

JOHN WAIHEE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

DOFAW

OCT 21 1991

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

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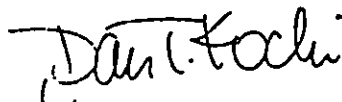
Mr. Bruce Anderson, Acting Director
Office of Environmental Quality Control
465 South King Street, Room 104
Honolulu, Hawaii 96813

Dear Mr. Anderson:

Attached is a Department of Land and Natural Resources, Division of Forestry and Wildlife's agency action determination of Negative Declaration for Forest Trail Development. The improvements to take place will be construction of a parking area at Nounou Forest Reserve, Island of Kauai, to provide a safe parking area for hikers.

We are submitting this declaration for action as required in Environmental Quality Commission - Environmental Impact Statement Regulations.

Very truly yours,


William W. Paty

attachment

cc: Kauai District

193

1991-11-23-KA FRA - Nounou MT East Trail Parking
Area, Wailua

FILE COPY

Determination Notice of Negative Declaration
for Forest Trail Development, Kauai

- I. Proposing Agency: Department of Land and Natural Resources, Division of Forestry and Wildlife, Kauai District.
- II. Approving Agency: Department of Land and Natural Resources, Division of Forestry and Wildlife.
- III. Summary of Proposed Action:

This project is for the construction of a parking area for at least 6 vehicles, driveway to the parking area and rerouting the trailhead at the start of the Nounou Mt. (East) Trail, Nounou Forest Reserve, TMK: 4-1-012: 11, 12, 13, Wailua, Kawaihau, Kauai.

The project area is located in the Eastern side of the Island of Kauai. The parking area will be located adjacent to the existing trailhead, on County of Kauai, Department of Water, well site. The site is between 120-200 feet above sea level with rainfall averaging between 40-65 inches annually. The soil consists of Hanamaulu bouldery silty clay, representing the Hanalei-Kolokolo-Pakala and Lihue-Puhi soil association.

The area was previously cleared when the State of Hawaii developed the area for a subdivision in the early 1970's. Vegetation consists primarily of non-native plant species, with one native species, Caesalpinia bonduc, found during a survey conducted by Timothy Flynn, Assistant Botanist, National Tropical Botanical Garden, on January 28 and March 11, 1991. It is not considered to be either rare or endangered. (See attached Botanic Survey Report).

No archaeological or historic sites were discovered during a survey conducted by Nancy McMahan, Staff Archaeologist, State Historic Preservation Division, in June 1991. (See attached Archaeological Survey Report).

IV. Summary of Environmental Effects:

There are no threatened or endangered plants or archaeological sites found within the project area. The site selected was previously cleared for a subdivision by the State of Hawaii in the early 1970's.

The greatest effect will be on dust and erosion during clearing and construction of the parking area. This can be minimized by watering of the site if the work is done during dry periods or creating berms to stop the runoff during rainy periods along Haleilio Road.

Forest Trail Development
Negative Declaration
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V. Assessment and Alternatives:

No potential major impacts were identified during the planning and assessment process. This project action is appropriate for the location as noted in the Division's plan. The project does not threaten any endangered native flora or fauna, or archaeological sites.

The alternatives considered were to locate the project to another site and/or "no build" alternative for the project were not carried further during the planning process. There are no other sites available within the project area that a parking area could be constructed.

The "no build" alternative was not considered because this project was initiated when complaints were received from the County Water Department of hikers' vehicles blocking the entrance to the well site. This caused some hikers to park along the Haleilio Road, creating a traffic hazard.

VI. Proposed Mitigation:

None. The project will provide a safe parking area for hikers to the Nounou Mt. Trail, which will reduce the impact on the roadside parking hazards.

VII. Determination:

That a Negative Declaration is appropriate for this project.

VIII. Determination Support:

The reasons for support of a Negative Declaration are stated in the above.

Botanical Survey of the Proposed
Nonou Mtn Trail Parking Area

Timothy Flynn
Assistant Botanist
National Tropical Botanical Garden

The State of Hawaii, Department of Land and Natural Resources, Division of Forestry and Wildlife has proposed the creation of a parking area for users of the Nonou Mountain Trail. The parking area would be adjacent to the trailhead on Haleilio road in Wailua House Lots and would involve the removal of existing vegetation as well as grading the area for ease of access. The area in question was previously cleared during development of the subdivision (A. Kyono, personal communication).

Walk-through botanical surveys of the proposed parking area were conducted on 28 January 1991 and 11 March 1991. Emphasis was placed on locating native plant species and especially those considered rare or endangered. A list of the vascular plant species found during the survey is included at the end of the report.

The lower portion of the proposed parking area rises gradually from Haleilio Road to a flattened area bisected by the remnant of an old ditch system. Along the road the vegetation is dominated by small trees of Leucaena leucocephala (koa haole) with scattered individuals of Syzygium cumini (java plum), and Pluchea carolinensis (Khan and Jarvis 1989). The ground cover is dominated by Wedelia triloba with Canavalia cathartica (mauna-loa) and Brachiaria mutica (california grass) also present.

The central portion of the area is currently being used to pasture horses and is rather open under scattered trees of Syzygium cumini, Schinus terebinthifolius (christmas berry), Psidium guajava (common guava), and occasional individuals of Schefflera actinophylla (octopus tree). The ground cover here is heavily grazed but is dominated by Paspalum conjugatum (hilo grass), Desmodium sp., and Brachiaria mutica.

The upper portion of the area is densely forested with Syzygium cumini being the dominant tree species. Morinda citrifolia (noni), Schinus terebinthifolius, Schefflera actinophylla, and Casuarina equisetifolia (ironwood) are also present. The shrub layer is predominantly Syzygium cumini seedlings with lesser numbers of Lantana camara, Pluchea carolinensis, Leucaena leucocephala, and Caesalpinia bonduc (kakalaioa) present. The ground cover is a mixture of Stachytarpheta urticifolia, Oplismenus hirtellus (basket grass), and Thunbergia fragrans.

During the survey only one native species, Caesalpinia bonduc, was found on the site. It is an indigenous species that is pantropical in distribution. In the Hawaiian islands it is found on Ni'ihau, Kaua'i, O'ahu, Moloka'i, East Maui, and Hawai'i (Wagner et al. 1990). It is not considered to be either rare or endangered. All of the other species of vascular plants found during this survey are considered to be non-Hawaiian or alien species.

List of plants
seen on proposed Nonou Mtn Trail parking area

The names of flowering plants used in the list follow Imada et al. (1989) and St. John (1973); the pteridophytes follow Lamoureux (1988). (*-native species)

ACANTHACEAE

Justicia betonica L.
Thunbergia fragrans Roxb.
Ruellia graecizans Backer
Hemigraphis reptans (G. Forster) T. Anderson

ANACARDIACEAE

Schinus terebinthifolius Raddi

ARALIACEAE

Schefflera actinophylla (Endl.) Harms

ASTERACEAE

Pluchea carolinensis (Jacquin) G. Don
Wedelia triloba (L.) Hitchc.

BIGNONIACEAE

Spathodea campanulata P. Beauv.

CASUARINACEAE

Casuarina equisetifolia L.

COMMELINACEAE

Commelina diffusa N. L. Burm.
Rhoeo spathacea (Swartz) Stearn

CONVOLVULACEAE

Ipomoea obscura (L.) Ker-Gawl.

FABACEAE

*Caesalpinia bonduc (L.) Roxb.
Canavalia cathartica Thouars
Chamaecrista nictitans (L.) Moench subsp. patellaria (DC ex Collad.) H. Irwin & Barneby var. glabrata (Vogel) H. Irwin & Barneby
Leucaena leucocephala (Lam.) de Wit
Mimosa pudica L. var. unijuga (Duchass. & Walp.) Griseb.

MALVACEAE

Abutilon grandifolium (Willd.) Sweet

MYRTACEAE

Eucalyptus robusta Sm.

Psidium guajava L.

Psidium cattleianum Sabine

Syzygium cumini (L.) Skeels

Syzygium malaccense (L.) Merr. & Perry

OCHNACEAE

Ochna kirkii Oliver

PASSIFLORACEAE

Passiflora edulis Sims

Passiflora laurifolia L.

PHYTOLACCACEAE

Rivina humilis L.

POACEAE

Brachiaria mutica (Forssk.) Stapf

Paspalum conjugatum Bergius

Oplismenus hirtellus (L.) P. Beauv.

POLYPODIACEAE

Phymatosorus scolopendria (Burm.) Pic.-Serm.

PROTEACEAE

Grevillea robusta A. Cunn. ex R. Br.

RUBIACEAE

Morinda citrifolia L.

SOLANACEAE

Capsicum frutescens L.

THELYPTERIDACEAE

Christella parasitica (L.) Levl.

VERBENACEAE

Stachytarpheta urticifolia (Salisb.) Sims

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**ARCHAEOLOGICAL INVESTIGATIONS AT THE PROPOSED NOUNOU
MOUNTAIN TRAIL PARKING AREA**

**(TMK: 4-1-012: 10, 11, 12, 13)
Wailua, Kawaihau, Kaua'i**

**Prepared by:
Nancy McMahon M.A., M.Ed.
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
June 1991**

**Prepared for:
State of Hawaii
Department of Land and Natural Resources
Division of Forestry and Wildlife**

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Prepared By:
Nancy McMahon, Staff Archaeologist
State Historic Preservation Division,
June 1991

At the request of Alvin Kyono, Forester, State of Hawaii, Department of Land and Natural Resources, Division of Forestry and Wildlife, Nancy McMahon, Staff Archaeologist, State of Hawaii, Department of Land and Natural Resources, State Historic Preservation Division conducted an archaeological survey of the proposed parking area for the Nounou Mountain Trail.* The purpose of this survey was to identify all historic sites present within the project area, evaluate their significance in terms of criteria for the National and Hawaii Register of Historic Places eligibility, assess possible impacts that the proposed project might incur to the identified cultural resources, and provide recommendations for further studies or mitigation of impacts to cultural resources.

Project Area Description

The project area is located in the eastern windward side of the Island of Kaua'i, in the ancient political district of Puna (modern judicial district of Kawaihau), ahupua'a of Wailua. The parking area is to be located adjacent to the trailhead on Halelilio Road in the Wailua House lots, near Nounou Forest Reserve (Figure 1).

The project area is located at c. 80-150 ft AMSL. The terrain gradually rises from Halelilio Road to a flat area and then rises again into the Forest Reserve. The soil consists of Hanamaulu bouldery silty clay, (8-35% slopes) representing the Hanalei-Kolokolo-Pakala and Lihue-Puhi soil association, which are "level to steep, well drained soils that have moderately fine textured subsoil" (Foote et. al. 1972:71).

Rainfall in the vicinity of the Nounou Mountain Trailhead, annual average is 40-65 inches and average temperature is 74 degrees F (Armstrong 1983). Vegetation in the project area consists of moderately dense California grass (*Brachiaria mutica*), wedelia (*Wedelia triloba*), Basket grass (*Opilismenus hirtellus*), Hilo grass (*Paspalum conjugatum*), scattered Java plum (*Syzygium cumini*), Koa haole (*Leucaena leucecephala*), Ironwood (*Casuarina equisetifolia*), Christmas berry (*Schinus terebinthifolius*), Guava (*Psidum guajava*), Octopus tree (*Schefflera actinophylla*), Noni (*Morinda citrifolia*) and Mauna-loa (*Canavalia cathartica*).

* Nounou or Nonou, both spellings were found in the literature.

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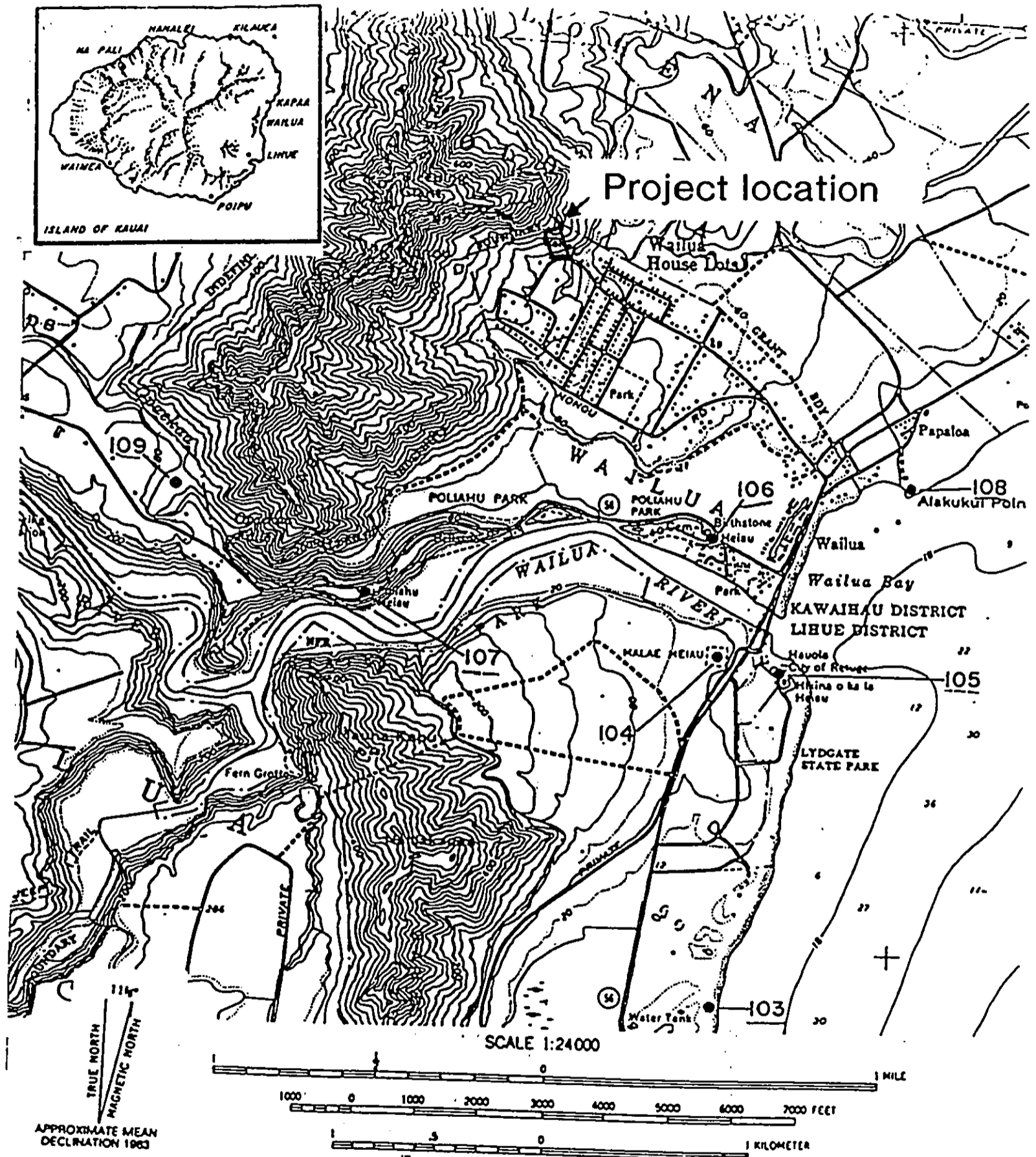


Figure 1. Project location
 --Archaeological sites recorded in the vicinity of the project area. Shown on enlarged USGS.

Previous Archaeological Work

No known historic sites exist within the project area. Archaeological work has been conducted in the general vicinity of the project area, which includes but is not limited to, surveys by Thrum (1907), Bennett (1931), Bordner and Davis (1977), Ching (1968, 1981), Kikuchi (1973, 1974, 1976, 1984, 1988), Soehren (1967), and Yent (1980, 1987, 1988, 1989a & b).

The previous reports are mainly about the sites within the Wailua River area. No archaeological survey has taken place within the present project area. Bennett's survey of the island does identify an adze quarry on Nounou Ridge. This site has not been studied since Bennett first identified it in 1930. Kauakahi adze workshop (site 4000) which was identified by Kikuchi (1988) and evaluated by Yent (1988), is located approximately 4 miles upland within Lihue-Koloa Forest Reserve.

The Wailua area is recognized as a significant cultural and historical resource because of the importance of Wailua as a chiefly residence and center of religious tradition. The Wailua area is rich in myths and legends. Many of these legends relate to the landmarks along the Wailua River (Dickey 1916, Salisbury 1936 and Thrum 1907).

Field Methods and Procedures

On April 15, 1991, a 100% surface survey was conducted of the project area. Pedestrian transects were performed by zigzagging to inspect the entire area. Ground visibility was good at the higher elevation because of the low understory. The central portion was also clear of dense vegetation due to the horse grazing activity. Near the Haleilio Road, the ground visibility was only fair due to moderate dense grasses. No subsurface testing was conducted because of the negative results of the surface survey.

During the survey a pipe line and 20 ft ditch were noted (Figure 2). The ditch bisects the project area. Near Haleilio Road, several large basalt rocks partially lined a drainage channel. Much of the channel has formed naturally. The channel leads to the ditch which bisects the project area. The channel appears to be a drainage or spillway for Haleilio Road water runoff. Directly across Haleilio Road is low pasture land and a reservoir. This alignment of rocks appeared to be relatively recent, perhaps to retard erosion and direct water flow. There is no formal construction style, other than their alignment. Therefore, it was not designated as an archaeological site. No other surface cultural remains were identified.

Conversations with the County of Kauai, Water Department personnel believe that the water lines and ditch were put in place in 1971. The ditch leads to the reservoir.

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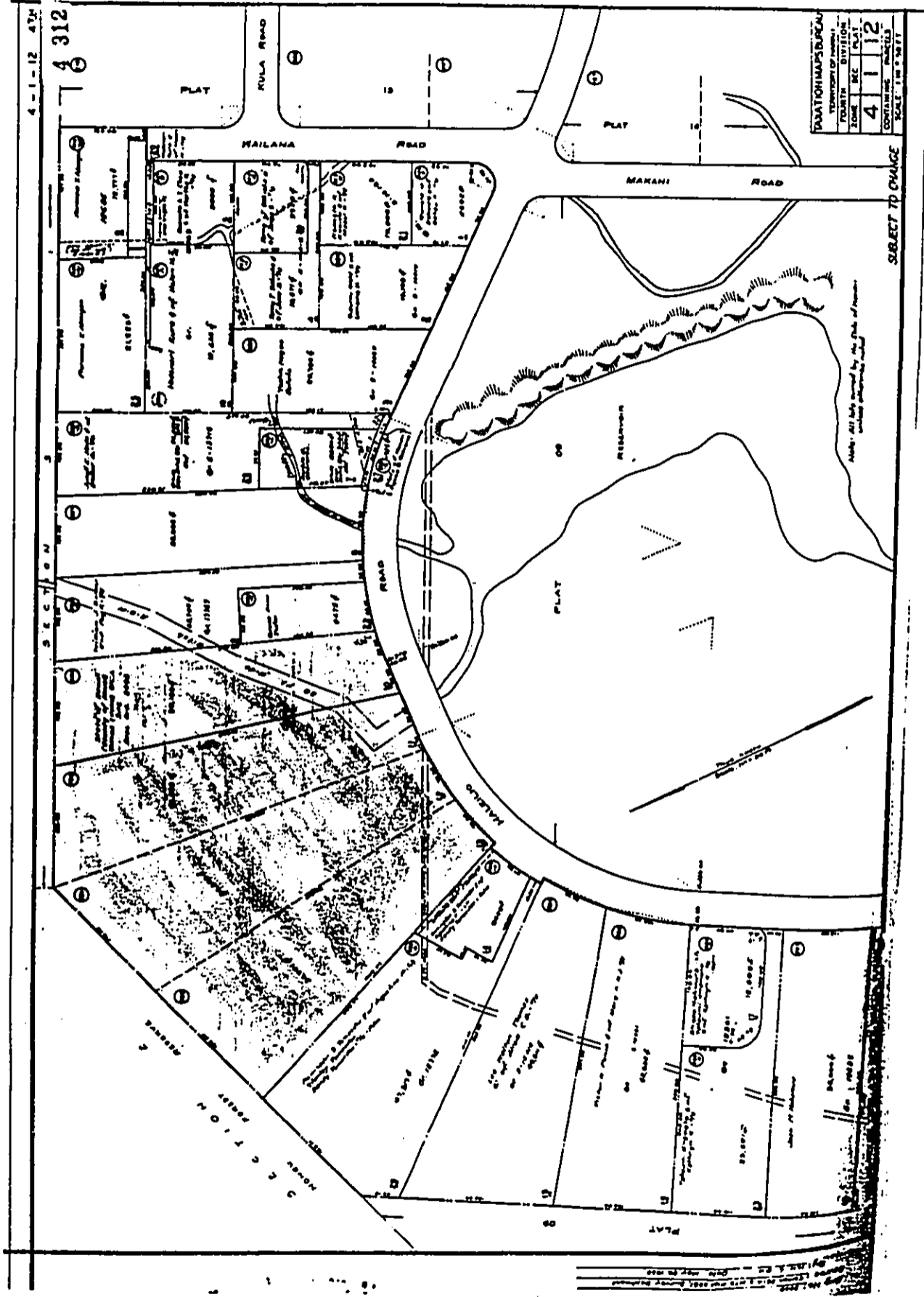


Figure 2. Map showing ditch and pipe line.

Recommendations

Construction plans for the proposed parking area call for grubbing and grading of the project area. No further archaeological work is recommended, because it appears that previous clearing and construction of the ditch for the Well Site and the pipe line for the Wailua House Lots make subsurface remains highly unlikely.

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