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DEPARTMENT OF LAND AND NATURAL RESOURCES
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OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

February 25, 2000

AQUACULTURE DEVELOPMENT
PROGRAM
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CONSERVATION AND
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FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT
WATER RESOURCE MANAGEMENT

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

Dear Ms. Salmonson,

Subject: Final EA for Kamakou Preserve Natural Area Partnership, District of Moloka'i, County of Maui, State of Hawai'i, TMK: 5-4-03:26; Final EA for Mo'omomi Preserve Natural Area Partnership, District of Moloka'i, County of Maui, State of Hawai'i, TMK: 5-1-02:37; Final EA for Waikamoi Preserve Natural Area Partnership, District of Makawao, County of Maui, State of Hawai'i, TMK: 2-3-05-4.

The Department of Land and Natural Resources has reviewed the Final Environmental Assessment for the subject projects and has determined a Finding of No Significant Impact (FONSI) for each of the projects.

Please publish notice of availability for public review of this project in the March 8, 2000 issue of the **Environmental Notice**.

We have enclosed completed publication forms for each project and four hard copies of each of the Final EAs. Since project summaries are not significantly altered from the DEA, they are not being re-submitted. Please contact Betsy Gagne at 587-0063 if you have any questions.

Sincerely,

MICHAEL G. BUCK,
Administrator

encl.

31-

2000-03-08-MO-*FEA*-

MAR 8 2000
FILE COPY

FINAL ENVIRONMENTAL ASSESSMENT
FOR
**MO'OMOMI PRESERVE*
NATURAL AREA PARTNERSHIP*

This document prepared pursuant to Chapter 343, HRS

Prepared by
The Nature Conservancy

February 5, 2000

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QUALITY CONTROL

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I. SUMMARY

CHAPTER 343, HAWAI'I REVISED STATUTES (HRS) ENVIRONMENTAL ASSESSMENT

Project Name

Mo'omomi Preserve Natural Area Partnership

Proposing Agency / Applicant

State of Hawai'i
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street
Honolulu, Hawai'i 96813

The Nature Conservancy
923 Nuuanu Avenue
Honolulu, Hawai'i 96817

Approving Agency

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

Project Location

Mo'omomi Preserve, 921 acres in the District of Molokai, County of Maui,
State of Hawai'i.

Tax Map Key
5-1-02-37

Acreage
921.339

Agencies Consulted During Final EA Preparation

(The individuals and agencies listed were provided with copies of the preserve's Draft Environmental Assessment, and given 3-4 weeks to respond. All written comments received are included in Appendix 1.)

Federal

Office of Senator Akaka
Office of Senator Inouye
Office of Representative Abercrombie
Office of Representative Mink
US Environmental Protection Agency, Region 9
US Department of the Army/Corps of Engineers
US Department of the Interior/Kalaupapa National Historic Park
US Department of the Interior/ Fish and Wildlife Service
US Department of Agriculture/ Forest Service
US Department of Agriculture/Natural Resources Conservation Service
US Department of Agriculture/Animal Damage Control

State

Alu Like
Department of Agriculture
Department of Hawaiian Homelands
DLNR, Aquatic Resources Division, Molokai
DLNR, Division of Forestry and Wildlife
DLNR, Division of Land Management
DLNR, State Historic Preservation Division
Hawaii State Senate
Hawaii House of Representatives
Native Hawaiian Advisory Council
Office of Hawaiian Affairs
Office of Conservation and Environmental Affairs
Representative Chris Halford
Representative Joseph Souki
Representative David Morihara
Representative Sol Kaho'ohalahala
Senator Joseph Tanaka
Senator Avery Chumbley
Senator Jan Yagi Buen
University of Hawaii Cooperative Extension Service
University of Hawaii Department of Botany
University of Hawaii, Environmental Center
University of Hawaii, Secretariat for Conservation Biology

County

County Council
Board of Water Supply
Department of Economic Development
Department of Public Works
Planning Department
Molokai Planning Commission
Molokai/Lanai Soil & Water Conservation District
Molokai High School

Private

Billy Akutagawa
Bobby Alcain
Emmett Aluli
Animal Rights Hawaii
Bruce Anglin
Steven J. Araujo
Leif Bush
Judy Caparida
Coastal Zone Management Plan
Clayton Ching
Dr. Ames Chow
Conservation Council for Hawaii
Mike Donleavy
Leiala Elia
Crystal Egusa
Hawaii Audubon Society
Adolph Helm
Karen Holt
Hui Malama O Mo'omomi

Noelani Joy
William Kaholola'a
Joyce Kainoa
Kamehameha Schools, Bishop Estate
Kapualei Ranch
Kawela Plantation Association
Ke Aupuni Lokahi
Moses Kim
Dara Lukonen
Mediation Center
Maui Humane Society
Mel Paoa
Moanalua Gardens Foundation
Molokai 4-H
Molokai Boy Scouts
Molokai Community Pasture Association
Molokai Earth Preservation Association
Molokai Historical Research & Studies
Molokai Irrigation System

Molokai Ranch
Na Ala Hele Molokai Advisory Council
Walter Naki
Native Hawaiian Legal Corporation
Nēnē O Molokai
Queen Liliu'okalani Children's Center
Ron Rapanot
Eugene Santiago

Sierra Club – Maui Group
Sarah Sykes
Rene Sylva
Lydia Trinidad
The Outdoor Circle

II. PROJECT DESCRIPTION

Mo'omomi Preserve (Figure 1) was established in June of 1988 to protect the most intact coastal sand dune ecosystem in the main Hawaiian Islands, thereby protecting the area's rare plants and animals.

Summary Description of the Affected Environment

Location

The 921-acre preserve is located along the northwest shore of Molokai. The westernmost coastline in the preserve is characterized by sea cliffs; the remainder of the 2-mile-long coastline consists of windswept sand beaches. Strong winds have created rows of unconsolidated sand dunes just inland of the beach. The rows are parallel to each other, and perpendicular to the prevailing winds. This area of the preserve is known as Keonelele, "the flying sands." Further inland, portions of the dunes are lithified; however, the substrate between these dunes is unconsolidated sand.

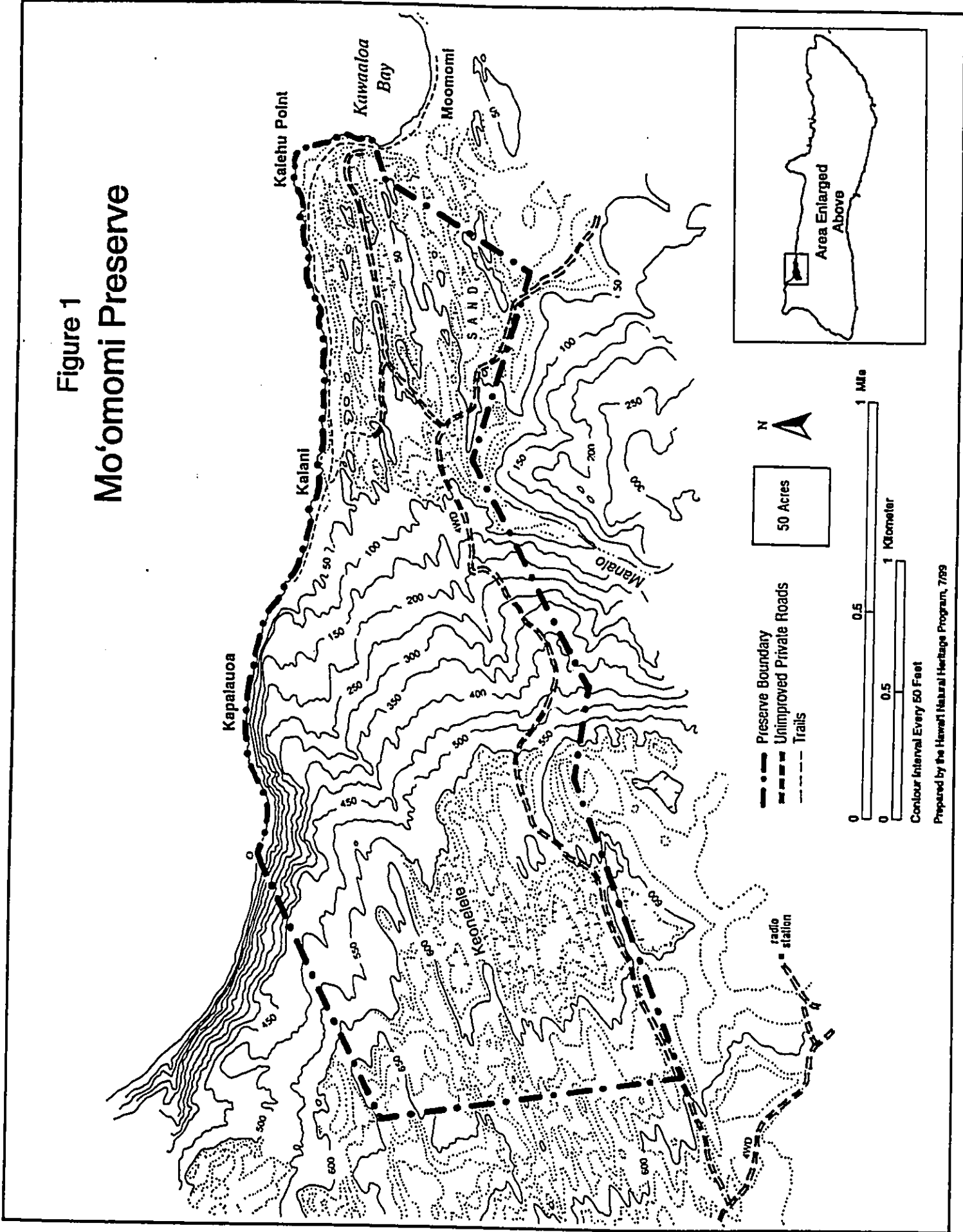
Native Natural Communities

In all, Mo'omomi's rich coastal dune ecosystem contains six native-dominated natural communities (see Figure 2 and Appendix 2). The vegetation on the sea cliffs is primarily comprised of nehe (*Lipochaeta integrifolia*) and hinahina (*Heliotropium* spp.) Coastal Dry Shrublands. The area just inland of the beach contains communities dominated by the native grass 'aki'aki (*Sporobolus virginicus*), and the native shrubs naupaka (*Scaevola sericea*) and nehe. This narrow band of native vegetation probably persists because few other plants can withstand the salt spray. Immediately behind the native vegetation band, non-native species, especially kiawe (*Prosopis pallida*), become dominant, extending upslope. Some native communities persist inland, however, including the rare *Tetramolopium rockii* Coastal Dry Shrubland.

Native Flora

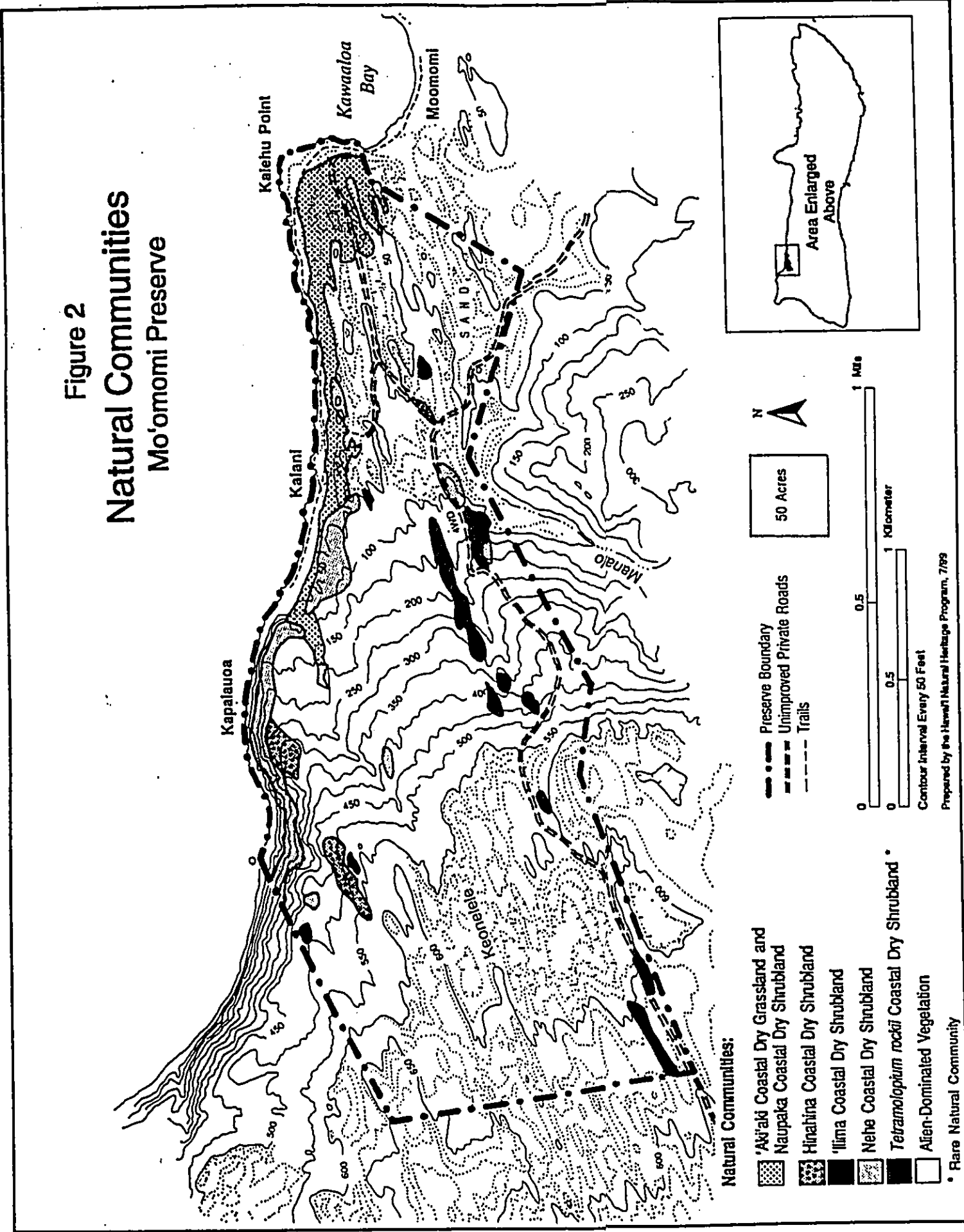
Eight of the 25 native plant taxa reported from the preserve are rare. Two of the eight rare plant taxa are endemic to western Molokai (*Gnaphalium sandwicense* var. *molokaiense* and *Tetramolopium rockii* var. *calcisabulorum*), three are federally listed as endangered (*Centaurium sebaeoides*, *Chamaesyce skottsbergii* var. *skottsbergii*, and *Marsilea villosa*), and two are federally listed as threatened (*Tetramolopium rockii* var. *calcisabulorum* and *Tetramolopium rockii* var. *rockii*) (Appendix 3). Although *Marsilea villosa*, has not been reported from the preserve since the 1970s, populations of this fern have been rediscovered just west of the preserve.

Figure 1
Mo'omomi Preserve



Prepared by the Hawaii Natural Heritage Program, 7/89

Figure 2
Natural Communities
 Mo'omomi Preserve



Native Terrestrial Fauna

Green sea turtles (*Chelonia mydas*, honu), listed as threatened by the state and federal governments, frequent the coastline of Mo'omomi Preserve (Appendix 4). Mo'omomi provides some of the most significant nesting sites in the main Hawaiian Islands for the turtles. Laysan albatrosses (*Diomedea immutabilis*, moli) and monk seals (*Monachus schauinslandi*) also visit the area, and may someday become established at Mo'omomi. Recently, wedge-tailed shearwaters (*Puffinus pacificus*) have been trying to establish a nesting colony along the main foredune.

Historical/Archaeological and Cultural Sites

Mo'omomi contains numerous archaeological sites. Within the preserve is an adz quarry, numerous tool making sites, and transient house sites or shelters. The portion of the preserve known as Keonelele contains many Hawaiian burials. Six archaeological sites at Mo'omomi Preserve were studied in 1952 by Bishop Museum staff, and 11 sites were further studied by a team led by Marshall Weisler under contract with the Conservancy in 1989. None of Mo'omomi's historical resources are currently listed on the National or State Registers of Historic Sites.

For the people of Molokai today, especially native Hawaiians of the Ho'olehua region, Mo'omomi Preserve is also an important site for fishing and the gathering of marine and coastal resources such as sea salt, limu, shellfish, and certain native plants. The Nature Conservancy recognizes the constitutional gathering rights of native Hawaiians and shares the desire of the Hawaiian community to perpetuate this link between people and the environment through responsible stewardship of natural resources.

Conservancy staff consulted with state Historic Preservation Division (SHP) staff to ensure that the full scope of proposed activities was known to SHP. SHP concurs that the proposed project appears to involve minimal ground disturbance, but recommended that preserve staff contact them before performing ground-disturbing activities. SHP also asked that 1) Mo'omomi Preserve's fire plan *not* call for the bulldozing of a fire break (due to the potential for harming subsurface deposits), and 2) that preserve staff and others who supervise visitors be trained in the appropriate treatment of historical sites and the adequate supervision of public access to areas containing visible, surface archaeological sites. The management plan for Mo'omomi Preserve does not call for any ground-disturbing activities; however, staff will contact SHP if such activities are planned in the future. Regarding the use of heavy equipment to control wildfires, bulldozers will be used during fire suppression only in emergency situations where human life or critically rare biological resources are in danger, and fire management plans will identify known sensitive sites to be avoided by heavy equipment.

Adjacent Natural Resources

Some rare plants, animals, and natural communities are also known from areas adjacent to the preserve. Most of these are located immediately east of the preserve, along the coastline.

Rare plants known from adjacent areas include *Marsilea villosa*, *Sesbania tomentosa*, *Solanum nelsonii*, and *Tetramolopium rockii* var. *rockii*. With the exception of *Sesbania tomentosa*, all of

these have also been reported from Mo'omomi Preserve. However, *Marsilea villosa* does not currently exist within the preserve.

Mo'omomi Preserve's rare natural community (*Tetramolopium rockii* var. *rockii* Coastal Dry Shrubland) has also been observed east of the preserve. The following rare animals have been seen in adjacent areas: green sea turtles, hawksbill turtles (*Eretmochelys imbricata*, 'ea), and monk seals.

Sensitive Habitats

The habitats and resources listed above and in the appendices are regarded as sensitive and are found both within and adjacent to Mo'omomi Preserve. The intent of all proposed management activities is to provide long-term protection to these habitats and resources. Potential negative effects of management activities such as the introduction of new weeds are recognized, and special precautions will be taken to minimize these risks.

General Description of the Action's Technical, Socio-Economic and Environmental Characteristics

Technical Characteristics

This project is long term, consisting of several different phases. The primary goal is to maintain native ecosystems and protect the habitat of rare plants and animals in the designated area. Management goals for six fiscal years (FY2001-2006) are discussed below. (The Nature Conservancy has adopted a July 1-June 30 fiscal year.) The Nature Conservancy of Hawaii will be responsible for the completion of the management work.

Management Considerations

1. In 1988 the Conservancy purchased 921 acres from Molokai Ranch, Ltd. to establish Mo'omomi Preserve. The preserve lands are surrounded by Molokai Ranch properties. An easement, which is part of the deed, allows the Conservancy access to the preserve on all existing roads. Molokai Ranch and the Conservancy also have a Fencing Agreement that states that the Ranch is responsible for repairing fence breaks and removing any livestock that escape from Ranch lands into the preserve within 48 hours. (This agreement also recognizes that the fence is not the legal boundary between Ranch and Conservancy lands.) The main road to the preserve also runs through Department of Hawaiian Home Lands (DHHL) property adjacent to the Ranch's land. Presently, the road is open to the public therefore, there is no formal agreement to use the DHHL portion of the main preserve road.
2. Our primary management activity for protecting the preserve's native plants, animals, and natural communities is to protect the area by reducing feral and domestic ungulate damage and limiting the spread of non-native, habitat-modifying plants.
3. Humans pose a threat to Mo'omomi in several respects. The rich coastal resources of Mo'omomi (fish, limu, crab, salt, etc.) make it a popular site for residents and visitors alike. Access is provided by the Conservancy for non-commercial use of these resources. Off-road vehicles venturing off the roads and campsites can destroy the dune system and sensitive native

natural communities. In addition, the number of users largely determines how the coastal marine resources will be sustained. Therefore, one of our ongoing tasks is to work with the community, principally with Hui Mālama O Mo'omomi, to determine the access level suitable to maintain sustainable harvesting practices. Additionally, ocean currents continually deposit human-produced debris on to the beach, posing a hazard to endangered turtles which nest in the area.

4. Members of the Molokai community exercise traditional access, gathering, and other rights within the preserve, as recognized by law. Conservancy management does not alter these rights. However, TNC-sponsored management activities increases access to these sensitive areas. When participants on these TNC-sponsored activities use the opportunity to harvest resources, the levels of collection increase significantly above traditional collection levels that the preserve can absorb. These activities can thus harm the native resources. Therefore, TNC reserves the right to condition the participation on TNC-sponsored activities on the participants' agreement not to harvest native resources during the TNC-sponsored trip. TNC still recognizes the gathering rights of the Molokai community and suggests that if community members wish to gather natural resources under these rights, they may do so on trips to Mo'omomi that they have made on their own.
5. Our priority is to protect Mo'omomi's biological significance. However, Mo'omomi is known for its beauty, wild setting, and cultural significance. This management plan considers the need to protect all of these aspects of Moomomi.
6. The main preserve road ends at the coast in the northeastern corner (Kaiehu Point) of the preserve. This road is used by visitors and for management. In addition, a traditional foot trail begins east of the preserve and parallels much of the preserve coastline. A four-wheel drive road that extends along the southern length of the preserve is used for management.
7. Rich paleontological resources and archaeological sites are scattered throughout the preserve. Because Mo'omomi was an important burial site, human bones are sometimes uncovered by the wind. We notify the State Historical Division when this occurs and work with them on re-interring the bones.

Management Goals

The management programs that follow are listed in order of priority for the next six years of work. Each program goal is followed by a brief description of program strategies, and how we foresee these strategies changing over the next six years. A timetable is provided for each program.

Program 1: Non-Native Species Control

a. Ungulate Control

Program Goal: To keep domestic livestock from entering the preserve, and to determine and implement a management strategy for feral animals that may damage the native natural resources in the preserve.

Mo'omomi contains a rare natural community, rare plant taxa, and other resources that are susceptible to damage caused by ungulates (hoofed animals), especially livestock. The current focus of our ungulate control program at Mo'omomi is to help maintain Molokai Ranch's fence to

prevent cattle ingress. When cattle or other livestock enter Mo'omomi, Molokai Ranch is responsible for removing them within 48 hours upon notification by the Conservancy. We will assess data gathered from deer exclosures to determine if a control program is warranted.

Ungulate Control Timeline

Year 1 - 6 (FY 2001 - FY 2006)

- Assist Molokai Ranch with maintenance of barbed wire cattle fence and report any stray cattle/livestock to Molokai Ranch.
- Implement feral animal management strategy if needed.
- Assess future fencing needs for deer. (Any major fencing projects will require community input and additional funding.)

Status of Public Hunting

Due to safety concerns, Molokai Ranch's adjacent cattle operations, TNC's limited resources for administration and enforcement, and because the effects of deer on the native vegetation are currently being studied, TNC does not have a public hunting program at Mo'omomi Preserve. (We are aware that hunters may occasionally enter the preserve without permission; we discourage this for the first three reasons stated above). In the event we determine that major control work needs to be conducted on the deer population, TNC will pursue management in the best interest of resources and community at large.

b. **Weed Control**

Program Goal: Reduce the range of established habitat-modifying weeds, and eliminate populations of incipient weeds.

Management work at Mo'omomi is currently focused on two priority weeds: kiawe and *Reichardia tingitana* (and other weeds in the sunflower family). Kiawe has invaded large portions of the sand dune areas. We will continue to remove kiawe clumps from certain sand dune areas, this action has shown encouraging natural regeneration of native grasses and shrubs at a rate that adequately prevents erosion. However, other weeds may invade these removal areas. We need to monitor these removal sites and remove other invasive weeds. *Reichardia* is an annual that threatens to degrade the primarily native coastal vegetation. This has become a problem over the past three years. We will continue manual removal by staff led volunteers until alternative methods are found.

During the course of the next six years we will evaluate the threat of *Lantana camara* (lantana), *Pluchea symphytifolia* and other weeds on native habitat populations and develop removal programs as necessary.

Keeping livestock out of the preserve can also prevent the establishment and spread of new weeds. Cattle can facilitate weed invasion by trampling intact native plant communities, disturbing the ground, and transporting weed seeds through their solid waste.

On all Conservancy preserves in Hawaii, herbicide use is strictly limited, and in full compliance with standards of the state Department of Agriculture's pesticide branch and University of Hawaii Cooperative Extension Service. Furthermore, Conservancy weed control staff are licensed as restricted pesticide applicators by the state Department of Agriculture's pesticide branch.

Weed Control Timeline

Year 1 - 6 (FY 2001 – FY 2006)

- Remove isolated stands of kiawe and track the effects.
- Control habitat-modifying weeds (including *Reichardia*, other plants in the sunflower family and other incipient weeds that could become established).
- Evaluate the threat of *Lantana camara* (lantana), *Pluchea symphytifolia*, and alien grasses on native habitat populations. Develop removal programs as needed.

Program 2: Natural Resource Monitoring and Research

Program Goal: To track the biological and physical resources of the preserve and evaluate changes in these resources over time to guide management programs.

Natural resource monitoring tracks important biological and physical resources over time, and identifies trends in these resources. We established long-term vegetation and rare plant (*Solanum nelsonii*) monitoring plots, and have collected data from these plots annually since 1992. In FY1998, we focused on preparing the data to be analyzed by entering the backlog of data into the Paradox Natural Resource Monitoring Computer Database.

Aerial photos are often used to track landscape-scale changes. We will explore the use of aerial photos and if our assessment finds that we can track threats (e.g. kiawe) effectively, then we will recommend the use and cost in our annual planning. This form of threat monitoring will help us determine when control efforts should be initiated.

The Conservancy encourages research that will help us better understand and thereby, protect, the preserve's resources. Conservancy funding for research is limited however, when possible, we provide logistical assistance to approved research projects. Over the years, a few researchers have been given permits to work in the preserve. Specific projects are approved based on review by the Stewardship Ecologist and the Molokai Natural Resources Manager.

Natural Resource Monitoring and Research Timeline

Year 1 - 6 (FY 2001 – FY 2006)

- Using analysis of past data, determine and implement monitoring interval.
- Provide logistical assistance to approved research projects.
- Assess use of aerial photos to track threats.

Program 3: Rare Species Protection

Program Goal: To prevent extinction of rare species in the preserve.

Rare animal protection work focuses on sea turtles, monk seals, and Laysan albatrosses. We will continue our volunteer turtle monitoring program and report all monk seal and Laysan albatross sightings. Rare plant protection is mainly accomplished through the control of alien plant and animal threats. We will assess the need to control weeds or ungulates (fencing if necessary) that may be threatening rare plant populations, and implement actions as needed. Progress will be reflected in the Non-Native Species section of this plan.

To protect the green sea turtles and prevent humans from disturbing their nesting grounds, the pass-key system to give fishermen access to the preserve prohibits all visitors/users of the preserve from visiting the Kaiehu Point area (above Kawa'aloa Bay where most turtles nest) at night during their nesting season to prevent artificial lights from disorienting or disturbing the turtles while in the water or nesting on shore. This rule is consistent with Hui Mālama O Mo'omomi's management plan for Molokai's northwestern waters and also limits human access to the area during moi spawning seasons. In addition, TNC conducts beach cleanups at Kawa'aloa (adjacent to the preserve) and in the preserve below Kalani Point with volunteers. Beach debris, especially nets can hinder female turtles from traversing the beach during the nesting season. We plan to continue to conduct beach cleanups at potential turtle nesting sites within the preserve. In addition, we will encourage Molokai Ranch to participate in turtle monitoring and protection at Kawa'aloa Bay.

Rare Species Protection Timeline

Year 1 - 6 (FY 2001 – FY 2006)

- Maintain turtle nesting monitoring under the direction of the National Marine Fisheries Service (NMFS) and the state Division of Aquatic Resources (DOAR) and with the help of volunteers (Aidem, Langer).
- Conduct beach cleanups at Kawa'aloa Bay and within the preserve to protect turtles during nesting season.
- Report sighting of monk seals and Laysan albatross to U.S. Fish and Wildlife Service and DOAR.

Program 4: Community Outreach Program

Program Goal: To build community support and awareness concerning the conservation of native natural resources, and to implement effective conservation practices that are also culturally sensitive.

Among TNC's three preserves on Molokai there is considerable overlap in our community outreach program because outreach activities at each preserve affect the community's overall perception of The Nature Conservancy and the importance of preserving Molokai's natural resources. This overlap is reflected in our report for this section.

We will continue to put a significant amount of effort and resources toward developing a strong volunteer program. We feel that by expanding the volunteer base we will be able to accomplish more of our goals. It is also hoped that as the community becomes more involved with the management of these special areas it will increase their awareness and they will more actively support our efforts to protect these special places. We will continue to actively recruit new groups and individuals to assist with field activities such as weed and ungulate control and monitoring and beach cleanups. We will conduct docent training as needed to maintain a solid core of individuals willing, able, and adequately trained to lead hikes within Kamakou and Mo'omomi Preserves.

For over 15 years we have provided youth employment and educational opportunities by offering internships, participating in summer youth employment programs, doing classroom slide presentations and providing field trip opportunities. We place significant value on these youth employment programs, as an educational opportunity and a labor source, and plan to continue our

work with these individuals and organizations. We will also continue to provide field trip opportunities when logistically possible.

Since 1993 when it was formed, our Molokai Advisory Council has helped us incorporate cultural values into our management practices, supported us on sensitive management issues and provided an important link to the local community. We will continue to meet with this group and recruit new members on an as needed basis. We will also continue our participation on the Molokai Hunting Working Group (a group formed to help with ungulate management decisions at Kamakou and Pelekunu) and the Molokai Water Working Group (a group that advises the state Water Commission on water issues that may affect Pelekunu's stream system). When making management decisions that will affect the coastal resources of Mo'omomi we will contact and seek advice if needed, from Hui Mālama O Mo'omomi. The Hui is an organization that represents the Ho'olehua Hawaiian Homestead Community. They manage a community-based subsistence fishing area extending from the high water shoreline to a distance of two nautical miles offshore, between Nihoa flats and 'Ilio Point. The purpose of the organization is to reaffirm and protect fishing practices customarily and traditionally exercised for purposes of native Hawaiian subsistence, culture and religion. We support the goals of this group and therefore we have provided Hui Mālama O Mo'omomi access over the preserve so they are able to monitor their subsistence fishing program. They have also provided input to help us with our management at Mo'omomi, such as with shaping our pass key system to help with the management of the fishing resources.

In 1998, a grass roots community group submitted an application to the USDA's Empowerment Zone "EZ" Initiative. On January 13, 1999, The Molokai EZ Application was awarded an Enterprise Community "EC" Designation. This community group, now known as the "*Ke Aupuni Lokahi*" (EC Governance Board), is working to implement the Boards Strategic Plans. The Conservancy is helping with one of their top priority projects, the Kamalo/Kapualei Watershed Project. Kamalo/Kapualei is adjacent to Kamakou Preserve and this project is the catalyst of the East Molokai Watershed Partnership. We will support the Partnership effort with staff time as the direct benefits to the Kamakou Preserve are many including: leveraging of effort; activating landowner interest, support and awareness of native resources; involving the local community. We will also dedicate staff time to Ke Aupuni Lokahi as this group is providing valuable community based conservation awareness and decision making, and it is made up of a broad representation of the Molokai community.

We will continue to develop the *Nature's Newsflash* (newsletter) and participate in Earth Day. Both of these projects provide us with an opportunity to educate and inspire members of the community about the conservation of Molokai's native natural resources.

Community Outreach Timeline

Year 1 – 6 (FY 2001 – FY 2006)

- Select and fund annual Molokai High School summer intern.
- Train and oversee *Alu Like* and other Summer Youth Program participants in management activities throughout the summer months.
- Conduct monthly and special community group hikes.

- Cultivate active participation of Molokai Earth Preservation Organization (MEPO) in the protection of Molokai's native natural resources (e.g. weed control trips, restoration of native ecosystems). Encourage MEPO to develop goals to become a source of native plants for revegetation.
- Assist Moanalua Gardens Foundation staff with conservation education effort at the school level.
- Maintain and further develop community Molokai Hunting Working Group (MHTWG), Molokai Water Working Group, and Molokai Advisory Council (MAC).
- Coordinate and organize annual Molokai Earth Day event.
- Continue distribution of *Newsflash*.
- Maintain and develop docent and volunteer participation and conduct training sessions as needed.
- Write annual progress report and coordinate plans with neighboring landowners and agencies.
- Begin working with regional partners to develop strategies for collective long-term management of the East Molokai watershed. Continue to develop East Molokai Watershed Partnership through the Molokai Community Ke Aupuni Lokahi (Enterprise Community Governance Board).

Program 5: Emergency and Safety Programs

Program Goal: To conduct safe and efficient preserve operations, and to be prepared for fire and rescue emergencies.

Mo'omomi Preserve is situated in a remote area of Molokai. To be as prepared for emergencies as possible, staff participate in a variety of training offered by state and federal agencies (fire training, helicopter safety, hunter safety, etc.). Wildfire presuppression and response plans are coordinated with the Molokai Fire Department (the lead emergency agency) and the state Division of Forestry and Wildlife (DOFAW) Maui District manager. The Mo'omomi Wildfire Management Plan is reviewed annually with the lead emergency agency and updated as necessary.

Emergency and Safety Timeline

Year 1 - 6 FY 2001 – FY 2006

- Update fire/emergency plans and training.

Program 6: Personnel, Equipment and Facilities (PE&F)

Program Goal: To provide administrative, logistical, and operational support for all of the Conservancy's field and community activities on Molokai.

The Conservancy has the equivalent of six full-time staff on Molokai consisting of the Program Director, Natural Resource Manager, Administrative Outreach Coordinator, Field Coordinator, Outreach and Volunteer Assistant and Field Technician. About .5 FTE is spent implementing the plan at Mo'omomi Preserve, 3 FTE at Kamakou Preserve, and 2.5 FTE at Pelekunu Preserve. A small portion of each staff member's time will be used to support fundraising efforts, building

partnership capacity and conducting island-wide community outreach activities. These activities are necessary to meet the NAPP 1/3 private match and to build overall support for the Preserve. The annual intern mentioned in the Community Outreach section is also part of the personnel budget.

Office/baseyard, equipment, and travel costs on Molokai are also split among the three preserves, with 10% charged to the Mo'omomi budget. Management in Mo'omomi requires four-wheel drive vehicles, and 20% of our vehicle costs are paid from the Mo'omomi preserve budget. Roads and trails are maintained to provide safe access to the preserve.

Technical and annual planning support is provided by the Honolulu office of The Nature Conservancy. In particular, the Stewardship Ecologist, Director of Science and Stewardship Operations, Director of Science, Director of Communications and other island resource staff will help prepare annual plans and reports, develop and implement monitoring and research programs, and establish interpretive and intern programs at the preserve. In addition, biologists from the Hawaii Heritage Program will occasionally help Molokai staff with rare species monitoring and other stewardship projects. In FY 2006 we will update this long-range management plan.

Because the NAP program requires an annual inspection, we have budgeted airfare costs for the NARS Program Manager to travel to Molokai to conduct this inspection.

Funding

The above programs comprise a six-year management plan for Mo'omomi Preserve. Through the Natural Area Partnership program, the state pays two-thirds of the management costs for an anticipated total funded amount of \$204,307.

Socio-Economic Characteristics

Mo'omomi provides the general public with a unique opportunity to visit a large, relatively intact native coastal dune ecosystem. For the people of Molokai, especially native Hawaiians, the preserve is an important gathering and cultural site. Fishing and gathering of marine resources such as sea salt, limu, and shellfish still occur in the area as they did long ago. Native plants such as hinahina and kaunaoa are important in lei making. The Molokai Community Plan recognizes these values and calls for Mo'omomi's preservation.

As the best remaining habitat for several coastal plants and plant community types, Mo'omomi has great value as a natural repository for unique genetic material and ecological information. Its potential for enhancement of sea turtle, monk seal, and seabird habitat adds further value to the preserve. The Conservancy presently shares these values with the community through guided hikes, a public use program, slide-show talks to school and community groups, and summer internships that involve Molokai youth in management of the preserve. Our hope is to expand these programs by working with our Molokai Advisory Council and *Hui Mālama O Mo'omomi* to determine appropriate uses and levels of use for the area. The preserve also provides added jobs on Molokai, as described above.

Environmental Characteristics

This project has benefited, and will continue to benefit the environment, by maintaining and enhancing native ecosystems, preserving biological diversity, and protecting valuable cultural, archaeological, and paleontological resources.

At least seven rare plants, one species of threatened sea turtle, and one rare natural community reported from Mo'omomi Preserve are better protected as a result of this project

III. SUMMARY OF MAJOR IMPACTS

Major Impacts - Positive

- Protection of the fragile dune ecosystem and important archaeological and paleontological sites from domestic livestock.
- Reduction of the range of habitat-modifying weeds (kiawe) and prevention of introduction of new problem weeds.
- Tracking of biological and physical resources in the preserve and evaluation of changes in these resources over time to identify new threats.
- Prevention of extinction of rare species in the preserve.
- Preservation of a living component of Hawaiian culture.

Major Impacts - Negative

No major negative impacts are expected to result from the proposed project. However, there are several minor *potential* negative impacts of management at Mo'omomi. One is the accidental introduction or spread of new weed or alien invertebrate species on equipment, supplies, or transport vehicles. Also, because herbicides might be needed to control kiawe or other alien plants in the preserve, there is a remote possibility of localized ground contamination. We are also aware that we might "unnaturally" alter Mo'omomi's dunes through trampling, or by removing alien plants such as kiawe, which help stabilize the sand. The Conservancy has taken measures to minimize or prevent all of these impacts (see Proposed Mitigation Measures below).

In addition to direct impacts of management actions at Mo'omomi there are potential *indirect* environmental impacts. As previously mentioned in the Public Outreach Program description, Mo'omomi is open to the public on a limited basis. In addition to staff- and docent-led hikes, members of the Molokai community can visit the preserve unaccompanied by checking out a key from the Conservancy's office in Kualapuu. With such an open access policy come risks. For example, visitors could potentially harm Mo'omomi's resources by overharvesting marine or other resources, driving upon or trampling dunes or vegetation, dumping trash, introducing weeds or alien insects, starting destructive fires, collecting artifacts, and by damaging fossils or archaeological sites.

IV. ALTERNATIVES CONSIDERED

Although we (the Conservancy) considered a variety of alternatives involving lower levels of management, we decided that the actions outlined in this assessment are all necessary to assure the continued protection of Mo'omomi's rare dune ecosystem. A no-action alternative would promote the loss of rare plants and animals.

V. PROPOSED MITIGATION MEASURES

To prevent the accidental introduction or spread of weeds and alien invertebrates, Conservancy staff inspects equipment taken into the preserve and monitor for new pest species. If herbicides are used in the preserve, they will be applied selectively, and according to label instructions. Applicators will be licensed by the State Department of Agriculture's pesticide branch, and all chemical use will comply with that agency's guidelines. We have also taken steps to minimize damage to the dunes. Staff does not walk on the crests of dunes, and they avoid sensitive areas such as the rare *Tetramolopium rockii* Coastal Dry Shrubland. To ensure that we do not unnaturally alter the dunes during weed control, prior to large-scale kiawe removal we will conduct small-scale trials to evaluate the effect of kiawe removal on dune dynamics.

We have also taken several steps to prevent or minimize user damage. Staff and trained docents guide hikes and advise visitors how to minimize their impact. Pass key users are given copies of the preserve rules. For example, we ask everyone to avoid the dune areas, using only beaches and designated trail and parking areas. The collection of artifacts, bones, and coral, and harvesting or collecting natural resources for commercial purposes are prohibited. We have erected signs and established trails and barriers to help prevent trampling and off-road vehicle damage. Visitor impact is assessed during regular staff visits, and through annual vegetation monitoring. Together with *Hui Mālama O Mo'omomi* we will ensure that the harvesting of resources such as lei-making materials and salt is non-destructive and sustainable in the long term. We will also participate in establishing sustainable harvesting practices for Mo'omomi's marine resources; however, these are under the jurisdiction of the National Marine Fisheries Service, the state Division of Aquatic Resources, and the state Division of Conservation and Resources Enforcement. We are hopeful that the Molokai community will continue to use the preserve responsibly, recognizing the need to safeguard Mo'omomi's natural and cultural resources. If visitor damage becomes a problem, we will work with the Hui and others to ensure protection of Mo'omomi's natural and cultural values.

VI. DETERMINATION

No significant negative impacts to the environment are expected to result from the implementation of the proposed activities.

VII. FINDINGS, AND REASONS SUPPORTING DETERMINATION

In summary, all activities are expected to be beneficial, or to have no negative effect. The proposed activities are expected to benefit native species (including rare plants and animals) and native natural communities, both in the project area and on adjacent lands. For example, weed control in the project area will help protect the rare dune ecosystem. The Conservancy's management of Mo'omomi Preserve also helps prevent overharvesting of coastal resources, and affords protection to archaeological and paleontological sites.

The risk of significant negative impact is low. Care will be taken not to damage archaeological or paleontological resources in the course of kiawe control. Management-related impacts on any historical resources in the area are expected to be negligible. Furthermore, the risk of herbicidal contamination is low because 1) only small volumes of approved herbicides would be used, 2) staff is well-trained in herbicidal application, and 3) all chemical use would be in compliance with the state Department of Agriculture's pesticide branch.

Significance Criteria

Although the Nature Conservancy is not an archaeological or cultural entity, we are committed to work with resource agencies that have the expertise to help us manage the many cultural artifacts and practices that occur at Mo'omomi. Mo'omomi contains significant burial sites and we work closely with the State Historical Division and the local Burial Council to insure interment and that exposed burial sites are taken care of properly. Staff has been instructed to report anything that could be of cultural or historic importance. Several archaeological site surveys have been conducted in the past, even prior to the establishment of the Preserve in 1988. We also work closely with Hui Lama O Mo'omomi, a local Hawaiian Homestead group organized to manage the adjacent shoreline for subsistence fishing. Everyday management does not pose a threat to any structures that may exist within the preserve.

Mo'omomi Preserve has continued to allow access through its pass/key system. Through our various community outreach programs, we encourage and help the community and public at large to visit the preserve. We estimate up to 500 people a year visit the preserve through our monthly hikes, volunteer trips and educational field trips. (Please refer to Program 4: Community Outreach in this document.)

The Nature Conservancy is in full compliance with the letter and spirit of the law as stated in Chapter 344 of the state environmental policy. The effort to establish the Mo'omomi Preserve in order to protect Hawaii's unique plants and birds is at the forefront of the purpose of Chapter 344. The Nature Conservancy will continue to improve the environmental quality of Hawai'i through its efforts in Mo'omomi Preserve for many years to come.

The 921-acre Mo'omomi Preserve contains the best example of coastal beach strand in the main Hawaiian Islands. The coastal strand contains important plants used in Hawaiian culture, as well as providing that "sacred" feeling for those who have been using the area for generations. By protecting Mo'omomi we are increasing the social welfare of the area as the community is reassured in knowing that the area will remain as it is for generations to come.

Public health is improved through the exclusion of the cattle from the area. A fence erected by Molokai Ranch to prevent their cattle from entering the preserve will have positive effects as there will be less eroded areas from overgrazing and less fecal waste on the ground.

Mo'omomi Preserve does not have any facilities or a source of fresh water nor are there any plans to create such. Therefore, we do not believe we will have any secondary population or facilities impacts.

Our primary strategy for protection of Mo'omomi Preserve is to reduce damage to the native sand dune vegetation by excluding cattle intrusion on the adjacent ranch lands, limiting access during sensitive ecological periods, and educating the community of the importance of the sand dune

ecosystem. Our actions already have and will continue to increase the environmental qualities of Mo'omomi Preserve.

State Historical Preservation Division and TNCH have agreed that management activities would involve little to no ground disturbance in the preserve. The cumulative impact of cattle browsing/trampling and invasive pest weeds by far exceeds the minimal impact of our management activities.

Cattle and human motorized activities are the most damaging to the native sand dune ecosystem. By conducting the actions mentioned above, we will keep the strand community substantially intact and even improve the habitat needed for rare to survive and flourish.

There are no management activities that affect ambient noise levels, however occasional localized increase may occur due to vehicle and/or chainsaw use. We do not believe these levels will be detrimental to the overall quality of the environment at Mo'omomi.

Mo'omomi Preserve is a natural area and will be treated as such. It will be prone to any natural event that may happen in the area, but these events will only add to the natural state of Moomomi.

By providing management actions to the area including fences and road railings, we are actually improving the vistas and viewplanes of the area by protecting and enhancing the integrity of the Mo'omomi area and its coastal dunes ecosystem.

As there are no structures in the project area, management of Mo'omomi Preserve requires only a modest amount of energy in vehicular transportation and chain saw operation to complete management projects.

Approvals

As outlined by the Rules Regulating Application, Approval and Administration of the Natural Area Partnership Program, the final EA, a partnership agreement (contract) and a long range plan are submitted to the Board of Land and Natural Resources for approval prior to project commencement.

VIII. EA PREPARATION INFORMATION

This document was prepared by staff of The Nature Conservancy, in consultation with Randy Kennedy and Betsy Gagné, staff members in the Department of Land and Natural Resources, Division of Forestry and Wildlife, Natural Area Reserves System program. The primary EA preparer is:

Edwin Misaki, Director of Molokai Programs
The Nature Conservancy
1116 Smith Street, Suite 201
Honolulu, Hawai'i 96817
(808) 537-4508

This environmental assessment incorporates many sections and figures from the Mo'omomi Preserve Long Range Management Plan (e.g., all maps, descriptions of resources, and proposed activities). Please refer to the management plan for details pertaining to the project budget.

IX. APPENDICES

**APPENDIX 1
COMMENTS RECEIVED DURING CONSULTATION
(AND RESPONSES)**

MOLOKAI - LANAI SOIL AND WATER CONSERVATION DISTRICT

Randy K.



P.O. Box 396
Hoolehua, HI 96729
Phone (808) 567-8869
FAX (808) 567-9062



December 15, 1999

Mr. Michael G. Buck, Administrator
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 224
Honolulu, Hawaii 96813

Subject: Comments on Draft Environmental Assessments for Kamakou Preserve, Moloka'i and Mo'omomi Preserve, Moloka'i, for Mo'omomi Preserve Natural Area Partnership

Dear Mr. Buck:

The Moloka'i - Lana'i Soil and Water Conservation District would like to thank you for the opportunity to review the Draft Environmental Assessments for the Kamakou and Mo'omomi Preserves here on Moloka'i. These assessments seem to be adequate and the District has no comments at this time. However, we would like to take this opportunity to commend The Nature Conservancy of Hawaii and your agency for your continuing hard work and dedication to the protection and preservation of our precious natural resources here on Moloka'i.

Sincerely,

Paul K. Elia
Paul K. Elia
MLSWCD Chairman

PE:zp

DANIEL K. AKAKA
Administrator
175 West Senate Office
Building
Washington, DC 20510
Telephone: 202-224-2021
FAX: 202-224-2021
HONOLULU OFFICE
2109 Punchbowl Street, Room 224
Honolulu, Hawaii 96813
Telephone: 808-527-2919

Randy K.
Member
COMMITTEE ON ENERGY AND
NATURAL RESOURCES
COMMITTEE ON GOVERNMENTAL AFFAIRS
COMMITTEE ON INDUSTRY, BUSINESS
AND TRADE
COMMITTEE ON VETERANS AFFAIRS
United States Senate
WASHINGTON, DC 20510-1103

December 9, 1999

Mr. Michael G. Buck
Administrator
Division of Forestry and Wildlife
Department of Land and Natural Resources
1151 Punchbowl Street, Room 224
Honolulu, HI 96813

Dear Mike:

Thank you for your recent letter soliciting comments on the Draft Environmental Assessments (DEAs) for reauthorization of various wildlife preserves as participants in the Natural Area Partnership Program. I will review the DEAs and, if necessary, provide comments for the record.

Thank you for continuing to keep my office apprised of your agency's activities. I look forward to renewing our partnership on various issues in the coming session of Congress.

Aloha pumehana.

Janny
DANIEL K. AKAKA
U.S. Senator

TNCH DEA, NAPP

From: Dave.Hopper@fas.gov
To: kenned@hgsa.org
Date: Wed, Dec 1, 1999, 11:25 AM
Subject: TNCH DEA, NAPP

Tue, Dec 7, 1999 9:56 AM

Rec'd 12-2-99

JAMES 'KIMO' APANA
Mayor

CHARLES JENCKS
Director

DAVID C. GOODE
Deputy Director

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

To Randy Kennedy, HARS, DLNR; 1 Dec. 1999

Randy,

We reviewed the recent (23 Nov. 1999) DEAs for TNCH's preserves on Maui and Molokai (Kamakou, Waikamoi, and Mo'omomi). TNCH adequately addressed FWS comments that were provided by our office on 22 October 1999, and we will make no further comments.

Dave Hopper

Randy



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

November 30, 1999

Mr. Michael G. Buck, Administrator
State Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 224
Honolulu, Hawaii 96813

Dear Mr. Buck:

SUBJECT: DRAFT EA FOR KAMAKOU, MO'OMOMI, AND WAIKAMOI PRESERVES FOR REAUTHORIZATION AS PARTICIPANTS IN THE NATURAL AREA PARTNERSHIP PROGRAM

Thank you for the opportunity to comment on the subject environmental assessments.

You may wish to include as a positive impact to this program that unguilate control also reduces downstream flooding concerns. As the County maintains some drainage facilities makai of these preserves, this program benefits downstream facilities and properties.

If you have any questions, please contact me at (808) 270-7845.

Sincerely,

DAVID GOODE
Deputy Director of Public Works
and Waste Management

DG:mt

JAMES "KIMO" APANA
MAYOR



OFFICE OF THE MAYOR
Ke'eua O Ka Māui

COUNTY OF MAUI
Kaheka O Maui

December 21, 1999

Mr. Michael Buck, Administrator
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Buck:

RE: Draft Environmental Assessments for Waikamoi Preserve (Maui),
Kamakou Preserve (Molokai) and Moomomi Preserve (Molokai) for
Reauthorization as Participants in the Natural Area Partnership
Program.

Thank you for the opportunity to provide you with comments on the
above-referenced Draft Environmental Assessments (DEA).

As a partner in this program, we support the reauthorization of the Natural Area
Partnership Program. We recognize the importance of these preserves and their need
for long-term management. This particular approach has shown itself to be an
effective tool in preserving our resources for the generations to come.

We believe the public participation aspects of the management plans are
especially important as it fosters a sense of community and adds to the effectiveness
of the program.

If you have any questions, please contact Mr. William Spence, Staff Planner, of
the Maui Planning Department at 270-7735.

Sincerely yours,

JAMES "KIMO" APANA
Mayor, County of Maui

Randy K

200 South High Street
Waialuku, Maui, Hawaii USA
96793-2155
Telephone: (808) 270-7355
Fax: (808) 270-7870
e-mail: mauiamayor@waialuku.net

Mr. Michael Buck, Administrator
December 21, 1999
Page 2

JAWRS:cmb
c: John E. Min, Planning Director
Brian Miskae, Executive Assistant to the Mayor
William Spence, Staff Planner
Mark White, Maui TNC
Project File
General File
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JAMIN J. CAYETANO
Governor



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

176 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813
TELEPHONE (808) 524-4185
FACSIMILE (808) 524-4188

December 21, 1999

Mr. Tim Johns, Chair
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Johns:

Subject: Draft Environmental Assessment for the Kamakou,
Ho'omomi, and Waikamoi Preserves Natural Area
Partnership, Molokai and Maui

Thank you for the opportunity to review the subject document. We
have the following questions and comments.

1. Please include a list of all approvals (State, Federal,
County) required for the project in the final environmental
assessment.

Should you have any questions, please call Jeyan Thirugnanam at
586-4185.

Sincerely,

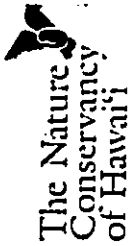
Genevieve Salmonson
Genevieve Salmonson
Director

c: Nature Conservancy

The Nature
Conservancy
of Hawaii
118 South Street
Honolulu, Hawaii 96817
Phone: (808) 537-4108
Facsimile: (808) 543-2019

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The Nature
Conservancy
International
Headquarters
211 V. Luntz Dr., Suite 100
Washington, DC 20008-1006
http://www.nature.org



February 22, 2000

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

Dear Ms. Salmonson:

Subject: Draft Environmental Assessment for Waikamoi, Kamakou and Moomomi
Preserves Natural Area Partnership

Your 12/21/99 memorandum to the Department of Land and Natural Resources was
forwarded to The Nature Conservancy for response. In the Final Environmental
Assessment we have added a statement under the section "Findings, and Reasons
Supporting Determination" that clarifies the needed approval for this project to proceed.

Under the "Rules Regulating Application, Approval and Administration of the Natural
Area Partnership Program," the partnership agreement (contract and long-range plan) is
submitted to the Board of Land and Natural Resources for final approval prior to
project commencement.

TNC also holds a current Wildlife Control Permit for night-time hunting of deer on
Maui. This permit is valid for one year and is renewed annually.

Thank you for your comments. Please contact me at 537-4508 if I have not adequately
addressed your concerns.

Sincerely,
Alenka Remec

Alenka Remec
Director Science and Stewardship Operations

cc: Mike Buck, DLNR
Randy Kennedy, DLNR
Betsy Gagne, DLNR
Mark White, TNCH Maui
Anders Lyons, TNCH Maui



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*Randy K
Betty D.*

23 December, 1999

Department of Land and Natural Resources
State of Hawaii
Division of Forestry and Wildlife
1151 Punchbowl Street
Honolulu, Hawaii 96813
Via FAX: 587.0160

The Nature Conservancy of Hawaii
1116 Smith Street Suite 201
Honolulu, Hawaii 96817
Via FAX: 545.2019

Re: Draft Environmental Assessment
Mo'omomi Preserve (Molokai)
Natural Area Partnership
And
Draft Environmental Assessment
Kamakou Preserve (Molokai)
Natural Area Partnership
And
Draft Environmental Assessment
Waikamoi Preserve (Maui)
Natural Areas Partnership

Animal Rights Hawaii (ARH) is responding to the above mentioned draft environmental assessments for the continued contractual relationship between the State of Hawaii and the Nature Conservancy of Hawaii (TNCH)

ARH has grave reservations regarding the proposed contract's empowerment of TNCH as well as other various government agencies to utilize animal control methods which are universally considered inhumane, cruel and useless in the long range plan to remove introduced species from the above mentioned properties.

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We have, in the past, implored TNCH to use its vast private resources, as well as those tax payer funded monies awarded by the State of Hawaii, to find and implement humane, effective, long-range programs (such as already available immunosterilisation) towards re-establishing a friendly environment for native species.

We have also stated that the invasion of large portions of lands in Hawaii by herds of cattle and the devastation of native forests in the clearing of lands for these cattle, as well as the resulting pollution of lands by cattle dung and runoff and pollution resulting from slaughter and processing, have created massive environmental degradation far worse than that produced by introduced animals. The State of Hawaii continues to ignore the environmental dangers of the livestock industry in Hawaii and chooses to concentrate on its own program of ethnic cleansing against animals who have no lobbying power nor wealthy donors to speak for them.

Although the goals of the proposed EAs (to protect native species) are worthy, the methods, including maximum kills of cats, pigs, deer, goats and rodents and mongooses, are cruel and unacceptable.

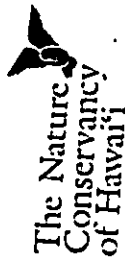
ARH hereby states our intention to participate in the planning and evaluation process for any and all programs involving animal control in activities by the State of Hawaii and its partners in land management. Please include us in your consultation list.

Truly,

Cathy Coeegel

Cathy Coeegel
Director, Research and Investigations

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February 22, 2000

Cathy Goeggel

Director, Research and Investigations
Animal Rights Hawaii
P.O. Box 10845
Honolulu, HI, 96816

RE: Response to the Draft Environmental Assessment for Waikamoi Preserve
Dear Ms. Goeggel,

Your letter to the Department of Land and Natural Resources was forwarded to the Nature Conservancy of Hawaii (TNCH) for response. Thank you for responding to our request for comments on the Draft Environmental Assessment for Waikamoi Preserve.

While feral cattle are causing damage to Hawaii's native ecosystems in some areas, they have been excluded from Waikamoi Preserve for a long time through our use of fences. Cattle therefore are not considered a threat to the preserve. There are, however, introduced animals such as pigs, goats, and deer which continue to destroy our native ecosystems, and these are the targets of our control efforts. Because of the heavy damage these animals inflict on our native forests, their presence in our preserve is cause for great concern.

Feral animals continually eat away and otherwise disturb the understorey that provides for new forest growth. Over time, the regeneration of new trees ceases, while existing trees grow old and die. Without native trees and plants, the birds begin to disappear, slowly at first and then more rapidly. For the forest, and the native plants and animals that live there, what is occurring is a cruel and lengthy death sentence.

Statewide we have seen over half of our native bird habitat destroyed in just 1500 years, and historic accounts of the native bird population show their range diminishing at incredible rates. In Waikamoi Preserve alone we have seven species of native birds that are endangered or rare. In light of these facts, our effort to protect the remaining native habitat is essential.

We employ several tools in managing our preserves. Fencing off an area to be protected is integral to our management efforts. Fencing keeps pigs out and reduces the number of pigs that need to be removed from our preserve. We also employ a variety of one-way gates, which provide the pigs inside the preserve access to the outside. Second, we encourage public hunters to hunt in the more accessible areas of the preserve. While hunting has its own opponents, this method has been accepted as appropriate by the Humane Society of Maui. In addition to public hunters we use contract hunters -- paid professionals who do intensive hunting and harvest all meat. As an initial tool in removing pigs from an area we have also flown public hunters into remote areas. While this strategy is effective with high populations, it becomes less effective as populations diminish. Snaring is only used as a last resort in the most fragile and remote areas where no other method has proven effective.

The Hawaii Department of Land and Natural Resources, the National Park Service, The Nature Conservancy, and others have worked for many years developing effective control programs to reduce the devastating effects of pigs and other alien species invading our forests. The National Park Service, especially, has conducted major research in Hawaii on hunting, trapping, baiting, snaring and other feral animal control methods. We have collaborated with experts elsewhere in the United States and abroad, taking advantage of this collective knowledge to develop our current program. We have learned that both for the protection of the forest and to minimize the number of feral animals that must be killed, control programs must be very aggressive. An effective control program must use a variety of methods to first reduce the feral animal population in an area to very low levels as quickly as possible, and then to keep it low.

We are dedicating staff and funding to search for additional control methods that can replace snaring. There are several possibilities, but it will be some time before they are practical for Hawaii.

Commonly proposed alternatives to snaring such as poison and birth control are opposed by many and are not feasible. No poison of any kind is currently legal for pigs or goats in the United States. While birth control is theoretically possible and has been applied to many mammal species in controlled settings, it is not yet practical for use in remote, wild populations. We recently supported a project to develop a vaccine for immunization of pigs. The findings show that a contraceptive (not sterilization) effect was achieved in 50% of the animals. However, the vaccine must be delivered by injection and needs to be re-administered by two specifically timed boosters. Thus, such a method, while technically possible in a controlled environment, is not practical in a dense rain forest setting with free-roaming, wild populations. Also, there are serious concerns about the impacts these animals would continue to have on the environment while they remained alive. Nevertheless, we continue to stay abreast of contraceptive research and other developments as possible future alternatives.

Again, thank you for responding to our request for comments on the Draft Environmental Assessment for Waikamoi Preserve.

Aloha,

Alenka Remec

Director, Science and Stewardship Operations

Cc: Mike Buck, DLNR

Randy Kennedy, DLNR

Betsy Gagné, DLNR

Mark White, TNCH Maui

Anders Lyons, TNCH Maui

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CORRECTION

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

December 21, 1999

Steven J. Araujo
PO Box 637
(808) 966-7215
Kurtistown, HI 96760

Michael Buck
Administrator
Division of Forestry and Wildlife
DLNR
1151 Punchbowl St.
Honolulu, HI 96813

Dear Mike,

Thank you for the opportunity to provide testimony on the Re-assessment for the reauthorization of TNCH's application for the Natural Area Partnership Program.

These plans are not well written management plans. There are many discrepancies and repetitions as mentioned in some detail. (See attached sheets.) All of these plans should be rewritten and detailed. There should be accounts for actual problem areas-size, etc., amount of man-hours, amount of herbicides used, type(s) of herbicides used, and approximate total cost of projects etc. It is suggested that until this is done and again sent out for public review, all renewals for this Partnership should not be reauthorize.

I do believe that public comment on matters such as these should be made more public friendly. Meaning that, the vast majority of the public has no idea of this sort of happenings. Perhaps public advertisements such as newspapers, etc., might be the method of delivery. Public comments need to come from the general public and not only certain interest groups. What happens in Hawaii affects all of the people and all of their generations. These programs are publicly funded and information regarding these programs and the use of funds should be made more available to the public. Therefore, DLNR should do its utmost to provide the general public with full information on the happenings that are occurring and will possibly occur in the State of Hawaii.

Please provide me with answers to all of my questions and concerns that I have given to you on the attached sheets. I would also like to know as stated in HRS 195-6.5 Natural Area Partnership Program (b) if their was a transfer of fee title or conservation easement granted to the State by TNCH? Please reply as soon as possible. Thank you.

Sincerely,

Steven J. Araujo

Steven J. Araujo
cc. Tim Johns (BLNR Chairman)
Betsy Gagne (Secretary of NARS Commission)
Randy Kennedy (Native Resources Program Manager)
Other interested parties

Waikamoi

Page 6: Natural Communities- Of these 14 communities, who is it that considers 2 communities rare?

Page 10: Sensitive Habitats- This section talks about Sensitive Habitat in Haleakala National Park and adjoining lands. What does this have to do with Waikamoi? It has also been mentioned at a program called after dark in the park on July 11, 1999 that the term Sensitive Areas were conjured by National Park Administration to receive more funds for their programs. These minutes are on video file at Volcano National Park. Is TNCH and BLNR and DLNR aware of this? If not, the suggestion is to become aware and not get caught up in something you don't want to be caught in.

Page 11-19: As stated through out these pages, for ten years, snaring and contract hunting has been the strategy used to reduce game mammal populations except in unit 1a where it states that game mammal populations have not been reduced. Under heading Status of Public Hunting it states that ranch employees have the hunting priority and that TNC Reserves the right to close all areas to hunting- I will remind you of HRS 195-6.5 where it states (2)(A)(3):

...The management plan shall include provisions to allow public hunting wherever feasible; provided that:

- (A) Hunting activities shall be in compliance with applicable laws; and
- (B) Game animals shall not be introduced to any partnership area and hunting shall be conducted as a conservation purpose of this program.

I would also like to mention that 195-6.5 mentions nothing about total eradication or use of snares and contract hunting. This might be in violation of the law. The rest of this writing is not a management plan for a specific area. It talks about other partners and corporation with other agencies and for education, and areas outside the reserve.

Kamakou

Page 5: Naive Flora- States Kamakou is home to 35 rare plant taxa. But only 18 are federally listed as endangered. Then why are the remaining 17 plant taxa considered rare and by whose determination creates them to be rare?

Page 9: Management Considerations- Please explain to me how prior to 1982 the Kamakou Preserve area was part of the States Molokai Forest Reserve and how TNCH has gained the right to manage this area under the natural area partnership program and apply for funding under this program?

Page 10: #5 states- part of the area if not all of the area are closed during herbicide spraying. Is this a wise management decision reason being pg. 5 states this area is a ground water recharge and surface water source area. Have any water samples been taken and been tested for contamination? Also as written this sounds like broadcast spraying. Are these areas checked for native invertebrates that may be in the spray zone before herbicide is applied?

Page 8-10: Sensitive Areas- What are these sensitive areas? What types of plants incorporate the areas and where are they? What are traditional collection levels? Who determines the levels of the specific items collected?

Page 13: Lower Accessible Areas- Why are these tree plantations included within the preserve? Weren't these trees planted for future harvest and income for the State? This area should be removed from this preserve.

Page 14: Last Paragraph- Here it states that a fence line was completed in 1995 to monitor vegetation changes. Data was compiled from 1995-1997 and states that visual observations indicate that the fence is working, activities most prevalent outside the fence. Was this fence constructed to monitor vegetation changes or mammal activity? As stated, vegetation changes. So does this mean that the activity of vegetation changes, growing, seeding, etc., is most prevalent outside the fence?

Page 16: Status of Public Hunting- What is the status of public hunting? All this short paragraph states is that these areas are open to public hunting 7 days a week with no bag limit and closed during certain hazardous times.

Page 17-28: The rest of these pages repeats what was previously written with the addition of monitoring programs incorporated into different paragraphs.

In conclusion this plan should be rewritten and more detailed descriptions management actions outlined in the plan. Furthermore it is TNCH that has and is advocating at meetings, in their newsletters, and other publications that most native species are found nowhere else on earth. If these species are found nowhere else on earth, then how can TNCH give these species a global ranking(G-1,G-2,G-3)?

Mo'omoi

Page 5: Native Flora- If 8 of 25 taxa are rare and actually only 5 are federally listed on the federal endangered species list. How and who considers the rest rare? The species *Marsilea villosa* hasn't been found on the preserve since the 1970's and was "rediscovered" west of the preserve. Then how can one say that this plant is one of the 25 native plant taxa that occurs in this preserve?

Page 8: Where is the fire plan?

Page 10: What is the traditional collection levels? Who determines the level of specific species collected and the traditional collection level?

Page 11: Ungulate Control Timeline- Under this heading it states TNCH will assist Molokai Ranch with maintenance of barbed wire cattle fence. On page 9 under Management Considerations it states that TNCH and Molokai Ranch have a fencing agreement that states the ranch is responsible for repairing fence breaks.

To access the need for future fencing for deer and to complete studies on the effects of deer on the native vegetation without allowing public hunting is ridiculous. By having game mammals in a fenced off area without an adequate public hunting program to keep the mammals under control these animals will have a heavy impact on the vegetation. Or is this study intended to prove that these animals need to be eradicated as stated in all the other studies done on game mammals and native vegetation?

Page 11: Weed Control- If *Reichardia* has become a problem in the past 3 years. What was the size of the area then and the size of it now? Why does it state that by removing *Kiawe* clumps that other weeds may invade these areas and that cattle can facilitate weed invasion by disturbing the ground? If cattle hoof depressions and grazing facilitate weed invasion the isn't it a sure fact that the *Kiawe* clump removal will have the same or even worse results? So what's the need for monitoring?

Page 12: Weed Control Timeline- TNCH for many years has been emphasizing the degradation of native vegetation by non native species. Since this is known by TNCH there should be no need for monitoring. A comprehensive, realistic management plan should be written and realistic management carried out.

Program 2: If data was collected from 1992 and compiled in 1998 then what is the result? In the second paragraph, it is stated that aerial photographic monitoring might be incorporated then goes on to say this type of monitoring would determine when control should begin. Isn't control supposed to be an ongoing activity?

The third paragraph mentions specific research with permits were done on preserve. What are the research projects and their findings and why aren't they stated?

Pages 14-16: As stated TNC is working with Molokai community groups on management of this preserve, then what have these groups come up with and why isn't it in this project plan renewal?

Page 18: VII findings- Here it states that weed control will help protect rare dune ecosystems but on page 17 under Major Impacts-Neg- it states that by removing weeds it could be destabilizing to the sand. Which is it? Here it also states that TNC's management of this preserve helps prevent over harvesting of coastal resources, but states above that the coastal management laws are not under their jurisdiction. They also state on page 11 that there is limited resources for enforcement, so on that case, how can TNC state that their management prevents over harvesting? Also, bag limits are only set for certain coastal resources, not all.

Page 19: Significance Criteria- Here it states that approximately 500 people visit this preserve every year. Then it goes on to say that there are no facilities or plans to create facilities on the preserve. It also states that preventing cattle from entering the preserve would cause less cattle fecal waste on the ground. The major question here is, which fecal waste is more environmentally and humanly harmful? Where does the human fecal waste go?

In conclusion, TNC should rewrite this proposal and write a comprehensive detailed management plan for this preserve. This plan is not even a management plan. How can anyone say that this is a 6 year management plan. Noting from fig. 2 map, this preserve is more than 75% non-native, which means that only a very small portion of this area should be considered a natural area. Where is the plan? If the partnership should continue, then the non-native areas should not be included in the 2 for 1 State funding. Although this area contains paleontological and archaeological sites, I believe that this does not fall under the chapter providing the partnership funds. TNC should inquire with other agencies to seek funding to manage this portion of their preserve, including road maintenance. Also, it is TNCH that has been advocating at meetings, in newsletters and other publications that most of these native Hawaiian species are found nowhere else on earth. If these species are found nowhere else on earth, then how can TNCH give these species a global ranking (G-1, G-2, G-3)?

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET
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Timothy E. Johns
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY

Janet E. Kawelo

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
ENVIRONMENTAL AFFAIRS
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT
WATER RESOURCE MANAGEMENT

February 8, 2000

Steven J. Araujo
P.O. Box 637
Kurtistown, HI. 96760

RE: Waikamoi, Kamakou and Moomomi Draft Environmental Assessment

Dear Mr. Araujo,

Thank you for responding to our request for comments on the Waikamoi, Kamakou and Moomomi Draft Environmental Assessment. Your letter has been forwarded to The Nature Conservancy of Hawaii (TNCH) who have responded in detail to your inquiries.

In the letter, you indicated that:

1. "The management plans are not well written and should include more specific details about the day to day operation of the Preserves". These plans were written for the initial application of the Preserves into the Natural Area Partnership Program (NAPP) six years ago and meet public review at that time. They have been updated to reflect current management goals and objectives, which are very similar today as then -- to protect and preserve Hawaii's unique native resources on private lands. The format and level of detail for the management plans are that used by TNC both in Hawaii and nationally and in fact have been used extensively in Hawaii by other managers of conservation lands.
2. "Public comments on the re-authorizations of NAPPs should be made more public friendly". In the case of the re-authorizations of these contracts, the public has opportunities to comment at the NARS Commission meeting, the Environmental Assessment process which is advertised through the OEQC Bulletin, and the BLNR meeting.

Your other comments have been addressed in TNCH's response letter.

Thank you again for your response to our request for comments.

Aloha,

A handwritten signature in cursive script, appearing to read "M. Buck".

Michael G. Buck
DOFAW Administrator



February 5, 2000

Steven J. Araujo
P.O. Box 637
Kurtistown, HI. 96760

RE: Draft Environmental Assessments for Waikamoi, Kamakou
and Mo'omomi Natural Area Partnerships

Dear Mr. Araujo,

Your letter dated December 21, 1999, to the Department of Land and Natural Resources was forwarded to The Nature Conservancy of Hawaii'i (TNCH) for response relative to TNCH activities. Thank you for taking the time to review the Waikamoi, Kamakou and Mo'omomi Preserves Draft Environmental Assessments (EAs) and for providing comments for us to consider in preparation of final EAs for these projects. We would like to respond to the concerns detailed in your letter:

WAIKAMOI:

First, "... (if/as) there a transfer of fee title or conservation easement granted to the State by THE CONSERVANCY?" The Waikamoi Preserve, as shown on page 6 of the draft EA, was established when Haleakala Ranch granted The Nature Conservancy a permanent conservation easement. Haleakala Ranch maintains the fee title to that tax map key (TMK). Under HRS 195-6.5 (b) (1), to qualify under this program an applicant shall be a landowner or a cooperating entity of private land of natural area reserve quality and shall agree to "dedicate the private land in perpetuity through a transfer of fee title or a conservation easement to the state or a cooperating entity." In the case of Waikamoi, the Conservancy is the cooperating entity that was granted a conservation easement from the landowner.

Second, Natural Communities:

Fourteen terrestrial native natural communities are represented in Waikamoi Preserve, two of which are considered rare: *Deschampsia* Subalpine Mesic Grassland and *Māmane* (*Sophora chrysophylla*) Subalpine Dry Forest. The Heritage Program and biologists familiar to Waikamoi have recorded these two natural communities as being rare because they occur only in the Waikamoi area and no where else in the world. Both rare native shrublands have less than five existing locations worldwide. Please

refer to the definitions of the Heritage Global Rankings and the Federal Status on the enclosed Hawai'i Heritage Program document.

Third, *What do sensitive habitats in adjoining lands, like Haleakala National Park, have to do with Waikamoi?*

The entire native habitat found on Haleakala's north slope is considered sensitive because it represents native resources that have been reduced by more than half during the past 1,500 years. This dramatic reduction has been brought about by human as well as feral animal presence, and by invasive non-native plant species, which have greatly expanded their range. Once this native forest is lost, no amount of effort will bring it back. The proposed management activities contained within the draft EA are aimed at ensuring the long-term protection of the native habitat and its resources. The potential negative effects of management activities, such as the introduction of non-native plants along newly constructed fences, trails, and monitoring transects, are reduced by following strict cleaning protocols for all items transported into the preserve. Furthermore, any management activity that might impact neighboring sensitive habitats in Hanawi NAR, Haleakala National Park, or other private lands will be discussed and examined with the appropriate staff from these organizations.

Fourth, Hawaii Revised Statutes 195-6.5:

The portion of HRS 195-6.5, that you have quoted, reads in its entirety: [In order to qualify under this program, an applicant shall...] "Have the land managed by the cooperating entity or qualified landowner according to a management plan prepared by the cooperating entity or landowner and approved by the board that meets the standards established by the department for the system. The management plan shall include provisions to allow public hunting wherever feasible; provided that:

(A) Hunting activities shall be in compliance with applicable laws; and
(B) Game animals shall not be introduced to any partnership area and hunting shall be conducted as a conservation purpose of this program."

The central goal of the Natural Area Partnership Program is the protection of Hawai'i's native ecosystems, and all management activities undertaken should directly contribute to that goal. In Waikamoi Preserve, the conservation easement between the Conservancy and Haleakala Ranch allows ranch employees hunting privileges as long as there is game to hunt. This is a private contractual condition to the Conservancy's right to protect the property under the conservation easement and is not in any way connected to the NAP program. Public hunters willing to follow guidelines, sign a liability waiver, and complete a volunteer form will be allowed to hunt in Unit 1A of the preserve on a limited basis (when hunting will not interfere with ongoing management activities, planned guided hikes, and hunting by ranch employees). Under these circumstances, limited volunteer hunting opportunities are available at Waikamoi Preserve. However, it should be understood that our goal is to remove all ungulates in the preserve, and no area within Waikamoi Preserve will be considered a sustained yield hunting area. At

times, hunting in other areas of the preserve has also been possible when it could be combined with our management activities.

Finally, the items you mention -- partnerships, working in cooperation with other agencies for education, and areas outside the reserve -- are all aspects of a management plan as specified by the "Rules Regulating Application, Approval and Administration of the Natural Area Partnership Program," Chapter 210 of title 13, Hawaii Administrative Rules. These rules were enacted by the DLNR pursuant to HRS 195-5 "Rules and Regulations." The NAPP rules also mention that a management plan should describe programs, including non-native species control among others. It should also be noted that, as stated by law, all NAPP plans are subject to final approval by the Board of Land and Natural Resources (BLNR) prior to implementation.

KAMAKOU

Native Flora:

Page 5: The Hawai'i Natural Heritage Program and biologists familiar to the Kamakou area have identified the 35 plant taxa as being rare due to the number of populations in the world. The 35 plant taxa are all considered rare with or without federal endangered species designation. The Heritage Program states the facts of the species and does not manipulate or judge whether a species is rare or not. The number of population locations, number of individuals, and immediate threats determine the rarity of each species. The remaining 17 plant taxa are considered rare due to the above criteria. Even though they are not considered federally endangered today, they may be designated endangered in the near future. Many of these 17 species have a federal designation as "Species of Concern" (SOC). The SOC designation is the first step in identifying species that may be considered endangered. (Please refer to the enclosed Hawai'i Heritage Program document for a definition of the Heritage Global Ranking System and Federal Status.)

Management Consideration:

Page 9: In 1982, Molokai Ranch, Limited, transferred a conservation easement to The Nature Conservancy to manage the Kamakou Preserve area as a nature preserve. Molokai Ranch was and still is the landowner of the Kamakou Preserve area. The Ranch has a previous forest reserve surrender agreement with the State of Hawai'i. However, the conservation easement amends the surrender agreement that allows the Conservancy to manage the area for the purpose of a nature preserve. The Kamakou Preserve qualifies for the Natural Area Partnership Program (NAPP) because it is of natural area reserve quality, is owned privately, and the landowner, Molokai Ranch, has an easement with a "cooperating" conservation entity (the Conservancy). The Kamakou Preserve became a part of the NAPP program in 1995, thirteen years after it was established in 1982.

Herbicide Use:

Page 10: The Nature Conservancy requires all use of herbicides to be in compliance with approved herbicide labels and State of Hawai'i Department of Agriculture regulations. In addition, targeted species are treated by spot treatment, not broadcast spraying. The rates of application are a fraction of the listed rates on the product labels, and application methods are designed to minimize any non-target impact.

Sensitive areas:

Page 8-10: As stated in Management Consideration #6, "TYCH-sponsored management activities increase access to these sensitive areas." A sensitive area would be any area that is relatively intact (primarily native plants and a few alien species) or an area with rare and endangered species. Because the native vegetation communities at our Kamakou Preserve are highly regarded by the scientific and conservation communities, the entire preserve's native plant communities would be considered sensitive to over-collecting.

Lower accessible areas:

Page 13: One of the main reasons the pine plantations were established was to stop erosion and increase watershed potential. These plantations are within the boundaries of the preserve for several reasons: 1) there are extensive native plant communities that surround the plantations; 2) some of the rarest native hardwood tree species are found in pockets of the lower pine plantations; and 3) the property's boundaries happen to include some of the lower pine plantation and the cost of subdividing these areas out would be cost prohibitive.

Fence/line:

Page 14: The fence was constructed to control the movement of feral animals from the outside to the inside of the preserve. Monitoring (both animal activity/damage and vegetation changes/introduction) plays a key role in detecting changes that occur on both sides of the fence. We have noticed vegetation recovery on the inside of the fence with animal activity occurring only on the outside of the fence. We will adjust the wording in the final EA and the long-range plan to make this point clear.

Status of public hunting:

Page 16: At Kamakou, hunting is open all year round, which means you can hunt there anytime, and there is no bag limit, which means you can capture as much game as you want. Closure of the preserve during hazardous periods means hunting may be closed due to circumstances such as fires, unsafe road conditions, and herbicide application periods.

Management Programs:

Page 17-28: These pages contain more detailed descriptions of key management programs including weed control, natural resource monitoring and research, rare species protection, community outreach, emergency and safety and logistical and

operational support. The NAPP rules mentioned in our responses under Waikamoi require that these aspects of management be described in the plan.

Re: Global ranking:

The Global Rank is an international ranking system developed by the Natural Heritage network. It determines the rarity of a species worldwide, and guides agencies to set priorities for protection. The ranking system is based on an element's number of occurrences and individuals, health, threats, etc. While the Heritage Global Ranking is independent from the U.S. Fish and Wildlife Federal List of Endangered Species, the USFWS often cites the Heritage Ranking to help convey the rare and imperiled status of a particular species. (Please refer to the enclosed Hawai'i Natural Heritage Program document for a definition of the Heritage Global Ranking System and Federal Status.)

In conclusion, the global ranking of Hawai'i's native species is an indication of the uniqueness of Hawai'i's endemic biota -- found nowhere else on the globe -- and a further reason why it needs to be preserved and protected, before it is too late.

MO'OMOMI

Native Flora:

Page 5: The Hawai'i Natural Heritage Program and biologists familiar to the Mo'omomi area have identified the 25 plant taxa as being rare due to the number of populations in the world. The 25 plant taxa are all considered rare with or without federal endangered species designation. The Heritage Program states the facts of the species and does not manipulate or judge whether a species should be rare or not. The number of known population locations, the number of individuals, and the immediate threats determine the rarity of each species. The remaining five plant taxa are considered rare due to the above criteria. Even though they are not considered federally endangered today, they may be designated endangered in the near future. Some of these five species have a federal designation as "Species of Concern" (SOC). The SOC designation is the first step in identifying species that may be considered endangered. (Please refer to the enclosed Hawai'i Natural Heritage Program document for a definition of the Heritage Global Ranking System and Federal Status.)

As for the *Marsilea villosa*: While species such as this may not have been recorded for a few years, they are still considered extant due to the likelihood of "rediscovering" the population or an individual species. In many areas, species with older observation dates are still considered possibly existing, either due to environmental factors, or because biological surveys have not been done, or because the area is extremely remote and access is difficult. For the *Marsilea*, environmental conditions must be adequate for the species to appear again. The *Marsilea* may lay dormant for many years, and requires heavy rains for the aquatic fern to multiply.

Fireplan:

Page 8: As mentioned under Emergency and Safety programs, the Mo'omomi wildfire management plan is reviewed annually with the lead emergency agency (Molokai Fire Department) and the State Division of Forestry and Wildlife for the purpose of best coordinating activities in the case of wildfire. Copies are distributed to these agencies and Molokai Ranch, the adjacent landowner.

Collection of native materials:

Page 10: We advocate working with local native Hawaiian groups to develop practices that will sustain and conserve the natural resources while also allowing native Hawaiians to exercise their traditional rights. Conservancy-sponsored activities have greatly increased human access to the preserve and therefore we have an obligation to see to it that the Conservancy's own activities do not lead to over-collecting and negatively damage the resources.

Ungulate Control Timeline

Page 11: You have stated correctly that Molokai Ranch is responsible for the fence. However, because grazing cattle represents one of the most destructive forces to the dune ecosystem, we have taken a proactive approach to help the ranch monitor the condition of the fence. When we decide to help with the repairs, the Ranch provides all the fencing materials. Because of our proactive approach, Ranch personnel have become very responsive when we notify them that there is a breach in the fence and their cattle are encroaching on our preserve. The only feral animals within the preserve are axis deer. Presently, the cattle fence does not restrict the movement of deer in and out of the preserve. The studies are to find out how we should manage for deer in the preserve.

Weed control:

Page 11: *Reichardia tingitana* is a recent weed that has invaded a large part of the preserve. However, because *reichardia* is an annual plant and is only present for part of the year, we are not sure of the full extent of the invasion and are still learning how to manage it. Kiawe, on the other hand, is a weed with which we have extensive trial experience. Our biggest concern, as you have pointed out, is the potential invasion of other noxious weeds into the areas where we are removing kiawe. However, our studies show that the removal of kiawe fosters the growth of the native 'aki 'aki grass (*Sporobolus virginicus*). This has given us the evidence and confidence to end the trials and begin implementation of kiawe removal. Note that we are only removing clumps of kiawe that occur in native-dominated areas. In essence, we are removing an alien plant and adding increasing areas that will be native dominated. As for cattle grazing and trampling, they impact the native areas directly and introduce alien weeds (such as *reichardia*) through their manure.

Weed Control Timeline:

Page 12: I believe you are misunderstanding a section here. Natural Resource Monitoring is the beginning of a new section and is not part of the Weed Control

Timeline. Natural Resource Monitoring, or monitoring, is the way we measure changes of all resources over time. These changes act as a barometer and help us identify why the changes are occurring. We then apply this knowledge to our ongoing management efforts. As for the data that has been collected, we are in the process of analyzing it this year. We do not yet have the final results.

Research Summary:

Regarding research conducted in the preserve, please refer to the enclosed copy listing research activities on all Molokai preserves.

Community Groups:

Pages 14-16: As stated, we support the efforts of community groups that seek to manage natural resources. In the case of Mo'omomi, the focus of Hui Malama o Mo'omomi is on marine resources. The focus of the Conservancy's work at our Mo'omomi Preserve is on terrestrial sand dune ecosystems. We complement one another and are willing to work together for the betterment of the land and sea. A copy of the Mo'omomi Hui management document can be obtained through a request to the Hui.

Findings:

Page 18: The Kiawe example mentioned previously under weed control is the best example as to why weed removal is beneficial to the preserve. We will not be removing any weeds in a "clear-cut" manner that will expose vast amounts of bare dunes. Anything that directly destroys the native flora, like cattle, will have direct impact and result in bare, unstable dunes.

We are subject to State fishing/harvesting laws. The way the Conservancy contributes is by not allowing commercial harvest on the preserve, and by regulating access.

Significance criteria:

Page 19: Trips to Mo'omomi are predominantly day trips. Local fishermen are the main overnight visitors and we encourage them to bury their fecal waste. There are no plans to construct amenities. Mo'omomi is still a wild land and the Molokai community would like it to remain that way. We do try to exercise the utmost care of the area when taking visitors to our preserve.

The funds we request are for the management of the native areas within the preserve. We will restate in the Executive Summary of the final Long-Range Plan that we are looking for "other sources" of funding and expertise to manage the archaeological and paleontological resources. The global ranking as described previously under Kamakou is a further indication of the uniqueness of Hawai'i endemic biota — found nowhere else on the globe — and a further reason why it needs to be preserved and protected, before it is too late.

Finally, you have repeatedly included a blanket statement that calls for the rewriting of the Waikamoi, Kamakou, and Mo'omomi management plans because they are not detailed enough. These management plans are written as is dictated by the NAPP rules that govern this entire process. Land management is not a static activity; it requires frequent revision and development based on lessons learned from experience. That is why the process also calls for progress reports throughout the year to develop and adjust management practices. By providing a long-range plan and fulfilling the reporting requirements set out by the NAPP rules, The Nature Conservancy is in full compliance with the program.

Again, thank you for your response to our request for comments.

Aloha,



Alenka Remec
Director, Science and Stewardship Operations

Enclosures (2):
Hawai'i Natural Heritage Program (with List of Federal Status and Heritage Global Ranks)
Molokai Preserves Research

cc: Mike Buck, DLNR
Randy Kennedy, DLNR
Betsy Gagné, DLNR
Mark White, TNCH Maui
Anders Lyons, TNCH Maui
Ed Misaki, TNCH Molokai

EDWARD J. BATTAGLIONE
GOVERNOR OF HAWAII

Alan
Larney



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kalahele Building, Room 555
901 Kamehameha Boulevard
Honolulu, Hawaii 96807

December 17, 1999

→ Randy K

EDWARD J. BATTAGLIONE
GOVERNOR OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

DEPUTY
COMMISSIONER
HONOLULU

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES
ENFORCEMENT
CONSERVATION
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

MEMORANDUM

LOG NO: 24599 ✓
DCC NO: 9912SC13

TO: Michael Buck, Administrator
Division of Forestry and Wildlife

FROM: Don Hibbard, Administrator
State Historic Preservation Division *DH*

SUBJECT: Chapter 8E-8 Historic Preservation Comment on the Draft Environmental Assessment (DEA) for the Kamakou and Mo'omomi Preserves, Moloka'i, and Waikamoi Preserve, Maui for Reauthorization as Participants in the Natural Area Partnership Program
Mo'omomi, Kaluako'i, Moloka'i (TMK:5-1-002: 001)
Kapa'akea & Kawela, Moloka'i (TMK: 5-4-003)

We believe that reauthorization of the Natural Area Partnership Program at Mo'omomi and Kamakou Preserves on Moloka'i, if carried out as described in the DEAs, will have "no effect" on the significant historic sites present in each locality. We would only request that copies of all reports documenting historic sites at either preserve, particularly Mo'omomi Preserve, be made available to our office.

Should you have any questions, please feel free to call Sara Collins at 692-8026.

SC:jen

c: Cultural Resources Commission, Maui Ping Dept, 250 S. High Street, Wailuku, HI 96793
Ms. Barbara Haliniak, Chair, Molokai Ping Comm, P.O. Box 976, Kaunakakai, HI 96748

APPENDIX 2
NATIVE NATURAL COMMUNITIES OF MOOMOMI PRESERVE

NATIVE NATURAL COMMUNITY NAME	GLOBAL RANK (a)
'Aki'aki (<i>Sporobolus virginicus</i>) Coastal Dry Grassland	G4
Hinahina (<i>Heliotropium</i> spp.) Coastal Dry Shrubland	G3
'Ilima (<i>Sida fallax</i>) Coastal Dry Shrubland	G3
Naupaka Kahakai (<i>Scaevola sericea</i>) Coastal Dry Shrubland	G4
Nehe (<i>Lipochaeta integrifolia</i>) Coastal Dry Shrubland	G3
<i>Tetramolopium rockii</i> Coastal Dry Shrubland ¹	G1

¹Rare natural community

(a) Key to Global Ranks as defined by Hawaii Natural Heritage Program:

- G1 = Critically imperiled globally (typically 1- 6 current occurrences).
 G3 = Restricted range (typically 21-100 current occurrences).
 G4 = Apparently secure globally (> 100 occurrences).

APPENDIX 3

RARE NATIVE PLANTS OF MOOMOMI PRESERVE

SCIENTIFIC NAME	HAWAIIAN NAME	GLOBAL RANK (a)	FEDERAL STATUS (b)
<i>Centaurium sebaeoides</i>	'awiwi	G1	LE
<i>Chamaesyce skottsbergii</i> var. <i>skottsbergii</i>	'akoko, koko, kokomalei	G2T2	LE
<i>Gnaphalium sandwicense</i> var. <i>molokaiense</i>	'ena'ena	G3T1	
<i>Marsilea villosa</i> ¹	'ihi'ihii, 'ihi la'au	G1	LE
<i>Sesbania tomentosa</i> ²	'ohai	G2	LE
<i>Solanum nelsonii</i>		G2	
<i>Tetramolopium rockii</i> var. <i>calcisabulorum</i>		G1T1	LT
<i>Tetramolopium rockii</i> var. <i>rockii</i>		G1T1	LT

¹ Reported in preserve in 1970s; may still occur in preserve.

² Known from just outside the preserve.

(a) Key to Global Ranks as defined by Hawaii Natural Heritage Program:

- G1 = Species critically imperiled globally (typically 1-5 current occurrences).
 G2 = Imperiled globally (typically 6-20 current occurrences).
 G3 = Restricted range (typically 21-100 current locations).
 T1 = Subspecies or variety critically imperiled globally.
 T2 = Subspecies or variety imperiled globally (typically 6-20 current occurrences).

(b) Key to Federal Status:

- LE = Taxa formally listed as endangered.
 LT = Taxa formally listed as threatened.

APPENDIX 4
RARE NATIVE ANIMALS OF MOOMOMI PRESERVE

TAXON	COMMON NAME	GLOBAL RANK(a)	FEDERAL STATUS (b)
<i>Chelonia mydas</i>	Honu, Green turtle	G3	LT
<i>Eretmochelys imbricata</i> *	Hawksbill sea turtle	G3	LE
	Laysan albatross		
	Monk seal		

*Based on historical accounts by residents, occurrence not confirmed.

(a)Key to Global Ranks as defined by the Hawaii Natural Heritage Program:

G3 = Restricted range (typically 21 to 100 occurrences).

(b)Key to Federal Status:

LE = Taxa formally listed as endangered.

LT = Taxa formally listed as threatened.