

JOHN WAIHEE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P.O. BOX 621
HONOLULU, HAWAII 96809

July 8, 1994

KEITH W. AHUE, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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JOHN P. KEPPELER, II
DONA L. HANAIKE

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CONVEYANCES
FORESTRY AND WILDLIFE
LAND MANAGEMENT
STATE HISTORIC PRESERVATION
STATE PARKS
WATER AND LAND DEVELOPMENT

In reply, please refer to:
REF: DOFAW

Mr. Bruce S. Anderson
Interim Director
Office of Environmental Quality Control
220 South King Street, 4th Flr.
Honolulu, HI 96813

Subject: Determination of Negative Declaration for
Construction and Public Use of the
Mamane Trail, Kula Forest Reserve,
Maui - TMK: 2-2-07:1

Dear Mr. Anderson:

The Department of Land and Natural Resources, Division of Forestry and Wildlife, has determined the subject project will cause no significant impacts to the environment. Based on our determination, we are filing a Negative Declaration for this project.

Please note that we have enclosed a completed "Document for Publication Form" for the OEQC Bulletin and four copies of the Final Environmental Assessment containing revisions based on public agency and private individual comments received.

If you require further information, please contact Mr. Wesley H.C. Wong, Jr. at 243-5352 or Mr. Michael Baker at 871-2831 on Maui.

Sincerely,

MICHAEL G. BUCK
Administrator

Enclosures

cc: W. Wong/M. Baker, Maui Dist.
C. Meller, NAH

1994. 07-23-MA-~~FEA~~ Mamane Trail
Construction

JUL 23 1994

FINAL
ENVIRONMENTAL ASSESSMENT
for
CONSTRUCTION and PUBLIC USE
of the
MAMANE TRAIL
KULA FOREST RESERVE, MAUI

Division of Forestry & Wildlife
Na Ala Hele Trails & Access Program
Maui District Office

June, 1994

Introduction

The Na Ala Hele Trails & Access Program was established in 1988 by Act 236, now Chapter 198D of the Hawaii Revised Statutes. At that time, the State Legislature assigned to the Department of Land and Natural Resources the responsibility of planning, developing, acquiring land or rights for public use of land, constructing, and engaging in coordinating activities to implement a statewide trail and access system. The Division of Forestry and Wildlife was designated as the foster agency responsible for supporting the Program.

While the Program is concerned with creating a trail system within private and state-owned lands, it is also responsible for the maintenance and development of trail systems within Forest Reserves Areas. On the island of Maui, these areas include the West Maui, Koolau, Hana, Kipahulu, Makawao, Waihou, and Kula Forest Reserves.

Na Ala Hele seeks to expand the trail system in the Kula Forest Reserve to include the new Mamane Trail. The trail is intended to provide sanctioned and long-needed access opportunities for fire control, hunters, bicyclists, including traditional hikers.

Background

The Kula Forest Reserve forms a broad band of land comprising over 6,138 acres in the upper west-facing slope of Haleakala Volcano (See Exhibit 1). The Kula Forest Reserve ranges in elevation from about 5000 to 9,600 feet. The Reserve is accessible by a single public road and contains a network of over 20 miles of trails. The Reserve was established and fenced in 1912 to protect the remaining forest cover and the small yet important water supply at Polipoli Springs from depletion.

Use of trails in the Kula Forest Reserve area predates the establishment of the Reserves itself. In the Polipoli area, hunters once traveling on horseback often camped overnight at Polipoli springs on their way into Haleakala Crater and the southern slope hunting grounds of Kahikinui. The area has supplied generations of hunters with feral pigs, goats and, more recently, a variety of game birds.

During the late 1920's, the Territorial Division of Forestry began a tree planting program in the Polipoli Springs area to replace the declining remnant forest. During the Civilian Conservation Corps (CCC) period in the 1930's, over 1,000 acres of redwood, Monterey cypress, ash, sugi, cedar, and other pines were planted. Additional plantings were made between 1969 and 1971. Today, this forest provides excellent soil and water protection as well as outstanding recreational opportunities.

A plan to establish the Mamane Trail was conceived by Forester Bill Sager in the late 1960's. Today, the plan has been revived as part of a trail network reconstruction and

refurbishment scheme for the Waiakoa, Waiohuli and the Polipoli areas in the Kula Forest Reserve above 6000 feet.

1. **Proposing Agency**

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

2. **Approving Agency**

State Department of Land and Natural Resources,
by this Board

3. **Agencies Consulted in Making the Assessment**

State:

Department of Land and Natural Resources
Historic Sites Division
Aquatic Resources Division
Land Management Division
Conservation and Resources
Enforcement Division
Department of Transportation
Department of Agriculture

County:

Planning Department
Department of Parks and Recreation

4. **General Description of the Actions. Technical, Economic, Social and Environmental Characteristics**

Technical

The project will be completed over four phases.

The first phase involves an initial biological reconnaissance survey (already performed) of the trail area, identification of sensitive elements, and flagging of the potential trail bed course.

The second phase includes the actual removal of vegetation and debris (brushing) from the planned trail bed. This action will reveal and define the extent and condition of the trail bed and uncover any existing sensitive plants or historical materials. In the event that any Federally threatened or endangered species or archaeological sites or materials are encountered, trail work will halt and efforts to reroute the trail course to avoid these elements will be made.

The third phase will involve the supervised construction of various sections of the trail bed and careful removal of fallen trees and hazardous tree-snags from the lower portion of the trail. Sections of the trail requiring construction will involve the use of materials taken from the surrounding landscape. Where possible, the trail will be cut to a grade of no more than 15 percent. Removal of woody roots and stumps will be done only where necessary and where doing so will not de-stabilize the trail bed.

The final phase will be to place several signs at strategic locations along the trail requiring users to observe certain rules of conduct and "trail etiquette". Periodic brushing of vegetation, clearing of debris, removal of trash, spot-restoration of trail structures, and maintenance of trail signs will be routinely conducted. Light use of herbicides including Roundup (Isopropylamine salt of Glyphosate) and Garlon 3A (Tricopyr) may be employed at this point as part of a regular maintenance plan to prevent the regeneration of non-native woody shrubs in the trail bed.

Socio-economic

No direct economic effects are expected to result from the re-establishment of the trail for public use. However, the trail will add to the statewide Na Ala Hele trail system which could be seen as an additional recreational resource drawing visitors to Maui interested in a wildland hiking and mountain-biking experience.

Costs relative to completing the project and maintaining the trail in the future will be borne by the State of Hawaii and its volunteer participants under the Na Ala Hele Trails and Access Program and will not involve the use of private funds. The estimated development costs for man-power, materials, planning, necessary documentation, and all phases of the project (not including long-term maintenance) is not expected to exceed \$75,000.00.

The significant aesthetic value inherent in the landscape's mixed-native wildland character offers a special outdoor experience for the recreationalist. The sweeping panoramas of the sub-alpine shrub land combine with a quiet isolation characteristic of the upper reaches of the Kula Forest Reserve.

Na Ala Hele currently relies to a large degree on the efforts of volunteers for brushing and light maintenance of its trails. The Mamane Trail project is no exception.

Individuals and group volunteers will gain a feeling of accomplishment and other benefits derived from multiple service project excursions where interpretive information is given by Na Ala Hele representatives.

5. Summary Description of the Affected Environment

The Trail project site is located chiefly within the Kula Forest Reserve with an additional 500 feet within the Kahikinui Forest Reserve along the western slope of Haleakala Volcano (see Exhibit 1), in the District of Kula, Tax Map Key 2-2-07:1 (see Exhibit 2). Running from the northwest to southeast the trail connects two sides of a triangle formed by the Skyline Road Trail and Polipoli Access Road (See Exhibit 3).

The weather is usually clear in the morning hours until clouds build up and envelop the lower portions of the Forest Reserve in the afternoon. Mist or light and persistent rain is common. Storms occur during the winter months with heavy winds and rain contributing to the 20 to 40 inch rainfall annually. The upper slope areas above 8,000 feet often receive snow during this time. Nights are generally cold at any time of the year, however in winter the temperature often drops below freezing even in the lower elevations. Winds originate predominately from the East-northeast for most the year and may occasionally blow from the South-southwest during "kona" conditions. Winds and cloud conditions are often variable due to a atmospheric vortex that is created by the mountain in this area.

Public Utilities

There are no utilities (electrical, water, sewer, or other) within 3 miles of any part of the trail. The nearest utilities lie within Polipoli State Park where a cabin facility, non-potable water supply, electricity, and one flush toilet and one pit toilet are located.

Public Access

The trail is accessible all year round with four-wheel drive vehicle by following Waipoli Road up-slope from Kula Highway (#37) to Kekaulike Avenue (#377) to Waipoli Road (See Exhibit 1). Access along Waipoli Road passes through Kaonoulu Ranch (private) lands for a distance of approximately 6.5 miles where the road enters State-owned lands of the Forest Reserve. Here, the road is called the Polipoli Access Road.

The Trail has both upper and lower trail entry points (See Exhibit 3). The upper trail head is accessed by four-wheel drive 7 miles further along the Polipoli Access Road to Skyline Road up-slope of the "Ball Park" flats area at 7,300 feet. The lower trail head is located nearly 3/4 miles along the 7.5-mile Upper Waiohuli Trail above Polipoli Road at 6,700 feet. The trail measures approximately 1.5 miles long.

Flora

The Mamane trail will pass through both a sub-alpine low-diversity, mixed-native plant community and a mixed pine plantation forest complex. The trail traverses a sharply-defined boundary between the non-native tree plantation area and an severely disturbed native sub-alpine scrub habitat. These plant types are considered quite common and occur in abundance throughout the south and west facing sub-alpine regions of Maui and in other upland mountainous habitats above 5000 feet throughout the State.

It is significant that no threatened or endangered native or endemic species of flora were encountered along the flagged portion of the trail course during the botanical survey. However, the Geranium arboreum species, known to occur in the Forest Reserve, is listed as a Federally endangered species. A single example of the native mint species, Stenogyne haliakalae, probably now extinct, was recorded within the Kula Forest Reserve in 1984. It, has not been relocated since then and has probably died.

Species observed and surveyed along the entire trail course are listed below.

Non-native:

White Ash (Fraxinus americana)
Sugi Pine (Cryptomeria japonica)
Monterey Cypress (Cupressus macrocarpa)
Redwood (Sequoia sempervirens)
Cluster Pine (Pinus pinaster)
Monterey Pine (Pinus radiata)
Velvet grass (Holcus lanatus)
Orchard grass (Dactylis glomerata)

Native:

Aalii (Dodonaea viscosa)
Akala (Rubis hawaiiensis)
Iliahi (Santalum Haleakalae)
Kukae Nene (Coprasma ernodeoides)
Mamane (Sophora chrysophylla)
Naenae (Dubautia menziesii, platyphylla)
Nohoanu (Geranium arborium)
Ohelo (Vaccinium reticulatum)
Ohia (Metrosideros polymorpha)
Pilo (Coprasma montana)

Pukiawe (Styphelia tameiameia)
Mau'u (Deschampsia nubeqina)
He'upueo (Trisetum glomeratum)

Fauna

A variety of avifauna and mammals occur throughout Kula Forest Reserve. Several native bird species and the endemic Hawaiian Owl (Pueo) are known to inhabit the project area. They include:

Alauahio (Paroreomyza montana)
Amakihi (Hemignathus virens)
Apapane (Himatione sanguinea)
Iiwi (Vestiaria coccinea)
Pue'o (Asia flammeus sandwichens)

The Pacific Golden Plover (Pluvialis fulva), a winter visitor, is also found in the Forest Reserve. However, the majority of bird species in the area are represented by exotic or introduced game bird species. They include:

Barred Dove (Geopelia striata)
Black Francolin (Francolinus francolinus)
California Quail (Callipepla californica)
Chukar (Alectoris chukar)
Common Barn Owl (Tyto alba)
Common Myna (Acridotheres tristis)
Gray Francolin (Francolinus pondicerianus)
House Finch (Carpodacus mexicanus)
Japanese Bush Warbler (Cettia diphone)
Japanese Quail (Coturnix japonica)
Japanese White-eye (Zosterops japonicus)
Northern Cardinal (Cardinalis cardinalis)
Northern Mockingbird (Mimus polyglottus)

Ring-necked Pheasant (Phasianus colchicus)
Spotted Dove (Streptopelia chinensis)
Warbling Silverbill (Lonchura malabarica)

Mammals observed or otherwise known to inhabit in the project area include:

Domestic Cattle (Bovus bovine)
Feral Cat (Felis catus)
Feral Dog (Canis familiaris)
Feral Goat (Capris spp.)

Feral Pig (Sus scrofa)
House Mouse (Mus domesticus)
Mongoose (Herpestes auropunctatus)
Rat (Rattus spp.)

Lasurus cinereus semotus, the Hawaiian Hoary Bat, although known to occur elsewhere on Maui, has not been observed in the project area.

Historical/Archaeological and Cultural Sites

All State historic preservation laws will be complied with in developing and managing the trail in accordance with Chapter 6E, Hawaii Revised Statutes. In the event that any historical sites, artifacts or other structures are encountered within sight of the trail, the State Historic Preservation Division will be notified immediately, trail construction will halt, and the process pertaining to establishing management and mitigation measures will be initiated.

Adjacent Natural Resources

The planned trail corridor lies entirely within the Kula Forest Reserve. Approximately 4,863 acres in size, the area has been used extensively by hunters and hikers over the years. The most noticeable natural features within the area are the peaks of Puu Keokea (7080 ft), Kanahau (8,650 ft) and Kalepeamoia (9,100 ft) along Skyline Road.

The upper reaches of the trail between 7,300 and 6,800 feet will pass through sparse mixed-native scrub brush and cinder fields.

The lower portions of the trail will cross over numerous small ravines within the plantation pine forest of weathered basalt and often takes advantage of flow structures offering an easy trail grade. There are no perennial streams in the area. One interesting geologic feature, a small spatter cone 40-50 feet high, lies adjacent to the intersection of the Upper Waiohuli and Mamane Trails. It's rim is traversable and hikers often use it as an enjoyable overlook.

Sensitive Habitats

Although native plant species of the area are fairly common to the Forest Reserve and to other areas on Maui and in the State, it is important to note that examples of the native sandalwood (Santalum spp.) occur within the Reserve. However, a survey of the trail area revealed no specimens in the trail bed area or within 50 feet of the proposed trail project area. Though not directly within the trail area, their location within the Forest Reserve exposes them to accidental damage, vandalism, or removal.

During the summer months, grasses and other bushy shrub species usually become very dry and can present a fire hazard.

6. Identification and Summary of Major Impacts and Alternatives Considered

Major Impacts - Positive

The proposed trail development will provide excellent opportunities for expanding the recreational use of the Kula Forest Reserve for a wider collection of trail users.

The series of techniques for reconstruction, maintenance and management described in the action's technical characteristics above as the final work phase (page 4, paragraph 3) should at least be adequate to mitigate a variety of consequences of public use.

The trail will make available scenic vistas of the Islands of Kahoolawe, Lanai, the West Maui Mountains and, in places, the north and south shores of Central Maui.

Learned trail reconstruction and management techniques would be transferrable to other locations on Maui across the state where similar environmental conditions exist.

The positive benefits of an aggressive management program incorporating a strong interpretive element should successfully offset the negative impacts expected to be caused by occasional acts of vandalism, tampering with historical structures, littering, unauthorized fires and other degrading uses of the trail.

An active volunteer program administered by Na Ala Hele will provide for additional maintenance of the trail while providing an interpretive context and an appreciation of the environment for trail users and volunteers alike.

Major Impacts - Negative

Pigs (and to a lesser degree, goats) continue to represent the most significant source of negative impacts to the landscape. Long term rooting and browsing of the native vegetation throughout the area has helped establish aggressive non-native weed species, reducing the regenerative capacity of less-aggressive native vegetation. Plant defoliation caused primarily by feral ungulates has also promoted soil erosion through the loss of protective plant cover.

It is possible that large numbers of trail users would represent an additional source of impacts to the trail corridor area. Hikers and mountain bikers wandering off the trail or

traversing switchbacks could significantly damage native vegetation, possibly accelerating soil erosion and helping to de-stabilize the trail bed. Unfortunately, vandalism, fires, and littering, can be expected to occur, though not with significant frequency.

Motorcycles are known to be illegally using trails within the Forest Reserve. Trail signs barring off-road motor vehicles recently employed elsewhere in the Reserve will also be installed at both trail head locations. If necessary, physical barriers such as trail head bollards can be constructed.

Alternatives Considered

If the Mamane Trail project is deferred, a significant opportunity to provide recreational opportunities for the growing off-road bicycling community will be lost. Also an important link to other trails in the Forest Reserve will not be built. Deprivation of public enjoyment of the various experiences offered by trail use would not be realized and a significant public recreational resource wasted.

Impacts to the trail area will result from regular public use over time. However, effective management strategies for directing users away from sensitive areas, and to observe Forest Reserve Rules and Regulations supported by an aggressive informational campaign would significantly mitigate the most severe impacts. The Division of Forestry proposes employing the use of information packets containing trail maps, user etiquette and interpretive descriptions.

A new island-wide recreational trail map and trail brochures specifically describing the new trail are currently under development and are expected to be completed by mid-1994.

7. Proposed Mitigation Measures

No strategies or techniques for reducing impacts to the trail area can be considered totally effective. However, constructing portions of the trail in order to avoid the most sensitive native elements would provide substantial protection against impacts. The sensitive nature of the local natural environment could be explained to users through the series of brochures described above. Trail management techniques will require routine monitoring to determine their effectiveness.

Several public use impact mitigation measures could include: passive barriers, (e.g., visitor channeling or sensitive site avoidance), interpretive signs, and consistent regular maintenance of the trail corridor. Seasonal closures may be necessary. As mentioned above, motorized vehicles on the trail will be prohibited.

8. Determination

No significant impact to the environment is expected to result from implementation of the project upon condition that the management strategies recommended here are implemented.

9. Findings and Reasons Supporting Determination

Primary sources of impact to the environment are represented by the activities of feral ungulates in the area of the trail. As the trail is intended for use by experienced hikers and mountain bikers, and given that a margin of difficulty in reaching portions of the trail exist, the trail area is expected to suffer no significant or long-lasting negative impacts.

No Federally listed threatened or endangered plant or animal species have been found to occur within the trail construction area. No impacts to historical sites are expected to occur resulting from the construction or use of the trail. These elements, combined with implementing a suitable management plan together with an active volunteer program should be effective in mitigating the bulk of user-related impacts.

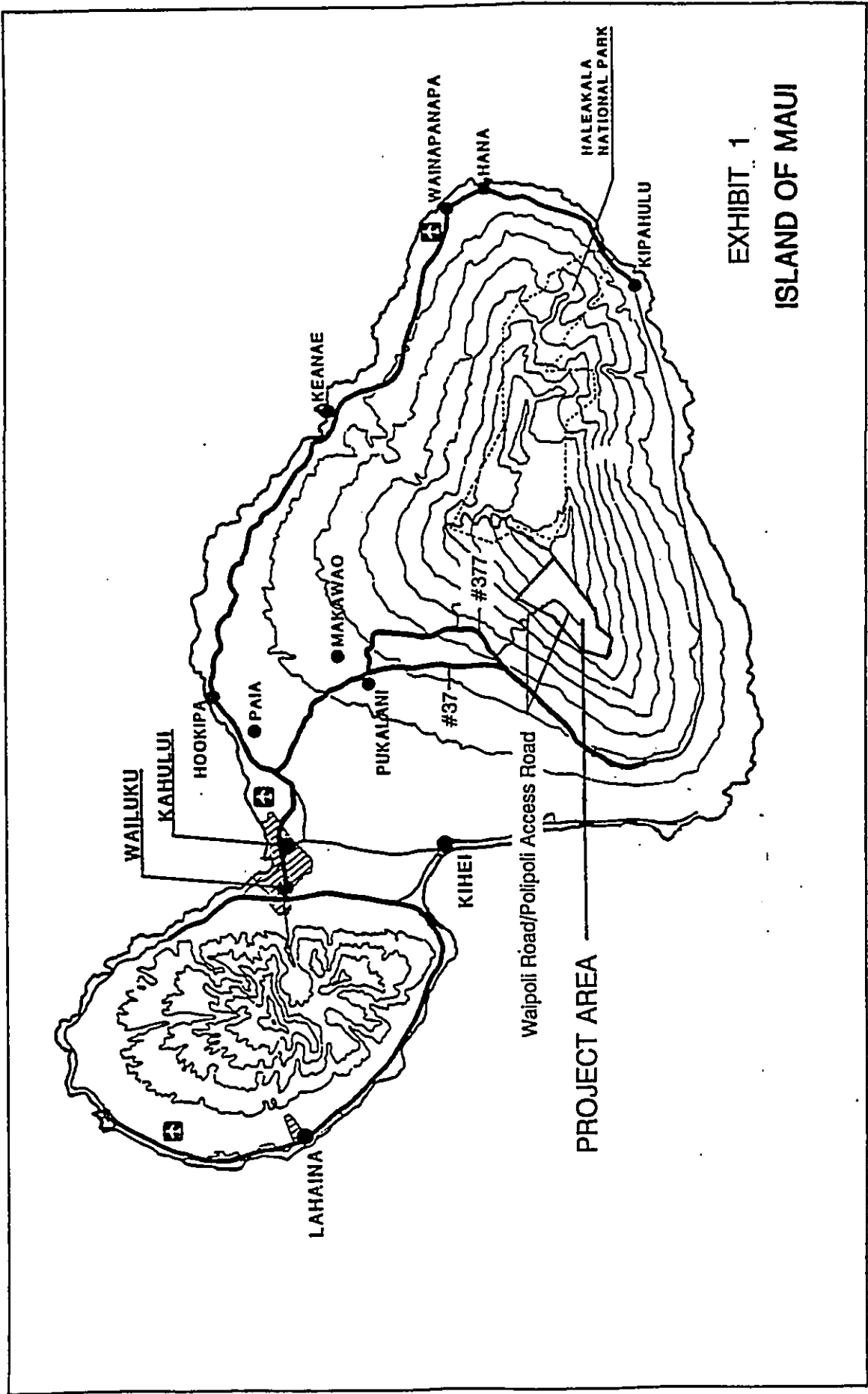
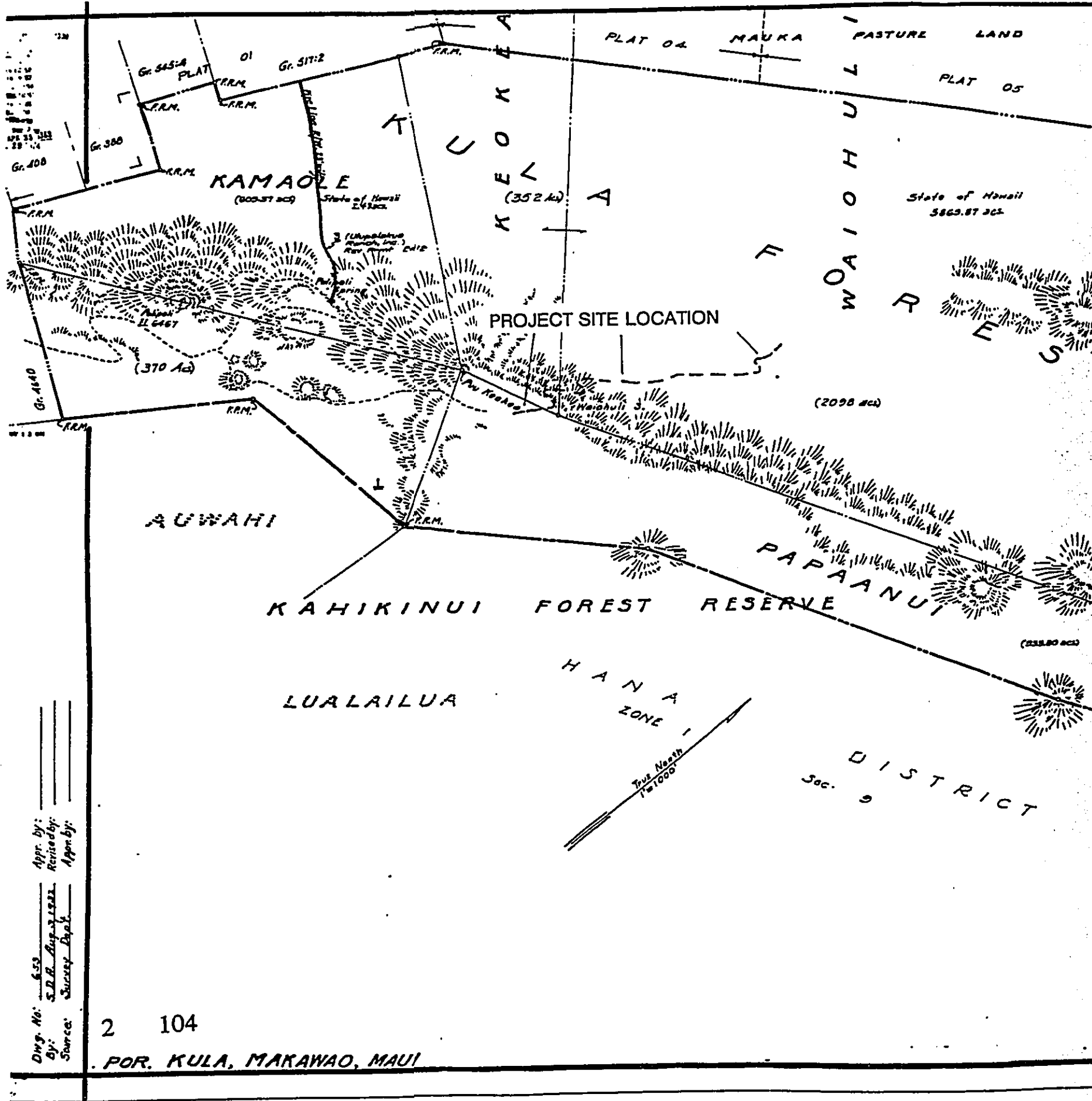
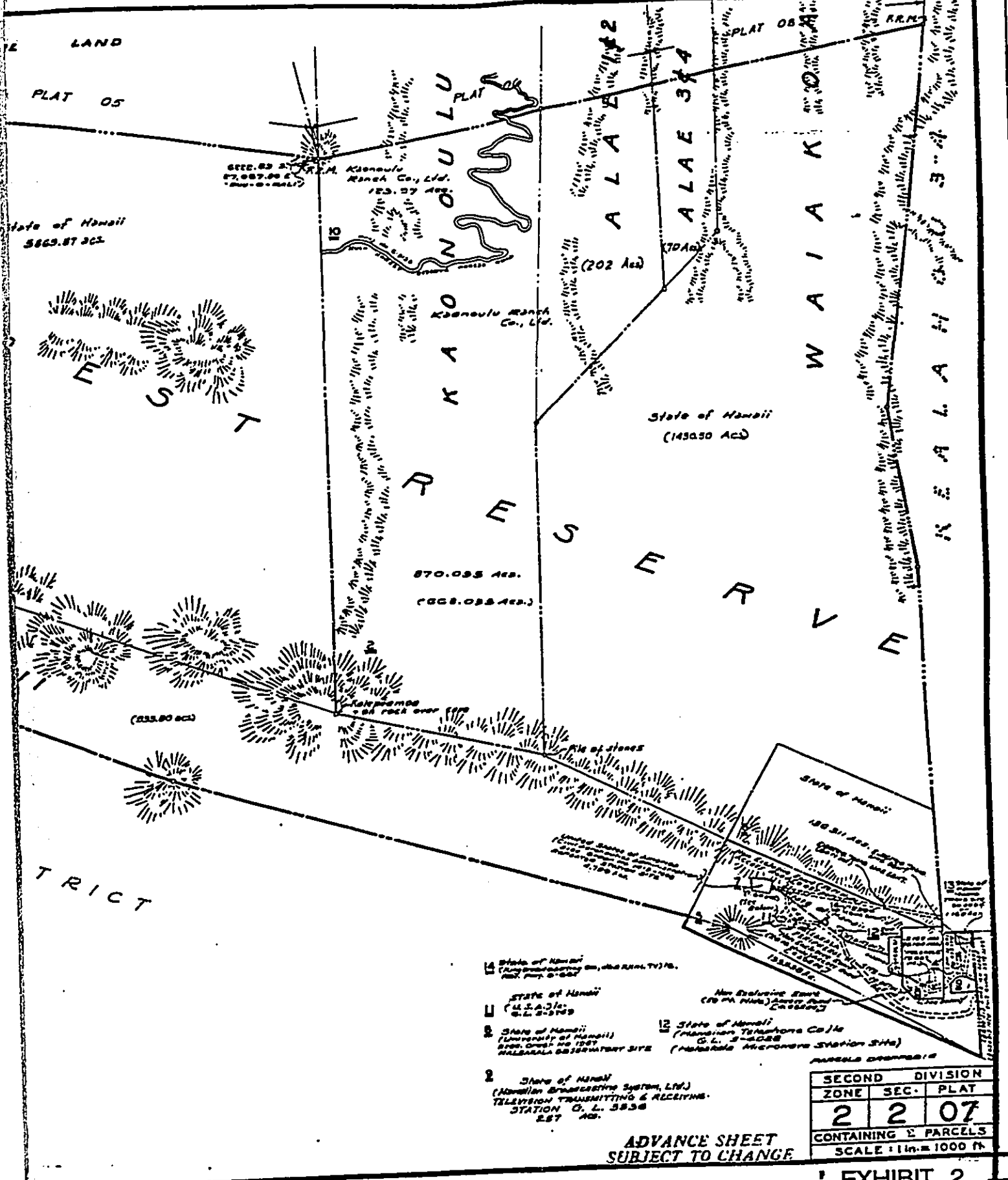


EXHIBIT 1
ISLAND OF MAUI



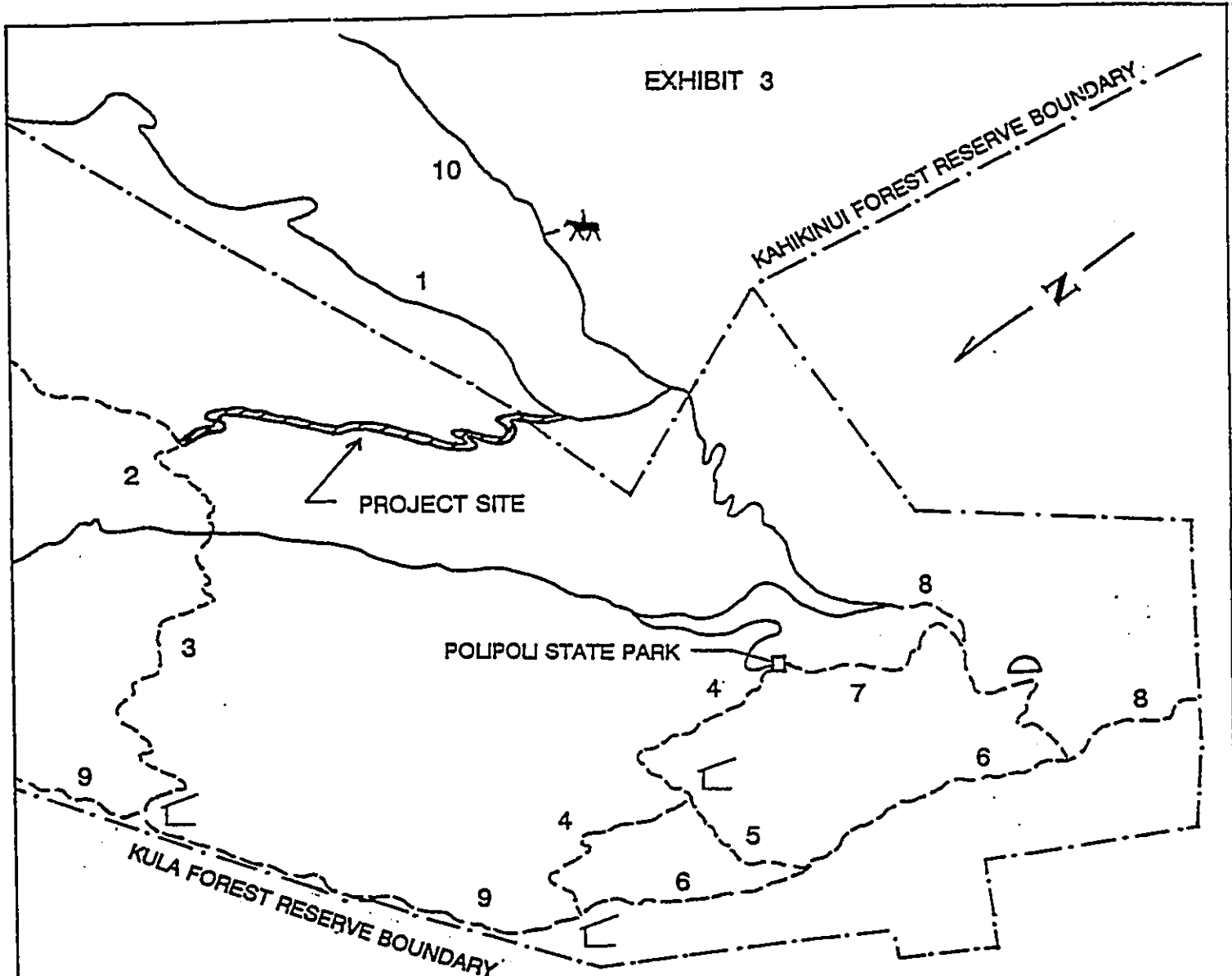


- 14 State of Hawaii (Map showing on the RAILROAD)
- STATE OF HAWAII (U.S.A.C. G.L. 5-2759)
- 15 State of Hawaii (University of Hawaii) STATION D. L. 3858 HALENALA OBSERVATORY SITE
- 12 State of Hawaii (HAWAIIAN TELEPHONE CO.) G.L. 5-2028 (HAWAIIAN TELEPHONE STATION SITE)
- 2 State of Hawaii (HAWAIIAN BROADCASTING SYSTEM, LTD.) TELEVISION TRANSMITTING & RECEIVING STATION D. L. 3858 287 AC.

SECOND DIVISION		
ZONE	SEC.	PLAT
2	2	07
CONTAINING 2 PARCELS		
SCALE: 1 in. = 1000 ft.		

ADVANCE SHEET
SUBJECT TO CHANGE









EXHIBIT 3



ROADS AND TRAILS

- 1. SKYLINE
- 2. UPPER WAIQHULI
- 3. LOWER WAIQHULI
- 4. REDWOOD
- 5. TIE
- 6. PLUM
- 7. POLIPOLI
- 8. HALEAKALA RIDGE
- 9. BOUNDARY
- 10. KAHUA

LEGEND

- Road 
- Trail 
- Forest Reserve Boundary 
- * Proposed Mamane Trail 
- Private Land Boundary 
- Cave Shelter 
- Rest Shelter 
- Horse Gate 

NA ALA HELE
Hawaii Trail & Access System



MRE

APPENDIX A

List of Public Agencies, Private Groups and Individuals Consulted

Draft Environmental Assessment

List of Public Agencies, Private Groups and Individuals Consulted

Draft Environmental Assessment

Mr. Ronald Bishop
Chairperson
Na Ala Hele
Maui Advisory Council
3344 Kihapai Place
Pukalani, HI 96768

Mr. Mark White
Maui Project Director
Nature Conservancy of Hawaii
P.O. Box 1716
Makawao, HI 96768

Mr. Richard Nakagawa
President
Native Hawaiian Plant Society
P.O. Box 5021
Kahului, HI 96732

Ms. Linda Conboy
Mauna Ala Hiking Club
P.O. Box 1507
Makawao, HI 96768

Ms. Joy Tamayose
President
Sierra Club of Hawaii
Maui Chapter
P.O. Box 2000
Kahului, HI 96732

Ms. Dana Naone Hall
Hui Alanui O Makena
2087 Wells Street
Wailuku, HI 96793

Mr. Donald Reeser
Superintendent
Haleakala National Park
P.O. Box 369
Makawao, HI 96768

Mr. Brian Miskae
Director
Maui County Planning Department
200 South High Street
Wailuku, HI 96793

Ms. Charmaine Tavares
Director
Department of Parks & Recreation
County of Maui
1580 Kaahumanu Avenue
Wailuku, HI 96793

Mr. Alan Tokunaga
Maui District Land Agent
State of Hawaii
Division of Land Management
54 South High Street, Rm. 101
Wailuku, HI 96768

Mr. Floyd Miyazuno
Maui District Manager
State of Hawaii
Division of State Parks
54 South High Street, Rm. 101
Wailuku, HI 96768

Mr. Daniel Awai
Department of Hawaiian Home Lands
1063 E. Main Street, Suite C-206
Wailuku, HI 96793

Mr. Neil Fujiwara
U.S. Department of Agriculture
Soil Conservation Service
70 South High Street
Wailuku, HI 96793

APPENDIX B

Comments Received and Responses Sent

to

Public Agencies, Private Groups and Individuals Consulted

JOHN WAIHEE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF LAND MANAGEMENT
54 SOUTH HIGH STREET, 4th FLOOR Rm. 101
WAILUKU, HAWAII 96793

March 21, 1994

~~ALAN W. ANGE~~
~~WILLIAM W. PATY, CHAIRPERSON~~
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

JOHN P. KEPPELER, II
DONA L. HANAIKE

AQUACULTURE DEVELOPMENT
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AQUATIC RESOURCES
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FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Mr. Wesley H. C. Wong, Jr.
District Forestry Manager
Division of Forestry & Wildlife
54 So. High Street
Wailuku, HI 96793

Dear Mr. Wong:

Comments to Draft EA for Constructing the
Mamane Trail, Kula and Kahikinui Forest
Reserves, TMK 2-2-07:01

1. Report states that the proposed trail's length is approximately 1.5 miles long. How wide will it be?
2. What is the elevation difference between the upper and lower trailheads?
3. If a mountain bike rider can get his bike on the trail, how will dirt bikes be locked out?
4. On the attached tax map, the approximate location of the trail should be shown.

Very truly yours,

ALAN TOKUNAGA
District Land Agent

AT:js

JOHN WAIHEE
GOVERNOR OF HAWAII

RECEIVED
DIVISION OF
LAND MANAGEMENT

APR 12 1 03 PM '94



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
54 SOUTH HIGH ST., RM. 101
WAILUKU, HAWAII 96793

April 12, 1994

KETH W. AHUE,
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

JOHN P. KEPPELER, II
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WATER AND LAND DEVELOPMENT

Mr. Alan Tokunaga
Maui District Land Agent
State of Hawaii
Division of Land Management
54 South High Street, Rm. 101
Wailuku, HI 96793

Dear Mr. Tokunaga:

Subject: Response to Comments on the Draft Environmental Assessment (EA) for
Construction of the Mamane Trail, Kula and Kahikinui Forest Reserves,
Maui - TMK: 2-2-07:1

We have reviewed your letter of March 21, 1994 (attached) wherein you enumerate
four separate comments on the subject EA. We therefore offer the following itemized
response.

1. Comment/Question: Report states that the proposed trail's length is
approximately 1.5 miles long. How wide will it be?

Answer: The actual Trail width will vary between 6 and 8 feet. This
information will be added to the final EA.

2. Comment/Question: What is the elevation difference between the upper
and lower trailheads?

Answer: On page 5, paragraph 6, the trail head elevations are described
as being located at 7,300 feet (upper) and 6,700 feet (lower).

3. Comment/Question: If a mountain bike rider can get his bike on the trail,
how will dirt bikes be locked out?

Answer: The use of motorized vehicles in Forest Reserves is prohibited
unless specifically permitted subject to approval by the Board of Land
and Natural Resources. Currently, motorcycles can legally use the Kula

File: 44-411-111

Letter to A. Tokunaga
March 29, 1994
Page -2-

Forest Reserve access road. However, motorcyclists have been observed using Kula Forest Reserve trails. Because of their extreme mobility, "dirt bikes" are easily able to go around physical barriers (such as bollards) placed across trail entry locations. Often, motorcyclists will make their own trails in back woods areas.

No trail within the Forest Reserve is immune to motorcycle use. However, with the heightened presence of users (including trail building volunteers), an aggressive monitoring program, signs, and regular trail inspections by Program staff and patrols by DOCARE personnel, motorcycles have found it increasingly difficult to operate within the area undetected.

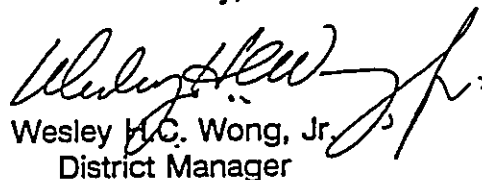
4. Comment/Question: On the attached tax map, the approximate location of the trail should be shown.

Answer: The appropriate change will be made to Exhibit 2 for the final EA.

Copies of your comments and this response will be incorporated within the Final Environmental Assessment that is to be sent to the Office of Environmental Quality Control for publication in the OEQC Bulletin.

Thank you very much for your comments.

Sincerely,


Wesley H.C. Wong, Jr.
District Manager

Attachment

c: Mike Baker, Trails Specialist
Chris Meller, NAH Program Manager

UNITED STATES
DEPARTMENT OF
AGRICULTURE

SOIL
CONSERVATION
SERVICE

70 S. HIGH STREET, RM. 215
WAILUKU, HAWAII
96793

Date: March 31, 1994

Mr. Wesley H.C. Wong, Jr.
District Forestry Manager
DLNR-DOFAW
54 South High Street, Rm. 101
Wailuku, Hawaii 96793

Dear Wes,

RE: Draft EA for Constructing the Mamane Trail, Kula and
Kahikinui Forest Reserves TMK: 2-2-07:1

I have no comment on the subject draft environmental
assessment. Thank you for the opportunity to review and
comment.

Keep up the good work.

Sincerely,

Neal S. Fujiwara

Neal S. Fujiwara
District Conservationist

JOHN WAHEE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
54 SOUTH HIGH ST., [REDACTED] RM 101
WAILUKU, HAWAII 96793

June 6, 1994

KEITH W. AHUE,
[REDACTED] CHAIRPERSON
STATE OF LAND AND NATURAL RESOURCES

DEPUTIES

JOHN P. KEPPELER, II
DONA L. HANAIKE

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LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Mr. Neal Fujiwara
District Conservationist
U.S. Department of Agriculture
Soil Conservation Service
70 South High Street, Rm. 215
Wailuku, HI 96793

Dear Mr. Fujiwara:

Subject: Response to Comments on the Draft Environmental Assessment (EA) for
Construction of the Mamane Trail, Kula and Kahikinui Forest Reserves,
Maui - TMK: 2-2-07:1

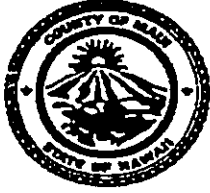
We have reviewed your letter of March 31, 1994 (attached) and note that you have no
comments. Thank you for taking the time to review the subject EA.

Should you have any questions or comments, please contact Mr. Michael Baker at
871-2831.

Sincerely,

Wesley H. C. Wong, Jr.
District Manager

c: Mike Baker, Trails Specialist
Chris Meller, NAH Program Manager



DEPARTMENT OF
PARKS AND RECREATION
COUNTY OF MAUI

LINDA CROCKETT LINGLE
Mayor
CHARMAINE TAVARES
Director
MIKE DAVIS
Deputy Director

1580-C KAAHUMANU AVENUE, WAILUKU, HAWAII 96793

(808) 243-7230

April 14, 1993

Mr. Wesley H.C. Wong, Jr.
Department of Land and
Natural Resources
State of Hawaii
54 South High Street
Room 101
Wailuku, HI 96793

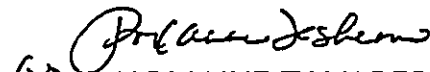
Dear Mr. Wong:

Subject: Draft Environmental Assessment (EA) for Constructing the
Mamane Trail, Kula and Kahikinui Forest Reserves TMK: 2-2-07:1

We have reviewed the subject environmental assessment and have no
objections to the project. We support your effort to develop trail systems in Maui
County.

Thank you for allowing us to comment on the subject project's assessment.

Sincerely,


CHARMAINE TAVARES
Director

CT/rt

c:wp.DLNR

JOHN WAIHEE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
54 SOUTH HIGH ST., [REDACTED] 214101
WAILUKU, HAWAII 96793

June 6, 1994

KEITH W. AHUE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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DONA L. HANAIKE

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WATER AND LAND DEVELOPMENT

Ms. Charmaine Tavares
Director
Department of Parks and Recreation
County of Maui
1580-C Kaahumanu Ave.
Wailuku, HI 96793

Dear Ms. Tavares:

Subject: Response to Comments on the Draft Environmental Assessment (EA) for
Construction of the Mamane Trail, Kula and Kahikinui Forest Reserves,
Maui - TMK: 2-2-07:1

We have reviewed your letter of April 14, 1994 (attached) and note that you have no
objections to the project. Thank you for taking the time to review the subject EA.

Should you have any further questions or comments, please contact Mr. Michael
Baker at 871-2831.

Sincerely,

A handwritten signature in cursive script, appearing to read "Wesley H. C. Wong, Jr.".
Wesley H. C. Wong, Jr.
District Manager

c: ✓ Mike Baker, Trails Specialist
Chris Meiler, NAH Program Manager



United States Department of the Interior



NATIONAL PARK SERVICE
Haleakala National Park
P.O. Box 369
Makawao, Maui, Hawaii 96768

IN REPLY REFER TO:

L7617

April 14, 1994

Mr. Wesley H. C. Wong Jr.
Department of Land & Natural Resources
Na Ala Hele Trails & Access Program
Division of Forestry & Wildlife - Maui
54 South High Street
Wailuku, HI 96793

Dear Mr. Wong:

We have reviewed the Draft Environmental Assessment for Constructing the Mamane Trail, Kula and Kahikinui Forest Reserves. Enclosed are some comments by our Resources Management staff for your consideration.

Generally we find the document comprehensive and the potential impacts of the project accurately assessed.

Thank you for giving Haleakalā National Park an opportunity to review this proposal.

Sincerely,

Donald W. Reeser
Superintendent

Enclosure

April 12, 1994

MEMORANDUM

TO: Superintendent
FROM: Chief, Resources Management
SUBJECT: Comments on Draft Mamane Trail Construction

This is almost late but here are comments from RM staff:

Page 6 - Flora

The text reads "... no threatened or endangered native or endemic species of flora were encountered along the flagged portion of the trail course during the botanical survey." Also on Page 10, last paragraph begins with "No Federally listed threatened or endangered plant or animal species have been found to occur within the trail construction area. ..."

However, listed under "Species observed and surveyed along trail course ..." is the pohoanu or endangered red geranium.

The EA should clarify the difference between the "flagged portion of the trail course", "... trail construction area ...", and "along trail course". Without an explanation of this difference, the listing of the red geranium and the statement that no TES were encountered/found appears contradictory.

Page 7 - Fauna

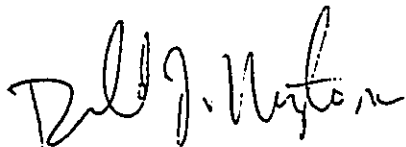
The Pacific Golden Plover is listed as an "... exotic or introduced game bird species." We feel the plover is neither and should be listed as a winter visitor.

Page 8 - Sensitive Habitats

If the example of the "... endangered native sandalwood ..." is Santalum freycinetianum var. lanaiense, then the statement is correct. If not, the adjective endangered should be removed.

Page 9 - Major Impacts

Second sentence is confusing; what is it trying to say and why is "... reconstruction ..." used instead of construction? The word reconstruction is also used in sentence 4.



JOHN WAIHEE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
54 SOUTH HIGH ST., [REDACTED] RM 101
WAILUKU, HAWAII 96793

June 6, 1994

[REDACTED] W. AHUE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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DONA L. HANAIKE

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HISTORIC PRESERVATION
PROGRAM
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Mr. Donald W. Reeser
Superintendent
Haleakala National Park
P.O. Box 369
Makawao, HI 96768

Dear Mr. Reeser:

Subject: Response to Comments on the Draft Environmental Assessment (EA) for
Construction of the Mamane Trail, Kula and Kahikinui Forest Reserves,
Maui - TMK: 2-2-07:1

We have reviewed your letter of April 14, 1994 (attached) and offer the following
itemized responses to comments made by your Resources Management staff.

1. Page 6 - Flora

Comment/Question: "The EA should clarify the difference between the "flagged
portion of the trail course", "...trail construction area...", and "along [the] trail
course". Without an explanation of this difference, the listing of the red
geranium and the statement that no TES were encountered/found appears
contradictory."

Answer: The "flagged portion of the trail course" and "along [the] trail course"
specifically mean a line between flagged points along the proposed trail. The
trail bed is expected to range between six and eight feet in width. "Trail
construction area" refers to the environs through which the trail course runs.
The area involved does not lend itself to a specific measurement of area but a
general geographic locale.

2. Page 7 - Fauna

Comment/Question: "The Pacific Golden Plover is listed as an "...exotic or
introduced game bird species." We feel the plover is neither and should be
listed as a winter visitor.

Letter to D. Reeser
June 6, 1994
Page -2-

Answer: Your description of the Plover as a "winter visitor" is indeed an important distinction. The text will be ammended to reflect that description.

3. Page 8 - Sensitive Habitats

Comment/Question: If the example of the "...endangered native sandalwood..." is Santalum freycinetianum var. lanaiense, then the statement is correct. If not, the adjective **endangered** should be removed.

Answer: The species common in the area is Santalum haleakalae, not freycinetianum. Therefore, the adjective "endangered" will be removed from the paragraph. S. haleakalae has not been listed as a threatened or endangered species, nor as a candidate for that status as of January 11, 1994, the date of our latest list.

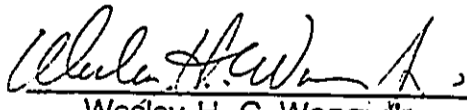
4. Page 9 - Major Impacts

Comment/Question: Second sentence is confusing; what is it trying to say and why is "...reconstruction..." used instead of **construction**? The work **reconstruction** is also used in sentence 4.

Answer: The second sentence will be re-edited to clarify its reference to page 4, paragraph 3, describing technical actions to be taken for maintaining the trail. The term "reconstruction" was used because it is assumed public use sometime after initially building the trail will call for reconstruction of trail structures (i.e., steps, curbing, switchbacks and others).

Thank you for taking the time to comment on the subject EA. Should you have any further questions or comments, please contact Mr. Michael Baker at 871-2831.

Sincerely,


Wesley H. C. Wong, Jr.
District Manager

c: Mike Baker, Trails Specialist
Chris Meller, NAH Program Manager



RECEIVED

University of Hawai'i at Mānoa

94 MAY 17 AT 5:50

FORESTRY & WILDLIFE
STATE OF HAWAII

Environmental Center
A Unit of Water Resources Research Center
Crawford 317 • 2550 Campus Road • Honolulu, Hawai'i 96822
Telephone: (808) 956-7361 • Facsimile: (808) 956-3980

May 9, 1994
EA:00056

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

Dear Mr. Buck:

Draft Environmental Assessment
Mamane Trail Construction
Kula Forest Reserve, Makawao, Maui

Conceived in the early 1970s, the Mamane Trail project has finally emerged from the conceptual and planning stages. The proposed trail will provide access to hunting areas, and recreational opportunities for hikers and mountain bikers. It would also provide fire control opportunities.

This document has been reviewed with the help of Clifford Smith, Botany; Charles Lamoureux, Lyon Arboretum; and Heather Keevill of the Environmental Center.

Botany

Page 6 of the draft Environmental Assessment notes that Geranium arboreum, a federally listed endangered species, is known to occur in the forest reserve. Areas near the proposed trail where this particular species is found should be given special management consideration. In particular, we are concerned about the use of herbicides. What precautions will be taken to ensure that the use of herbicides will not negatively impact occurrences of the Geranium arboreum? Maybe specific plants near the trail could be marked prior to trail construction so that they would not be accidentally removed.

Motorcycles and Mountain Bikes

It is mentioned on page 10 of the EA that motorcycles are known to be illegally using trails in the area, and that a sign will be posted in an effort to keep them off the

Mr. Michael Buck
May 6, 1994
Page 2

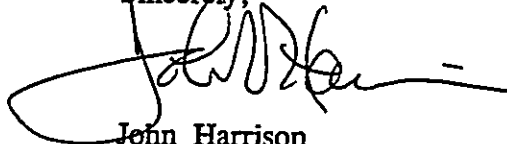
trails. While all motorcyclists would ideally obey posted restrictions, that is not usually the case. Physical barriers should definitely be erected at the trail heads to prevent entry. Mountain bikers would then be able to carry their bikes over, while motorcyclists would be restricted. Signs should be posted to encourage mountain bikers to stay on the trail. To encourage compliance, periodic monitoring is recommended.

Multiple Use

In regards to plans for the trail to be used by hikers, mountain bikers and hunters, we have concerns about safety. Will hunters and mountain bikers be in the same areas? What safety precautions will be implemented?

Thank you for the opportunity to review the document. We hope our comments have been helpful.

Sincerely,



John Harrison
Environmental Coordinator

cc: OEQC
Roger Fujioka
Clifford Smith
Charles Lamoureux
Heather Keevill

JOHN WAIHEE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
54 SOUTH HIGH ST., [REDACTED] MAUI
WAILUKU, HAWAII 96793

June 7, 1994

KEITH W. AHUE,
[REDACTED], CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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JOHN P. KEPPELER, II
DONA L. HANAIKE

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STATE PARKS
WATER AND LAND DEVELOPMENT

Mr. John Harrison
Environmental Coordinator
Water Resources Research Center
2550 Campus Road
Honolulu, HI 96822

Dear Mr. Harrison:

Subject: Response to Comments on the Draft Environmental Assessment (EA) for
Construction of the Mamane Trail, Kula and Kahikinui Forest Reserves,
Maui - TMK: 2-2-07:1

We have reviewed your letter of May 9, 1994 (attached) and offer the following
itemized response.

1. Botany

Comment/Question: What precautions will be taken to ensure that the use of
herbicides will not negatively impact occurrences of the Geranium arboreum?
Maybe specific plants near the trail could be marked prior to trail construction
so that they would not be accidentally removed.

Answer: Herbicide use along the Mamane Trail will be very infrequent and
generally limited to the trail bed. Sensitive native species are tagged as a
matter of course and will be protected from herbicides and maintenance
activities by tying colored tape to or spraying a biodegradable marker dye next
to the particular plant. Na Ala Hele has retained a field technician to record the
existence of native plants along our trails within and outside our Forest
Reserves. As we stated in page 4, paragraph 3 of the EA, Roundup and
Garlon 3A will be used. These systemics will not be sprayed, but drizzled or
painted onto non-native and weedy species in the trail bed area so no over-
spray will occur.

Letter to John Harrison
June 7, 1994
Page -2-

2. Motorcycles and Mountain Bikes

Comment/Question: Physical barriers should definitely be erected at the trail heads to prevent entry. Mountain bikers would then be able to carry their bikes over, while motorcyclists would be restricted. Signs should be posted to encourage mountain bikers to stay on the trail. To encourage compliance, periodic monitoring is recommended.

Answer: The real-world management of off-road and enduro-type motorcycles is not as easy as is suggested. Often, when manpower and materials are used to block or otherwise prevent entry onto Forest Reserve trails by motorcyclists, alternative accesses are found or cut by the cyclists themselves. However, we have found very few cyclists actually causing this type of damage. Most often, motorcyclists enter the lower Forest Reserve area not from a public access road, but from somewhere along a fenced boundary from private property. The Mamane Trail begins from a regularly patrolled public access road in the Forest Reserve and connects to the Upper Waiohuli Trail that also ends at a patrolled public access road in the Forest Reserve. Riding the public road actually exposes off-road motorcyclists to Conservation and Resources Enforcement Officer patrols.

As for the conduct of Mountain bikers, we have proposed what we feel is an adequate management strategy for all trail users under Proposed Mitigation Measures on page 10 of the EA.

3. Multiple Use

Comment/Question: Will hunters and mountain bikers be in the same areas? What safety precautions will be implemented?

Answer: Hunting and Mountain biking activities have officially coexisted together for nearly three years along the Waiakoa Loop "#5" Trail in Hunting Unit C of the Kula Forest Reserve with no incidents of injury or conflict. In fact, the Maui Mountain Bike Club has assisted the Na Ala Hele Program by regularly supplying volunteers to construct and maintain trails in hunting areas. Hunters have often commented favorably on the improved trail conditions in Unit C. Both groups appear to treat each other with respect.

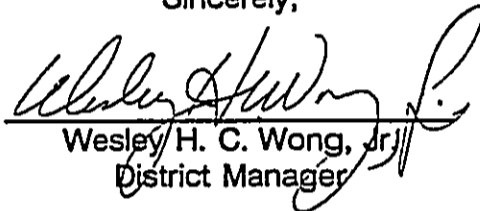
As with present use of the #5 Trail, Mountain bikers will be asked to wear "blaze orange" vests, hats or other piece of clothing for safety. They will be

Letter to John Harrison
June 7, 1994
Page -3-

reminded by signs and brochure maps to stay on the trail. Additionally,
Mountain bikers will be asked to sign-in at all hunter check stations so that
hunters will be aware that other users are in the area.

Thank you for taking the time to comment on the subject EA. Should you have any
further questions or comments, please contact Mr. Michael Baker on Maui at 871-
2831.

Sincerely,



Wesley H. C. Wong, Jr.
District Manager

c: Mike Baker, Trails Specialist
Chris Meller, NAH Program Manager