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OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

January 10, 2003

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Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State Office Tower, Sixth Floor
235 South Beretania Street
Honolulu, Hawai'i, 96813

Dear Ms. Salmonson,

SUBJECT: Finding of No Significant Impact (FONSI) for Fence Construction, Wright Road Unit, Ola'a-Kilauaea Partnership.

TMK: 1-9-01-1 and 9-9-01-7, Puna and Ka'u Districts on the Island of Hawai'i.

The Department of Land and Natural Resources has reviewed the comments received during the 30-day public comment period which began on November 23, 2002. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the January 23, 2003 OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form and four hard copies of the Final EA with this cover letter. Please contact Lisa Hadway at (808) 974-4221 if you have any further questions.

Sincerely,

MICHAEL G. BUCK,

Administrator

encl.

FEB 8 2003

FILE COPY

2003-02-08-HA-FEA

(Wright Road Fence)

Final Environmental Assessment

for

Fence Construction

Wright Road Unit, 'Ola'a-Kilauea Partnership

in accordance with

Chapter 343, Hawaii Revised Statutes

Proposed by:

Department of Land and Natural Resources - Division of Forestry and Wildlife, Hawaii Branch
Hawai'i Department of Public Safety - Kulani Correctional Facility
Kamehameha Schools

In consultation with:

U.S. Fish and Wildlife Service
National Park Service - Hawai'i Volcanoes National Park
U.S. Geological Survey Biological Resources Division
U.S.D.A. Forest Service

January 2003

Table of Contents

I.	Summary.....	3
II.	Project Description.....	5
III.	Summary Description of Affected Environment.....	7
	Location.....	7
	Native Flora.....	7
	Native Fauna.....	8
	Cultural Assessment.....	9
	Current Land Use.....	11
	Sensitive Habitats.....	12
IV.	General Description of the Action Including Environmental and Socioeconomic Characteristics.....	12
V.	Mitigation Measures.....	13
VI.	Alternatives Considered.....	13
VII.	Anticipated Determination.....	14
VIII.	Findings, and Reasons Supporting the Anticipated Determination.....	14
IX.	List of Permits Required for Project.....	16
X.	EA Preparation Information.....	16
XI.	List of Appendices.....	16

I. SUMMARY

**CHAPTER 343, HAWAII REVISED STATUTES (HRS)
ENVIRONMENTAL ASSESSMENT**

Project Name: Fence Construction, Wright Road Unit, 'Ola'a-Kilauea Partnership

Proposing Agencies:

'Ola'a – Kilauea Partnership:

State Department of Land and Natural Resources
Division of Forestry and Wildlife

State Department of Public Safety
Kulani Correctional Facility

Kamehameha Schools
Department of Forestry and Natural Resources

Approving Agency: State Department of Land and Natural Resources

Expected Determination: Finding of No Significant Impact

Project Location: 'Ola'a – Kilauea Management Area, Wright Road Unit

'Ola'a, Puna, Hawai'i, TMK: 1-9-01-1
Kilauea, Ka'u, Hawai'i, TMK: 9-9-01-7

The entire project area is zoned Conservation District under Hawai'i Land Use law. Kilauea Forest and Pu'u Maka'ala NAR are designated Protective Subzone.

Agencies Consulted During EA Preparation:

Federal: U.S. Department of Agriculture
Natural Resources Conservation Service
Forest Service

U.S. Department of Interior
Fish and Wildlife Service
Geological Survey Biological Resource Division
National Park Service

State: Department of Land and Natural Resources
Division of Forestry and Wildlife-Hawai'i

Division of Land Management-Hawai'i
Historic Preservation Division
Natural Area Reserve System Commission
Office of Conservation and Environmental Affairs

Office of Hawaiian Affairs

Department of Public Safety
Kulani Correctional Facility

County: Department of Water Supply
Planning Department

Private: Bishop Museum
Conservation Council of Hawai'i
Hawaii Audubon Society
Hui Malama I Na Kupuna O Hawai'i Nei
Kamehameha Schools
Keauhou Bird Conservation Center
Kekuhi Kanahale-Frias, Instructor of Hawaiian Culture, HI Community College
Native Hawaiian Advisory Council
Native Hawaiian Legal Corporation
Pig Hunters of Hawai'i
Earthjustice Legal Defense Fund
Sierra Club, Moku Loa Group
The Nature Conservancy of Hawai'i
Volcano Community Association
Hawai'i Hunting Advisory Council

Adjacent

Land Owners: Mr. and Mrs. David Finley
Maruyama Family Trust
Mr. and Mrs. Gus Yong
Mr. and Mrs. Harold Jones
Mr. Bruce Beerman

II. PROJECT DESCRIPTION

In an effort to better protect native biological resources, the 'Ola'a- Kilauea Partnership is proposing the construction of 1-1/2 miles of fencing and upgrade of 3 miles of existing fence to create a fenced management unit at the end of Wright Rd. in Volcano. The management unit will contain Division of Forestry and Wildlife (DOFAW) and Kamehameha Schools (KS) lands.

The 'Ola'a- Kilauea Partnership, established in 1994, is a cooperative land management effort for 250,000 acres of state, federal and private lands on the island of Hawai'i (see attached map - 'Ola'a Kilauea Partnership Area Land Ownership and Boundaries). Partnership lands include state-owned Kulani Correctional Facility (KCF) and DOFAW's Pu'u Maka'ala Natural Area Reserve, Hawai'i Volcanoes National Park (HVNP), and Kilauea Forest and Keauhou Ranch, privately owned by KS. The partnership also includes the U.S. Fish and Wildlife Service (FWS), U.S. Geological Survey Biological Resources Division (USGS-BRD), and U.S. Forest Service (USDA-FS).

Fencing and subsequent pig control in the Wright Rd. Unit will protect and restore 2,300 acres of native Hawaiian rainforest. The area proposed for fencing contains diverse native forest and provides habitat for four species of endangered forest birds, the endangered Hawaiian hoary bat, the endangered Hawaiian Hawk, eleven listed/candidate endangered plant species, and two candidate endangered invertebrates. Upon completion of the fence, the Partnership will control feral pigs within the unit using methods including, but not limited to trapping, staff hunters and snares. Partnership staff will also control priority alien plants along the fence corridor and within the fenced unit.

The specific objectives for this project include the following:

- Upgrade 3 miles of existing fence on private land owned by KS to make the fence pig-proof.
- Construct 1-1/2 miles of new fence on DOFAW and KS lands to completely enclose a management unit containing 2,300 acres of both private and state lands.
- Control feral pigs to reduce populations to remnant numbers and allow for recovery of native vegetation, particularly understory species and tree ferns.
- Control priority alien plants, particularly yellow Himalayan raspberry (*Rubus ellipticus*) along the fence corridor and within the unit.

The construction of fences to exclude feral pigs is the first step in the protection and restoration of rainforest. The goal of fencing is to control pig populations within management units to zero density and monitor subsequent forest recovery. Feral pigs pose the greatest threat to existing native wet forest areas in Hawai'i. Pigs consume and trample understory plants, create conditions favorable for non-native plant infestation and establishment, prevent the establishment of ground-rooting native plants, serve as vectors for the dispersal of non-native plants, and disrupt soil nutrient cycling. Their wallows create potential habitat for mosquitoes, which transmit avian malaria and pox to native forest birds. The cumulative effects of pigs are the degradation of watershed and decline of intact native forest ecosystems, including the decline of suitable habitat for rare and endangered plants and animals.

This project will benefit the ecosystem on a landscape scale by adding acreage to a large network of fenced, protected management areas (Figure 2). These management units are core areas for the protection and recovery of native ecosystems and are the most biologically intact portions of the larger partnership area. Fencing and pig control are the Partnership's highest priority management activities, and the proposed fencing project is part of an integrated management program that includes fencing management units, eradicating feral pigs from fenced units and other management such as alien plant control, small mammal control, endangered species recovery, educational programs, and long-term monitoring of native and non-native species. Fencing and pig control are the first steps to protecting and restoring forest in this area, and are necessary before other types of management can proceed. Reduction of pigs to remnant levels will allow the native forest vegetation to recover, particularly understory species and tree ferns. Other important management activities such as alien plant control are not as effective in areas with pigs because pigs spread certain alien plants and continue to disturb the soil allowing the establishment of alien plants. Rare plant restoration through outplanting also needs to be done in pig-free areas.

Methodology:

The proposed fence crosses ownership boundaries and includes DOFAW and KS lands. The project will include the construction of 1-1/2 miles of new fence on DOFAW and KS lands and the upgrade of 3 miles of existing fence on KS lands to pig proof standards. DOFAW and HVNP will provide work crews to construct and upgrade the fence as well as do initial pig control (trapping, hunting and snaring) and weed control along the fence corridor. It is expected the project will be completed within one year once the Final EA is approved. Funding for the project will be provided by DOFAW, KS and grants from the Hawai'i Community Foundation and the National Fish and Wildlife Foundation.

Progression of the project is as follows: In the first phase, the fence alignment was marked with plastic flagging. No rare or endangered plants were found on the proposed alignment. If necessary, fence alignment will be shifted to avoid individual rare plants. HVNP did an archeological survey of the proposed 1-1/2 miles of new fence construction.

During the second phase, the corridor will be cleared with hand and small power tools. The fence corridor will be no more than six feet in width.

The third phase is fence installation. Materials will be driven to the fence line along existing roads or dropped on the corridor using a helicopter. All construction will be with hand tools. Construction involves driving galvanized steel fence posts into the ground along the corridor no more than ten feet apart, attaching one strand of galvanized barbed wire along the posts at ground level, and stretching forty-seven inch high, galvanized hog wire along the posts. Where necessary, anchor posts will be used along the fence, between the posts, to ensure the fencing is tight to the ground.

The fourth phase is the animal control effort and weed control which will be done by DOFAW and HVNP staff. Animal control may include live trapping, staff hunting and snaring. Weed control will occur along the fence corridor and within the unit where necessary.

III. SUMMARY DESCRIPTION OF AFFECTED ENVIRONMENT

Location

The project area is located on the eastern slope of Mauna Loa, and it includes portions of Puna, and Ka'u districts. The project area includes both public and private lands including Pu'u Maka'ala Natural Area Reserve (NAR) and Kilauea Forest owned by KS. The elevation ranges from approximately 4300 ft. to 4900 ft. The area totals approximately 2300 acres, and contains natural communities that are notable for their high degree of diversity. Adjacent lands include private lands at the end of Wright Rd., the 'Ola'a Tract of HVNP and Keauhou Ranch, owned by KS (Figures 1-4)

Native Flora

The proposed project area is vegetated by various combinations of three dominant structural plants: 'Ohi'a (*Metrosideros polymorpha*), koa (*Acacia koa*), and hapu'u or treefern (*Cibotium* spp.). Although different drainage characteristics of 'a'a and pahoehoe flows complicate local moisture regimes, the general trend is from wet forest at the lower elevations to the east to more mesic habitat at the upper western sections of the project area. The project area is a mosaic of different aged lava flows and plant communities that vary according to lava flow type and age. Another factor contributing to current plant community composition is disturbance by man, feral and domestic ungulates, and aggressive non-native plants. The project area can be generalized into the following two native plant communities:

- 1) Wet 'Ohi'a/Hapu'u Forest - The largest portions of the project area contain 'ohi'a with other native trees and a hapu'u tree fern and native fern and shrub understory. There are three types of treefern present. These include hapu'u pulu (*Cybotium glaucum*), hapu'u i'i (*Cybotium chamissoi*) and meu (*Cibotium hawaiiense*). The common understory tree species include *Coprosma* spp. (pilo), olapa (*Cheirodendron trygynum*), mamaki (*Pipturus* spp.), and olomea (*Perrottetia sandwicensis*). Portions of the 'ohi'a forest canopy have undergone defoliation and regeneration (a natural phenomenon known as "'ohi'a dieback") at various times. The resulting openings are generally filled with younger 'ohi'a, native trees and shrubs and hapu'u.
- 2) Wet Koa/'Ohi'a Forest - Portions of Kilauea Forest contains tall stature koa and 'ohi'a with other native trees and a hapu'u, native shrub and fern understory. The wet and mesic koa forest communities are generally found on older substrates.

The 'Ola'a - Kilauea Management Area contains 11 plant species officially listed as endangered and 11 considered species of special concern (Appendix B). Although portions of the project area have been surveyed for rare plants, large expanses have not been thoroughly searched and specific threats for many of these species are unknown.

Native Fauna

Birds and Mammals

The project area provides habitat for seven honeycreepers (Subfamily Drepanidinae) endemic to the Hawaiian Islands. These include four endangered species: Hawai'i creeper (*Oreomystis mana*), Hawai'i 'akepa (*Loxops coccineus*), 'akiapola'au (*Hemignathus munroi*) and 'ou (*Psittirostra psittacea*), a species which has not been sighted in the area since the mid-1980's. The non-endangered honeycreepers found in the project area are the 'apapane (*Himatione sanguinea*), 'amakahi (*Hemignathus virens*), and 'i'iwi (*Vestiaria coccinea*).

Other native birds in the project area include the endangered Hawaiian hawk or 'io (*Buteo solitarius*), 'elepaio (*Chasiempis sandwichensis*), 'oma'o or Hawaiian thrush (*Phaeornis obscurus*), nene (*Nesochen sandwicensis*), Hawaiian owl or pueo (*Asio flammeus sandwichensis*) and Pacific golden-plover or kolea. Additionally, the 'ua'u or dark-rumped petrel (*Pterodroma phaeopygia sandwichensis*) and the 'ake 'ake or band-rumped storm petrel (*Oceanodroma castro*) may overfly the project area to and from nesting areas on the upper, eastern slopes of Mauna Loa.

The project area has some of the highest densities of native forest birds areas on the island. This relative abundance is due to large tracts of intact, upper elevation native forest. Native forest birds are primarily found in the upper elevations of the project area where lower numbers of mosquitoes reduce the incidence of diseases such as avian malaria and pox.

Hawai'i's only endemic land mammal, the 'ope'ape'a or endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), also uses the project area.

Invertebrates

The project area's native insect fauna is predominantly native and relatively diverse. Researchers are developing monitoring procedures for several groups of endemic invertebrates in the project area, including soil microarthropods, *Megalagrion* damselflies, and picture wing *Drosophila* flies. Many insects now recognized as rare or candidate endangered species have evolved specialized habitats and require one or a very few native plant species to complete their life cycle. The decline of many groups of native plants has probably contributed to the loss of their associated native arthropod communities. Although the lava tube caves in the project area have not been investigated, research in adjacent areas has documented a well-preserved cave fauna. Endemic invertebrates appear to be particularly sensitive to changes in the microclimate (e.g. forest clearing, pig digging and invasion of alien plant species). Another serious threat to native invertebrates in the project area is the invasion of the alien yellowjacket wasp (*Vespula pennsylvanica*). These wasps are voracious predators of numerous species of native invertebrates, and they have been implicated in the local extinction of two species of endemic *Drosophila* in 'Ola'a Tract.

Mollusks have not been studied in the project area, but the endemic tree snail *Succinia* is relatively common in the native wet forest on the island.

Cultural Impact Assessment

Archeological Sites

The history of the project area and use by Hawaiians is not well documented. Trails, small forest shrines, burial caves and lava tube shelters are the types of features that might be revealed in the area by intensive surveys. An archaeological survey of the proposed fence alignment was conducted by Jennifer Waipa, HVNP Cultural Resources with assistance from Ian Cole of the Department of Land and Natural Resources Division of Forestry and Wildlife. No archeological features were found along the proposed fence route. The greater area may have been used historically by Hawaiians for activities such as bird hunting and gathering forest plants for medicinal uses.

The 'Ola'a Kilauea Partnership is initiating Federal Section 106 consultation for the proposed project in accordance with the Advisory Council on Historic Preservation regulations, 36 CFR Part 800 Protection of Historic Properties. Native Hawaiian organization consultation is occurring with the State Office of Historic Preservation, Office of Hawaiian Affairs and Hui Malama I Na Kupuna O Hawai'i Nei.

Prior to fence construction, all field crews employed on the project will be informed of Historic Preservation Guidelines. If a cultural site is found, construction of the fence will be halted and the route modified to avoid adverse affects of the historical site. In compliance with the Hawai'i State Historic Preservation Statute (Chapter 6E), if any archeological features are discovered during construction the Department of Land and Natural Resources State Historic Preservation Division will be notified to allow proper documentation of the site. In the event that burial remains are discovered, work on the project will halt immediately and the State Historic Division will be notified. Treatment of remains will be in compliance with Chapter 6E-43 (as amended by Act 306). Representatives from the NARS staff and the 'Ola'a Kilauea Partnership will supervise field crews to ensure compliance.

Cultural Significance of Area

Tanya Rubenstein, 'Ola'a Kilauea Partnership Coordinator, consulted with the HVNP Kupuna Council on the project. This council of Hawaiian elders and individuals knowledgeable about Puna and Ka'u and Hawaiian culture provides recommendations to HVNP on proposed projects and other cultural issues. Information on cultural uses and sites known from the general area of the proposed fence construction project was requested, and the members of the council expressed no concerns, nor were cultural or ethnographic properties identified. One representative (Kekuhi Kanahale-Frias, Instructor of Hawaiian Culture, Hawai'i Community College) asked to be contacted regarding the project. After discussing the project in greater detail with Tanya Rubenstein, she did not feel that it would have any significant impacts on cultural values and/or uses of the area. She felt the long term damage to Hawaiian deities present in the land and plants of the area would be more significant without the fence. She also recommended including information on the cultural significance of the area in the draft EA, and suggested review of

Emerson's book (1915) "Pele and Hi'iaka: A myth from Hawai'i" (Emerson, N. B. 1915. *Pele and Hi'iaka: A Myth from Hawai'i*. 'Ai Pohaku Press. 1993. Honolulu).

There is evidence that the proposed project area has great cultural significance when the ancient Hawaiian chants recorded in Emerson's book (1915) "Pele and Hi'iaka: A myth from Hawai'i" are reviewed. In the myth, Pele sends her favorite sister Hi'iaka to fetch her lover, Lohi'au, on the island of Kaua'i. On her journey, Hi'iaka encounters many hurdles and adventures. In the end, Hi'iaka falls in love with the man that was intended for her sister. In a fit of rage, Pele destroys Hi'iaka's beloved lehua forests of the Puna area, including 'Ola'a, with fiery lava. These events are described in ancient chants and prayers which are then translated into English. Throughout the myth there are a number of references to the lehua forests and the native birds that drink their nectar. This demonstrates the importance of preserving these native natural resources as a significant part of Hawaiian cultural history.

A few excerpts from the book highlight the reference to the importance of the native forests:

Page 163:

*Hele ke a I kai o ka La-hiku o a'u lehua,
O a'u lehua i aina ka manu;*

*Gone, gone are my forests, lehuas
Whose blooms once gave the birds nectar!*

Page 219:

This chant by Paoa refers to the forest of the Puna – 'Ola'a area as the "*Wilderness-robe of the Gods*".

Page 236:

The spirit of Lohi'au "*found consolation and companionship with the song birds that ranged the forests of Hawai'i*".

Page 239:

In a chant referring to the return of Hi'iaka's love, Lohi'au, she speaks of the forest:

*"Nectar for gods, honeyed lehua;
Food for birds, bloom of lehua;"*

Page 112:

While on Kaua'i to fetch Lohi'au, Hi'iaka comes across a lame fisherman, Malae-ha'a-koa, and cures the man of his disability. He then recites a chant celebrating Pele. The chant specifically refers to the area of 'Ola'a.

"...Malae-ha'a-koa and his wife stood forth and lead in the performance of a sacred dance, accompanying their rhythmic motions with a long mele that recited the deeds, the events, the mysteries that had marked Pele's reign since the establishment of her dominion in Hawai'i".

A verse from this chant follows:

*Haki nu`anu`a mai ka nalu mai Kahiki;
Popo`i aku i kea lo o Kilauea,
Ke kai huli i kea lo o Papa-lau-ahi.
Kanaka hea i ka ala-
Kou pua`a-kanu, Wahine kui lehua
Ka uka i Ola`a, ku`u moku lehua
I kea lo o Heeia, o Kukuena wahine.*

*God's temple is roofed with the fingers,
And the thumb is lifted in earnest prayer
By the concourse met in the uplands.
High piles the surf that sweeps from Kahiki;
It breaks at the foot of Kilauea;
Is driven back by the hot lava plates.
Now calls from the wayside a human voice;
Your suitor, Goddess who rifled the bloom
From my `Ola`a park of lehua
That smile in the lap of Heeia
And the wreath-goddess Kukuena.*

Here the specific referral to `Ola`a as a "lehua park" that had its bloom stolen by "pua`a-kanu" (The book states that this is likely a reference to Kamapua`a the pig demigod that was Pele's suitor). This suitor has dug up the forest at `Ola`a removing the beautiful lehua bloom that was so dear to Hi`iaka.

Perpetuating and protecting the native forests of `Ola`a, as this project intends to do, not only benefits the native species that live there, but also protects the cultural significance of the area.

Current Land Use

The parcels contained in the partnership agreement have different land use histories and current uses. Current land uses include, hapu`u harvesting (KS private land) and biological conservation.

Pu`u Maka`ala NAR was established with the primary purpose of protecting unique native ecosystems. Pu`u Maka`ala NAR has fenced units designated for intensive management, and public hunting is currently allowed throughout the unfenced portions of the NAR as a means to assist with pig control. Public access is allowed in the NAR for other recreational and cultural uses including gathering of plant material (to gather plant material a Natural Area Special Use Permit is required attained from the Executive Secretary of the Natural Area Reserve Program in Honolulu (Ph: 808-587-0063)).

Kilauea Forest is owned by Kamehameha Schools (KS). KS is dedicated to managing its assets for the benefit of Kamehameha Schools and students of Hawaiian ancestry. There was a lease in place to Niu Nursery that allows for the harvest of hapu`u in the KS section of the Wright Road Unit (EIS 1978 "Expansion of Hapu`u Harvesting Activities at Kilauea Forest Reserve). Hapu`u was harvested from 150 acres from 1971-1978 and an additional 300 acres from 1978 to present. This lease will be ending in 2002 and subsequent harvesting of hapu`u will be terminated.

The entire project area is zoned Conservation District under Hawai`i Land Use law. Kilauea Forest and Pu`u Maka`ala NAR are designated Protective Subzone.

Sensitive Habitats

The entire project area can be considered sensitive habitat, particularly with regard to listed endangered plants and birds. The overall long-term management goal is protection of the intact native ecosystems and watershed in perpetuity. While fence line construction will entail some ground and noise disturbance, the long-term benefits of fencing and complete feral pig removal far outweighs the limited short-term effects of fence construction.

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

Kulani Correctional Facility inmates have assisted in a number of the 'Ola'a Kilauea Partnership projects and may also assist with this project. This fencing project will benefit KCF inmates by providing an opportunity to learn new skills such as fence construction, plant and bird identification, cultural values of native Hawaiian plants and animals, and management techniques to restore native Hawaiian ecosystems. This practical work experience and education may increase their employment opportunities upon release from KCF.

The eventual expansion of the education and information program of the 'Ola'a Kilauea Partnership will increase opportunities for public access to certain portions of the management area as well as increasing public awareness of native Hawaiian ecosystems. KS, under the new board of trustees, has started to focus more educational activities on their lands, including the Kilauea Forest.

The project area is not available to public hunters. KS does not permit public hunting because of security and liability concerns. The Pu'u Maka'ala NAR portion of the Wright Road Unit was closed to Public Hunting in a Legal Notice effective January 2001 (Appendix C). Hunting in other portions of the NAR is still permitted. The Wright Road unit includes both portions of KS and State land with no clear boundary between the two.

In early 1994, DOFAW formed the Natural Areas Working Group to discuss and solve differences among the hunting community, government land managers, and the environmental community. Also involved in the group were community associations, native Hawaiian interests, and a state legislator. The group's goal was to find solutions whereby each particular interest is met. It was agreed that there should be areas where ungulate populations are kept low, and conversely, other areas managed for high animal/hunting yields. DOFAW and KS, along with the balance of the 'Ola'a Kilauea Partnership members, feel the proposed project area is a high priority for protection and needs active, sustained management. Consequently, the group feels it appropriate to proceed with the proposed fence.

Short-Term Impacts

In the short-term, the actual clearing of the line will disturb plants cut or removed to create the corridor. All hapu'u cut for corridor clearance will be replanted off the line. Any rare plants will be clearly marked and pointed out to the work crew to ensure they are not harmed in any way. Soil disturbance is expected to be minimal, and no changes in normal rainwater runoff or

percolation are expected. Nor do we anticipate any adverse effects on avifauna and invertebrate fauna.

Fence construction can increase the introduction of non-native weed seeds along the fence corridor by personnel traversing the site regularly, and pooling or congregating of feral animals as normal movement patterns may be disturbed. These short-term impacts will be far outweighed by the positive long-term benefits discussed below.

Long-Term Impacts

This fencing project will provide long-term benefits by allowing for effective control of feral pigs and restoration of 2300 acres of 'ohi'a-hapu'u forest. Removal of feral ungulates from wet forest ecosystems, both in the 'Ola'a Kilauea region and elsewhere in the State, will remove the primary threat to their continued survival and restore native ecosystems to a healthier state. Ample evidence exists to show that damage caused by feral pigs can lead to the eventual replacement of unique Hawaiian vegetation by introduced weeds. If pigs are removed before disturbance becomes too severe, native vegetation is able to recover naturally and the spread of weeds slowed or even reversed. It has been well documented that Pu'u Maka'ala NAR and Kilauea Forest are excellent examples of native Hawaiian montane forest ecosystems. A level of active management is necessary to neutralize existing and future ecosystem threats.

V. MITIGATION MEASURES

The short-term effects identified above are unavoidable. Prior to clearing the line, any endangered or rare plant species will be marked and identified to the crew and crew leader to ensure their protection. No trees or plants larger than three inches in DBH (diameter at breast height) will be cut or damaged. Any hapu'u cut down will be replanted off the line.

Routine fence line inspections will take place at no greater than two months intervals, and with each inspection, personnel will watch for new weed introductions along the fence. If weed seedlings are detected, they will either be pulled immediately or a weed control effort will be organized and implemented by the 'Ola'a Kilauea Partnership. Inspections will be done by 'Ola'a Kilauea Partnership personnel trained in identifying non-native plant species, particularly those that pose the most serious threats. Pooling or congregating of animals will be minimized because staff from HVNP and DOFAW will be regularly monitoring transects throughout the project area during the pig control effort.

If any signs indicating the existence of archaeological sites or ruins are found, work on the project will halt immediately and the proper authorities notified. Work on the fence will resume only after an appropriate evaluation of the site is completed and a successful plan to avoid impacts to the site is accepted.

VI. ALTERNATIVES CONSIDERED

Three alternatives are identified and discussed here.

Alternative 1: Build Proposed Fence

Follow through with project to full scope and construct fence. The three mile portion of the fence that needs improvement will have little or no effect on the surrounding environment as it already exists. The 1-1/2 portion of fence that needs construction will follow an old bulldozer road on KS land approximately 75 feet in from the western property boundary with the agricultural lots. It will then continue east along the existing harvester's road to the gate. Here the fence will turn south and follow down the road to the NW corner of the private lands where it will turn east again and follow the Pu'u Maka'ala NAR boundary (Figure 4). The existing gate will remain and be locked at all times with a Division of Forestry and Wildlife lock. A pedestrian "walkover" will be installed to allow access to the area while preserving the integrity of the fence. The portions built along the road will require less vegetation clearing than if the fence was built strictly along property boundaries.

This is the preferred alternative.

Alternative 2: Build Proposed Fence with Alternative Alignment

The primary alternative alignment considered would follow the property boundaries and avoid the use of existing roads. This will include only slightly more land in the protected area but will require more clearing and disturbance of vegetation for the fence corridor.

Alternative 3: No Action

This alternative effectively accepts deterioration of this unique resource by allowing feral animals to remain.

VII. ANTICIPATED DETERMINATION

The expected determination of this project is a finding of no significant impact (FONSI).

VIII. FINDINGS, AND REASONS SUPPORTING THE EXPECTED DETERMINATION

The intent of this project is to benefit native ecosystems, watershed and rare and endangered species in the project area. Because the project aims to better manage endangered ecosystems, it will not destroy or cause the loss of natural or cultural resources and will improve environmental quality. Creating a permanent barrier to exclude pigs from these fragile plant communities will remove the primary threat to their continued survival. Ample evidence exists to show damage caused by feral pigs leads to eventual replacement of unique Hawaiian vegetation by introduced weeds. If pigs are removed before disturbance becomes too severe, native vegetation is able to recover naturally and the spread of weeds slowed or even reversed. The project will increase the range of beneficial uses of the environment by increasing environmental education and public awareness as well as protecting native Hawaiian ecosystems for future generations.

The aim of this project is to protect ecosystems, or plant and animal communities, as opposed to particular species. If long-term viability of rare and endangered native organisms is to be achieved, protection of large tracts of land is essential. This is in keeping with the FWS "ecosystem approach" policy which focuses on management of natural communities, and with the Hawai'i Natural Area Reserve Law, which states a system of reserves be established to "...preserve in perpetuity specific land and water areas which support communities, as unmodified as possible, of the natural flora and fauna..." (Chapter 195D, Hawai'i Revised Statutes). Protection and enhancement of endangered species is also mandated by both Federal and State Endangered Species Acts (16 U.S.C. 1531-1543, as amended; Chapter 195, Hawai'i Revised Statutes).

The project has a positive impact on the state's social welfare because it includes the training of correctional facility inmates in practical work skills. The project will probably not have a substantial impact on public health. However, by reducing numbers of pigs and small mammalian predators, the project may reduce the amount of leptospirosis and other diseases carried by these animals.

The project is focused on research, management and education. As such, the project has no growth inducing qualities and will only use a small amount of energy. The project is in an upland area and will not detrimentally affect any coastal areas or water bodies. It may improve watershed qualities by removing pigs and reducing the amount of erosion and water runoff. Although the project is in a geologically hazardous area, there will be no threat to public health, safety or welfare. Very little of the project area is visible from public viewing sites, and the project may improve visual qualities by increasing numbers of native species and restoring native habitat.

Fence construction noise will be minor and short-term and energy consumption will be limited to small gas powered hand tools. The long-term benefits of fencing and complete feral pig removal far outweigh the limited short-term effects of fence construction. Installation of the proposed fences will help to more efficiently and effectively control feral pigs (*Sus scrofa*) in the project area. Feral pigs pose the greatest threat to existing intact native wet forest areas. Pigs consume and trample understory plants, create conditions for non-native plant infestation and establishment, prevent the establishment of ground-rooting native plants, serve as vectors for the dispersal of non-native plants, and disrupt soil nutrient cycling. Their wallows create potential habitat for mosquitoes, which transmit avian malaria and pox to native forest birds. The cumulative effects are the decline of intact native forest ecosystems, including the decline of threatened and endangered forest birds, plants, and invertebrates. Removal of feral pigs has been proven to result in the recovery of native vegetation, particularly understory plants and tree ferns. Pig removal also inhibits or suppresses the spread of alien plants.

The possibility for introduction of new weed species as a result of human activity exists. This can be minimized by ensuring that equipment, tools and construction materials are clean. Regularly scheduled inspection and weed control trips along roads, fences and trails will be made to prevent further spread of noxious plants within the project area.

IX. LIST OF PERMITS REQUIRED FOR THE PROJECT

A Departmental Permit will be issued by the Department of Land and Natural Resources.

X. EA PREPARATION INFORMATION

This Environmental Assessment was prepared on behalf of the 'Ola'a Kilauea Partnership by:

Tanya Rubenstein
'Ola'a - Kilauea Partnership Coordinator
P.O. Box 52
Hawaii National Park, HI 96718
(808) 967-7396

AND

Lisa Hadway
Natural Area Reserve Specialist
Division of Forestry and Wildlife
P.O. Box 4849
Hilo, Hawai'i 96740
(808) 974-4221

XI. LIST OF APPENDICES

Appendix A	Maps of Project Area (Additional Topographic Map)
Appendix B	Endangered and Rare Species Known to Exist in Project Area
Appendix C	Legal Notice Published January 2001 Regarding closure of Wright Road Unit to hunting
Appendix D	Comment Letters received during the 30 day Draft Environmental Assessment Comment Period

Appendix A: Maps of the Project Area

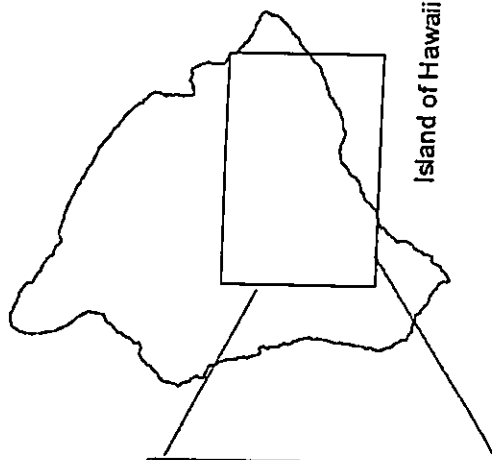
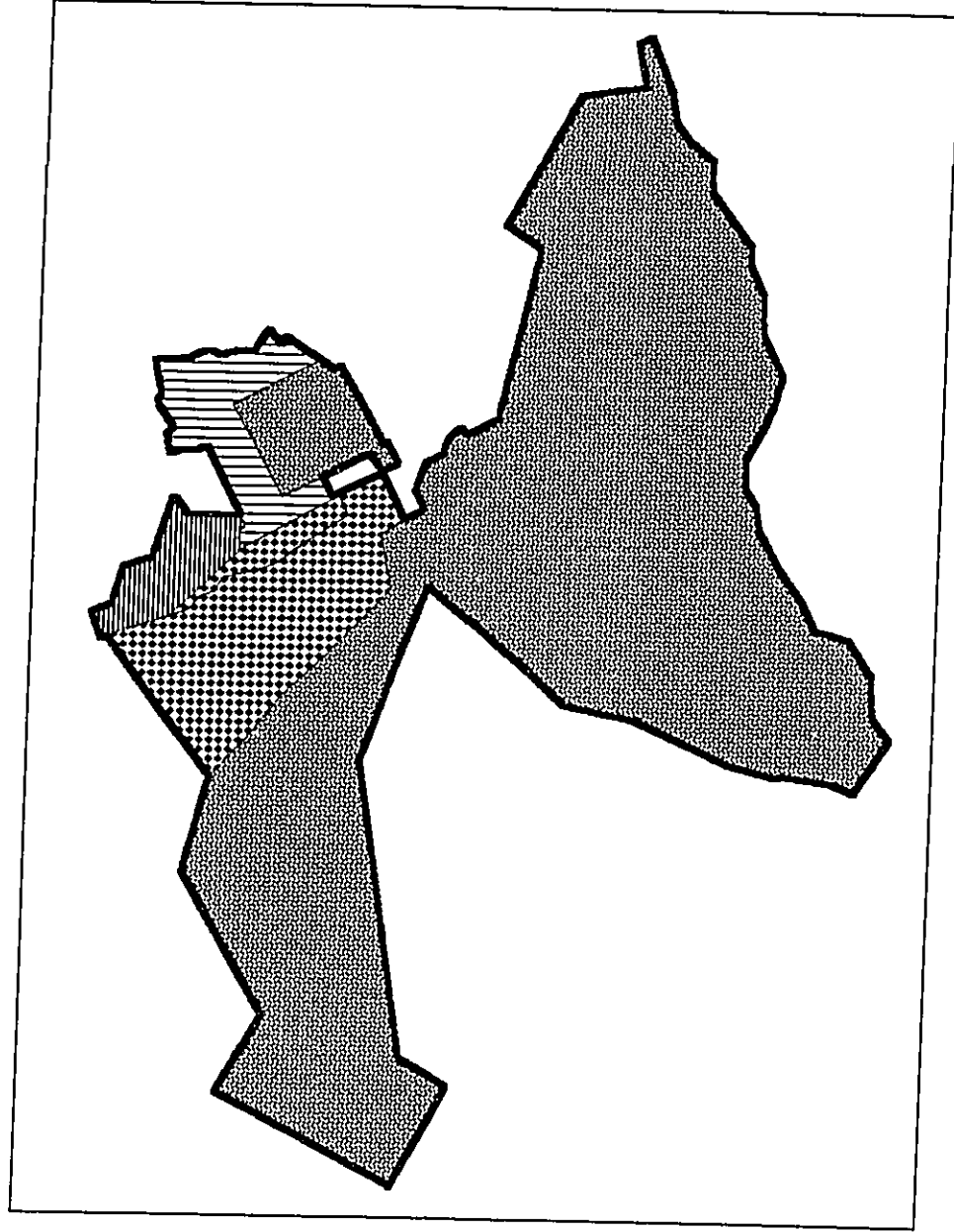
Figure 1: Ola`a Kilauea Partnership Area Ownership and Boundaries






Figure 2: Ola`a Kilauea Partnership Land Ownership and Fenced Management Units

Figure 3: Proposed Wright Road Unit Fencing

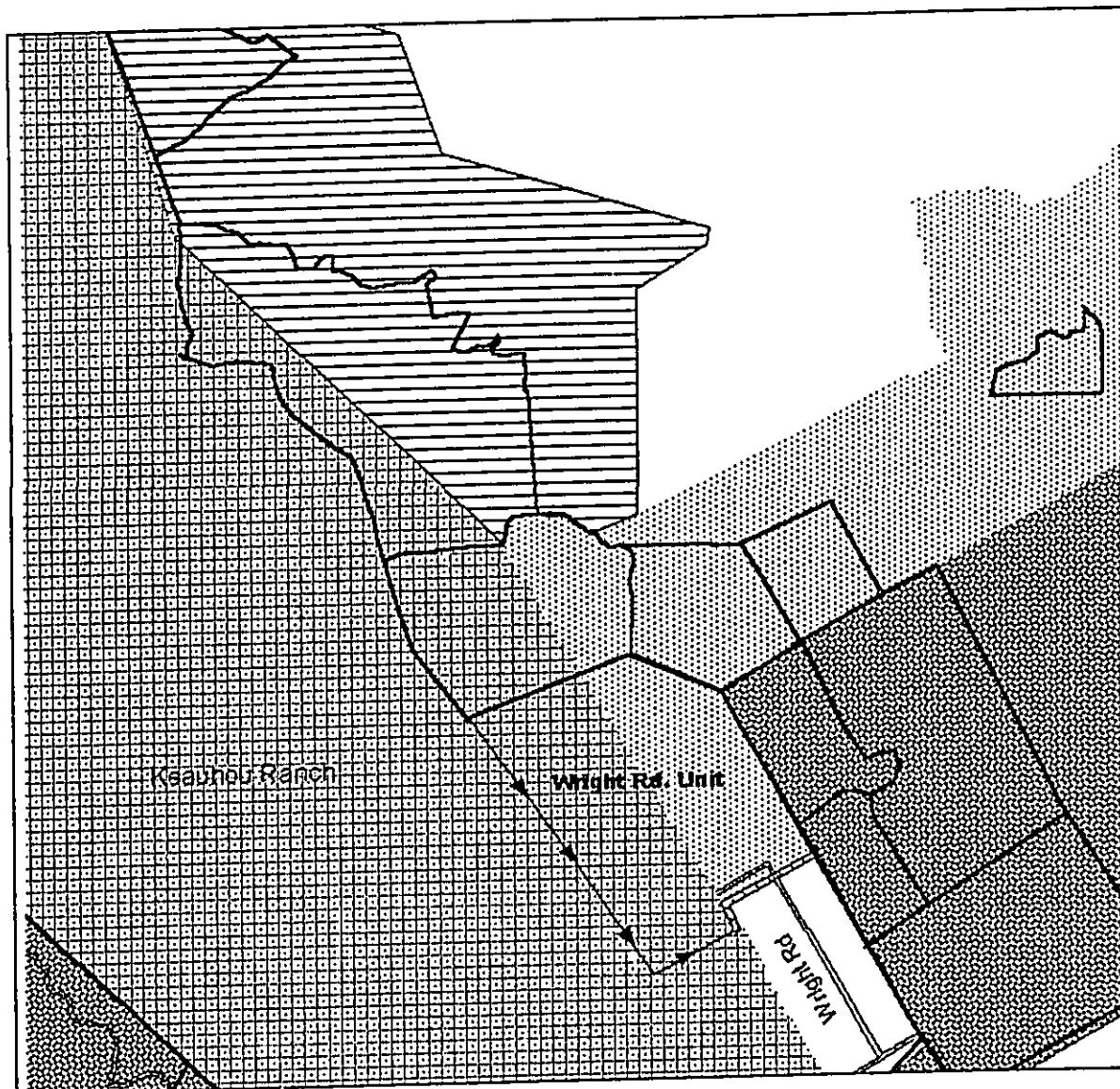
Figure 4: Topographic Map of the Proposed Fence Alignment









Ola`a Kilauea Partnership Area Ownership and Boundaries



-  Partnership Area Boundary
- Land Ownership**
-  Hawaii Dept of Land and Natural Resources
-  Hawaii Volcanoes National Park
-  Kamehameha Schools
-  Kulanui Correctional Facility

Proposed Wright Rd. Unit Fencing



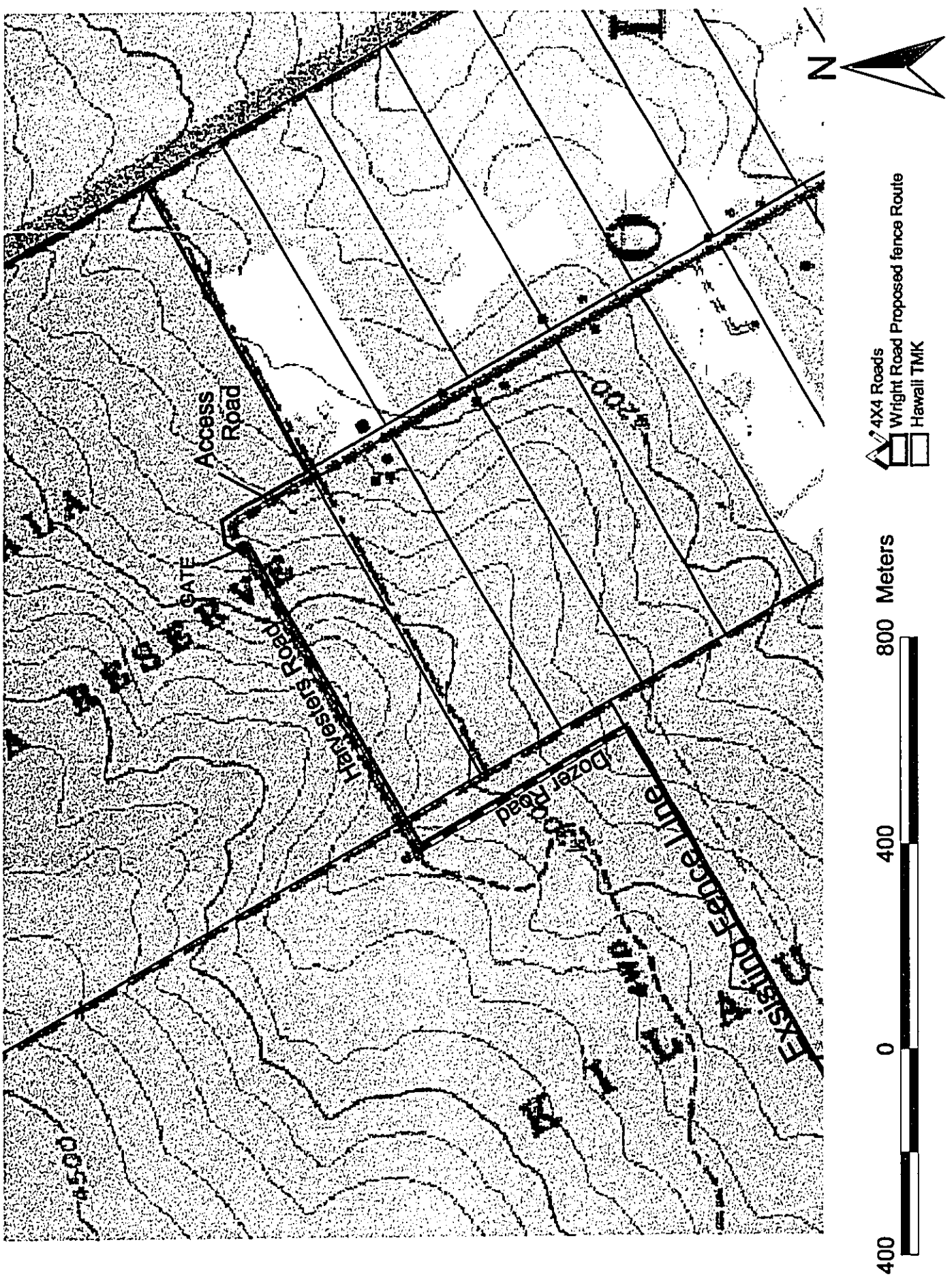
-  Roads
- Fences**
-  Completed Fences
-  Proposed Fences
-  Proposed Fence Upgrade
- Land Ownership**
-  Hawaii Dept. of Land and Natural Resources
-  Hawaii Volcanoes National Park
-  Kamehameha Schools
-  Kulani Correctional Facility

0 1000 2000 3000 4000 Meters

0 0.5 1 1.5 Miles



Figure 4 (Proposed Wright Road Fence Alignment)



Appendix B

The Wright Road Unit will provide habitat for the following rare and endangered species:

Listed Endangered Wildlife Species

'Akepa (*Loxops coccineus*)
'Akiapola'au (*Hemignathus munroi*)
Hawai'i Creeper (*Oreomystis mana*)
'Ou (*Psittirostra psittacea*).
Hawaiian Hawk (*Buteo solitarius*)
Hawaiian hoary bat (*Lasiurus cinereus semotus*)

Listed Candidate Invertebrates

Pomace fly (*Drosophila heteroneura*)
Pomace Fly (*Drosophila mulli*)

Listed/Candidate Endangered Plant Species

Clermontia lindseyana
Clermontia peleana
Cyanea stictophylla
Cyanea tritomantha (Candidate)
Cyrtandra giffardii
Joinvillea ascendens (Candidate)
Phyllostegia floribunda (Candidate)
Phyllostegia racemosa
Phyllostegia velutina
Sicyos alba
Vicia menziesii

Appendix C: Legal Notice regarding closure of Wright Road Unit to hunting in January 2001.

20 Legal Notices

20 Legal Notices

PUBLIC NOTICE

The Department of Land and Natural Resources announced that portions of Unit K in the Pu'u Maka'ala Natural Area Reserve on the Island of Hawaii will be closed to game mammal hunting effective January 1, 2001. Pursuant to Title 13, Chapter 123 (13-123-4b) the Department is suspending hunting in the Na Lua Mahoe, Lava Flow, Kulani Cone and Wright Road management units of the Reserve. This closure includes all public game hunting areas accessible from Wright Road in Volcano. This closure is being effected to protect hunters and hunting dogs while snares are set to capture feral pigs as part of ongoing management of the Natural Area Reserve. This closure DOES NOT effect Unit H, the Kulani Buffer Zone, as dogs are not permitted during the period January through June. Signage will be posted at entry points and along management unit fences in and around the effected area notifying users of the activity and potential hazard.

For more information, including maps of the area to be closed, contact the Natural Area Reserves Program office in Hilo at 974-4216.

(No. 1574—West Hawaii Today, January 7; January 14, 2001)

December 5, 2002

Lisa Hadway
Natural Area Reserves Specialist
Department of Land and Natural Resources

Dear Lisa,

I received my copy of the Draft Environmental Assessment (DEA) "Fence Construction of the Wright Road Unit and have considered it's meaning in general and to the extent that it will affect my situation as a land owner adjoining the project.

Firstly, I am grateful to have the benefit of receiving the proposal because it is very informative in general and I find the aim and scope of the project very exciting.

Already, we have received a direct benefit, to our great relief, in that we no longer have to endure the comings and goings of the hunters at all hours....their trash, the invasion of their unleashed dogs, random local gunfire, trespassing and plum and fern shoot picking, and the nuisance of their lost and hungry dogs looking for a nice goat, goose, duck or hen.

Secondly, are the more direct issues of the project which I would like to comment on.

I would like to give support to the Alternative 1. I can see that Alternative 2 would be much more expensive and exacting. If Alternative 2 were chosen I believe it would be necessary to legally establish the metes and bounds with a second order survey. This is quite an added expense which you may not have thought of. Alternative 3 is for us completely unsatisfactory.

One of the reasons I support Alternative 1 is that the wandering, excluded pig population will perhaps not be all funneled to and bottlenecked on our farm lot which would be a double whammy for us because pigs also attract hunters! A "fence corridor" is common to both alternatives. I don't find it specifically defined in word or on the maps. I think a more specific picture of it is necessary...".from the corner of the harvester's gate to----? on the mauka side of the access road and from ----? to ----? on the makai side". One possibility I see is a fence from the harvester's gate around and excluding the turnaround area and following the makai side of the access road, terminating at Mr. Maruyama's NW corner.

This "fence corridor" with a permanently locked gate seems to point to another issue which does not seem defined in the proposal. That would be the issue of public access to and use of the defined areas. When I walked the Alternative 1 line with Bill Stormont and Ian Cole, Bill mentioned the possibility of my having an access gate for the use of our guests who are inclined to bird watch or take wilderness hikes. Without knowing enough about this issue I would like to throw out an idea anyway. It may be in line with your goals. The idea is to have at least one access gate somewhere along the portion of the proposed fence running roughly North/ South for the potential use of the Farm lot owners the back of whose lots abutt the project. This gate could also be keyed so as to protect the integrity of the fence from irresponsible ingress/egress...keys to be issued to appropriate owners only. We few owners , at the end and on the upside, are extremely

fortunate in having access to the this very wonderful and still natural "outback". It is definitely a natural advantage and one that we would not want to lose. It has been a very definite and formative part of our experience...for my wife and I for the past 29 years and for our 5 children and now even their children and always a wonderful experience for our guests and visitors. In the event that we are able to proceed with our plans for having paying visitors it would also be a great opportunity for them to experience the pristine portion of Hawai'i which this project will create.

Thirdly and at last, is a bit of a summary.

We, Mary and I, are perfectly in accord with the scope and aims of this project and since it is in harmony with our own goals and desires and since by virtue of adjoining the project on at least two sides we feel a great excitement for it and its successful implementation.

We are in accord with the assessments contained in the DEA for Fence Construction, Wright Road Unit, 'Ola'a-Kilauea Partnership, November 2002.

We strongly support Alternative 1 as proposed noting that the issues of "fence corridor" and "public use and access" may require additional description and discussion as indicated above.

One closing remark....The project end of the road is no longer Wright Road. It is Ama'uma'u Road!

Sincerely,

David Finley



Mary Finley



Owners of Farm lot cornered by

The proposed 1 1/2mi. fence increment



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
P.O. BOX 4849
HILO, HAWAII 96720
(808) 974-4221
FAX (808) 974-4228

January 16, 2003

Mr. and Mrs. Finley
P.O. Box 367
Volcano, Hawaii 96885

Dear Mr. and Mrs. Finley,

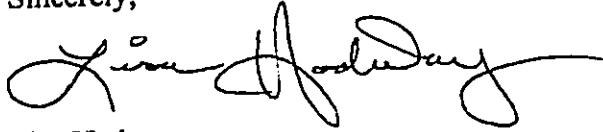
Thank you for your time in reviewing the Draft Environmental Assessment for "Fence Construction of the Wright Road Unit". The Final EA will be submitted shortly to the State of Hawaii Office of Environmental Quality Control. We also appreciate the time you spent with us on January 13, 2003 walking the proposed alignment.

We have included a more detailed topographic map of the fence alignment to better illustrate the project. The fence will run along an old bulldozer road on Kamehameha Schools property approximately 75 ft. from your western (rear) property boundary. The fence will then continue along the Harvester's road to the existing gate, where the fence will turn south and follow along the existing access road to the NW corner of Mr. Maruyama's property. Here the fence will then continue east along the Pu'u Maka'ala NAR boundary and tie into the existing fence at the NE corner of Mr. Maruyama's property. The harvester's gate will be locked with a Division of Forestry and Wildlife lock. Access through this gate will have to be coordinated directly with the Natural Area Reserve Office in Hilo. Passing over the fence by pedestrians will be facilitated by a wooden "walk-over", which is essentially a ladder that maintains the integrity of the fence. We will happily meet with you again to walk this alignment with you and your family.

For a description of a fence corridor, please refer to page 6 of the EA. Here it describes that the fence corridor will be cleared using small hand and power tools. The fence corridor should be no larger than 6 ft in width. The edges of the fence will be kept clear of weeds to facilitate fence maintenance over the long-term.

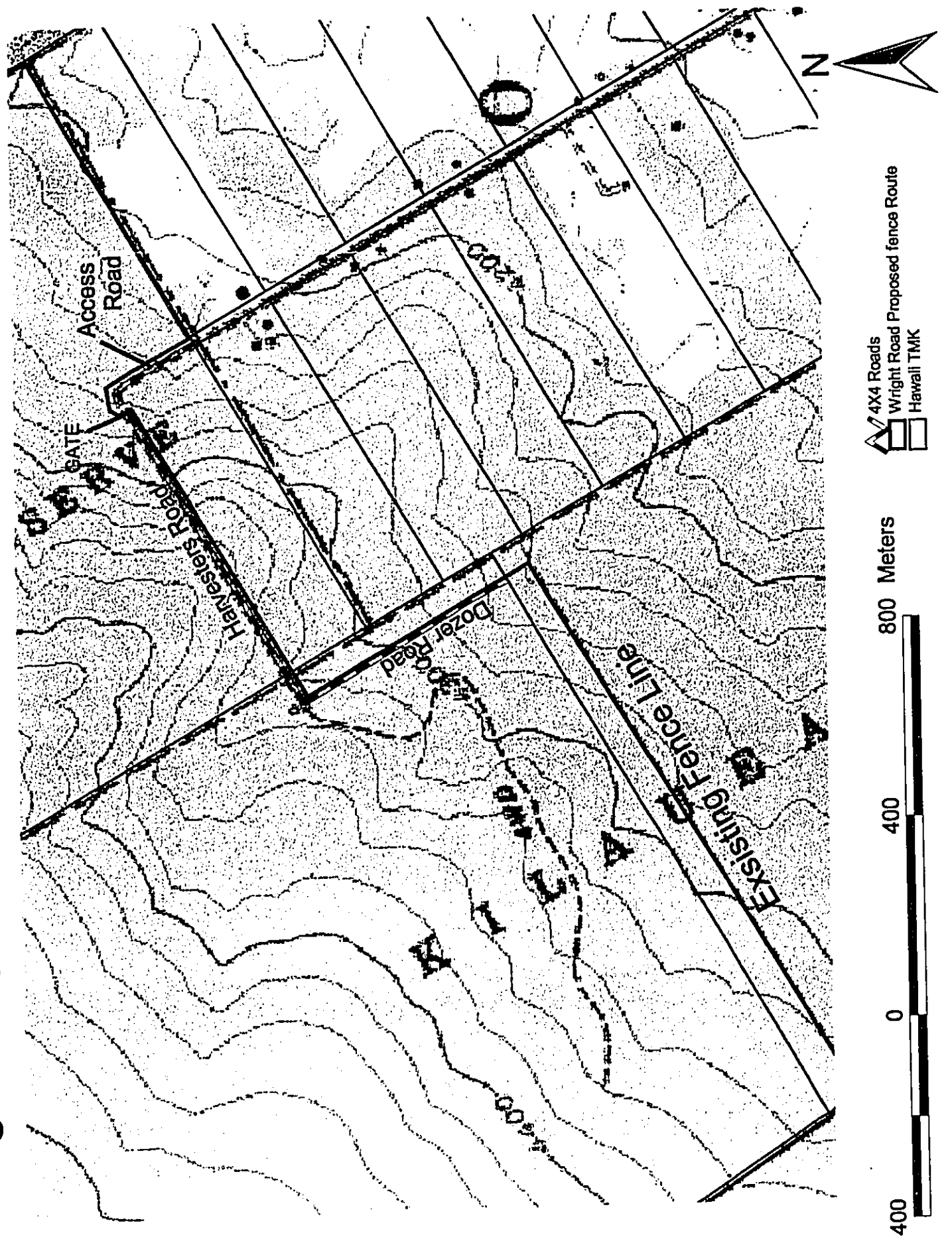
Thank you again for your time concerning this matter. If you should have further questions or comments, please call me at (808) 974-4221.

Sincerely,

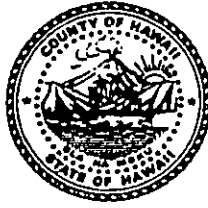
A handwritten signature in black ink, appearing to read "Lisa Hadway". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Lisa Hadway
Natural Area Reserves Specialist

Figure 4 (Proposed Wright Road Fence Alignment)



Harry Kim
Mayor



Christopher J. Yuen
Director

Roy R. Takemoto
Deputy Director

County of Hawaii

PLANNING DEPARTMENT

25 Aupuni Street, Room 109 • Hilo, Hawaii 96720-4252
(808) 961-8288 • Fax (808) 961-8742

December 3, 2002

Ms. Lisa Hadway
State Department of Land and Natural Resources
Division of Forestry and Wildlife
P.O. Box 4849
Hilo, Hawaii 96720

Dear Ms. Hadway:

Subject: Request for comments on a Draft Environmental Assessment
Applicant: DLNR Division of Forestry and Wildlife
Project: Fence Construction (Wright Road Unit, 'Ola'a-Kilauea Partnership)
TMK: 1-9-1: 001, & 9-9-1:007 'Ola'a, Puna and Kilauea, Ka'u, Hawai'i

This is to acknowledge receipt of your letter dated November 21, 2002 and Draft Environmental Assessment requesting preliminary comments on a proposed construction of 1 ½ -miles of fencing and upgrade of 3 miles of existing fence to create a fenced management unit at the end of Wright Road in Volcano, Hawaii. The Environmental Assessment is necessary because the project involves the use of lands within the Conservation District.

The State Land Use designation for the properties is Conservation and both parcels are located within the Conservation District in the County. Likewise, the General Plan LUPAG Map designation is Conservation and the properties are not situated in the County's Special Management Area. The entire project area is considered a sensitive habitat for listed endangered flora and fauna. However, the long term benefits will outweigh the limited short term effects of fence construction. We concur that the protection of native ecosystems and watershed should be the overall long-term management goal.

Ms. Lisa Hadway
State Department of Land and Natural Resources
Division of Forestry and Wildlife
Page 2
December 3, 2002

Thank you for the opportunity to provide comments. If you have any questions, please call us at 961-8288.

Sincerely,


CHRISTOPHER J. YUEN
Planning Director

PF:pak
p:\wpwin60\Ch343\2002\DEADLNR\Fence.doc

cc: Long Range Planning
Planning Dept.



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
P.O. BOX 4849
HILO, HAWAII 96720
(808) 974-4221
FAX (808) 974-4226

January 3, 2003

Mr. Christopher Yuen, Director
County of Hawaii
Planning Department
25 Aupuni Street
Room 109
Hilo, Hawaii 96820

Dear Mr. Yuen,

Thank you for your time in reviewing the Draft Environmental Assessment for "Fence Construction of the Wright Road Unit". The Final EA will be submitted shortly to the State of Hawaii Office of Environmental Quality Control.

We appreciate that the County of Hawaii agrees that this area's long-term management goals should include the protection of native ecosystems and watershed.

If you should have further questions or comments, please call me at (808) 974-4221.

Sincerely,

Lisa Hadway
Natural Area Reserves Specialist



STATE OF HAWAII 2002 NOV 25 11:30
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 DIVISION OF FORESTRY AND WILDLIFE
 P.O. BOX 4849
 HILO, HAWAII 98720
 (808) 974-4221
 FAX (808) 974-4228

RECEIVED
 LAND DIVISION
 HILO, HAWAII

November 21, 2002

Dear Interested Party,

Enclosed please find a copy of the Draft Environmental Assessment (DEA) "Fence Construction of the Wright Road Unit" for your review and comment. The proposed project will entail the construction of 1-1/2 miles of fencing and upgrade of 3 miles of existing fence to create a fenced management unit at the end of Wright Rd. in Volcano. The management unit will contain Division of Forestry and Wildlife (DOFAW) and Kamehameha Schools (KS) lands. This project is a joint effort by the Ola'a-Kilauea Partnership to protect and restore native Hawaiian ecosystems, and the project will be supported by federal, state and private funding.

Your organization or agency has been identified as one to be consulted during the draft phase of the project to ensure that all legal, biological, cultural, and socio-economic issues regarding the project are identified and addressed before a final determination on the impact of the project is made. We ask that you review the draft document and respond, if you feel necessary, by December 23, 2002. A copy of the comments must also be sent to the Office of Environmental Quality Control (235 S. Beretania St., Suite 702, Honolulu, Hawaii 96813).

We look forward to hearing from you. If you should have any questions or would like to discuss any facet of the proposed project, please call me at (808) 974-4221.

Sincerely,

Lisa Hadway

Lisa Hadway
 Natural Area Reserves Specialist

The DLNR Land Division (HI District Branch)
 has no comments regarding this request.

Harry Yada

12/02/02

Post-it® Fax Note	7671	Date	12/2	# of pages	1
To	Lisa Hadway	From	Harry Yada		
Co./Dept.	NARS	Co.			
Phone #		Phone #	46203		
Fax #	44226	Fax #	46222		

CORRECTION

THE PRECEDING DOCUMENT(S) HAS
BEEN REPHOTOGRAPHED TO ASSURE
LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

XEROX COPY WITH NON-REMOVABLE ATTACHMENT



STATE OF HAWAII 2002 NOV 25 1:30
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
P.O. BOX 4849
HILO, HAWAII 96720
(808) 974-4221
FAX (808) 974-4226

RECEIVED
LAND DIVISION
HILO, HAWAII

November 21, 2002

Dear Interested Party,

Enclosed please find a copy of the Draft Environmental Assessment (DEA) "Fence Construction of the Wright Road Unit" for your review and comment. The proposed project will entail the construction of 1-1/2 miles of fencing and upgrade of 3 miles of existing fence to create a fenced management unit at the end of Wright Rd. in Volcano. The management unit will contain Division of Forestry and Wildlife (DOFAW) and Kamehameha Schools (KS) lands. This project is a joint effort by the Ola'a-Kilauea Partnership to protect and restore native Hawaiian ecosystems, and the project will be supported by federal, state and private funding.

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We look forward to hearing from you. If you should have any questions or would like to discuss any facet of the proposed project, please call me at (808) 974-4221.

Sincerely,

Lisa Hadway

Lisa Hadway
Natural Area Reserves Specialist

The DLNR Land Division (HI District Branch)
has no comments regarding this request.

Harry Yada
12/02/02

Post-It* Fax Note	7671	Date	12/2	# of pages	1
To	Lisa Hadway	From	Harry Yada		
Co./Dept.	NARS	Co.			
Phone #		Phone #	46203		
Fax #	44226	Fax #	46222		



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
P.O. BOX 4849
HILO, HAWAII 96720
(808) 974-4221
FAX (808) 974-4226

January 3, 2003

Mr. Harry Yada
State of Hawaii, DLNR
Land Division
75 Aupuni Street
Room 109
Hilo, Hawaii 96820

Dear Mr. Yada,

Thank you for your time in reviewing the Draft Environmental Assessment for "Fence Construction of the Wright Road Unit". The Final EA will be submitted shortly to the State of Hawaii Office of Environmental Quality Control.

If you should have further questions or comments, please call me at (808) 974-4221.

Sincerely,

Lisa Hadway
Natural Area Reserves Specialist

LINDA LINGLE
GOVERNOR OF HAWAII



⇒ Jon G.
⇒ Nelson A.
→ LISA H.
GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETAMA STREET
SUITE 702
HONOLULU, HAWAII 96813
Telephone (808) 586-4185
Facsimile (808) 586-4186
Email: oeqc@health.state.hi.us

December 23, 2002

Mr. Michael Buck, Administrator
Ms. Lisa Hadway
Division of Forestry and Wildlife, Department of Land and Natural Resources
State of Hawai'i
1151 Punchbowl Street
Honolulu, Hawai'i 96813

Dear Mr. Buck and Ms. Hadway:

The Office of Environmental Quality Control has reviewed the November 2002, draft environmental assessment under Chapter 343, Hawai'i Revised Statutes for the fence construction for the Wright Road Unit, Ola'a Kilanea Partnership in the judicial districts of Puna and Ka'u and offers the following comments for your consideration and response.

1. TOPOGRAPHIC MAP: Please include a topographic map of the project area.
2. GUIDANCE DOCUMENTS AND GLASSPHALT. We respectfully refer you to our website at <http://www.state.hi.us/health/oeqc/index.html> for various guidance documents. Also, please plan to use glassphalt aggregate for proposed paving at the project site.

Thank you for the opportunity to comment. If there are any questions, please call Leslie Segundo of my staff at (808) 586-4185.

Sincerely,

A handwritten signature in cursive script, appearing to read "Genevieve Salmonson".
GENEVIEVE SALMONSON
Director



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
P.O. BOX 4849
HILO, HAWAII 96720
(808) 974-4221
FAX (808) 974-4226

January 4, 2003

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

Dear Ms. Salmonson,

Thank you for your time in reviewing the Draft Environmental Assessment for "Fence Construction of the Wright Road Unit". The Final EA will be submitted shortly to your office.

In regards to your comments; 1) We will include a topographic map of the fence alignment in the Final EA. Our maps included in the document were generated from a GIS system and did not include the topographic contours; 2) The project does not have any planned paving, and therefore will not require the use of glassphalt aggregate.

If you should have further questions or comments, please call me at (808) 974-4221.

Sincerely,

Lisa Hadway
Natural Area Reserves Specialist

Hawai'i Dept. of Land & Natural Resources
 Kamehameha Schools
 Hawai'i Dept. of Public Safety
 Hawai'i Volcanoes National Park
 U.S. Fish and Wildlife Service
 U.S. Forest Service
 USGS-Biological Resources Division

'Ola'a - Kilauea Partnership
 P.O. Box 52
 Hawai'i National Park, HI 96718
 (808) 985-6197
 FAX (808) 985-6029

November 19, 2002

Gilbert Coloma-Agaran
 State Historic Preservation Officer
 Department of Land and Natural Resources
 Historic Preservation Division
 601 Kamokila Boulevard, Room 555
 Kapolei, Hawai'i 96707

Dear Mr. Coloma-Agaran:

In accordance with the Advisory Council on Historic Preservation regulations, 36 CFR Part 800 Protection of Historic properties, the 'Ola'a Kilauea Partnership is initiating Section 106 consultation for a proposed project entitled Fence Construction, Wright Rd. Unit. The proposed project is the construction of 1-1/2 miles of fencing and upgrade of 3 miles of existing fence to create a fenced management unit at the end of Wright Rd. in Volcano. The management unit will contain Division of Forestry and Wildlife (DOFAW) and Kamehameha Schools (KS) lands. This project is a joint effort by the Partnership to protect and restore native Hawaiian ecosystems, and the project will be supported by federal, state and private funding. Please refer to the enclosed Draft Environmental Assessment and Archeological Survey Form for further information.

A National Park Service archeologist assisted the Partnership by conducting a archeological survey of the proposed project's Area of Potential Effect (APE). Within the APE, no archeological resources were identified.

Partnership staff also consulted with the park's Kupuna Advisory Group in May 2002. No concerns were raised and no historic properties, including traditional cultural properties, were identified. Native Hawaiian organization Section 106 consultation regarding this proposed undertaking is occurring, through this correspondence, with the Office of Hawaiian Affairs and Hui Malama I Na Kupuna O Hawaii Nei.

The proposed undertaking was designed in accordance with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. The 'Ola'a Kilauea Partnership believes that a finding of no historic properties affected is appropriate for this undertaking. We invite your organization to participate in the consultation for this undertaking and request that review comments be submitted to us within thirty calendar days of receipt of this letter. If you have questions regarding this matter, please contact Tanya Rubenstein at (808) 985-6197 or Lisa Hadway at (808) 974-4383.

Sincerely,



Tanya Rubenstein
Olaa Kilauea Partnership Coordinator

Enclosures

DOCUMENT CAPTURED AS RECEIVED

HAVO PROJECT NO.: HAVO 2002K
REPORT DATE: June 11, 2002
AUTHOR: Jennifer Waipa, B.A.

ARCHEOLOGICAL SURVEY FORM

1. **PROJECT:** Construct fence at end of Wright Road Unit for 'Ōla'a-Kīlauea Partnership, Hawai'i.
2. **OTHER NO'S ASSOCIATED W/ PROJECT:** n/a
3. **CONSTRUCTION PROJECT DESCRIPTION:** This project proposes to construct 1.5 miles of new fence along the Pu'u Maka'ala Natural Area Reserve (NAR), Kīlauea Forest Reserve, and private lands near the end of Wright Road, in Volcano, Hawai'i. Construction of this fence will enable crews to successfully control feral pigs within the managed area in order to enhance the long-term survival of native plant and animal communities and aid in the recovery of rare and endangered species.
4. **CONSTRUCTION PROJECT LOCATION (incl. TMK, Ahupua'a and District):** TMK#'s 399001020 and 399001007; Owner: Kamehameha Schools Bishop Estate, in Keauhou, Ka'u. TMK# 319001001; Owner: State of Hawaii, in 'Ōla'a, Puna.

The project is located 4.8 miles along Wright Road, north of Highway 11. At this junction, the proposed fence line will be heading east at 60 degrees for approximately 650 meters to meet up with the Hawai'i Volcanoes National Park (HAVO) 'Ōla'a Unit fence. Heading west at 240 degrees, the fence will extend for a distance of approximately 730 meters (0.5 miles). It will then head south for another 350 meters until it meets the Pu'u Maka'ala fence line.

5. PREVIOUS ARCHEOLOGICAL WORK, NEARBY SITES/FEATURES, AND FILE SEARCHES:

Jackson, Frances and Mara Durst
2000 Draft: A History and Historical Resource Study of the Lower Portion of the 'Ili'āina of Keauhou, District of Ka'u, Hawai'i Volcanoes National Park. On file at Hawai'i Volcanoes National Park (HAVO) Cultural Resource Management (CRM) office.

USGS Quadrangle
1921 Kīlauea Quadrangle, 1:62,500

6. NATIVE HAWAIIAN CONSULTATION or Traditional Cultural Property (TCP) Survey: This project was discussed at the HAVO Kūpuna Consultation Meeting, May 29, 2002. One representative asked to be contacted in the near future

regarding the area. She was visited by Tanya Rubenstein, project coordinator, and offered information on chants and legends of the larger area for inclusion in the cultural section of the Environmental Assessment. The group expressed no other concerns, nor were cultural or ethnographic properties identified.

- 7.
8. **SURVEY AREA SIZE (a) AND BOUNDARIES (b):** a) Total: 17,200sq. meters (4.25 acres) b) 1,720m x 10m
9. **DATE(S) OF SURVEY:** April 18, 2002 and June 10, 2002
10. **SURVEYOR(S):** Jennifer Waipa, B.A. and Tanya Rubenstein
11. **NUMBER OF 10-HOUR PERSON DAYS:** 0.5 field; 1 office
12. **DESCRIPTION OF AREA SURVEYED:** A pedestrian survey of the location for the proposed fence line was conducted. A corridor of approximately 10 meters wide was surveyed for archeological and other cultural resources, for the entire length of fence line. The geology of the area is derived from Kilauea Flows, pa2, dating from 1500-3000 B.P. The ground surface in the area has a thick layer of soil. Ground visibility in the rainforest is poor to fair. Much of the ground surface is covered with hapu'u and soil from rotted plants and leaves. One section of the fence line borders private property that includes both a plum orchard and open pasture. Ground visibility in this section is good. This section of the project area looks as if it might have been bulldozed at one time.

Vegetation in the rainforest consists primarily of native forest plants: 'Ōhi'a (*Metrosideros polymorpha*), koa (*Acacia koa*), and hapu'u or treefern (*Cibotium* spp.). The boundary bordering private property and along Wright Road includes introduced plants such as Himalayan raspberry and pine trees.

12. **SURVEY PROCEDURE:** Pedestrian survey of the proposed fence line.
13. **DEFINITION OF FEATURE (and/or ARTIFACT TYPES):** A section of a roadbed was found along the western boundary of the proposed fence line. No other features were identified.
14. **DESCRIPTION AND EVALUATION OF CULTURAL RESOURCES LOCATED:** No archeological features were identified.

The road is likely related to ranching or hapu'u harvesting, as it occurs in area formerly leased to Keauhou Ranch. The area surveyed is approximately 325 meters long, barely 3 meters wide, and is currently overgrown with weeds. The road continues north for approximately 170 meters where it meets with a road currently used for hapu'u harvesting. On the eastern side, along the upper portion of the road, are non-native landscape plants. The age of the road is undetermined. Further

Information on the road would be needed to consider the property for inclusion in the National Register of Historic Places.

15. **EFFECT OF PROJECT ON CULTURAL RESOURCES:** The western section of the proposed fence line will follow the route of the existing road.

16. **RECOMMENDATIONS:**

- Clearance Not Recommended
- Clearance Recommended with the Following Condition(s):
 - a) if archeological or other cultural resources are found during the construction of the fence line, stop and contact an archeologist to consult with on the findings.

17a. **NATIONAL REGISTER STATUS:**

- On Register:
- In Process of Nomination:
- Eligibility Determination in Process:
- No Action Yet
- Does Not Meet Criteria
- Not Applicable (N/A)

17b. **SHPO CONSULTATION:**

- N/A Yes: Some discussions have already taken place between members of the partnership group and the SHPO. Since they are responsible for the EA, and the project is not on our property, they will follow through with the consultation.

18. **ENCLOSURES:**

- USGS Map(s):
- Project Map(s): Fig. 1: Project Location
- Project Design Data:
- Site Record(s):
- Photo(s):

19. **REFERENCES:**

Jackson, Frances and Mara Durst
 2000 Draft: A History and Historical Resource Study of the Lower Portion of the 'Ili'āina of Keauhou, District of Ka'ū, Hawai'i Volcanoes National Park. On file at HAVO CRM office.

USGS Quadrangle
 1921 Kilauea Quadrangle, 1:62,500

Wolfe, Edward W. and Morris, J.

DOCUMENT CAPTURED AS RECEIVED

1996 Geologic Map of the Island of Hawaii.

NOTESHAVO PROJECT NO.: HAVO 2002K

REPORT DATE: June 11, 2002

PROJECT: Construct fence in Wright Road Unit for 'Ōla'a-Kīlauea Partnership

Laura Carter Schuster, M.A. Anthropology
Branch Chief, Cultural Resources
Hawaii Volcanoes National Park



Reviewing archeologist meeting Secretary of Interior Standards

Date

DOCUMENT CAPTURED AS RECEIVED

HAVO PROJECT NO.: HAVO 2002K
REPORT DATE: June 11, 2002
PROJECT: Construct fence in Wright Road Unit for 'Ōla'a-Kīlauea Partnership

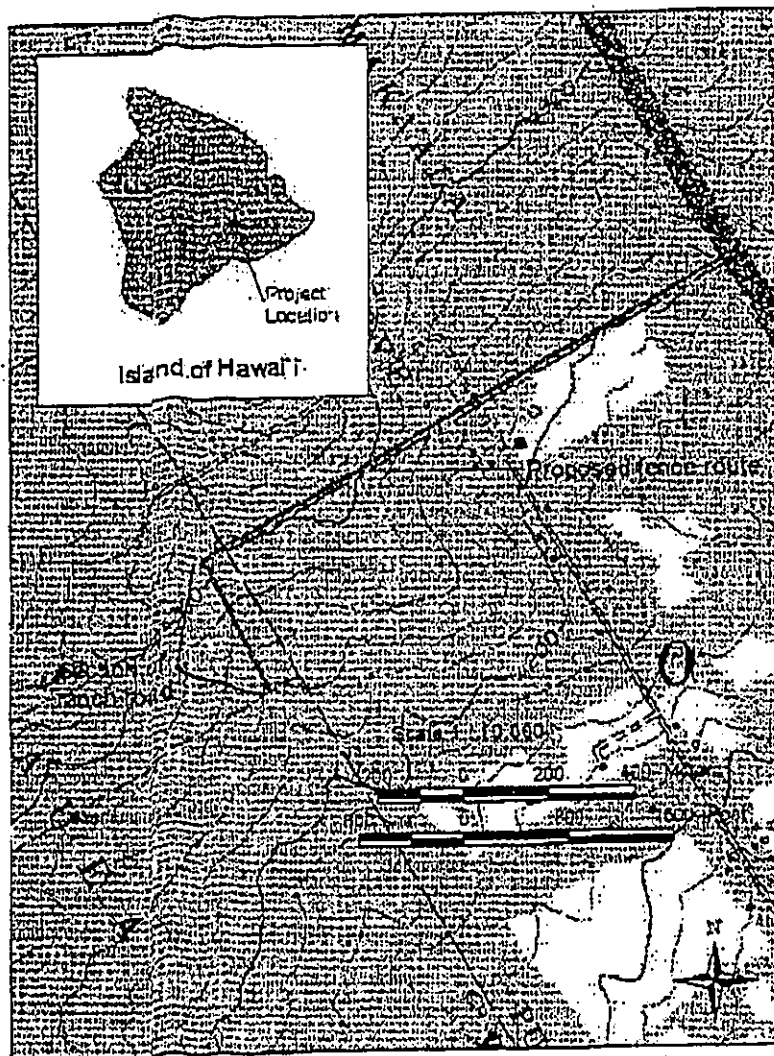


Fig. 1: Project Location, 'Ōla'a-Kīlauea Wright Road Unit Fence

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PHONE (808) 594-1888

FAX (608) 594-1885



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

HRD02/838

December 6, 2002

Ms. Tanya Rubenstein
Olaa-Kilauea Partnership
P.O. Box 52
Hawaii National Park, HI 96718

Dear Ms. Rubenstein:

Subject: Fence Construction, Wright Road Unit

This is in response to the consultation request and materials of November 19, 2002. From review of the materials, OHA does not have substantive comments about the need for the project; however, we do offer comments relating to the required Section 106 consultations.

We recognize that you have consulted with the national park's Kupuna Advisory group and that this consultation has been helpful to your identification of historic properties. In fulfillment of your duty to consult with Native Hawaiians, as contemplated by the National Historic Preservation Act, Section 106, OHA recommends that Olaa-Kilauea Partnership seek as broad a consultation as possible with knowledgeable Native Hawaiian Organizations and individuals relating to your action. This consultation should also include incorporation of the contacts listed below to assist you in identifying cultural and historic resources, cultural practices and significance, in evaluating cultural places implicated by this study, in assessing adverse effects to them, and in developing appropriate mitigation and alternatives (where necessary). A broader consultation seems particularly important with respect to your undertaking given the significant legendary status of the area, as evidenced by the excerpted proverbs and poetry in your documents.

Organizations that should be contacted for 106 consultations:

- Local Hawaiian civic clubs
- Local chapters of the royal societies
- Hawaii Island Burial Council
- Edith Kanaka'ole Foundation

- Individuals on any island familiar with cultural practices of the areas affected by your undertaking (i.e., due to former residence, etc)

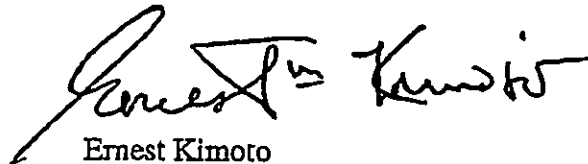
Our community resources coordinators on the island may be of further assistance and referral relating to these consultations and their contact information follow below:

Ms. Ululani Sherlock
Hilo Lagoon Center
101 Aupuni Street, Stes 209-210
Hilo, HI 96720-4221
Phone: (808) 933-0418
Fax: (808) 933-0421

Mr. Ruby McDonald
75-5706 Hanama Place, Stc 107
Kailua, Kona, HI 96740
Phone: (808) 329-7368
Fax: (808) 326-7928

Thank you for the opportunity to review and comment regarding the proposed study. If you have any questions, please contact Pua Aiu, Policy Analyst at 594-1945, or e-mail her at paiu@oha.org.

Sincerely,



Ernest Kimoto
Acting Director
Hawaiian Rights Division

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01/08/03 WED 12:19 FAX 965 6029

RESOURCE MANAGEMENT

001

Hawai'i Dept. of Land & Natural Resources
Kamehameha Schools
Hawai'i Dept. of Public Safety
Hawai'i Volcanoes National Park
U.S. Fish and Wildlife Service
U.S. Forest Service
USGS- Biological Resources Division

'Ola'a - Kilauea Partnership
P.O. Box 52
Hawai'i National Park, HI 96718
(808) 985-6197
FAX (808) 985-6029

January 8, 2003

Ernest Kimoto, Acting Director Hawaiian Rights Division
Office of Hawaiian Affairs
711 Kapi'olani Blvd, Suite 500
Honolulu, Hawaii 96813

Subject: Fence Construction, Wright Road Unit

Dear Mr. Kimoto,

Thank you for your comments regarding our fence construction project. We will take your comments under consideration.

Partnership staff consulted with the park's Kupuna Advisory Group in May 2002, and no concerns were raised and no historic properties, including traditional cultural properties, were identified. Members of this Kupuna Advisory Group are the most knowledgeable individuals in regards to cultural and historic resources in the proposed project area. This Group includes several individuals that are members of the Hawaii Island Burial Council as well as local representatives from OHA and the Edith Kanaka'ole Foundation. We are also consulting with other Hawaiian organizations through the Environmental Assessment process. These organizations include Hui Malama I Na Kupuna O Hawaii Nei, Native Hawaiian Legal Corporation, Kamehameha Schools, and Native Hawaiian Advisory Council.

The 'Ola'a Kilauea Partnership believes that a finding of no historic properties affected is appropriate for this undertaking. The proposed project will not impact historic properties and/or cultural practices because there will continue to be public access and use of the broader area. Perpetuating and protecting the native forests of 'Ola'a, as this project intends to do, not only benefits the native species that live there, but also protects the cultural significance of the area. If you have further questions regarding this matter, please contact Tanya Rubenstein at (808) 985-6197 or Lisa Hadway at (808) 974-4383.

Sincerely,



Tanya Rubenstein
'Ola'a Kilauea Partnership Coordinator