambient noise levels.*

The proposed action will have no long-term detrimental effects on air quality, water quality, or noise levels. Water quality will be temporarily affected by the disturbance of the ocean bottom, but it not expected to affect the water quality in the long term.

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

The project is proposed near the marine boundaries of ‘Āhihi-Kīna‘u Natural Area Reserve. There is a possibility that the buoys could be damaged by a natural disaster or catastrophic event. No known geological hazards are

present in the project area, but the area seasonally encounters high wave and wind action. A certain degree of damage is expected to occur to the buoys; therefore, yearly maintenance and possible replacement may be necessary.

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

The proposed action will not affect any vistas or view planes identified in county or state plans or studies. For the most part, the buoys will not be visible to most people due to the remoteness of the area and the relative small size of the buoys. While the buoys are intended to be visible to boaters, they are features commonly found and compatible with the marine environment, and are not anticipated to substantially affect the scenic vistas of south Maui.

- 13) *Requires substantial energy consumption.*

The proposed action does not require substantial energy consumption, but instead will consume small amounts of energy during buoy installation and for transportation of buoy and anchor materials and installation crews.

X. LIST OF PERMITS REQUIRED FOR PROJECT

Construction of this project requires approval by the Board of Land and Natural Resources, U.S. Coast Guard Private Aids to Navigation (PATON) permit, and U.S. Army Corps of Engineers permit. No other permits are anticipated.

XI. ENVIRONMENTAL ASSESSMENT PREPARATION INFORMATION

This Environmental Assessment was prepared by:

State of Hawai'i
Department of Land and Natural Resources
Division of Forestry and Wildlife
Natural Area Reserves System Program
54 South High Street,
Wailuku, Hawai'i 96793
Telephone (808) 984-8100, Facsimile (808) 984-8111

XII. REFERENCES

County of Maui Department of Planning. Kihei-Makena Community Plan. 1998. available at <http://www.co.maui.hi.us/departments/Planning/pdf/kihei.pdf>.

Hawaii Administrative Rules, Chapter 13-209. Rules Regulating Activities in Natural Area Reserves. Department of Land and Natural Resources, Division of Forestry and Wildlife.

Hawaii Administrative Rules, Chapter 13-245. Rules Regulating Department of Land and Natural Resources, Division of Boating and Ocean Recreation.

Hawai'i Revised Statutes. Chapter 195.

NOAA National Ocean Service, National Centers for Coastal Ocean Sciences, Center for Coastal Monitoring and Assessment, Biogeography Team. Benthic Habitats of the Main Hawaiian Islands: Interim Product.

Personal Communications with Teri Ohallaran, Day-Use Moorings. Field notes. 2005.

Personal Communications with Chris Bearden, U.S. Coast Guard. Field notes. 2004.

Personal Communications with DLNR, Division of Conservation and Resource Enforcement, Maui Branch. Field notes. 2003-2005.

Personal Communications with DLNR, Division of Aquatic Resources, Maui Branch. Field notes. 2003-2005.

Pratt, Douglas. The Birds of Hawaii and the Tropical Pacific. 1987.

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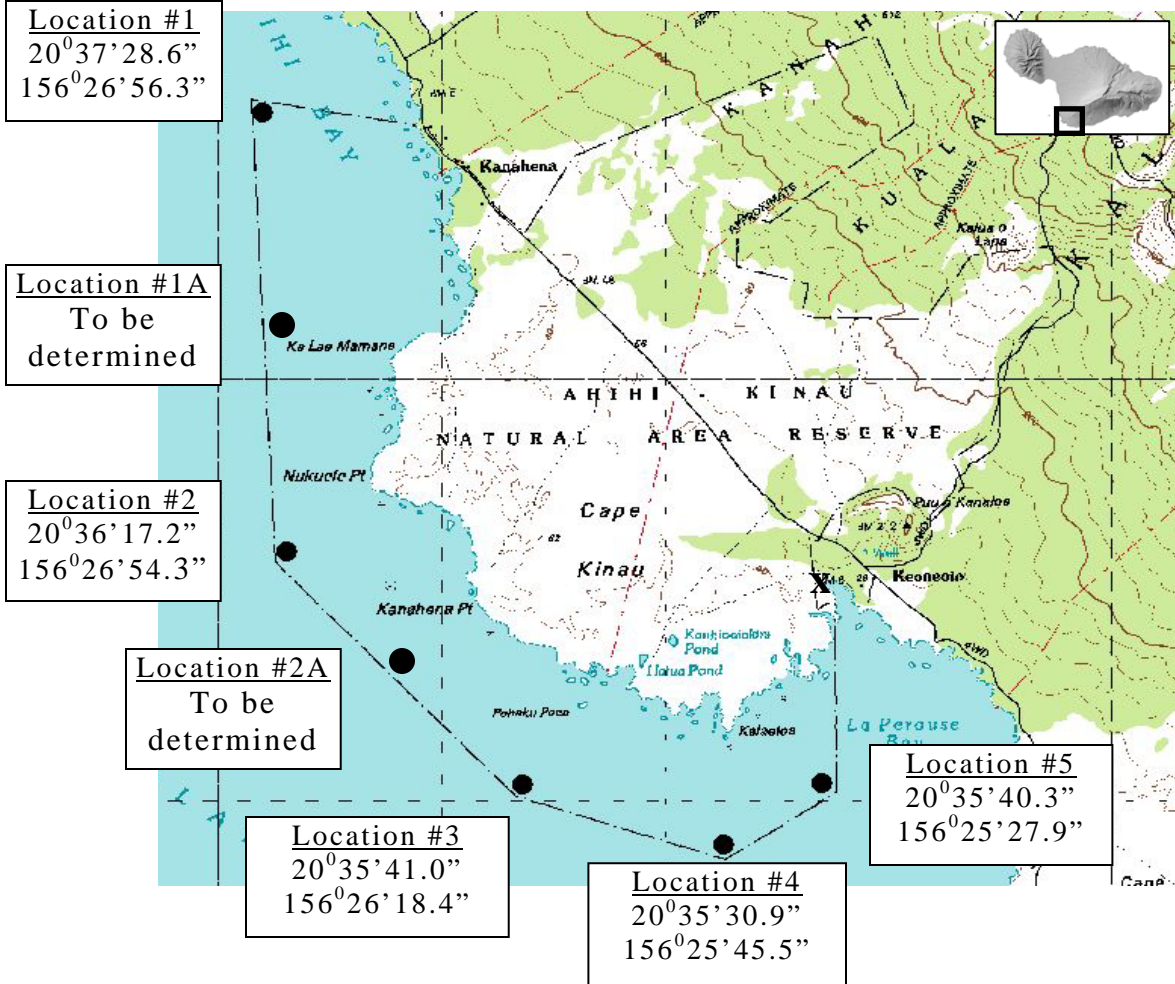
Tinker, Spencer. Fishes of Hawaii. 1978

Tomich, Quentin P. Mammals in Hawaii. 1969.

XIII. LIST OF APPENDICES

Appendix A	Map of Project Site and General Buoy Anchor Locations
Appendix B	Letters Received During Pre-consultation

APPENDIX A
Map of Project Site and General Buoy Anchor Locations*



Buoy Location**		Date DAR Surveyed	Depth	Description
1	20°37.3 N 156°26.8 E	02/23/04	44 ft	Uncolonized hard bottom with sand patches
1A	-----To be determined -----			
2	20°36.1 N 156°26.7 E	02/23/04	~120 ft	Uncolonized hard bottom with and patches
2A	-----To be determined -----			
3	20°35.5 N 156°25.3 E	02/24/04	69 ft	Colonized hard bottom and sand
4	20°35.3 N 156°25.6 E	02/24/04	80 ft	Colonized hard bottom and sand patches
5	20°35.5 N 156°26.1 E	02/24/04	119 ft	Uncolonized hard bottom with small sand patches
X	Location of Land-Based Boundary Markers			

* Boundary locations taken from 1973 Executive Order

** Approximate GPS locations taken by DAR while surveying possible anchor locations

APPENDIX B

Comments received during Pre-consultation

Written comments were received from the following during pre-consultation planning:

- DLNR, Division of Aquatic Resources
- DLNR, Historic Preservation Division
- DLNR, Division of Conservation and Resources Enforcement
- Maui County Department of Planning
- Department of the Army, U.S. Army Engineer District
- Community Work Day Program
- Office of Hawaiian Affairs
- Maui County Department of Public Works and Environmental Management, Development Services Administration
- Jim Hylkema
- Henry Lau
- Theresa Donham

DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES
130 MAHALANI STREET
Wailuku, Hawaii 96793
Phone # (808) 243-5834
March 1, 2004

To: Matt Ramsey, Natural Area Reserve System Research Assistant
Through: Francis Oishi, Program Manager *FO*
Bill Devick, Administrator *BD*
From: *Sh* Skippy Hau, Aquatic Biologist
Subject: Ahihi-Kina'u Natural Area Reserve Boundary Inspections

Last Monday and Tuesday (February 23 & 24), we inspected the five proposed boundary areas after our fish transects. Two of the locations were about hundred-twenty feet deep. We believe weights or anchors could be safely placed for buoy markers. We found areas with sand, rubble patches or unconsolidated hard bottom.

Enclosed is a copy of our edited videotape of the bottom.

Please call me if you have any questions.

Attachment
Enclosure

Ahihi-Kina'u Natural Area Reserve				Description	Depth
1	20°37.3 N	156°26.8 E	23-Feb-04	Uncolonized hard bottom with sand patches	44 feet
2	20°36.1 N	156°26.7 E	23-Feb-04	Uncolonized hard bottom with sand patches	~120 feet
5	20°35.5 N	156°25.3 E	24-Feb-04	Colonized hard bottom & sand	69 feet
4	20°35.3 N	156°25.6 E	24-Feb-04	Colonized hard bottom & sand patches	80 feet
3	20°35.5 N	156°26.1 E	24-Feb-04	Uncolonized hard bottom with small sand patches	119 feet

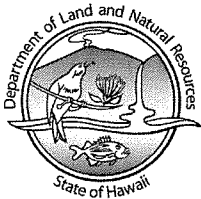
LINDA LINGLE
GOVERNOR OF HAWAII



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

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU
DEPUTY DIRECTOR - WATER



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

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

HAWAII HISTORIC PRESERVATION
DIVISION REVIEW

Log #: 2004.2050
Doc #: 0407CD17
Received: 7 June 2004

Applicant/Agency: Matt Ramsey
Address: State of Hawaii
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street, Room325
Honolulu, Hawaii 96813

SUBJECT: Chapter 6E-8 Historic Preservation Review – Pre-Consultation on Environmental Assessment for Installing Boundary Buoys in Ahihi – Kinau Natural Area Reserve by the Division of Forestry and Wildlife, Island of Maui [State/DLNR]

Ahupua`a: Kanahena
District, Island: Makawao, Maui
TMK: (2) 2-1-004:073, 113

1. We believe there are no historic properties present, because:

- a) intensive cultivation has altered the land
- b) residential development/urbanization has altered the land
- c) previous grubbing/grading has altered the land
- d) an acceptable archaeological assessment or inventory survey found no historic properties
- e) other: Based on the submitted document, we understand the proposed undertaking is located 0.5 miles offshore and no ground altering activities are involved.

2. This project has already gone through the historic preservation review process, and mitigation has been completed .

Thus, we believe that “no historic properties will be affected” by this undertaking

In the event that historic sites (human skeletal remains, etc.) are identified during the construction activities, all work needs to cease in the immediate vicinity of the find, the find needs to be

protected from additional disturbance, and the State Historic Preservation Office needs to be contacted immediately at 243-5169, on Maui, or at (808) 692-8023, on O`ahu.

Staff: Cathleen A. Dagher
Cathleen A. Dagher
Assistant Maui/Lana`i Island Archaeologist
(808) 692-8023

Date: 7 July 2007

State of Hawaii
Department of Land and Natural Resources
Division of Conservation and Resources Enforcement
Maui Branch
54 S. High Street, Room #101
Wailuku, Hawaii, 96793

MEMORANDUM:

TO: Randy Awo, Branch Chief, Maui DOCARE

FROM: C. Matt Yamamoto, Field Supervisor-West District, Maui DOCARE

DATE: May 26, 2004

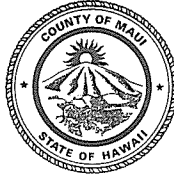
SUBJECT: RESPONSE TO ISSUES REGARDING BUOYS FOR AHIHI-KINAU, NARS.

- For the Coordinate system keep it simple suggest "Decimal Minutes", Example (37° 22.74 N by 156° 34.65 W) is sufficient.
- When installing the Buoys set the anchor blocks well within the boundaries taking into consideration the amount of scope in the line, ensuring the buoys at mean low tide remain inside of the boundary. Properly document all of that so when it gets challenged in court we can present that information which will help solidify the case. Lastly that information will help the enforcement officer decide on how solid the case is based on approximate distance within the boundary from the buoy which may warrant a Warning in Lieu of a Citation issuance.
- Prepare to include within the NARS rule a section which prohibits the tying or mooring a vessel to the buoys. Bill EVENSON related that he thinks the buoys will be of the Aid to Navigation (ATON) Type which is great due to it being high visibility. Officially even though the buoys would be the ATON type it would be classified as a Special Purpose Buoy, as such rules governing ATON's would not apply in this case.
- In certain areas there is a long stretch between buoys. One area being approximately a 1 ¼ mile span. Look at placing at least one buoy in between that span. Suggest buoys be placed no more that ½ mile apart.

ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

WAYNE A. BOTEILHO
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

June 30, 2004

Mr. Matt Ramsey
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 325
Honolulu, Hawaii 96813

Dear Mr. Ramsey:

RE: Pre-Consultation Comments on the Draft Environmental Assessment Prepared for Installing Boundary Buoys in Ahihi-Kinau Natural Area Reserve located at TMK: 2-1-004: 073 and 113, Makena, Island of Maui, Hawaii (LTR 2004/1993)

The Maui Planning Department (Department) has received the above referenced request and provides the following comments:

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

TMK: (2) 2-1-004: 073

- a. State Land Use: Conservation
- b. Kihei-Makena Community Plan: Conservation
- c. County Zoning: Not zoned

TMK: (2) 2-1-004: 113

- a. State Land Use: The majority of the property is designated as Conservation. The upper (mauka) reaches of the property appear to be designated as Agriculture. If needed, a boundary interpretation would be required from the State Land Use Commission to finalize the designations.
- b. Kihei-Makena Community Plan: Conservation
- c. County Zoning: Not zoned

Mr. Matt Ramsey
June 30, 2004
Page 2

2. In addition to the State Office of Hawaiian Affairs and the State Historic Preservation Division, the Department recommends consulting with Na Kupuna O Maui, a local community group, regarding Native Hawaiian rights and cultural practices.
3. The pre-consultation request inaccurately states the TMK numbers for the project area. Please note that the correct numbers are listed in Item #1 above.

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

Sincerely,



MICHAEL W. FOLEY
Planning Director

MWF:KAC:lar

c: Wayne Boteilho, Deputy Planning Director
Clayton Yoshida, AICP, Planning Program Administrator
Kivette A. Caigoy, Environmental Planner
General File
K:\WP_DOCS\PLANNING\EA\PreConComments\2004\1993_AhihiKinouNaturalRes.wpd



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

REPLY TO
ATTENTION OF

July 2, 2004

Regulatory Branch

Matt Ramsey
Research Assistant
Natural Area Reserve System
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 326
Honolulu, Hawaii 96813

Dear Mr. Ramsey:

This responds to your request for comments on the environmental assessment (EA) preparation notice for proposed installation of marine boundary buoys at Ahihi-Kinohiwa Natural Area Reserve (NAR), Maui (TMK 2-21-004-073 and 2-21-004-113). The project would involve installation of five lighted buoys approximately 0.5 miles offshore of the NAR. We have reviewed the preliminary project description you provided in your letter with respect to the Corps' authority to issue DA permits under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344).

Based on the preliminary information you provided, it appears that the project would involve work or structures in or affecting navigable waters of the United States and would therefore require a DA permit pursuant to Section 10. In addition, any discharge of dredged or fill material seaward of the high tide line (such as, for installation of buoy anchors) may require a DA permit pursuant to Section 404. We can provide a final determination of DA permit requirements when project plans are further developed.

Should you have questions concerning this preliminary determination, please contact Mr. Peter Galloway of my staff by telephone at (808) 438-8416; by fax at (808) 438-4060, or via e-mail (peter.galloway@usace.army.mil). Written inquiries should cite File No. **200400246** and should be sent to: Regulatory Branch (CEPOH-EC-R/P. Galloway); U.S. Army Engineer District, Honolulu; Building 230; Fort Shafter, Hawaii 96858-5440.

Sincerely,

A handwritten signature in black ink, appearing to read "George P. Young".

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



COMMUNITY WORK DAY PROGRAM

WEEPUL HEADQUARTERS • PUUNENE SCHOOL COTTAGE

P.O. BOX 757 • PUUNENE, HAWAII 96784

PHONE: (808) 877-2524

Fax: (808) 873-7762
June 29, 2004

Matt Ramsey
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 325
Honolulu, HI 96813

Dear Mr. Ramsey:

This letter shall serve as our Environmental Assessment comments for installing five lighted boundary buoys in the Ahihi-Kinau Natural Area Reserve.

Our first concern is that the lights may be obtrusive to both the public and the fish and wildlife in the area. The lights should not adversely affect the community, the fauna and/or the turtles in the area any more than possible. It is our understanding that translucent lights might be less obtrusive than regular lights both from ashore and in the water.

It is also our belief that merely implementing lighted buoys will not necessarily resolve the problem of keeping motorized boats from coming inside the boundaries, unless strict enforcement is also put into practice at the same time and in a continuous manner.

Sincerely,


Jan Dapitan
Executive Director



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

HRD04/1427

June 18, 2004

Matt Ramsey
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 325
Honolulu, HI 96813

RE: Pre-Consultation on environmental Assessment for installing Boundary Buoys in Ahihi-Kinau Natural Area Reserve by the Division of Forestry and Wildlife, Maui, TMK: 2-21-004:073 and 2-21-004:113

Dear Matt Ramsey,

The Office of Hawaiian Affairs is in receipt of your May 28, 2004, request for comments on the above project, which proposes the installation of five lighted buoys along the maritime boundaries of Ahihi-Kinau Natural Area Reserve. OHA offers the following comments.

OHA supports the idea of clearly identifying the boundaries of this important natural and cultural area preserve. By making the boundaries obvious, it is hoped that there will be fewer infractions of the prohibitions in those protected waters.

We look forward to reviewing the forthcoming Draft Environmental Assessment for this project. In the meantime, we suggest that you contact Thelma Shimaoka (contact information below) in our Maui office for possible referrals to local fishers and subsistence users in the area who could provide you with more detailed concerns and information about your proposal. Because lights do impact marine life by confusing them at night, we would suggest that you contact local people familiar with the area and its marine environment.

Thank you for the opportunity to comment. If you have further questions, please contact Heidi Guth at 594-1962 or e-mail her at heidig@oha.org.

Sincerely,

A handwritten signature in black ink, appearing to read "Clyde W. Namu'o". The signature is fluid and cursive, with the first name being the most prominent.

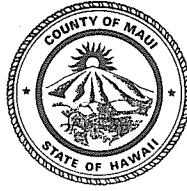
Clyde W. Namu'o
Administrator

CC: Thelma Shimaoka
Community Affairs Coordinator
Office of Hawaiian Affairs
Maui Office
140 Hoohana St., Ste. 206
Kahului, HI 96732

ALAN M. ARAKAWA
Mayor

GILBERT S. COLOMA-AGARAN
Director

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



COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
AND ENVIRONMENTAL MANAGEMENT
DEVELOPMENT SERVICES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

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

TRACY TAKAMINE, P.E.
Wastewater Reclamation Division

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

BRIAN HASHIRO, P.E.
Highways Division

JOHN D. HARDER
Solid Waste Division

June 16, 2004

Mr. Matt Ramsey
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 325
Honolulu, Hawaii 96813

**SUBJECT: PRE-CONSULTATION OF ENVIRONMENTAL ASSESSMENT
FOR INSTALLATION OF BOUNDARY BUOYS OFFSHORE
ALONG THE BOUNDARY OF THE NATURAL AREA RESERVE
(TMK (2) 2-1-004:073, 113)**

Dear Mr. Ramsey:

We have reviewed your request and have no comments to offer at this time.

If you have any questions regarding this letter, please contact Sharon Norrod at (808)270-7250.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Gilbert S. Coloma-Agaran".

for Gilbert S. Coloma-Agaran
Director of Public Works

and Environmental Management

GSC:sn

S:\LUCA\ICZMA\Ahii-Kinau_NAR_21004073&113_sn.wpd

Ramsey

06-04-04

Re: buoys

Having spent considerable time on the water in small craft I recommend you add 2 more buoys to the plan.

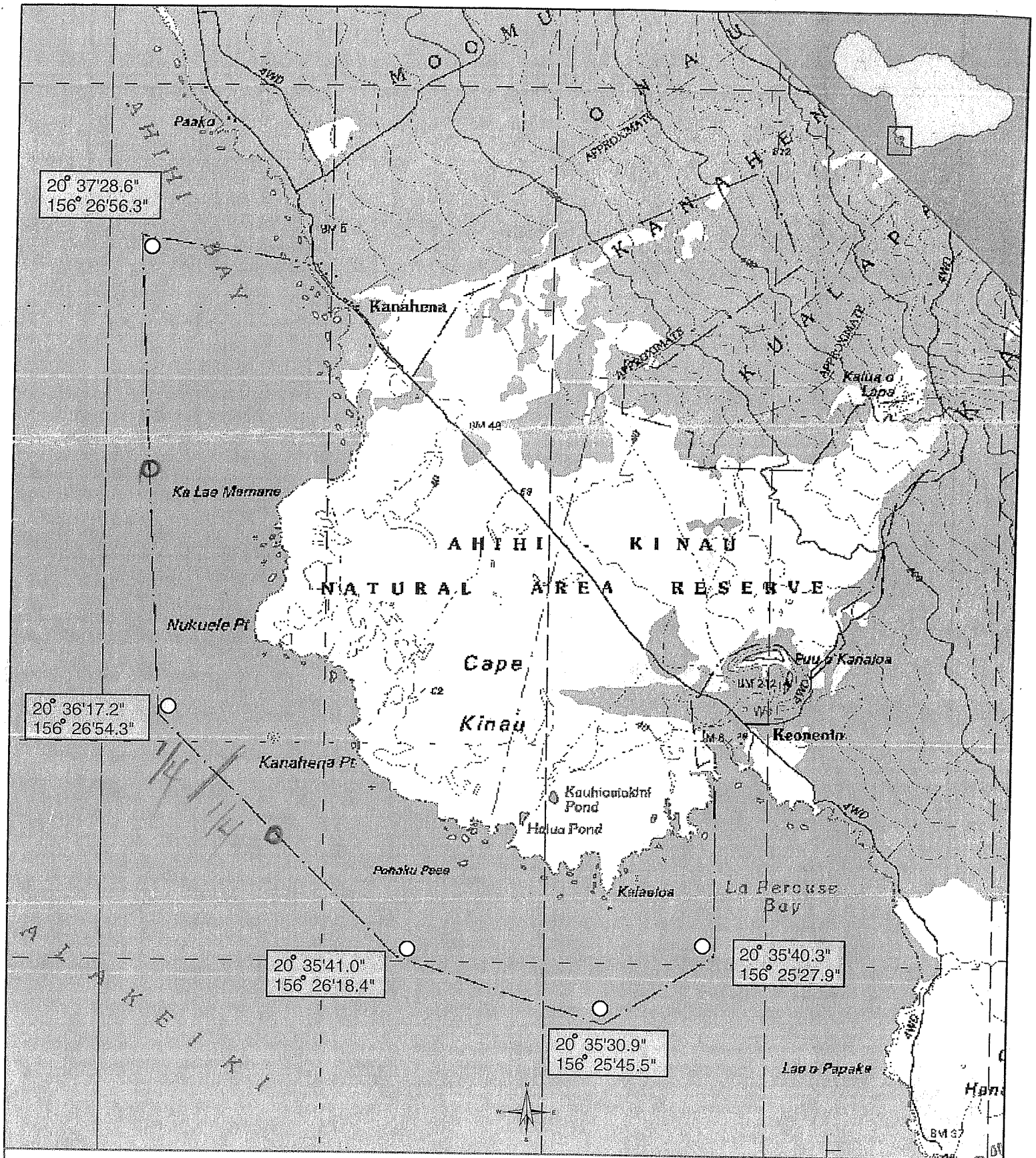
1/2 mi is a long way off when you're in a scull, kayak or one-man close to the water.

So with 2 more buoys a person is always around 1/4 mi or less away from the buoy.

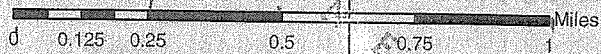
Don't put a straw in the path of compliance to the new rules.

Jim Nylkema

Kiker MI 96753



Proposed Ahihi-Kinau Natural Area Reserve Boundary Buoys
 ○ Approximate Positions of Proposed Lighted Buoys
 FOR INFORMATIONAL PURPOSES ONLY



LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF FORESTRY AND WILDLIFE

1151 PUNCHBOWL STREET, Room 325

HONOLULU, HAWAII 96813

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DAN DAVIDSON
DEPUTY DIRECTOR FOR LAND

ERNEST Y.W. LAU
DEPUTY DIRECTOR FOR
THE COMMISSION ON
WATER RESOURCE MANAGEMENT

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

May 28, 2004

TO INTERESTED AGENCIES AND ORGANIZATIONS

Re: Pre-Consultation on Environmental Assessment for installing Boundary Buoys in Ahihi-Kinau Natural Area Reserve by the Division of Forestry and Wildlife, Island of Maui.

The Division of Forestry and Wildlife is preparing an Environmental Assessment (EA) in compliance with Chapter 343, HRS for the proposed installation of boundary buoys along the marine boundaries of Ahihi-Kinau Natural Area Reserve (NAR) (map attached). The purpose of this letter is to share information about the proposed project and invite you to share any concerns that you wish to be addressed in the EA.

The project involves the installation of five (5) lighted buoys approximately one-half (.5) miles offshore along the boundary of the NAR (TMK 2-21-004-073 and 2-21-004-113).

Ahihi-Kinau NAR contains rare and fragile coral reefs and marine resources. It is a protected reserve in which fishing, anchoring, commercial activity, and use of motorized watercraft is prohibited. Due to the shape of the marine boundary, it is currently difficult to determine the NAR boundaries. The proposed buoys are needed to provide a visible boundary marker for the NAR. When installed, these buoys will help to protect the resources by creating a conspicuous marine boundary for the NAR and will notify users of the NAR rules and regulations.

The areas to be addressed in the EA will include but not be limited to the following: flora, fauna, and ecosystems; historic sites; cultural practices; safety issues; view and socioeconomic impacts. We invite your comments on any of these topics and would especially appreciate your input regarding the following issues: (1) General history and land use; (2) Knowledge of fauna which may be impacted by lighted buoys; (3) Knowledge of traditional practices in the project area, both past and present, which may be impacted by the lighted buoys; and (4) Any other concerns the community might have related to the proposed project.

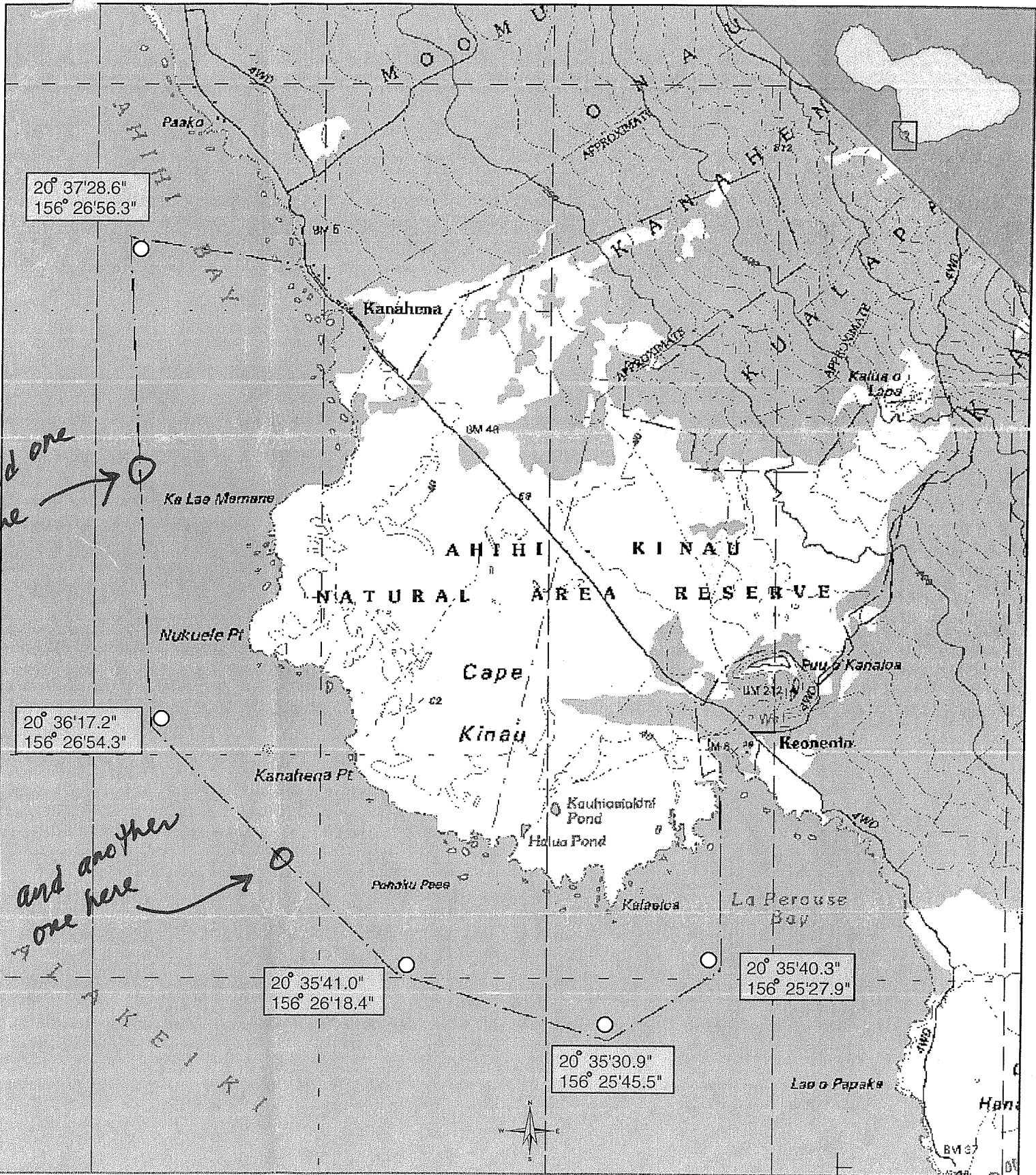
The purpose of gathering this information is to ensure that potential environmental, social, and/or cultural issues are considered during the planning of this project and to prevent to the greatest extent possible any negative impact.

We would appreciate your comments by July 5, 2004, if possible. Comments can be sent to Matt Ramsey at the Department of Land and Natural Resources, Division of Forestry and Wildlife, 1151 Punchbowl Street, Room 325, Honolulu, HI 96813. Please feel free to contact Matt Ramsey, Natural Area Reserve Research Assistant at 587-0051 (matt.ramsey@hawaii.gov) or Bill Evanson, Natural Area Reserve Maui Specialist at 873-3506 (william.d.evanson@hawaii.gov) if you have any questions or would like to discuss the proposed project further. Thank you in advance for your cooperation!

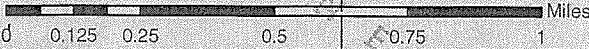
Sincerely,

Matt Ramsey
Research Assistant, Division of Forestry and Wildlife, Natural Area Reserve System

6/8/04
I suggest you add two more buoys on the western boundaries to insure clearer visibility (one mile apart for far)
pr. feasible, lighted buoys but other buoys would be o.k. penny for



Proposed Ahihi-Kinau Natural Area Reserve Boundary Buoys
 ○ Approximate Positions of Proposed Lighted Buoys
 FOR INFORMATIONAL PURPOSES ONLY



Theresa K. Donham
30 Laumaewa Loop
Kihei, Hawai'i 96753

Mr. Matt Ramsey
Research Assistant, Natural Area Reserve System
1151 Punchbowl Street, Room 325
Honolulu, Hawai'i 96813

June 18, 2004

Dear Mr. Ramsey,

SUBJECT: Pre-consultation on EA for installing boundary buoys in Ahihi-Kinau NAR, Maui

Thank you for requesting comments regarding this proposed undertaking. My comments will be confined to the topic of historic sites, which is included in your list of topics for the pending EA.

I am not certain how you plan to anchor or stabilize the bouys, but I assume that some modification to the seafloor will be involved. To my knowledge, there have been no prior underwater archaeological studies or surveys in the areas of the proposed buoys. If your agency has already undertaken such surveys, I applaud your foresight, and my comments will not apply.

In 1994, I conducted cataloguing and documentation of a rather large collection of traditional stone fishing sinkers and octopus lure sinkers that had been collected by a local diver from six locales within the general area of Makena Bay. The collection sites were located 300 to 1200 feet offshore in waters ranging from 30 to 130 feet deep. These sites were subsequently listed in the State Inventory of Historic Places (SIHP No. 50-55-00-2921) as traditional fishing grounds. They are represented by concentrations of coral encrusted stone fishing and octopus lure sinkers and/or *palu* (bait) stones. To date, there has been no systematic study of the offshore waters in the vicinity to identify additional areas that were frequented by traditional fishers. These fishing grounds or *ko'a* may also exhibit underwater piles of stones (*imu* or *umu*) that were built as shelters and feeding areas for fish. Given the natural features of your project area, it seems likely that archaeological evidence of traditional fishing *ko'a* is present in underwater contexts.

The location and study of fishing artifacts as found in the underwater contexts where they were used provides valuable information on traditional practices and technologies, as well as aiding in the reconstruction of past aquatic ecosystems. Traditional fishing *ko'a* are historic and cultural properties that deserve recognition and preservation; in many cases, submerged artifact concentrations are the only remaining evidence of the *ko'a*. The placement of one or more of the proposed buoys, such as the ones located in Ahihi Bay and Laperouse Bay, could impact these sites in much the same way that land alterations impact terrestrial archaeological sites.

It would seem that the seafloor areas impacted by buoys will be rather small, requiring no great effort for an archaeological inspection or survey. Perhaps this could be conducted in conjunction with other inspections that would be occurring prior to installation of the buoys. Such an inspection or survey would allow you to take measures to ensure that your project will not impact significant underwater historic sites.

Aloha,



Theresa K. Donham