

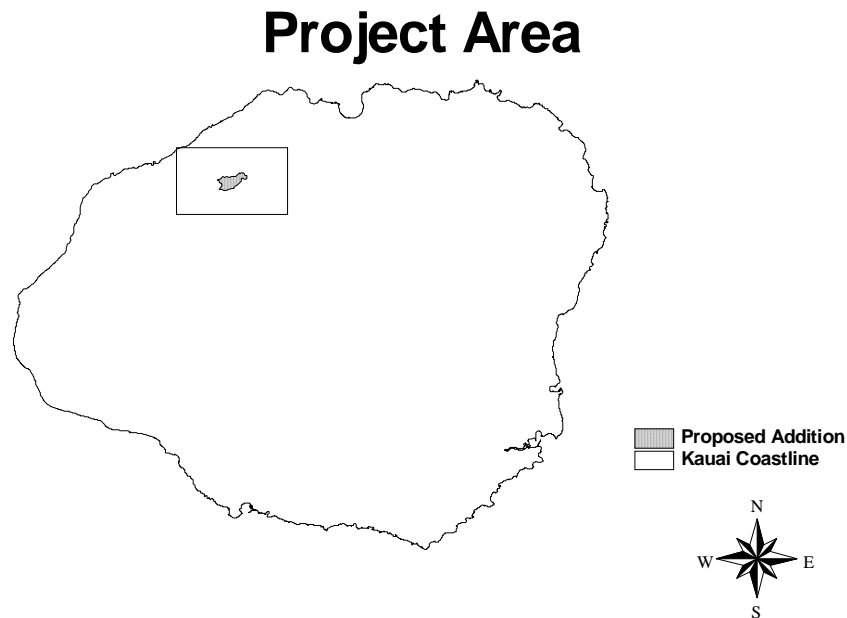
**PROPOSAL FOR THE EXTENSION OF  
HONO O NA PALI NATURAL AREA RESERVE**  
September 2003

**I. EXECUTIVE SUMMARY**

The section of the Na Pali-Kona Forest Reserve between the Hono o Na Pali Natural Area Reserve (NAR) and the Alakai Wilderness is proposed for addition to the existing Hono o Na Pali NAR. Addition of this area would connect the NAR to the Wilderness Preserve and create an contiguous area of protection running from the mountains to the ocean. Several species of rare and endangered plants are contained within the natural bog communities of this area and warrant continued protection.

**II. INTRODUCTION (General)**

DLNR proposes adding approximately 650 acres of the portion of the Na Pali-Kona Forest Reserve located between the existing Hono o Na Pali NAR and the Alakai Wilderness to Hono o Na Pali NAR.



The area proposed for addition to the existing NAR has scientific value as an accessible location for study of threatened and endangered plants and animals, hosts several high elevation bogs, and contains several rare and endangered native species.

**III. BACKGROUND/HISTORY**

*Past Land Use*

The area described is located in the Conservation District and is part of the Na Pali-Kona Forest Reserve. The predominant past use of the area has been for recreation, conservation, and scientific research. The Na Ala Hele Pihea Trail forms the western border of the proposed addition, while the Na Ala Hele Alakai Swamp Trail follows the southern border of the proposed addition.

#### *Present Land Use*

The area continues to be used for conservation and recreation purposes. In addition, public hunting is allowed. The proposed addition is within State Hunting Unit E, the same State Hunting Unit as Hono o Na Pali NAR and the Alakai Wilderness Preserve.

#### *Cultural/Recreational Uses*

At the present time, there are no known cultural uses of this area.

#### *Conservation History*

The U.S. Fish & Wildlife Service and DLNR entered into a cooperative agreement in 1996 to carry out actions aimed at the construction and maintenance of fencing to protect nine high elevation bogs from the destructive actions of feral ungulates. While no bogs within the proposed addition were fenced, there are at least five identified bogs in this area that would benefit from inclusion in the NAR and associated management actions.

In addition, over the past decade, the Na Ala Hele program has constructed a boardwalk over most of the Alakai Swamp Trail and the Pihea trail that form the border for the proposed addition to the NAR. This boardwalk has improved access for scientists, hikers, nature lovers, bird watchers, photographers, and hunters, and at the same time has increased protection for the natural resources by providing a clear path for users of the area, limiting the amount of unintentional damage from trampling.

#### *Previous Studies*

While scientific research has likely occurred in this area, there is no specific collection of research covering this area.

### **IV. JUSTIFICATION (Specifics)**

#### *Scientific Value*

This area may be of scientific value due to its accessibility and the number of native plants and animals.

#### *Representativeness*

No specific surveys have been conducted in the area proposed for addition to the NAR, but from brief visual surveys, the proposed addition to the Hono o Na Pali NAR contains fairly intact example of native 'ohi'a dominated forest and montane wet forests.

#### *Rarity (species or within the system)*

One of the natural communities found within the proposed addition, *Metrosideros*

polymorpha mixed montane bog ('ohi'a mixed montane bog), can be considered rare.

More importantly, the area proposed for addition to the NAR is an important transition area from the natural communities found in the Alakai Wilderness Preserve to those found in the Hono o Na Pali Natural Area Reserve.

According to records of the Hawaii Natural Heritage Program and field notes by biologists, the following rare species have been observed within the proposed addition:

- Plants:
  - Endangered: *Alsiniidendron lychnoides* (kuawawaenohu)
  - Threatened: *Cyanea recta* ('oha, haha, 'oha wai)
  - Species of Concern: *Lobelia yuccoides* (panaunau)  
*Asplenium schizophyllum*  
*Lysimachia daphnoides* (lehua makanoe)  
*Eurya sandwicensis* (anini, wanini)  
*Lagenifera erici*
  - Candidate: *Dryopteris tenebrosa*
  - Rare: *Dubautia knudsenii* ssp *nagatae* (na'ena'e)  
*Myrsine petiolata* (kolea)  
*Melicope waialealae* (alani)

Of these plants, *Lysimachia daphnoides* (kolokolo kuahiwi), *Dubautia knudsenii* ssp. *Nagatae* (na'ena'e), *Myrsine petiolata* (kolea), and *Melicope waialealae* (alani) are endemic to Kauai.

- Birds
  - Endangered: *Myadestes palmeri* (puaiohi)  
*Anas wyvilliana* (koloa)  
*Pterodroma sandwichensis* (Hawaiian petrel; 'ua'u)  
*Myadestes myadestinus* (Kauai thrush, kama'o) (believed to be extinct)  
*Psittirostra psittacea* ('o'u) (last observed in 1989 and believed extinct).
  - Threatened: *Puffinus auricularis newell* (Newell's shearwater; 'a'o)
  - Rare: *Vestiaria coccinea* ('i'iwi)  
*Himatione sanguinea* ('apapane)  
*Hemignathus stejnegeri* (Kaua'i 'amakihii)

Chasiempis sandwichensis sclateri ('elepaio)  
Hemignathus parvus ('anianiau)  
Loxops caeruleirostris (Kaua'i 'akepa)

At least two species of *Drosophila* collected in this area during past studies in the area are proposed candidates for listing. It is suspected that thorough surveys would discover additional species of rare native invertebrates within the area proposed for addition.

Finally, most of the proposed addition (with the exception of a small area in the southwest corner) is included within the recently designated critical habitat for threatened and endangered plants on Kauai. Specifically, the proposed addition is considered critical habitat for the following plants: *Exocarpus luteolus*, *Stenogyne campanulata*, *Platanthera holochila*, *Phyllostegia wawrana*, *Schiedea kauaiensis*, *Remya montgomeryi*, *Adenophorus periens*, and *Alsinidendron lychnoides*.

#### *Biological/Ecological Design*

The proposed addition to the Hono o Na Pali NAR primarily consists of 'ohi'a dominated forest communities, including a few small 'ohi'a mixed montane bogs that are part of the largest system of high elevation bogs in the Hawaiian Islands. More specific ecological information will have to be gathered through surveys.

#### *Size*

The overall size of the proposed addition to Hono o Na Pali NAR is approximately 650 acres.

#### *Threats (Human/Biological)*

Threats to the proposed addition to the Hono o Na Pali NAR include:

- grazing and trampling by feral ungulates, including pigs, deer, and goats; and
- invasion by non-native plants.

#### *Present Level of Protection*

The area under consideration for addition is protected by the rules and regulations pertaining to Conservation Districts and Forest Reserves. However, as part of the Forest Reserve, it does not receive the same level of management attention as do NARs and the Alakai Wilderness.

#### *Long-term Ecological Viability*

Adding this section to the NAR would connect the existing Hono o Na Pali NAR to the Alakai Wilderness Preserve. This connection would facilitate ecosystem-level conservation efforts by protecting a contiguous block of native habitat from Mount Waialeale to the ocean and result in increased protection for both the existing NAR and the Alakai Wilderness. Protection of additional bogs would enhance the long-term ecological viability of this natural community and better protect it against threats of feral animals and invasive species. Inclusion of the trail corridors of Pihea Trail and Alakai Swamp Trail within the proposed addition would provide additional funding opportunities

for long-term management of these trails.

*Environmental Consequences of No Action*

The environmental consequence of no action on the northern section would result in limited protection for the strip of land bridging the Hono o Na Pali Natural Area Reserve and the Alakai Wilderness.

*Urgency*

While there is no immediate urgency to the proposed addition, failure to grant additional protection to this area as a NAR could reduce the quality of the natural resources over the long-term.

**V. MANAGEMENT NEEDS**

*Threats Requiring Management*

Threats to the proposed addition to the Hono o Na Pali NAR include:

- grazing and trampling by feral ungulates, including pigs, deer, and goats; and
- invasion by non-native plants.

*Administrative (size, boundaries, access: roads & trails, maps more specific than in introduction, TMKs)*

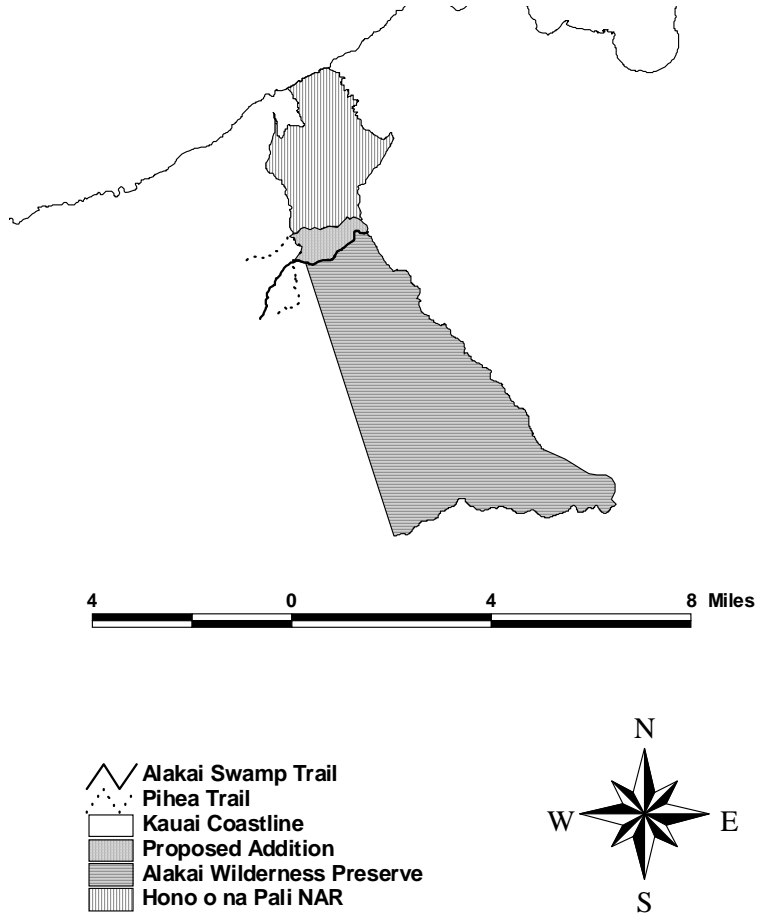
The approximate size of the proposed addition to Hono o Na Pali NAR is approximately 650 acres.

The boundaries of the proposed addition correspond to easily identifiable features. The northern boundary is the current boundary of the existing Hono o Na Pali NAR; the eastern boundary is the District boundary between Hanalei and Waimea Districts; the southern boundary is the current boundary of the Alakai Wilderness Preserve, and the western boundary is the Pihea Trail. This proposal envisions including the corridors of both the Alakai Swamp Trail and the Pihea Trail within the proposed addition to the existing NAR.

Access into the proposed addition is through the existing Pihea Trail along the western boundary and through the Alakai Swamp Trail along the southern boundary.

The area proposed for addition is State-owned Forest Reserve land currently under the administration of DLNR, Division of Forestry and Wildlife, and is part of TMK 4-1-4-001-003.

## Hono o Na Pali NAR Proposed Addition



### VI. PUBLIC SUPPORT

#### *Agencies, Organizations, and Individuals Contacted*

##### *Stakeholder Identification*

Potential stakeholders include:

- DLNR, Na Ala Hele program
- DLNR, Division of State Parks
- DLNR, State Historic Preservation Division
- Kauai Watershed Partnership
- US Fish & Wildlife Service
- Kauai County
- Kokee Natural History Museum
- Kauai Hunting Association

- Kauai Aquatic Life and Wildlife Advisory Committee
- University of Hawai'i
- The Nature Conservancy
- Others.

*Support Letters*

## **VII. BIBLIOGRAPHY/REFERENCES**

- Information & Discussions with NARS Staff, Kauai Branch & Administration
- DLNR, Natural Area Reserves System. Hono o Na Pali Natural Area Reserve Management Plan. November 1989.
- Cooperative Agreement between Board of Land and Natural Resources, Wellington Fencing Company, and the US Department of the Interior, Fish and Wildlife Service for Bog Fencing on Kauai (FWS No. 14-48-0001-96607). 1996.
- Hawaii Natural Heritage Program Database
- U.S. Fish & Wildlife Service Critical Habitat Maps for Threatened and Endangered Species on Kauai
- David, Reginald. Field Notes, 1975 – 2002.

\*\* Legal Abstracts will be required for final Board approval \*\*