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GOVERNOR OF HAWAII



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STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621  
HONOLULU, HAWAII 96809

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OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL  
JAN 16 1990

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

DEPUTIES

MANABU TAGOMORI  
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AQUACULTURE DEVELOPMENT  
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CONVEYANCES  
FORESTRY AND WILDLIFE  
LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT

FILE: MA-1/8/90-2323  
DOC.: 7144E

MEMORANDUM

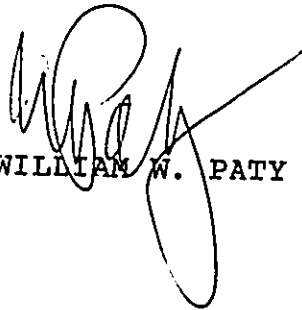
TO: The Honorable Marvin T. Miura, Director  
Office of Environmental Quality Control

FROM: William W. Paty, Chairperson  
Board of Land and Natural Resources

SUBJECT: Document for Publication in the OEQC Bulletin -  
ENVIRONMENTAL ASSESSMENT for Conservation District Use  
Application (CDUA), To subdivide and establish the Kanaio  
Natural Area Reserve at Makawao, Maui TMK 2-1-02: portion 1

The above Chapter 343 Document was reviewed, and a negative  
declaration was declared based upon the environmental assessment  
provided with the CDUA.

Please feel free to call me or Jay Lembeck of our Office of  
Conservation and Environmental Affairs, at 548-7837, if you have  
any questions.

  
WILLIAM W. PATY

Attachment

February 1983

1990-02-08-110-PEA  
**FILE COPY**  
~~Kaui~~ *Kaui* *Kaui* *Natural Reserve*

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

DEPARTMENT MASTER APPLICATION FORM

FOR DLNR USE ONLY

Reviewed by \_\_\_\_\_  
Date \_\_\_\_\_  
Accepted by \_\_\_\_\_  
Date \_\_\_\_\_  
Docket/File No. \_\_\_\_\_  
180-Day Exp. \_\_\_\_\_  
EIS Required \_\_\_\_\_  
PH Required \_\_\_\_\_  
Board Approved \_\_\_\_\_  
Disapproved \_\_\_\_\_  
Well No. \_\_\_\_\_

(Print or Type)

I. LANDOWNER/WATER SOURCE OWNER  
(If State land, to be filled in by Government Agency in control of property)

Name Department of Land and Natural Resources  
Address 1151 Punchbowl Street  
Honolulu, HI 96813

Telephone No. \_\_\_\_\_

SIGNATURE \_\_\_\_\_

Date \_\_\_\_\_

II. APPLICANT (Water Use, omit if applicant is landowner)

Name Natural Area Reserves System Commission, DLNR

Address 1151 Punchbowl Street  
Honolulu, HI 96813

Telephone No. 548-7417

Interest in Property \_\_\_\_\_

(Indicate interest in property; submit written evidence of this interest)

\*SIGNATURE *Robert Lee*

Date 9-27-89

\*If for a Corporation, Partnership, Agency or Organization, must be signed by an authorized officer.

III. TYPE OF PERMIT(S) APPLYING FOR

- ( ) A. State Lands
- (X) B. Conservation District Use
- ( ) C. Withdraw Water From A Ground Water Control Area
- ( ) D. Supply Water From A Ground Water Control Area
- ( ) E. Well Drilling/Modification

IV. WELL OR LAND PARCEL LOCATION REQUESTED

District Makawao

Island Maui

County Maui

Tax Map Key 2-1-02: portion of 1

Area of Parcel about 281 acres  
(Indicate in acres or sq. ft.)

Term (if lease) \_\_\_\_\_

- V. Environmental Requirements *The Environmental Quality Commission has determined that the establishment of a natural area reserve is an "exempt class of action".*

Pursuant to Chapter 343, Hawaii Revised Statutes, and in accordance with Title 11; Chapter 200, Environmental Impact Statement Rules for applicant actions, an Environmental assessment of the proposed use must be attached. the Environmental assessment shall include, but not be limited to the following:

- (1) Identification of applicant or proposing agency;
- (2) Identification of approving agency, if applicable;
- (3) Identification of agencies consulted in making assessment;
- (4) General description of the action's technical, economic, social, and environmental characteristics;
- (5) Summary description of the affected environment, including suitable and adequate location and site maps;
- (6) Identification and summary of major impacts and alternatives considered, if any;
- (7) Proposed mitigation measures, if any;
- (8) Determination;
- (9) Findings and reasons supporting determination; and
- (10) Agencies to be consulted in the preparation of the EIS, if applicable.

- VI. Summary of Proposed Use (what is proposed)

*The Conservation District section of 281 acres and an Agriculture District section of 595 acres are to be integrated into a single parcel to be used and managed as the Kanaio Natural Area Reserve.*

INFORMATION REQUIRED FOR ALL USES

I. Description of Parcel     *See attachment*

- A. Existing structures/Use. (Attach description or map).
- B. Existing utilities. (If available, indicate size and location on map. Include electricity, water, telephone, drainage, and sewerage).
- C. Existing access. (Provide map showing roadways, trails, if any. Give street name. Indicate width, type of paving and ownership).
- D. Vegetation. (Describe or provide map showing location and types of vegetation. Indicate if rare native plants are present).
- E. Topography; if ocean area, give depths. (Submit contour maps for ocean areas and areas where slopes are 40% or more. Contour maps will also be required for uses involving tall structures, gravity flow and other special cases).
- F. If shoreline area, describe shoreline. (Indicate if shoreline is sandy, muddy, rocky, etc. Indicate cliffs, reefs, or other features such as access to shoreline).
- G. Existing covenants, easements, restrictions. (If State lands, indicate present encumbrances.).
- H. Historic sites affected. (If applicable, attach map and descriptions).

II. Description: Describe the activity proposed, its purpose and all operations to be conducted. (Use additional sheets as necessary).

III. Commencement Date: Not applicable

Completion Date: Not applicable

IV. TYPE OF USE REQUESTED (Mark where appropriate) (Please refer to Title 13, Chapter 2)

- 1. Permitted Use (exception occasional use);  
DLNR Title 13, Chapter 2, Section \_\_\_\_\_; Subzone G.
- 2. Accessory Use (accessory to a permitted use):  
DLNR Title 13, Chapter 2, Section \_\_\_\_\_; Subzone \_\_\_\_\_.
- 3. Occasional Use: Subzone \_\_\_\_\_.
- 4. Temporary Variance: Subzone \_\_\_\_\_.
- 5. Conditional Use: Subzone G. (*subdivision*)

Area of Proposed Use about 870 acres  
(Indicate in acres or sq. ft.)

Name & Distance of Nearest Town or Landmark  
Ulupalakua, about 5 miles east

Boundary Interpretation (If the area is within 40 feet of the boundary of the Conservation District, include map showing interpretation of the boundary by the State Land Use Commission).

Conservation District Subzone G  
County General Plan Designation \_\_\_\_\_

V. FILING FEE

1. Enclose \$50.00. All fees shall be in the form of cash, certified or cashier's check, and payable to the State of Hawaii.
2. If use is commercial, as defined, submit additional public hearing fee of \$50.00.

INFORMATION REQUIRED FOR CONDITIONAL USE ONLY      *See attachment*

I. Plans: (All plans should include north arrow and graphic scale).

- A. Area Plan: Area plan should include but not be limited to relationship of proposed uses to existing and future uses in abutting parcels; identification of major existing facilities; names and addresses of adjacent property owners.
- B. Site Plan: Site plan (maps) should include, but not be limited to, dimensions and shape of lot; metes and bounds, including easements and their use; existing features, including vegetation, water area, roads, and utilities.
- C. Construction Plan: Construction plans should include, but not be limited to, existing and proposed changes in contours; all buildings and structures with indicated use and critical dimensions (including floor plans); open space and recreation areas; landscaping, including buffers; roadways, including widths; offstreet parking area; existing and proposed drainage; proposed utilities and other improvements; revegetation plans; drainage plans including erosion sedimentation controls; and grading, trenching, filling, dredging or soil disposal.
- D. Maintenance Plans: For all uses involving power transmission, fuel lines, drainage systems, unmanned communication facilities and roadways not maintained by a public agency, plans for maintenance shall be included.
- E. Management Plans: For any appropriate use of animal, plant, or mineral resources, management plans are required.
- F. Historic or Archaeological Site Plan: Where there exists historic or archaeological sites on the State or Federal Register, a plan must be submitted including a survey of the site(s); significant features; protection, salvage, or restoration plans.

- II. Subzone Objective: Demonstrate that the intended use is consistent with the objective of the subject Conservation District Subzone (as stated in Title 13, Chapter 2). *Establishing Natural Area Reserves is a permitted use of all subzones in the Conservation District.*

DRAFT

September 27, 1989

Natural Area Reserves System Commission  
Recommendation to Establish the Kanaio Natural Area Reserve, Maui

---

Under the provisions of HRS Chapter 195, the Natural Area Reserve System Commission is recommending that a native dry forest located on the southeast slope of Haleakala, Maui, be made part of the state's Natural Area Reserves System. The area had been nominated for reserve status in 1975 by the NARS Commission. The present recommendation is based on a more recent nomination made by the Native Hawaiian Plant Society, Maui.

Reserve Location and Size

The proposed Kanaio Natural Area Reserve would encompass about 876 acres of state-owned land in the land of Kanaio, Makawao District. About 595 acres (2-1-03: portion of 50) is in the Agriculture District and about 281 acres (TMK 2-1-02: portion of 1) is in the General Subzone, Conservation District. The two sections, which are separated by the Piilani Highway, are currently in pasture use through Revocable Permit S-6001 to Ulupalakua Ranch, Inc. They abut the land of Auwahi owned by Ulupalakua Ranch between the elevations of 1,000 and 2,800 feet.

#### Reserve Justification

Placing the Kanaio dry forest in the Natural Area Reserves System will protect and preserve a remnant sample of a once extensive native forest that inhabited the dry leeward slope of Haleakala. The rich assemblage of native dryland trees and shrubs will add to the diversity of native ecosystems being protected by the reserves system.. Without reserve status and proper management, the destructive impact of feral goats and pigs and foraging cattle will eventually lead to the permanent lost of this surviving, still viable group of native plants.

#### Natural Area Description

Located on the arid leeward slope of Haleakala, the reserve site receives only 30 inches of rain per year. The substrate is rough aa lava, interspersed with some soil formation, that came from prehistoric eruptions of Haleakala volcano.

Mauka section. The forest is dominated by a rich assortment of native trees and shrubs. The most common trees are halapepe (Pleomele) and lama (Diospyros). Next in abundance are olopua (Osmanthus), 'aiea (Nothocestrum), and a'ali'i (Dodonaea). Other noteworthy species include 'ohi'a-lehua (Metrosideros), 'ili-ahi (Santalum), maile (Alyxia), ulei (Osteomeles),

na'ena'e (Dubautia), nehe (Lipochaeta), huehue (Coccolus), and 'akia (Wikstroemia). Some species are near their lower elevational range of growth. They are 'ala'a (Planchonella), kauila (Alphitonia), a'ia'i (Streblus), papala (Charpentiera), maua (Xylosma), papala-kepau (Pisonia), kolea (Myrsine), and 'alani (Pelea). Still others are near their upper elevational limits. Occurring in moderate numbers, they are wiliwili (Erythrina), hao (Rauwolfia), 'ohe (Reynoldsia), keahi (Nesoluma), and kulu'i (Nototrichium).

Makai section. The vegetation here displays an evident ecological transition from what occurs above. It is a lower elevation extension with a different aspect. Tree growth is relatively sparse and the species are not as diverse. The five species mentioned above as being near their upper range of growth are relatively abundant. Others, such as 'aiea and lama, appear to be as common in this section as they are above. Alahe'e (Canthium) and uhiuhi (Cassia) are present only in this lower area. Naio (Myoporum), for which the land of Kanaio was named, is in moderate numbers.

Nonnative plants have yet to make a significant impact on this native vegetation. The koa haole (Leucaena) and lantana (Lantana) present are not vigorous and do not pose a threat. Molasses grass (Melinis), now only in small, scattered patches, will need to be closely monitored.

#### Reserve Management

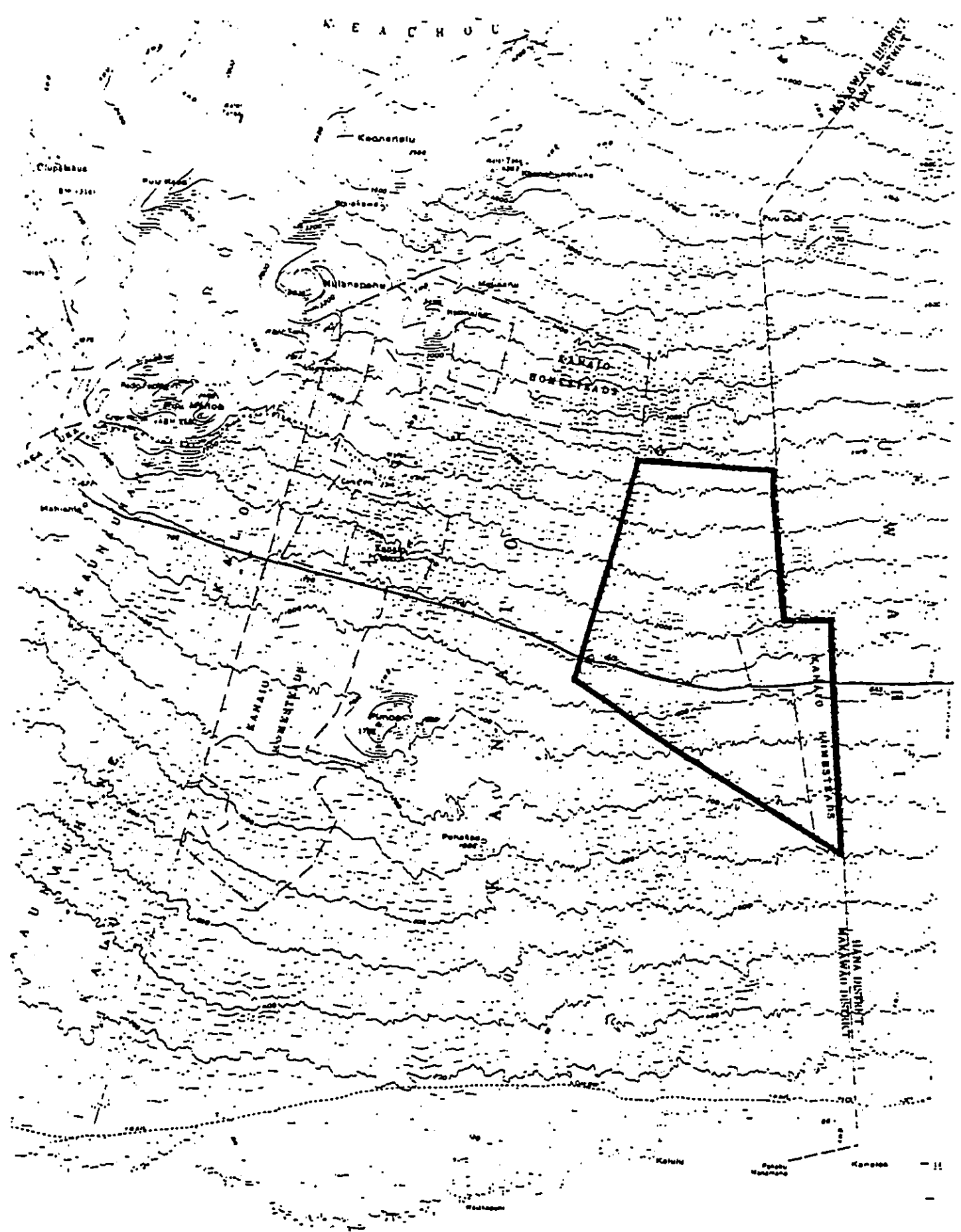
Perimeter fencing will be needed to keep the reserve free of ungulates. Ungulate-control fence specifications include galvanized hog-wire



supplemented with strands of barbed wire above and below. Installing this type of fence over rough terrain is estimated to cost \$11.00 per foot. Should it be decided that the entire reserve should be fenced, the approximate cost will be \$290,500.

The still sparse nonnative grass patches will have to be monitored and checked before they have the opportunity to spread and become a major problem. Their dense ground cover growth can hinder native species regeneration and be a fire hazard as well. This could become a major management concern as fencing curtails grazing by cattle and feral goats.

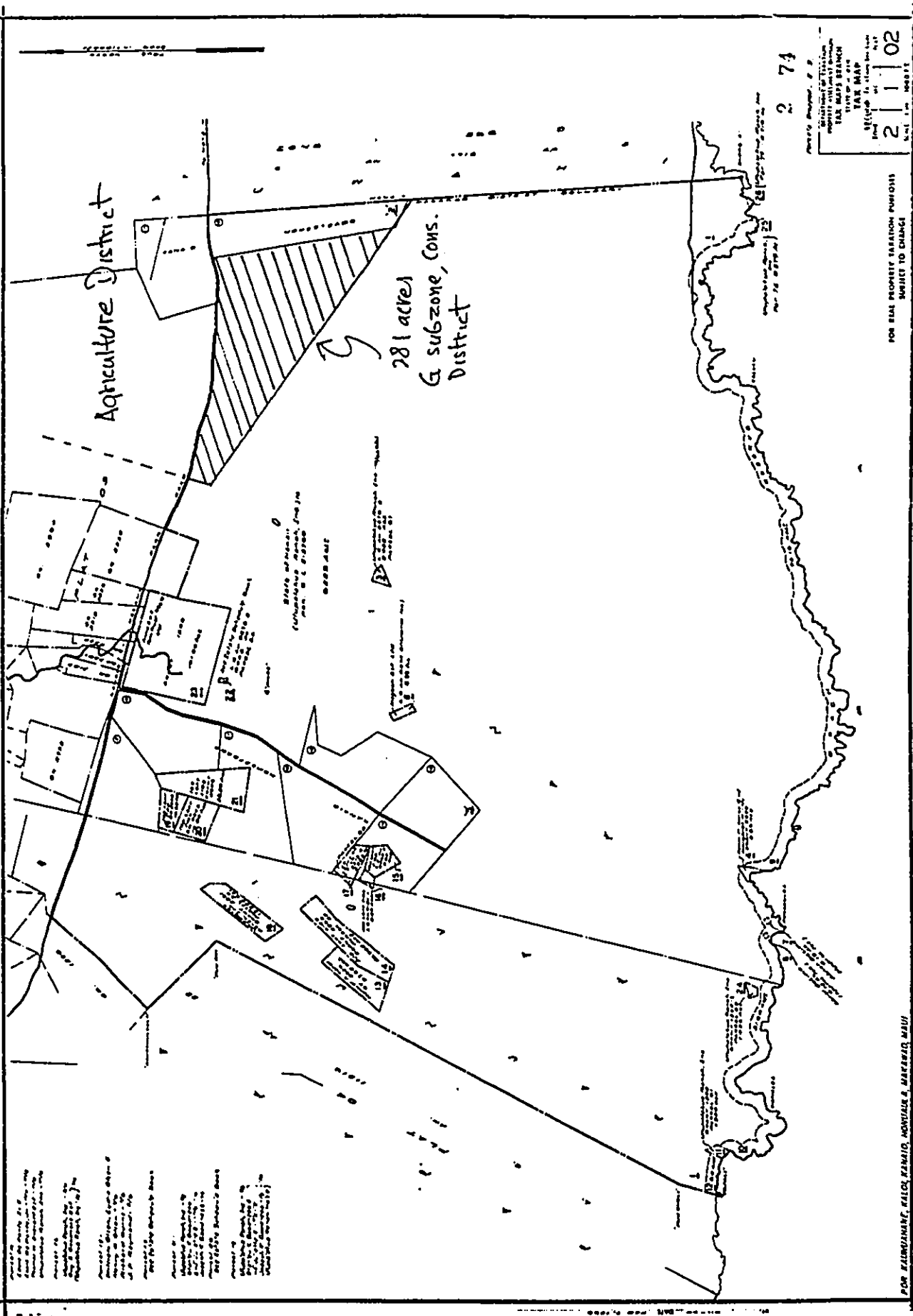




P A C I F I C

O C E A N

2-1-02 2nd Div



1. All lots shown on this map are subject to the provisions of the Massachusetts General Statutes, Chapter 268A, Section 10, which provides that any lot shown on a map as being subject to a special assessment shall be subject to the provisions of said section.

2. The lots shown on this map are subject to the provisions of the Massachusetts General Statutes, Chapter 268A, Section 10, which provides that any lot shown on a map as being subject to a special assessment shall be subject to the provisions of said section.

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FOR SALE PROPERTY, VARIATION PURPOSES  
 SUBJECT TO CHANGE

FOR SALE PROPERTY, VARIATION PURPOSES  
 SUBJECT TO CHANGE