



STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION

REQUEST FOR PROPOSALS

No. 16-008-PPMS

WAIHAOLE VALLEY STRATEGIC PLANNING CONSULTANT SERVICES

REGISTRATION:

ALL PERSONS INTERESTED IN THE RFP MUST **REGISTER** WITH THE RFP CONTACT TO RECEIVE NOTICE OF ANY CHANGES OR UPDATES TO THE SOLICITATION. TO REGISTER, EMAIL YOUR CONTACT INFORMATION TO THE RFP CONTACT LISTED BELOW.

A **Pre-Proposal Conference** will be held on **July 20, 2016** at **1:30 PM** in the HHFDC Board Room, 677 Queen Street, Suite 300, Honolulu, Hawaii.

Direct all questions, in writing, no later than July 29, 2016, to:

RFP Contact:

Chris Woodard, Property Management Coordinator
Hawaii Housing Finance and Development Corporation
Email: chris.j.woodard@hawaii.gov
Phone: (808) 587-0588

PROPOSALS DUE AUGUST 22, 2016
No later than 4:00 PM

Submit proposals to:

Chris Woodard
RFP No. 16-008-PPMS
Hawaii Housing Finance and Development Corporation
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

The envelope or enclosure containing proposals should be clearly marked with the RFP number and title.

Electronic responses shall not be accepted.

NOTICE TO INTERESTED PARTIES

Request for Proposals (RFP) No. 16-008-PPMS

WAIAHOLE VALLEY STRATEGIC PLANNING CONSULTANT SERVICES

The HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION (HHFDC) is requesting proposals from qualified persons or firms able to provide community planning services to assist HHFDC in the development of a strategic plan for the Waiahole Valley Agricultural Park and Residential Lots Subdivision located in Koolaupoko, Oahu.

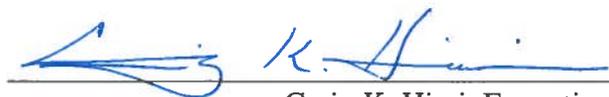
Copies of the RFP shall be made available as follows, beginning on July 8, 2016:

1. **Electronic copy on the State Procurement Office (SPO) website.** A copy of the RFP documents can be reviewed and downloaded online at no cost. Go to <http://spo3.hawaii.gov/notices/notices>. Locate the RFP and click on the "More Info" link to download the documents. **Any Offeror who downloads the solicitation documents online is advised to register by email to the RFP Contact.** If Offeror does not register with RFP Contact, Offeror will not receive notification of any changes or addenda to the RFP.
2. **Hard copy picked up at the HHFDC Office.** Notify the RFP Contact below to schedule a pick up. A fee of \$100 per copy will be assessed for administrative and printing costs. The HHFDC Office is located at 677 Queen Street, Suite 300, Honolulu, Hawaii. Fee shall be paid via cashier's check payable to "Hawaii Housing Finance and Development Corporation."
3. **Hard copy by U.S. Postal Service first class mail, Fedex, or equivalent.** Notify the RFP Contact below to arrange mailing of the solicitation documents. Must have carrier account number or documents will be mailed via USPS First Class Mail. A fee of \$100 per copy will be assessed for administrative and printing costs and must be prepaid via cashier's check payable to "Hawaii Housing Finance and Development Corporation."

A **Pre-Proposal Conference** will be held on July 20, 2016 at 1:30 PM in the HHFDC Board Room, 677 Queen Street, Suite 300, Honolulu, Hawaii.

Statements made by HHFDC representatives at the Pre-Proposal Conference or otherwise during the solicitation process shall not be binding on HHFDC unless confirmed by written addendum. Direct all questions regarding the RFP, in writing, to the RFP Contact, Chris Woodard, Property Management Coordinator, HHFDC, Email: chris.j.woodard@hawaii.gov. The deadline for questions is July 29, 2016.

Proposals must be received no later than 4:00 PM on August 22, 2016 by the Procurement Officer at Hawaii Housing Finance and Development Corporation, 677 Queen Street, Suite 300, Honolulu, Hawaii 96813.


Craig K. Hirai, Executive Director
Hawaii Housing Finance and Development Corporation

Legal Ad Date: July 8, 2016

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ATTACHMENTS AND EXHIBITS

Attachment 1: OFFER FORM, OF-1	
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Exhibit A: Sample Contract Form and General Conditions	
Exhibit B: Revised Environmental Impact Statement for the Agricultural Park and Residential Lots Subdivision (excluding its Exhibit C – Comments and Replies)	
Exhibit C: Declaration of Restrictive Covenants for Waiahole Valley Agricultural Park and Residential Lots Subdivision and Homestead Road Lands	
Exhibit D: Sample Agricultural Lot Ground Lease	
Exhibit E: Sample Residential Lot Ground Lease	
Exhibit F: Subdivision Map	
Exhibit G: Lot Summary	
Exhibit H: Overview of HHFDC’s Strategic Planning Goals, Objectives, and Possible Actions	

SECTION ONE
INTRODUCTION AND KEY INFORMATION

1.1 TERMS AND ACRONYMS USED THROUGHOUT THE SOLICITATION

BAFO	= Best and Final Offer.
Contract	= Refers to the Contract for Goods or Services Based on Competitive Sealed Proposals, including the General Conditions and all attachments, exhibits, and supplemental documents.
Contractor	= The Successful Offeror who executes a Contract with HHFDC to provide the goods and/or services specified in this solicitation.
CPO	= Chief Procurement Officer.
DAGS	= Department of Accounting and General Services.
Executive Director	= Head of the Hawaii Housing Finance and Development Corporation.
GC	= General Conditions, issued by the Department of the Attorney General.
GET	= General Excise Tax.
HAR	= Hawaii Administrative Rules.
HHFDC	= Hawaii Housing Finance and Development Corporation.
HRS	= Hawaii Revised Statutes.
Offeror	= Anyone who submits an offer in response to this solicitation.
Procurement Officer	= Executive Director, Hawaii Housing Finance & Development Corporation
Proposer	= Offeror.
RFP	= Request for Proposals.

- State = State of Hawaii, including all departments, attached agencies, and political subdivisions.
- Successful Offeror = Anyone awarded a Contract as a result of this solicitation.

1.2 INTRODUCTION

The Hawaii Housing Finance and Development Corporation seeks proposals from qualified and experienced offerors able to provide community planning services to assist HHFDC in the development of a strategic plan for the Waiahole Valley Agricultural Park and Residential Lots Subdivision located in Koolaupoko, Oahu.

1.3 RFP SCHEDULE

The RFP Schedule below is based on approximate dates. If a component of the schedule is changed, such as the Proposal Due date, then the timeline may be adjusted accordingly. All times indicated herein are in Hawaii Standard Time (HST).

Advertise Request for Proposals	July 8, 2016
Pre-Proposal Conference	July 20, 2016 1:30 PM
Deadline for Questions and Clarifications	July 29, 2016
State Response to Questions and Clarifications	August 5, 2016
Proposal Due	August 22, 2016 No later than 4:00 PM
Notice of Award	October 3, 2016
Contract Start Date	November 1, 2016

NOTE: HHFDC reserves the right to deviate from this schedule.

1.4 PRE-PROPOSAL CONFERENCE

An optional **Pre-Proposal Conference** will be held on the date and time specified in the RFP Schedule at 677 Queen Street, Suite 300, Honolulu, Hawaii in the HHFDC Board Room.

Prior to submittal of the proposal, it is recommended that Offerors familiarize themselves with the RFP documents and the extent and nature of work to be performed. If work at a particular site or project is necessary, Offerors are encouraged to visit the location. No additional compensation will be allowed by reason of any misunderstanding or error regarding site conditions, project layout, or work to be performed.

Questions will be permitted at the Pre-Proposal Conference. However, any statements made by HHFDC representatives are only intended to give proposer general direction and shall not be binding on HHFDC unless confirmed by written addendum. For an official response, submit all questions **in writing** to the RFP Contact.

1.5 QUESTIONS, CLARIFICATIONS, OR CHANGES

Any Offeror that has questions or requires clarification of the information provided in this RFP must submit specific questions or requests **in writing** to the RFP Contact listed on the cover of the RFP. The deadline for questions is specified in the RFP Schedule above. **Email is the preferred method of communication.** Questions or requests for clarifications are due on the date indicated in the RFP Schedule, unless otherwise amended.

a. Addenda

If HHFDC determines that additional information or interpretation is necessary or that a change is needed regarding this RFP, such information will be supplied in addenda and distributed to all persons or firms who registered for this solicitation. Addenda shall have the same binding effect as though contained in this RFP. The Procurement Officer will issue all addenda no later than the date indicated in the RFP Schedule, unless otherwise amended.

Up to the date and time that proposals are due, it is the responsibility of all parties interested in this RFP to refer frequently back to the HHFDC website to check for any addenda that have been issued for this RFP. Interested parties who have registered with HHFDC for this solicitation will receive courtesy notices of any addendum that has been issued for this RFP; however, interested parties are ultimately responsible for being aware of any addenda issued by HHFDC and modifying their proposal accordingly.

b. Statements by HHFDC Representatives

Statements made by HHFDC representatives at the Pre-Proposal Conference or otherwise during the solicitation process shall not be binding on HHFDC unless confirmed by written addendum.

For an official response, offerors shall submit all questions **in writing** to the RFP Contact.

c. Required Review

Offeror shall carefully review this solicitation for defects and questionable or objectionable matter. Comments concerning defects and questionable or objectionable matter **must be made in writing and should be received by the HHFDC prior to the Deadline for Questions and Clarifications as stated in the RFP Schedule.** This will allow issuance of any necessary corrections and/or amendments to the RFP.

If Offeror takes exception to any terms, conditions, specifications, or other requirements described herein, Offeror initially should seek an informal resolution

with the Procurement Officer. See HRS §103D-701 and HAR §3-126-3 prior to receipt of offers. If unresolved at the time offers are received, any exceptions taken to the terms, conditions, specifications, or other requirements described herein may be listed in the Exceptions section of Offeror's proposal.

1.6 UNAUTHORIZED COMMUNICATIONS

The sole point of contact for this solicitation is the RFP Contact named on the front cover of this RFP. All questions and communications regarding this RFP must be directed to the RFP Contact. Offerors must not communicate about this RFP with members of the Evaluation Committee, the HHFDC Board of Directors, or any HHFDC employee not specifically named in this RFP, except upon invitation by HHFDC as part of discussions or best and final offers. Doing so may be cause for proposal rejection.

1.7 RESERVED

1.8 GOVERNING LAWS AND RULES; COST OF LITIGATION

This RFP is being conducted pursuant to and in accordance with Hawaii Revised Statutes (HRS), Chapter 103D, and all applicable Hawaii Administrative Rules (HAR), including, but not limited to HAR §3-122. All proposals submitted in response to this RFP are subject to the HRS, HAR, and all terms, conditions, and requirements specified in the RFP.

The validity of the RFP and any of its terms or provisions, as well as the rights and duties of the State, HHFDC, and any party submitting a response to the RFP, shall be governed by the laws of the State of Hawaii. All matters not specifically addressed in the RFP, or a subsequent contract entered into, will be governed by the HRS as well as applicable HAR and any other local, state, and federal rules, laws, and regulations pertaining to procurement and contracting with HHFDC and the State of Hawaii.

Any action at law or equity to enforce or interpret the provisions of the RFP shall be brought in a state court or competent jurisdiction in Honolulu, Hawaii.

a. Cost of Litigation

In case the State or HHFDC shall, without any fault on its part, be made a part to any litigation commenced by or against the protesting Offeror in connection with the RFP, the protesting Offeror shall pay all costs and expenses incurred by or imposed on the State or HHFDC, including attorneys' fees.

1.9 RESERVATION OF RIGHTS

HHFDC, in its sole discretion, reserves the right to:

- a. change or cancel this RFP;

- b. reject any or all proposals received in response to this RFP;
- c. determine whether a proposal submitted in response to this RFP fails to meet the requirements of the RFP in some material respect;
- d. obtain modification or clarification necessary to properly evaluate a proposal;
- e. obtain references regarding any Offeror's past performance from any source; and
- f. execute a Contract with the Successful Offeror.

Neither issuance of this RFP nor evaluation of any proposal(s) obligates HHFDC to award a Contract from this RFP.

1.10 DOWNLOADED SOLICITATION

Any Offeror who downloads the solicitation documents online is advised to register its entity by email to the RFP Contact. If Offeror does not register its company, Offeror will not receive notification of any changes or addenda to the RFP.

1.11 RESERVED

1.12 OFFEROR QUALIFICATIONS

Offeror must meet all of the qualification requirements in the RFP. Failure to meet the qualifications as specified in the RFP will likely have an adverse affect on Offeror's proposal evaluation, and may be grounds for non-selection of a proposal.

1.13 SUBMISSION OF PROPOSAL

By submission of a proposal, Offerors warrant and represent that they have read and are familiar with the contractual requirements set forth in the RFP and its attachments and exhibits, the provisions of which are expressly incorporated into this RFP by reference as though fully set forth in its entirety herein.

Furthermore, the submission of a proposal shall constitute an incontrovertible representation by Offeror of compliance with every requirement of the RFP, and that the RFP documents are sufficient in scope and detail to indicate and convey reasonable understanding of all terms and conditions of performance of the work.

Before submitting a proposal, each Offeror must:

- a. Examine the solicitation documents thoroughly. Solicitation documents include this RFP, any attachments, exhibits, plans referred to herein, and any other relevant documents; and
- b. Be familiar with State, local, and federal laws, statutes, ordinances, rules, and regulations that may, in any manner, affect cost, progress, or performance of the work, the project, and/or the relevant property.

All submitted proposals shall become the property of HHFDC and be subject to public disclosure in accordance with HRS, Chapter 92F.

1.14 CONFIDENTIAL INFORMATION

If a person believes that any portion of a proposal, offer, specification, protest, or correspondence contains information that should be withheld as confidential, then the Procurement Officer named on the cover of this RFP should be so advised in writing and provided with legal justification to support the confidentiality claim. Price is not considered confidential and will not be withheld.

An Offeror shall request in writing nondisclosure of designated trade secrets or other proprietary data considered confidential by law. Such data shall accompany the proposal, be clearly marked, and shall be readily separable from the proposal in order to facilitate eventual public inspection of the non-confidential portion of the proposal.

Offerors may not mark an entire proposal confidential. Should a proposal be submitted in this manner, HHFDC reserves the right to hold no portion of the proposal as confidential, unless such a portion is determined by the Attorney General to be subject to disclosure pursuant to HRS, Chapter 92F.

If a request is made to inspect the confidential material, the inspection shall be subject to written determination by the Department of the Attorney General for confidentiality in accordance with HRS Chapter 92F. If it is determined that the material designated as confidential is subject to disclosure, then the material shall be open to public inspection, unless Offeror appeals pursuant to HRS §92F-42(1). If the request to inspect the confidential material is denied, the decision may be appealed to the Office of Information Practices in accordance with HRS §92F-15.5.

1.15 OFFER ACCEPTANCE PERIOD

The State's acceptance of an offer, if any, will be made within ninety (90) calendar days after the opening of proposals. Any price submitted by Offeror shall be a firm price for this ninety (90)-day period.

1.16 PROPOSAL AS PART OF THE CONTRACT

This RFP and the Successful Offeror's proposal, as accepted by HHFDC, will be incorporated into the resulting Contract. In the event of conflicts between the RFP and the Successful Offeror's proposal, the RFP will always take precedence. The Successful Offeror is required to identify conflicting or omitted sections of the RFP requirements in its proposal.

1.17 ADDITIONAL TERMS AND CONDITIONS

Approvals. Any agreement arising out of this offer may be subject to the approval of the Department of the Attorney General as to form, and is subject to all further approvals, including the approval of the Governor, required by statute, regulation, rule, order, or other directive.

Confidentiality of Material. All material given to or made available to Contractor by virtue of this contract, which is identified as proprietary or confidential information, will be safeguarded by Contractor and shall not be disclosed to any individual or organization without the prior written approval of the State.

Nondiscrimination. No person performing work under this Agreement, including any subcontractor, employee, or agency of Contractor, shall engage in any discrimination that is prohibited by any applicable federal, state, or county law.

Records Retention. Contractor and any subcontractors shall maintain the books and records that relate to the Agreement and any cost or pricing data for six (6) years from the date of final payment under the Agreement.

Correctional Industries. Goods and services available through Hawaii Correctional Industries (HCI) programs may be the same or similar to those awarded by competitive sealed bids or proposals. Agencies participating in HHFDC requirements (price list) contracts may also procure directly from HCI and shall not be considered in violation of the terms and conditions of any HHFDC contract.

Competency of Offeror. The Procurement Officer shall determine whether the Successful Offeror has the financial ability, resources, skills, capability, and business integrity necessary to fulfill the Contract. For this purpose, either before or after the deadline for an offer, HHFDC may require Offeror to submit answers to questions regarding facilities, equipment, experience, personnel, financial status, or any other factors relating to the ability of Offeror to satisfactorily fulfill the Contract. Whenever it appears from answers to the questionnaire or otherwise, that the Successful Offeror is not fully qualified and able to fulfill the Contract, a written determination of non-responsibility of an offeror shall be made. The unreasonable failure of an offeror to promptly supply information in connection with an inquiry with respect to responsibility may be grounds for a determination of non-responsibility with respect to such offeror. The decision of non-responsibility shall be final unless offeror applies for administrative review pursuant to §103D-709, HRS.

Preparation of Offer. An Offeror may submit only one offer in response to a solicitation. If an Offeror submits more than one offer in response to a solicitation, then all such offers shall be rejected. Similarly, an Offeror may submit only one offer for each line item (if any) of a solicitation. If an Offeror submits more than one offer per line item, then all offers for that line item shall be rejected.

The State and HHFDC reserves the right to add terms and conditions to the RFP and Contract. These terms and conditions will be within the scope of the RFP and will not affect the proposal evaluation.

1.18 CAMPAIGN CONTRIBUTIONS BY STATE AND COUNTY CONTRACTORS

If awarded a contract in response to this solicitation, Offeror agrees to comply with HRS §11-355, which states that campaign contributions are prohibited from a State and county government contractor during the term of the contract if Contractor is paid with funds appropriated by the legislative body between the execution of the contract through the completion of the contract.

1.19 CANCELLATION

Pursuant to HAR §3-122-96, HHFDC reserves the right to cancel this RFP without liability when it is determined by HHFDC, at its sole discretion, to be in the best interests of the State. In no event shall HHFDC have any liability for a cancellation. Offeror assumes the sole risk and responsibility for all expenses connected with the preparation of its proposal.

1.20 REJECTION OF PROPOSALS

Pursuant to HAR §3-122-97, HHFDC reserves the right to reject any or all proposals, in whole or in part, without liability, when it is determined by HHFDC, at its sole discretion, to be in the best interest of the State. Offeror assumes the sole risk and responsibility for all expenses connected with the preparation of its proposal.

1.21 COSTS OF PROPOSAL PREPARATION

Costs for developing the proposal are solely the responsibility of Offeror, whether or not any award results from this solicitation. State of Hawaii will not reimburse such costs.

SECTION TWO

BACKGROUND AND SCOPE OF WORK

2.1 ABOUT HHFDC

The Hawaii Housing Finance and Development Corporation (HHFDC) is the primary agency responsible for overseeing affordable housing finance and development in Hawaii. HHFDC is tasked with developing and financing low- and moderate-income housing projects and administering state rental assistance and home ownership programs.

2.2 BACKGROUND

In the mid-1970s, Elizabeth Loy McCandless Marks entered into an option agreement to sell lands in Waiahole and Waikane, Koolaupoko, Oahu to Windward Partners for the construction of approximately 7,000 homes. Concerned area residents and farmers formed the Waiahole-Waikane Community Association (WWCA), which protested eviction actions by Mrs. Marks and the development planned by Windward Partners. In 1977, the Hawaii Housing Authority (HHA; a predecessor to HHFDC) purchased approximately 795 acres of land in Waiahole Valley from Mrs. Marks under threat of condemnation. The public purpose of the acquisition was to preserve the rural, agricultural nature of the valley. The purchase price of \$6 million was funded by the Dwelling Unit Revolving Fund (DURF).

Subsequent to the land acquisition, HHA contemplated moderate-scale development of Waiahole Valley to recoup its \$6 million investment plus interest on DURF at an annual rate of 6%. The WWCA protested these development plans as well and demanded long-term leases from the State. HHA eventually proceeded with a limited development plan and, pursuant to Chapter 359G (now 201H), HRS, applied for and received exemptions from City and County of Honolulu requirements relating to planning, zoning, construction standards for subdivisions, development, and improvement of land and the construction of units thereon. The Revised Environmental Impact Statement (EIS) prepared for the Waiahole Valley subdivision (excluding its Exhibit C – Comments and Replies) is attached as Exhibit B.

Pursuant to HHA Resolution No. 1702, tenants of Mrs. Marks that were living in Waiahole Valley at the time of the State's land acquisition were accorded first-priority rights to obtain leases. Pursuant to HHA Resolution No. 1783, certain persons in Waiahole and Waikane who were threatened with eviction in the 1970s were granted second-priority rights to lease available lots.

The Waiahole Valley Agricultural Park and Residential Lots Subdivision was completed in 1991. Eighty-three (83) residential and agricultural lots were created largely by using the boundaries of former Marks tenancies, and 42 new leasable lots were created. Improvements were made to existing roads, stream appurtenances, drainage systems, and

utilities. A potable water system was also constructed.¹ The total development cost of approximately \$11 million was funded by various Capital Improvement Project appropriations. Neither the roads nor the water system has been dedicated to the City and County of Honolulu and Board of Water Supply, respectively. There is no public sanitary sewer connection.

Two years after the subdivision was completed, Act 330, Session Laws of Hawaii 1993 directed the Department of Land and Natural Resources (DLNR) to transfer approximately 108 acres of additional lands in Waiahole Valley to the Housing Finance and Development Corporation (HFDC; a predecessor to HHFDC). The Act required that HFDC offer long-term leases to nine former DLNR permittees.

In 1995, the Declaration of Restrictive Covenants for Waiahole Valley Agricultural Park and Residential Lots Subdivision and Homestead Road Lands (the Declaration) was recorded, designating lots for agricultural, residential, and other uses. The document incorporated the lease priority rights referenced in HHA Resolution Nos. 1702 and 1783; these rights expired in 1999. The Declaration is attached as Exhibit C.

In 1998, the Housing and Community Development Corporation of Hawaii (HCDCH; a predecessor to HHFDC) transferred 20 lots totaling approximately 18 acres to DHHL as partial satisfaction of the 16,518 acres of lands owed to DHHL by the State of Hawaii under a 1994 administrative initiative.

After protracted negotiations with the WWCA, the State executed approximately 100 long-term ground leases in 1998. Sample agricultural and residential lot ground leases are attached as Exhibits D and E, respectively. A subdivision map is attached as Exhibit F, and a lot summary is attached as Exhibit G.

Nearly 40 years after the State's Waiahole Valley land acquisition, HHFDC and its lessees face numerous challenges. Lease rents and water service charges total approximately \$150,000 and \$20,000 per year, respectively, and cover only about half of HHFDC's operating, maintenance, and personnel costs. Twelve lots are vacant; some were never developed, while others are vacant as a result of lease terminations over the years. The agricultural lot ground lease compliance rate is low. Residential lot lessees are generally unable to obtain mortgage financing to rebuild or improve dwellings due to the nature of the leases. These and other issues are expected to be addressed through the strategic planning process.

¹ Previously, much of Waiahole Valley was served by a water system known as the McCandless System. While the State abandoned the McCandless System, which includes a 6-inch transmission line, it remains in use (and is maintained) by some residents and farmers located on Waiahole Valley Road. The McCandless System water is drawn from Waianu Stream and is untreated. There are also historic auwai systems in use by farmers in Waiahole Valley; a major such system runs parallel to (and north of) Waiahole Homestead Road.

2.3 SCOPE OF WORK

Contractor shall provide all labor, materials, equipment, and incidentals necessary to provide consulting and community planning services to complete the scope of work described below. Note that the scope of work is not necessarily described sequentially, and some tasks may be completed concurrently.

a. Organizational Meeting

Meet with HHFDC staff and an initial group of stakeholders identified by HHFDC to review the project scope, budget, and schedule.

b. Review of Existing Studies and Documents

Review the following documents, as necessary:

- For Information presented to HHFDC Board of Directors (2015)
- Waiahole Valley planning study prepared for HHA (1977)
- Revised EIS for Waiahole Valley subdivision (1985) and its related technical studies
- The Declaration (1995) and its supplements and amendments
- Sample agricultural and residential lot ground leases (1998)
- Transfer Agreement conveying 20 parcels to DHHL (1998)
- Sample amended ground lease incorporating provisions for self-help housing, deferred sales price loan, and shared appreciation equity programs (2006)
- Agricultural lot inspection reports (ca. 2011)
- Phase I Environmental Site Assessment for Lot 33 and subsequent consultant reports (2015 to 2016)
- Draft administrative rules for the Waiahole Valley potable water system (2016)
- Waiahole Valley DURF budget and related historical financial information
- Miscellaneous other background information to be provided by HHFDC

To provide Contractor with an understanding of Waiahole Valley in the context of the surrounding area, review executive summaries and cultural studies, etc. of the following documents, as necessary:

- Revised EIS for the Proposed Waikane Residential Subdivision (1978)
- Revised EIS for the Proposed Waikane Golf Course Project (1989)

- Final Environmental Assessment for Kamehameha Highway Waiahole Valley Bridge Replacement (2004)
- Final Environmental Assessment for Waiahole Beach Park Master Plan (2006)
- Final Environmental Assessment and Finding of No Significant Impact for the Proposed Waikane-Waiahole Cacao Farm Pilot Project (2013)
- Final Draft of the Revised Koolau Poko Sustainable Communities Plan (2016)

Based upon the review of available information, discussions with stakeholders, and visits to Waiahole Valley, determine if additional information is required prior to the start of community visioning and strategic plan development. Prepare a summary document and work plan in Adobe Portable Document Format (PDF) for HHFDC's review and approval.

c. Community Visioning

Prepare a detailed plan of the community's vision using a community outreach and public engagement process. Such process should include the collection of data through questionnaires and meetings with HHFDC staff; HHFDC Waiahole Valley lessees; other Waiahole Valley residents; other State agency staff as appropriate (e.g. Departments of Agriculture, Education, Hawaiian Home Lands, and Health); civic, legislative, and business leaders; and influential external individuals. Based on the community vision, develop a mission statement for the Waiahole Valley subdivision. Prepare an interim report (Adobe PDF) summarizing the results of the community visioning process for stakeholder review and HHFDC approval.

d. Optional Task: Analysis of Leased Lots²

In order to help to guide the direction of the strategic plan, analyze conditions of approximately 96 Waiahole Valley parcels currently leased from HHFDC.

- Inspect agricultural activities on all leased agricultural lots (approximately 39) to determine compliance with the diversified agriculture requirements of the ground leases and Declaration.
- Through a combination of questionnaires and site inspections, survey exterior and interior (as applicable and possible) conditions of all dwellings (approximately 95) located on leased residential and agricultural lots. Determine if dwellings are substandard as defined by the City and County of Honolulu.

² Because this task may be completed by staff of HHFDC or another State department or agency, the task shall be performed at HHFDC's sole option and the Contract pricing shall be adjusted accordingly.

Prepare an interim report (Adobe PDF) for stakeholder review and HHFDC approval.

e. Analysis of Vacant Lots

In order to help to guide the direction of the strategic plan, analyze HHFDC's vacant lots. Inspect vacant residential (9) and agricultural (3) lots. Analyze demand for self-help housing projects. Evaluate possible diversified agriculture opportunities. Consider re-zoning, consolidation, and subdivision of lots, as appropriate. Consider alternative uses such as multifamily (including senior housing), agricultural cooperative, educational, cultural, and other uses. Prepare an interim report (Adobe PDF) for stakeholder review and HHFDC approval.

f. Analysis of Open Space and Kamehameha Highway Lots

In order to help to guide the direction of the strategic plan, analyze HHFDC's open space lots and those HHFDC-owned parcels fronting Kamehameha Highway. Consider re-zoning, consolidation, and subdivision of lots, as appropriate. Consider alternative uses such as multifamily (including senior housing), agricultural cooperative, educational, cultural, and other uses. Prepare an interim report (Adobe PDF) for stakeholder review and HHFDC approval.

g. Strategic Plan Development

There are a number of approaches and templates to strategic planning, and this RFP does not require one specific approach. Generally, the Waiahole Valley strategic plan should identify what actions that HHFDC and the community should take over the next three to four years to achieve its common goals. The approach presented by Offerors should at a minimum include the following elements:

- Vision
- Mission
- Goals and Objectives
- Action Plans
- Monitoring and Evaluation

As depicted in Exhibit H, HHFDC has identified various goals, objectives, and possible actions to help to guide the direction of the strategic plan.

Contractor shall present a draft strategic plan (Adobe PDF) to HHFDC and other stakeholders. The final strategic plan shall be prepared in consultation with HHFDC for its review and approval. Twenty-five (25) bound hard copies and an

Adobe PDF version shall be delivered to HHFDC. Contractor shall make a public presentation and discussion of the strategic plan to HHFDC and other stakeholders at a final meeting.

2.4 PRICING

Work to be performed under this solicitation is a business activity taxable under HRS Chapter 237 and, if applicable, HRS Chapter 238. Vendors are advised that they are liable for the Hawaii General Excise Tax (GET) and the applicable use tax at the current rates. To obtain a Hawaii Taxpayer ID number online, visit: <https://hbe.ehawaii.gov>. Otherwise, visit the State of Hawaii Department of Taxation FAQs website at http://www6.hawaii.gov/tax/a7_faq.htm to find out more about obtaining a Hawaii Taxpayer ID number for GET and applicable Use tax purposes. If an Offeror is exempt by the HRS from paying the GET and therefore not liable for the taxes on this solicitation, Offeror shall state its tax exempt status and cite the HRS chapter or section allowing the exemption.

The pricing shall be the all-inclusive cost to the State, including labor, materials, supplies, all applicable taxes, such as the State General Excise Tax (GET) and Use Tax, and any other costs incurred to provide the services specified in the RFP. No other costs will be honored.

2.5 CONTRACT TERM

The Contract shall be for a period of two (2) years beginning approximately on November 1, 2016 and ending October 31, 2018. Unless terminated, Contractor and the State may renew the Contract and extend the term for up to three (3), one (1)-year periods, or a portion(s) thereof, without the necessity of re-bidding, upon mutual agreement in writing at least sixty (60) days prior to the expiration of the Contract. The contract price paid to Contractor for the extended period shall remain as specified in Contractor's proposal, unless price adjustments are provided herein.

The Contract term and any extensions or renewals shall be as specified above. The option to extend the Contract will be at the sole discretion of HHFDC. Submission of a proposal constitutes acknowledgement of the interested Offeror that the interested Offeror is able and willing to contract for services up to the maximum allowable length of the Contract. If the Successful Offeror is unwilling or unable to fulfill the maximum allowable Contract, HHFDC reserves the right to assign the costs of re-procurement to any payments owed under the Contract. These costs may include but are not limited to reproduction costs, staff time, and postage.

When interests of the State or Contractor so require, the State or Contractor may terminate the contract for convenience by providing six (6) weeks prior written notice to the contracted parties.

a. Multi-Term Contract Subject to Availability of Funds

Funds are available for only the initial term of the Contract. The contractual obligation of both parties in each fiscal period succeeding the first is subject to the availability of funds. The State shall notify Contractor on a timely basis that funds are, or are not, available for the continuation of the contract for each succeeding fiscal period.

The Contract will be cancelled if the funds are not available or otherwise made available to support continuation of performance in any fiscal period succeeding the initial term of the contract. This does not affect either the State's rights or Contractor's rights under any termination clause of the Contract.

In the event of cancellation, as provided in the paragraph above, Contractor will be reimbursed the unamortized, reasonably incurred, nonrecurring costs.

A unit price shall be given for each good or service, and the unit prices shall be the same throughout the contract, except to the extent price adjustment is allowed.

2.6 RESERVED

SECTION THREE

PROPOSAL CONTENT AND EVALUATION CRITERIA

Offeror's proposal shall describe in detail Offeror's ability and availability of services to meet the goals and objectives of this RFP and specifically the **SCOPE OF WORK** in **Section Two**. When an interested Offeror submits a proposal, it shall be considered a complete plan for accomplishing all the work specified in the RFP. The interested Offeror's proposal must demonstrate an understanding of and the ability to meet and perform all contractual requirements listed in the RFP. Offeror shall submit a proposal that includes an overall strategy, timeline and plan for accomplishing the work proposed as well as any expected results and potential shortfalls.

Proposals submitted in response to this RFP will be evaluated in accordance with the following Proposal Content and Evaluation Criteria. **INCLUDE A "TABLE OF CONTENTS" AND ORGANIZE YOUR PROPOSAL IN THE FOLLOWING ORDER, AS ADDRESSED IN THIS SECTION:**

- 3.1 Transmittal Letter
- 3.2 Offer Form
- 3.3 Relevant Experience and Personnel Qualifications
- 3.4 Approach and Methodology
- 3.5 Pricing
- 3.6 Confidential Information
- 3.7 Exceptions
- 3.8 Additional Information

HHFDC will review all eligible proposals to determine if they meet the minimum qualifications specified in this RFP. Proposals that meet the minimum RFP requirements will be submitted to the HHFDC evaluation committee established for that purpose.

Proposals are considered acceptable for the review process when they are submitted timely, in accordance with the Proposal Due date stated in Section One, as amended by any addenda to this RFP, and when they conform to the proposal requirements specified in this Section Three of the RFP. Proposals which are incomplete and not responsive to required portions of the RFP shall be deemed unacceptable and shall be disqualified from the review process.

Evaluation criteria and the associated points are listed below. The award will be made to the responsible Offeror whose proposal is determined to be the most advantageous to HHFDC based on the evaluation criteria listed in this section. HHFDC reserves the right to reject any or all proposals, waive any informality or technical defect in the proposal, or award the Contract in whole or in part, if deemed to be in the best interest of HHFDC.

SUMMARY OF PROPOSAL CONTENT AND EVALUATION CRITERIA	
EVALUATION CRITERIA	MAX POINTS PER CRITERION
<input type="checkbox"/> Relevant Experience and Personnel Qualifications <input type="checkbox"/> Approach and Methodology <input type="checkbox"/> Pricing	30 Points 40 Points 30 Points
Total Available Points	100 Points
PROPOSAL REQUIREMENTS	
<input type="checkbox"/> Transmittal Letter <input type="checkbox"/> Offer Form OF-1 <input type="checkbox"/> Offer Form OF-2 <input type="checkbox"/> Responses to Evaluation Criteria <input type="checkbox"/> Confidential Information, if applicable <input type="checkbox"/> Exceptions, if applicable <input type="checkbox"/> Additional Information, as required or requested	Not Scored Not Scored Scored Scored Not Scored Not Scored Not Scored

3.1 TRANSMITTAL LETTER

Provide a one- to two-page transmittal letter that summarizes Offeror’s proposal and confirms that Offeror shall comply with the requirements, provisions, terms, and conditions specified in this RFP. The transmittal letter should be in the form of a standard cover letter on official business letterhead and signed by an authorized representative of Offeror.

If subcontractors will be used, append a statement to the transmittal letter from each subcontractor signed by an individual authorized to legally bind the subcontractor and stating, in addition to the paragraph above:

1. The general scope of work to be performed by the subcontractor; and
2. The subcontractor’s willingness to perform the indicated work for HHFDC in accordance with the RFP.

3.2 OFFER FORM

Provide a signed Attachment 1, Offer Form OF-1, with the complete name and address of Offeror’s firm and the name, mailing address, telephone number, email address, and fax number of the person the State should contact regarding Offeror’s proposal.

3.3 RELEVANT EXPERIENCE AND PERSONNEL QUALIFICATIONS (30 points)
(Mandatory Requirement)

HHFDC seeks a Contractor with extensive experience in strategic planning for well-established rural communities. Contractor and its subcontractors (if any) shall have a team of highly qualified employees that can address complex community problems. Contractor shall be highly capable of working with a community that historically has been apprehensive of and/or resistant to change. Contractor shall have a good working understanding of HHFDC's statutory powers under Chapter 201H, HRS.

Provide background information on Offeror, including its corporate history, organizational structure, management team, office locations, and major lines of business. Describe Offeror's experience in community planning, with particular emphasis on the development of strategic plans for existing communities as well as any work performed in rural or agricultural communities. Provide detailed information on relevant projects completed, including information on the clients served (such as state departments or agencies.)

Describe Offeror's personnel that will be involved in work conducted under the Contract. Provide detailed information on each team member to be involved in the performance of the Contract, including at a minimum the following:

- a. Name, title, and office location;
- b. Professional licensing information, if applicable;
- c. Employment history and academic qualifications;
- d. Pertinent areas of expertise and past experience; and
- e. Resume or curriculum vitae.

Provide information (including, at a minimum, the information described above) on any subcontractors to be utilized by Offeror, including information on the role that each subcontractor will perform under the Contract.

Provide sample deliverables that Offeror has produced for other clients on similar projects.

Provide a minimum of three (3) professional references for whom Offeror (or its principal personnel to be assigned to this project) has completed projects with a similar scope of work to the work to be performed under the Contract. Include all relevant project details and the primary client contact's firm name, title, email address, and phone number.

3.4 APPROACH AND METHODOLOGY (40 points)
(Mandatory Requirement)

HHFDC seeks a Contractor to undertake the scope of work using an approach and methodology that will result in the development of a strategic plan for the Waiahole Valley subdivision that will address various problems that require coordinated, comprehensive, and sustainable solutions.

Provide a description of the techniques, approaches, and methods that Offeror will use in providing the services described in Section 2.3. Such description should include, but not be limited to, the following:

- a. Description of Offeror’s proposed project team, including but not limited to, team organization (please include an organization chart), roles and responsibilities, and communication mechanisms;
- b. Description of Offeror’s project management techniques;
- c. Description of Offeror’s facilities, equipment, software, hardware, and other non-human resources to be utilized for the project;
- d. Discussion of what key due diligence information and investigations will be necessary to successfully undertake the work;
- e. Discussion of Offeror’s ability to secure and control any confidential information relating to the project;
- f. Proposed timeline and schedule for completing the scope of work; and
- g. Discussion of approaches to address any stakeholder questions about the benefits of developing and executing a strategic plan for Waiahole Valley.

3.5 PRICING

Complete and submit Attachment 2, Offer Form OF-2, with proposal. The price listed on this form shall represent the total contract cost for accomplishing the development and delivery of all goods and services specified in this RFP.

The lowest cost proposal will automatically receive the maximum number of points for this category and every other proposal will be scored in relation to the lowest cost proposal, as follows:

$$\text{Offeror Points} = \frac{(\text{Lowest Cost Proposal} \times \text{Maximum Points})}{\text{Offeror Cost Proposal}}$$

3.6 CONFIDENTIAL INFORMATION
(Proposal Requirement, *if applicable*)

Confidential information shall be submitted in accordance with Section 1.18.

3.7 EXCEPTIONS

(Proposal Requirement, *if applicable*)

Offeror shall list any exceptions taken to the terms, conditions, specifications, or other requirements listed herein. Offeror shall reference the RFP section where exception is taken, describe the exception taken, and provide a proposed alternative, if any.

Offeror initially should seek an informal resolution of any exceptions taken by notifying the RFP Contact in writing prior to the Deadline for Questions and Clarifications. Offeror's notice shall reference the RFP section where exception is taken, describe the exception taken, and provide a proposed alternative, if any. If Offeror's exception has not been resolved by the date on which proposals are due, Offeror shall include said exception in its proposal in accordance with the aforementioned provision.

3.8 ADDITIONAL INFORMATION

(Proposal Requirement, *if applicable*)

Any additional forms or information required or requested in the RFP and not specifically addressed in Section Three shall be marked appropriately and included at the end of the proposal.

SECTION FOUR

PROPOSAL FORMAT AND SUBMISSION

4.1 PROPOSAL FORMAT

Guidelines for formatting proposals:

- a. Proposal includes a one-page transmittal letter as the first page of the proposal.
- b. Proposal includes the Offer Form in Attachment 1 as the second page of the proposal.
- c. Proposal includes all content specified in Section Three in the order presented therein.
- d. Proposal is double-sided when possible. A double-sided sheet is considered equal to two pages.
- e. Proposal is prepared simply and economically, and is comprised of recyclable and recycled materials. Proposal is stapled rather than bound.
- f. There is no page limit restriction on proposals.

Please do not include sales or promotional materials as part of the proposal unless requested.

Economy of Presentation. Proposals shall be prepared in a straightforward and concise manner, in a format that is reasonably consistent and appropriate for the purpose. Emphasis will be on completeness and clarity and content. If any additional information is required by the State regarding any aspects of Offeror's proposal, it shall be provided within five (5) working days.

4.2 PROPOSAL SUBMISSION

All proposals submitted in response to this RFP are subject to the terms and requirements of this RFP. All matters not specifically addressed in this RFP, or a subsequent contract entered into as a result of this RFP, will be governed by the Hawaii Administrative Rules as well as applicable Hawaii Revised Statutes and other rules pertaining to procurement and contracting.

Provide one (1) original hardcopy proposal marked "ORIGINAL" and five (5) copies of the original marked "COPY" in a sealed envelope or box to:

Chris Woodard, Property Management Coordinator
Request for Proposals No. 16-008-PPMS
Hawaii Housing Finance and Development Corporation

677 Queen Street, Suite 300
Honolulu, Hawaii 96813

It is imperative to note that Offeror must submit only one original and the required number of copies. **DO NOT SUBMIT MORE THAN ONE ORIGINAL.**

The sealed envelope or box containing proposals will have the following information provided on the outside of the package:

- a. RFP title
- b. RFP number
- c. Offeror name
- d. Offeror address

It is Offeror's sole responsibility to ensure that its proposal is delivered and time-stamped at the location above prior to the Proposal Due date in Section One, as amended. Proposals not time-stamped at the location above by the Proposal Due date will be considered late and shall not be considered for award.

Proposal forms referenced in the RFP are included in Section Seven. Thoroughly complete and sign all forms that must be submitted with the proposal. Proposals must conform to the Proposal Requirements and Evaluation Criteria described in Section Three, as amended.

Proposals which are incomplete and not responsive to required portions of the RFP may be deemed unacceptable. Unacceptable proposals shall not be considered for award.

Proposals shall be submitted using Offeror's exact legal name as registered with the Department of Commerce and Consumer Affairs, if applicable; and indicate exact legal name in the appropriate spaces on Offer Form page OF-1. Failure to do so may delay proper execution of the contract. See Attachment 1.

The authorized signature on the first page of the Offer Form shall be an original signature in ink. If unsigned or the affixed signature is a facsimile or a photocopy, the offer shall be automatically rejected unless accompanied by other material, containing an original signature, indicating Offeror's intent to be bound.

A proposal security is NOT required for this RFP.

Offeror is encouraged to submit typewritten offers. If handwritten, it should be clearly printed. Offeror is cautioned that illegible offers of any item(s) may be automatically rejected to avoid any errors in interpretation by the reviewers during the evaluation process.

SECTION FIVE

SELECTION AND AWARD

5.1 SELECTION

- a. The RFP is issued pursuant to Subchapter 6 of HAR Chapter 3-122, implementing HRS Section 103D-303.
- b. The procurement process begins with the issuance of the RFP and the formal response to any written questions or inquiries regarding the RFP. Changes to the RFP will be made only by Addendum.
- c. **Modification Prior to Submittal Deadline or Withdrawal of Offers.**
 1. Offeror may modify or withdraw a proposal before the proposal due date and time.
 2. Any change, addition, deletion of attachment(s) or data entry of an Offer may be made prior to the deadline for submittal of offers.
- d. Proposals shall not be opened publicly, but shall be opened in the presence of at least two (2) government officials. The register of proposals and Offerors' proposals shall be open to public inspection after posting of the award.

All proposals and other material submitted by Offerors become the property of the State and may be returned only at the State's option.
- e. The Procurement Officer, or an evaluation committee selected by the Procurement Officer, shall evaluate the proposals in accordance with the evaluation criteria in Section Three. The proposals shall be classified initially as acceptable, potentially acceptable, or unacceptable.
- f. Proposals may be accepted on evaluation without discussion. However, if discussions are deemed necessary by HHFDC, then prior to entering into discussions, a "priority list" of responsible Offerors submitting acceptable and potentially acceptable proposals shall be generated. The priority list may be limited to a minimum of three (3) responsible Offerors who submitted the highest-ranked proposals. The objective of these discussions is to clarify issues regarding Offeror's proposal.
- g. If, during discussions, there is a need for any substantial clarification or change in the RFP, the RFP shall be amended by an addendum to incorporate such clarification or change. Addenda to the RFP shall be distributed only to priority listed Offerors who submit acceptable or potentially acceptable proposals.

- h. Following any discussions, priority-listed offerors may be invited to submit a best and final offer (BAFO), if necessary. The Procurement Officer or the appointed evaluation committee reserves the right to have additional rounds of discussions with the top three (3) priority-listed offerors prior to the submission of the BAFO.
- i. The date and time for Offerors to submit their BAFO, if necessary, is indicated in the RFP Schedule in Section One. This date is an estimate only. If Offeror does not submit a notice of withdrawal or a BAFO by the date indicated in the request for BAFO, Offeror's immediate previous offer shall be construed as its BAFO.
- j. **Mistakes in Proposals.**
 - 1. Mistakes shall not be corrected after award of contract.
 - 2. When the Procurement Officer knows or has reason to conclude before award that a mistake has been made, the Procurement Officer should request Offeror to confirm the proposal. If Offeror alleges mistake, the proposal may be corrected or withdrawn pursuant to this section.
 - 3. Once discussions are commenced or after best and final offers are requested, any priority-listed Offeror may freely correct any mistake by modifying or withdrawing the proposal until the time and date set for receipt of best and final offers.
 - 4. If discussions are not held, or if the best and final offers upon which award will be made have been received, mistakes shall be corrected to the intended correct offer whenever the mistake and the intended correct offer are clearly evident on the face of the proposal, in which event the proposal may not be withdrawn.
 - 5. If discussions are not held, or if the best and final offers upon which award will be made have been received, an Offeror alleging a material mistake of fact which makes a proposal non-responsive may be permitted to withdraw the proposal if: the mistake is clearly evident on the face of the proposal but the intended correct offer is not; or Offeror submits evidence which clearly and convincingly demonstrates that a mistake was made.

Technical irregularities are matters of form rather than substance evident from the proposal document, or insignificant mistakes that can be waived or corrected without prejudice to other Offerors; that is, when there is no effect on price, quality, or quantity. If discussions are not held or if best and final offers upon which award will be made have been received, the Procurement Officer may waive such irregularities or allow an Offeror to correct them if either is in the best interest of the State. Examples include the failure of an Offeror to: return the number of signed proposals required by the request for proposals; sign the proposal, but only if the unsigned proposal is accompanied by other

material indicating Offeror's intent to be bound; or to acknowledge receipt of an amendment to the request for proposal, but only if it is clear from the proposal that Offeror received the amendment and intended to be bound by its terms; or the amendment involved had no effect on price, quality or quantity.

5.2 AWARD

- a. After receipt and evaluation of the BAFOs in accordance with the evaluation criteria in Section Three, the Procurement Officer or an evaluation committee will make its recommendation. The Procurement Officer will award the contract to Offeror whose proposal is determined to be the most advantageous to the State taking into consideration price and the evaluation factors set forth in Section Three.
- b. The contents of any proposal shall not be disclosed during the review, evaluation, discussion, or negotiation process. Once the award notice is posted, all proposals, successful and unsuccessful, become available for public inspection. Those sections that Offeror and the State agree are confidential and/or proprietary in accordance with all applicable laws should be identified by Offerors and shall be excluded from access.
- c. The Procurement Officer or an evaluation committee reserves the right to determine what is in the best interest of the State for purposes of reviewing and evaluating proposals submitted in response to the RFP. The Procurement Officer or an evaluation committee will conduct a comprehensive, fair and impartial evaluation of proposals received in response to the RFP.
- d. **Method of Award.** The award will be made to the responsive, responsible Offeror whose proposal is determined to be the most advantageous to the State based on the evaluation criteria. Award(s), if any, resulting from this solicitation shall be posted to the State Procurement Office (SPO) website at <http://hawaii.gov/spo>.

A protest of an award or proposed award pursuant to §103D-302 or §103D-303, HRS, shall be submitted in writing to the Executive Director, within five (5) working days after the posting of the award of the Contract or, if requested, within five (5) working days after the debriefing is completed.
- e. **Responsibility of Highest-Scoring Responsive Offeror.** Pursuant to HRS Chapter 103D-310(c), all offerors, upon award of contract, shall comply with all laws governing entities doing business in the State, including, but not limited to:
 - 1) Chapter 237, tax clearance;
 - 2) Chapter 383, unemployment insurance;
 - 3) Chapter 386, workers' compensation;

- 4) Chapter 392, temporary disability insurance; and
- 5) Chapter 393, prepaid health care.

Offerors shall produce documents to the procuring officer to demonstrate compliance with this subsection. Any Offeror making a false affirmation or certification under this subsection shall be suspended from further offerings or awards pursuant to section 103D-702. The procuring officer shall verify compliance with this subsection for all contracts awarded pursuant to sections 103D-302, 103D-303, 103D-304, and 103D-306, and for contracts and procurements of \$2,500 or more awarded pursuant to section 103D-305.

Hawaii Compliance Express. Hawaii Compliance Express (HCE) is an electronic system that allows vendors/contractors/service providers doing business with the State to quickly and easily demonstrate compliance with applicable laws. It is an online system that replaces the necessity of obtaining paper compliance certificates from the Department of Taxation, Federal Internal Revenue Service; Department of Labor and Industrial Relations, and Department of Commerce and Consumer Affairs.

Offerors are strongly encouraged to register with HCE at <https://vendors.ehawaii.gov> prior to submitting an offer. The annual registration fee is \$12.00 and the 'Certificate of Vendor Compliance' issued by HCE is accepted as proof of compliance for award, execution of the contract, and final payment.

Timely Registration on HCE. Offerors are advised to register on HCE soon as possible to ensure proof of compliance is available at the time of award.

SECTION SIX

SPECIAL PROVISIONS

6.1 CONTRACT DOCUMENTS

The Successful Offeror shall be required to enter into a formal written agreement with HHFDC, in the form of a Contract for Goods and Services Based on Competitive Sealed Proposals, prior to commencement of the services, in accordance with the laws, rules and regulations of the State of Hawaii. See Exhibit A. The RFP, any addenda issued, and Contractor's proposal shall become a part of the Contract. All proposals shall become the property of the State of Hawaii. HHFDC reserves the right to add or modify any Contract term or condition prior to execution of the Contract.

Following award of the Contract, and within ten (10) days after the prescribed forms are presented to the Successful Offeror for signature, unless otherwise specified by HHFDC, Offeror shall execute and deliver to HHFDC a Contract in the form required by HHFDC and in such number of counterparts as may be required by HHFDC.

6.2 ORDER OF PRECEDENCE

All services provided by Contractor under the Contract resulting from this RFP shall be in accordance with the documents listed below in descending order of precedence. A conflict in these documents shall be resolved in the priority listed below with the General Conditions to the Contract taking precedence over all other documents.

- a. The Contract for Goods or Services Based Upon Request for Competitive Sealed Proposals, including the General Conditions to the Contract and all attachments, exhibits, and supplemental documents included in the Contract. See the sample contract in Exhibit A;
- b. RFP No. 16-PPMS-08, including all attachments, exhibits, and supplemental documents included herein; and
- c. Contractor's accepted proposal.

6.3 INSURANCE REQUIREMENTS

Within fifteen days after award of this Contract and prior to the execution of the Contract, unless otherwise specified by HHFDC, the Successful Offeror shall furnish the Procurement Officer certificate(s) of insurance as evidence of the existence of the insurance coverage specified below, in amounts not less than the amounts specified therein. Contractor shall acquire and maintain the insurance coverage specified below, in amounts not less than the amounts specified, for the entire performance period of the Contract, at Contractor's own expense.

Contractor shall defend, indemnify, and hold harmless HHFDC, the State of Hawaii and its departments, boards, and agencies, and all their officers, employees, and agents from and against all liability, loss, damage, cost, and expense, including all attorneys' fees, and all claims, suits, and demands therefore, arising out of or resulting from the acts or omissions of Contractor or Contractor's officers, employees, agents or subcontractors.

a. Workers' Compensation

Contractor shall carry Workers' Compensation insurance in such form and amount to satisfy the applicable state Workers' Compensation Law. Workers' Compensation must be issued by an admitted carrier authorized to do business in the State of Hawaii. Workers' Compensation insurance premium expense for the Project personnel may be reimbursed by HHFDC upon review and approval.

b. Liability Insurance

Contractor shall maintain the following minimum insurance limits and coverage, at no cost or expense to the State:

Coverage	Limits
Commercial General Liability	\$1 million per occurrence and \$2 million in aggregate for bodily injury and personal property damage
Professional Liability (Errors & Omissions)	\$1,000,000.00 per occurrence \$2,000,000.00 annual aggregate
Automobile Insurance	\$1,000,000.00 per accident or \$1,000,000.00 combined single limit

A certificate of insurance evidencing the required insurance coverage and amounts shall be submitted to HHFDC prior to commencement of services. **The State of Hawaii and HHFDC shall each be named as additional insured on the certificate.**

Contractor shall provide immediate written notice to the contract administrator should any of the insurance policies evidenced on its Certificate of Insurance form be cancelled, limited in scope, or not renewed upon expiration. Furthermore, each insurance policy required by the Contract shall contain the following clauses:

1. "The State of Hawaii and HHFDC is added as an additional insured with respect to operations performed for the State of Hawaii."
2. "It is agreed that any insurance maintained by the State of Hawaii will apply in excess of, and not contribute with, insurance provided by this policy."

The minimum insurance required shall be in full compliance with the Hawaii Insurance Code throughout the entire term of the Contract, including all Supplemental Contracts.

During the entire term of this Contract, Contractor agrees to deposit with HHFDC certificate(s) of insurance necessary to satisfy the HHFDC that the insurance provisions of this Contract are being complied with and to keep such insurance in effect and the current certificate(s) therefore on deposit with the HHFDC. Upon request of the HHFDC, Contractor shall be responsible for furnishing a copy of the policy or policies.

Failure of Contractor to provide and keep in force such insurance shall be regarded as material default under this Contract, entitling HHFDC to exercise any or all of the remedies provided in this Contract for default of Contractor.

The procuring of such required insurance shall not be construed to limit Contractor's liability hereunder or to fulfill the indemnification provisions and requirements of this Contract. Notwithstanding said policy or policies of insurance, Contractor shall be obligated for the full and total amount of any damage, injury, or loss caused by negligence or neglect connected with this Contract.

6.4 RESERVED

6.5 CONTRACT ADMINISTRATOR

For the purposes of this contract, an authorized representative of the Private Property Management Section of HHFDC shall be designated the Contract Administrator.

HHFDC reserves the right to change the designated Contract Administrator. Any changes to the Contract Administrator shall be provided in writing to Contractor. Once Contractor has assumed management responsibilities for the property, all communications regarding approvals, reports, requests, and any other contractual item will be directed to the Contract Administrator.

6.6 CONTRACT MODIFICATIONS - UNANTICIPATED AMENDMENTS

During the course of this contract, Contractor may be required to perform additional work that will be within the general scope of the initial contract. When additional work is required, the Contract Administrator will provide Contractor a written description of the additional work and request Contractor to submit a firm time schedule for accomplishing the additional work and a firm price for the additional work.

Changes to the contract may be modified only by written agreement signed by HHFDC and Contractor representative authorized to sign contracts on behalf of Contractor.

Contractor will not commence additional work until a supplemental agreement has been fully executed.

6.7 ADDITION OR MODIFICATION OF TERMS AND CONDITIONS

The State and HHFDC reserves the right to add or modify terms and conditions of the Contract. These additional or modified terms and conditions will be within the scope of the RFP.

6.8 CONTRACT PERFORMANCE

No work is to be undertaken by Contractor prior to the commencement date. The State of Hawaii is not liable for any work, contract, costs, expenses, loss of profits, or any damages whatsoever incurred by Contractor prior to the official starting date.

If an option to extend is mutually agreed upon, Contractor shall be required to execute a supplement to the contract for the additional extension period. Contractor or the State may terminate the extended contract at any time without cause upon six (6) weeks prior written notice.

No performance or payment bond is required for this contract.

6.9 PAYMENT

HRS Section 103-10 provides that the State shall have thirty (30) calendar days after receipt of invoice or satisfactory completion of contract to make payment. For this reason, the State will reject any offer submitted with a condition requiring payment within a shorter period. Further, the State will reject any offer submitted with a condition requiring interest payments greater than that allowed by HRS §103-10, as amended.

The State will not recognize any requirement established by Contractor and communicated to the State after award of the contract, which requires payment within a shorter period or interest payment not in conformance with statute.

6.10 SUBCONTRACTING

No work or services shall be subcontracted or assigned without the prior written approval of the State. No subcontract shall under any circumstances relieve Contractor of his/her obligations and liability under this contract with the State.

6.11 CONTRACT INVALIDATION

If any provision of this contract is found to be invalid, such invalidation will not be construed to invalidate the entire contract.

6.12 NON-DISCRIMINATION

Contractor shall comply with all applicable federal and State laws prohibiting discrimination against any person on the grounds of race, color, national origin, religion,

creed, sex, age, sexual orientation, marital status, handicap, or arrest and court records in employment and any condition of employment with Contractor or in participation in the benefits of any program or activity funded in whole or in part by the State.

6.13 CONFLICTS OF INTEREST

Contractor represents that neither Contractor, nor any employee or agent of Contractor, presently has any interest, and promises that no such interest, direct or indirect, shall be acquired, that would or might conflict in any manner or degree with Contractor's performance of this contract.

6.14 WAIVER

The failure of the State to insist upon the strict compliance with any term, provision or condition of this contract shall not constitute or be deemed to constitute a waiver or relinquishment of the State's right to enforce the same in accordance with this contract.

6.15 SEVERABILITY

In the event that any provision of this contract is declared invalid or unenforceable by a court, such invalidity or unenforceability shall not affect the validity or enforceability of the remaining terms of this contract.

6.16 CAMPAIGN CONTRIBUTIONS BY STATE AND COUNTY CONTRACTORS

It has been determined that funds for this contract have been appropriated by a legislative body.

Therefore, Offeror, if awarded a contract in response to this solicitation, agrees to comply with HRS §11-355, which states that campaign contributions are prohibited from a State and county government contractor during the term of the Contract if Contractor is paid with funds appropriated by a legislative body.

6.17 COMPLIANCE WITH APPLICABLE LAWS

Contractor must comply with all applicable local, state, and federal laws, rules, and regulations.

SECTION SEVEN

ATTACHMENTS AND EXHIBITS

- Attachment 1: OFFER FORM, OF-1
- Attachment 2: OFFER FORM, OF-2
- Exhibit A: Contract Form and AG General Conditions
- Exhibit B: Revised Environmental Impact Statement for the Agricultural Park and Residential Lots Subdivision (excluding its Exhibit C – Comments and Replies)
- Exhibit C: Declaration of Restrictive Covenants for Waiahole Valley Agricultural Park and Residential Lots Subdivision and Homestead Road Lands
- Exhibit D: Sample Agricultural Lot Ground Lease
- Exhibit E: Sample Residential Lot Ground Lease
- Exhibit F: Subdivision Map
- Exhibit G: Lot Summary
- Exhibit H: Overview of HHFDC’s Strategic Planning Goals, Objectives, and Possible Actions

**OFFER FORM
OF-1**

**STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION**

REQUEST FOR PROPOSALS

NO. 16-008-PPMS

WAIAHOLE VALLEY STRATEGIC PLANNING CONSULTANT SERVICES

Procurement Officer
Hawaii Housing Finance and
Development Corporation
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Sir or Madam:

The undersigned has carefully read and understands the terms and conditions specified in this Request for Proposals, including all attachments, exhibits, and addenda, and in the General Conditions, attached in Exhibit A and made a part of the Contract; and hereby submits the following offer to perform the work specified herein, all in accordance with the true intent and meaning thereof. The undersigned further understands and agrees that by submitting this offer, the undersigned:

- 1) is declaring his/her offer is not in violation of Chapter 84, Hawaii Revised Statutes, concerning prohibited State contracts;
- 2) is certifying that the price(s) submitted was (were) independently arrived at without collusion;
- 3) is certifying that Offeror shall comply with all applicable federal and State laws prohibiting discrimination against any person on the grounds of race, color, national origin, religion, creed, sex, age, sexual orientation, marital status, handicap, or arrest and court records in employment and any condition of employment with Contractor or in participation in the benefits of any program or activity funded in whole or in part by the State;
- 4) acknowledges and agrees that Offeror shall comply with HRS Section 11-355, which states that campaign contributions are prohibited from a State and county government contractor during the term of the Contract if Contractor is paid with funds appropriated by a legislative body; and
- 5) acknowledges and agrees that Offeror shall comply with all the requirements, provisions, terms, and conditions specified in this RFP.

Offeror is:

Sole Proprietor Partnership Corporation* Joint Venture

Other: _____

*State of incorporation: _____

Hawaii General Excise Tax License I.D. No.: _____

Federal Tax I.D. No.: _____

Payment address (if other than street address below): _____

City, State, Zip Code: _____

Business address (street address): _____

City, State, Zip Code: _____

Respectfully submitted:

Date: _____

(x) _____

Authorized (Original) Signature

Telephone No.: _____

Fax No.: _____

Name and Title (Please Type or Print)

Email Address: _____

Exact Legal Name of Company (Offeror)**

**If Offeror is a "dba" or a "division" of a corporation, furnish the exact legal name of the corporation under which the awarded contract will be executed: _____

**OFFER FORM
OF-2**

**STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION**

REQUEST FOR PROPOSALS

NO. 16-008-PPMS

WAIIAHOLE VALLEY STRATEGIC PLANNING CONSULTANT SERVICES

Total cost for accomplishing the development and delivery of the services (excepting Scope of Work 2.3.d, Optional Task: Analysis of Leased Lots): \$ _____ . ____

Total cost for accomplishing the development and delivery of the services (Scope of Work 2.3.d, Optional Task: Analysis of Leased Lots only): + \$ _____ . ____

Total contract cost for accomplishing the development and delivery of the services: = \$ _____ . ____

Note: Pricing shall include labor, materials, supplies, all applicable taxes (including general excise tax), and any other costs incurred to provide the specified services.

Offeror Name

Exhibit A

Contract Form and AG General Conditions

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STATE OF HAWAII
CONTRACT FOR GOODS OR SERVICES
BASED UPON
COMPETITIVE SEALED PROPOSALS

This Contract, executed on the respective dates indicated below, is effective as of _____, _____, between _____,
(Insert name of state department, agency, board or commission)
 State of Hawaii ("STATE"), by its _____,
(Insert title of person signing for State)
 (hereafter also referred to as the HEAD OF THE PURCHASING AGENCY or designee ("HOPA")), whose address is _____ and _____
 ("CONTRACTOR"), a _____,
(Insert corporation, partnership, joint venture, sole proprietorship, or other legal form of the Contractor)
 under the laws of the State of _____, whose business address and federal and state taxpayer identification numbers are as follows: _____

RECITALS

- A. The STATE desires to retain and engage the CONTRACTOR to provide the goods or services, or both, described in this Contract and its attachments, and the CONTRACTOR is agreeable to providing said goods or services or both.
- B. The STATE has issued a request for competitive sealed proposals, and has received and reviewed proposals submitted in response to the request.
- C. The solicitation for proposals and the selection of the CONTRACTOR were made in accordance with section 103D-303, Hawaii Revised Statutes ("HRS"), Hawaii Administrative Rules, Title 3, Department of Accounting and General Services, Subtitle 11 ("HAR"), Chapter 122, Subchapter 6, and applicable procedures established by the appropriate Chief Procurement Officer ("CPO").
- D. The CONTRACTOR has been identified as the responsible and responsive offeror whose proposal is the most advantageous for the STATE, taking into consideration price and the evaluation factors set forth in the request.
- E. Pursuant to _____, the STATE
(Legal authority to enter into this Contract)
 is authorized to enter into this Contract.
- F. Money is available to fund this Contract pursuant to:
 - (1) _____
(Identify state sources)
 - or (2) _____
(Identify federal sources)
 or both, in the following amounts: State \$ _____
 Federal \$ _____

NOW, THEREFORE, in consideration of the promises contained in this Contract, the STATE and the CONTRACTOR agree as follows:

- 1. Scope of Services. The CONTRACTOR shall, in a proper and satisfactory manner as determined by the STATE, provide all the goods or services, or both, set forth in the request for competitive sealed proposals number _____ ("RFP") and the CONTRACTOR'S accepted proposal ("Proposal"), both of which, even if not physically attached to this Contract, are made a part of this Contract.
- 2. Compensation. The CONTRACTOR shall be compensated for goods supplied

or services performed, or both, under this Contract in a total amount not to exceed _____ DOLLARS (\$ _____), including approved costs incurred and taxes, at the time and in the manner set forth in the RFP and CONTRACTOR'S Proposal.

3. Time of Performance. The services or goods required of the CONTRACTOR under this Contract shall be performed and completed in accordance with the Time of Performance set forth in Attachment-S3, which is made a part of this Contract.

4. Bonds. The CONTRACTOR is required to provide or is not required to provide: a performance bond, a payment bond, a performance and payment bond in the amount of _____ DOLLARS (\$ _____).

5. Standards of Conduct Declaration. The Standards of Conduct Declaration of the CONTRACTOR is attached to and made a part of this Contract.

6. Other Terms and Conditions. The General Conditions and any Special Conditions are attached to and made a part of this Contract. In the event of a conflict between the General Conditions and the Special Conditions, the Special Conditions shall control. In the event of a conflict among the documents, the order of precedence shall be as follows: (1) this Contract, including all attachments and addenda; (2) the RFP, including all attachments and addenda; and (3) the Proposal.

7. Liquidated Damages. Liquidated damages shall be assessed in the amount of _____ DOLLARS (\$ _____) per day, in accordance with the terms of paragraph 9 of the General Conditions.

8. Notices. Any written notice required to be given by a party to this Contract shall be (a) delivered personally, or (b) sent by United States first class mail, postage prepaid. Notice to the STATE shall be sent to the HOPA'S address indicated in the Contract. Notice to the CONTRACTOR shall be sent to the CONTRACTOR'S address indicated in the Contract. A notice shall be deemed to have been received three (3) days after mailing or at the time of actual receipt, whichever is earlier. The CONTRACTOR is responsible for notifying the STATE in writing of any change of address.

IN VIEW OF THE ABOVE, the parties execute this Contract by their signatures, on the dates below, to be effective as of the date first above written.

STATE

(Signature)

(Print Name)

(Print Title)

(Date)

CONTRACTOR

CORPORATE SEAL
(If available)

(Name of Contractor)

(Signature)

(Print Name)

(Print Title)

(Date)

APPROVED AS TO FORM:

Deputy Attorney General

* Evidence of authority of the CONTRACTOR'S representative to sign this Contract for the CONTRACTOR must be attached.

GENERAL CONDITIONS

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GENERAL CONDITIONS

1. Coordination of Services by the STATE. The head of the purchasing agency ("HOPA") (which term includes the designee of the HOPA) shall coordinate the services to be provided by the CONTRACTOR in order to complete the performance required in the Contract. The CONTRACTOR shall maintain communications with HOPA at all stages of the CONTRACTOR'S work, and submit to HOPA for resolution any questions which may arise as to the performance of this Contract. "Purchasing agency" as used in these General Conditions means and includes any governmental body which is authorized under chapter 103D, HRS, or its implementing rules and procedures, or by way of delegation, to enter into contracts for the procurement of goods or services or both.
2. Relationship of Parties: Independent Contractor Status and Responsibilities, Including Tax Responsibilities.
 - a. In the performance of services required under this Contract, the CONTRACTOR is an "independent contractor," with the authority and responsibility to control and direct the performance and details of the work and services required under this Contract; however, the STATE shall have a general right to inspect work in progress to determine whether, in the STATE'S opinion, the services are being performed by the CONTRACTOR in compliance with this Contract. Unless otherwise provided by special condition, it is understood that the STATE does not agree to use the CONTRACTOR exclusively, and that the CONTRACTOR is free to contract to provide services to other individuals or entities while under contract with the STATE.
 - b. The CONTRACTOR and the CONTRACTOR'S employees and agents are not by reason of this Contract, agents or employees of the State for any purpose, and the CONTRACTOR and the CONTRACTOR'S employees and agents shall not be entitled to claim or receive from the State any vacation, sick leave, retirement, workers' compensation, unemployment insurance, or other benefits provided to state employees.
 - c. The CONTRACTOR shall be responsible for the accuracy, completeness, and adequacy of the CONTRACTOR'S performance under this Contract. Furthermore, the CONTRACTOR intentionally, voluntarily, and knowingly assumes the sole and entire liability to the CONTRACTOR'S employees and agents, and to any individual not a party to this Contract, for all loss, damage, or injury caused by the CONTRACTOR, or the CONTRACTOR'S employees or agents in the course of their employment.
 - d. The CONTRACTOR shall be responsible for payment of all applicable federal, state, and county taxes and fees which may become due and owing by the CONTRACTOR by reason of this Contract, including but not limited to (i) income taxes, (ii) employment related fees, assessments, and taxes, and (iii) general excise taxes. The CONTRACTOR also is responsible for obtaining all licenses, permits, and certificates that may be required in order to perform this Contract.
 - e. The CONTRACTOR shall obtain a general excise tax license from the Department of Taxation, State of Hawaii, in accordance with section 237-9, HRS, and shall comply with all requirements thereof. The CONTRACTOR shall obtain a tax clearance certificate from the Director of Taxation, State of Hawaii, and the Internal Revenue Service, U.S. Department of the Treasury, showing that all delinquent taxes, if any, levied or accrued under state law and the Internal Revenue Code of 1986, as amended, against the CONTRACTOR have been paid and submit the same to the STATE prior to commencing any performance under this Contract. The CONTRACTOR shall also be solely responsible for meeting all requirements necessary to obtain the tax clearance certificate required for final payment under sections 103-53 and 103D-328, HRS, and paragraph 17 of these General Conditions.
 - f. The CONTRACTOR is responsible for securing all employee-related insurance coverage for the CONTRACTOR and the CONTRACTOR'S employees and agents that is or may be required by law, and for payment of all premiums, costs, and other liabilities associated with securing the insurance coverage.

- g. The CONTRACTOR shall obtain a certificate of compliance issued by the Department of Labor and Industrial Relations, State of Hawaii, in accordance with section 103D-310, HRS, and section 3-122-112, HAR, that is current within six months of the date of issuance.
- h. The CONTRACTOR shall obtain a certificate of good standing issued by the Department of Commerce and Consumer Affairs, State of Hawaii, in accordance with section 103D-310, HRS, and section 3-122-112, HAR, that is current within six months of the date of issuance.
- i. In lieu of the above certificates from the Department of Taxation, Labor and Industrial Relations, and Commerce and Consumer Affairs, the CONTRACTOR may submit proof of compliance through the State Procurement Office's designated certification process.

3. Personnel Requirements.

- a. The CONTRACTOR shall secure, at the CONTRACTOR'S own expense, all personnel required to perform this Contract.
- b. The CONTRACTOR shall ensure that the CONTRACTOR'S employees or agents are experienced and fully qualified to engage in the activities and perform the services required under this Contract, and that all applicable licensing and operating requirements imposed or required under federal, state, or county law, and all applicable accreditation and other standards of quality generally accepted in the field of the activities of such employees and agents are complied with and satisfied.

4. Nondiscrimination. No person performing work under this Contract, including any subcontractor, employee, or agent of the CONTRACTOR, shall engage in any discrimination that is prohibited by any applicable federal, state, or county law.

5. Conflicts of Interest. The CONTRACTOR represents that neither the CONTRACTOR, nor any employee or agent of the CONTRACTOR, presently has any interest, and promises that no such interest, direct or indirect, shall be acquired, that would or might conflict in any manner or degree with the CONTRACTOR'S performance under this Contract.

6. Subcontracts and Assignments. The CONTRACTOR shall not assign or subcontract any of the CONTRACTOR'S duties, obligations, or interests under this Contract and no such assignment or subcontract shall be effective unless (i) the CONTRACTOR obtains the prior written consent of the STATE, and (ii) the CONTRACTOR'S assignee or subcontractor submits to the STATE a tax clearance certificate from the Director of Taxation, State of Hawaii, and the Internal Revenue Service, U.S. Department of Treasury, showing that all delinquent taxes, if any, levied or accrued under state law and the Internal Revenue Code of 1986, as amended, against the CONTRACTOR'S assignee or subcontractor have been paid. Additionally, no assignment by the CONTRACTOR of the CONTRACTOR'S right to compensation under this Contract shall be effective unless and until the assignment is approved by the Comptroller of the State of Hawaii, as provided in section 40-58, HRS.

a. Recognition of a successor in interest. When in the best interest of the State, a successor in interest may be recognized in an assignment contract in which the STATE, the CONTRACTOR and the assignee or transferee (hereinafter referred to as the "Assignee") agree that:

- (1) The Assignee assumes all of the CONTRACTOR'S obligations;
- (2) The CONTRACTOR remains liable for all obligations under this Contract but waives all rights under this Contract as against the STATE; and
- (3) The CONTRACTOR shall continue to furnish, and the Assignee shall also furnish, all required bonds.

b. Change of name. When the CONTRACTOR asks to change the name in which it holds this Contract with the STATE, the procurement officer of the purchasing agency (hereinafter referred to as the "Agency procurement officer") shall, upon receipt of a document acceptable or satisfactory to the

Agency procurement officer indicating such change of name (for example, an amendment to the CONTRACTOR'S articles of incorporation), enter into an amendment to this Contract with the CONTRACTOR to effect such a change of name. The amendment to this Contract changing the CONTRACTOR'S name shall specifically indicate that no other terms and conditions of this Contract are thereby changed.

- c. Reports. All assignment contracts and amendments to this Contract effecting changes of the CONTRACTOR'S name or novations hereunder shall be reported to the chief procurement officer (CPO) as defined in section 103D-203(a), HRS, within thirty days of the date that the assignment contract or amendment becomes effective.
 - d. Actions affecting more than one purchasing agency. Notwithstanding the provisions of subparagraphs 6a through 6c herein, when the CONTRACTOR holds contracts with more than one purchasing agency of the State, the assignment contracts and the novation and change of name amendments herein authorized shall be processed only through the CPO's office.
7. Indemnification and Defense. The CONTRACTOR shall defend, indemnify, and hold harmless the State of Hawaii, the contracting agency, and their officers, employees, and agents from and against all liability, loss, damage, cost, and expense, including all attorneys' fees, and all claims, suits, and demands therefore, arising out of or resulting from the acts or omissions of the CONTRACTOR or the CONTRACTOR'S employees, officers, agents, or subcontractors under this Contract. The provisions of this paragraph shall remain in full force and effect notwithstanding the expiration or early termination of this Contract.
 8. Cost of Litigation. In case the STATE shall, without any fault on its part, be made a party to any litigation commenced by or against the CONTRACTOR in connection with this Contract, the CONTRACTOR shall pay all costs and expenses incurred by or imposed on the STATE, including attorneys' fees.
 9. Liquidated Damages. When the CONTRACTOR is given notice of delay or nonperformance as specified in paragraph 13 (Termination for Default) and fails to cure in the time specified, it is agreed the CONTRACTOR shall pay to the STATE the amount, if any, set forth in this Contract per calendar day from the date set for cure until either (i) the STATE reasonably obtains similar goods or services, or both, if the CONTRACTOR is terminated for default, or (ii) until the CONTRACTOR provides the goods or services, or both, if the CONTRACTOR is not terminated for default. To the extent that the CONTRACTOR'S delay or nonperformance is excused under paragraph 13d (Excuse for Nonperformance or Delay Performance), liquidated damages shall not be assessable against the CONTRACTOR. The CONTRACTOR remains liable for damages caused other than by delay.
 10. STATE'S Right of Offset. The STATE may offset against any monies or other obligations the STATE owes to the CONTRACTOR under this Contract, any amounts owed to the State of Hawaii by the CONTRACTOR under this Contract or any other contracts, or pursuant to any law or other obligation owed to the State of Hawaii by the CONTRACTOR, including, without limitation, the payment of any taxes or levies of any kind or nature. The STATE will notify the CONTRACTOR in writing of any offset and the nature of such offset. For purposes of this paragraph, amounts owed to the State of Hawaii shall not include debts or obligations which have been liquidated, agreed to by the CONTRACTOR, and are covered by an installment payment or other settlement plan approved by the State of Hawaii, provided, however, that the CONTRACTOR shall be entitled to such exclusion only to the extent that the CONTRACTOR is current with, and not delinquent on, any payments or obligations owed to the State of Hawaii under such payment or other settlement plan.
 11. Disputes. Disputes shall be resolved in accordance with section 103D-703, HRS, and chapter 3-126, Hawaii Administrative Rules ("HAR"), as the same may be amended from time to time.
 12. Suspension of Contract. The STATE reserves the right at any time and for any reason to suspend this Contract for any reasonable period, upon written notice to the CONTRACTOR in accordance with the provisions herein.
 - a. Order to stop performance. The Agency procurement officer may, by written order to the CONTRACTOR, at any time, and without notice to any surety, require the CONTRACTOR to stop all or any part of the performance called for by this Contract. This order shall be for a specified

period not exceeding sixty (60) days after the order is delivered to the CONTRACTOR, unless the parties agree to any further period. Any such order shall be identified specifically as a stop performance order issued pursuant to this section. Stop performance orders shall include, as appropriate: (1) A clear description of the work to be suspended; (2) Instructions as to the issuance of further orders by the CONTRACTOR for material or services; (3) Guidance as to action to be taken on subcontracts; and (4) Other instructions and suggestions to the CONTRACTOR for minimizing costs. Upon receipt of such an order, the CONTRACTOR shall forthwith comply with its terms and suspend all performance under this Contract at the time stated, provided, however, the CONTRACTOR shall take all reasonable steps to minimize the occurrence of costs allocable to the performance covered by the order during the period of performance stoppage. Before the stop performance order expires, or within any further period to which the parties shall have agreed, the Agency procurement officer shall either:

- (1) Cancel the stop performance order; or
- (2) Terminate the performance covered by such order as provided in the termination for default provision or the termination for convenience provision of this Contract.

b. Cancellation or expiration of the order. If a stop performance order issued under this section is cancelled at any time during the period specified in the order, or if the period of the order or any extension thereof expires, the CONTRACTOR shall have the right to resume performance. An appropriate adjustment shall be made in the delivery schedule or contract price, or both, and the Contract shall be modified in writing accordingly, if:

- (1) The stop performance order results in an increase in the time required for, or in the CONTRACTOR'S cost properly allocable to, the performance of any part of this Contract; and
- (2) The CONTRACTOR asserts a claim for such an adjustment within thirty (30) days after the end of the period of performance stoppage; provided that, if the Agency procurement officer decides that the facts justify such action, any such claim asserted may be received and acted upon at any time prior to final payment under this Contract.

c. Termination of stopped performance. If a stop performance order is not cancelled and the performance covered by such order is terminated for default or convenience, the reasonable costs resulting from the stop performance order shall be allowable by adjustment or otherwise.

d. Adjustment of price. Any adjustment in contract price made pursuant to this paragraph shall be determined in accordance with the price adjustment provision of this Contract.

13. Termination for Default.

a. Default. If the CONTRACTOR refuses or fails to perform any of the provisions of this Contract with such diligence as will ensure its completion within the time specified in this Contract, or any extension thereof, otherwise fails to timely satisfy the Contract provisions, or commits any other substantial breach of this Contract, the Agency procurement officer may notify the CONTRACTOR in writing of the delay or non-performance and if not cured in ten (10) days or any longer time specified in writing by the Agency procurement officer, such officer may terminate the CONTRACTOR'S right to proceed with the Contract or such part of the Contract as to which there has been delay or a failure to properly perform. In the event of termination in whole or in part, the Agency procurement officer may procure similar goods or services in a manner and upon the terms deemed appropriate by the Agency procurement officer. The CONTRACTOR shall continue performance of the Contract to the extent it is not terminated and shall be liable for excess costs incurred in procuring similar goods or services.

b. CONTRACTOR'S duties. Notwithstanding termination of the Contract and subject to any directions from the Agency procurement officer, the CONTRACTOR shall take timely, reasonable, and

necessary action to protect and preserve property in the possession of the CONTRACTOR in which the STATE has an interest.

- c. Compensation. Payment for completed goods and services delivered and accepted by the STATE shall be at the price set forth in the Contract. Payment for the protection and preservation of property shall be in an amount agreed upon by the CONTRACTOR and the Agency procurement officer. If the parties fail to agree, the Agency procurement officer shall set an amount subject to the CONTRACTOR'S rights under chapter 3-126, HAR. The STATE may withhold from amounts due the CONTRACTOR such sums as the Agency procurement officer deems to be necessary to protect the STATE against loss because of outstanding liens or claims and to reimburse the STATE for the excess costs expected to be incurred by the STATE in procuring similar goods and services.
- d. Excuse for nonperformance or delayed performance. The CONTRACTOR shall not be in default by reason of any failure in performance of this Contract in accordance with its terms, including any failure by the CONTRACTOR to make progress in the prosecution of the performance hereunder which endangers such performance, if the CONTRACTOR has notified the Agency procurement officer within fifteen (15) days after the cause of the delay and the failure arises out of causes such as: acts of God; acts of a public enemy; acts of the State and any other governmental body in its sovereign or contractual capacity; fires; floods; epidemics; quarantine restrictions; strikes or other labor disputes; freight embargoes; or unusually severe weather. If the failure to perform is caused by the failure of a subcontractor to perform or to make progress, and if such failure arises out of causes similar to those set forth above, the CONTRACTOR shall not be deemed to be in default, unless the goods and services to be furnished by the subcontractor were reasonably obtainable from other sources in sufficient time to permit the CONTRACTOR to meet the requirements of the Contract. Upon request of the CONTRACTOR, the Agency procurement officer shall ascertain the facts and extent of such failure, and, if such officer determines that any failure to perform was occasioned by any one or more of the excusable causes, and that, but for the excusable cause, the CONTRACTOR'S progress and performance would have met the terms of the Contract, the delivery schedule shall be revised accordingly, subject to the rights of the STATE under this Contract. As used in this paragraph, the term "subcontractor" means subcontractor at any tier.
- e. Erroneous termination for default. If, after notice of termination of the CONTRACTOR'S right to proceed under this paragraph, it is determined for any reason that the CONTRACTOR was not in default under this paragraph, or that the delay was excusable under the provisions of subparagraph 13d, "Excuse for nonperformance or delayed performance," the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to paragraph 14.
- f. Additional rights and remedies. The rights and remedies provided in this paragraph are in addition to any other rights and remedies provided by law or under this Contract.

14. Termination for Convenience.

- a. Termination. The Agency procurement officer may, when the interests of the STATE so require, terminate this Contract in whole or in part, for the convenience of the STATE. The Agency procurement officer shall give written notice of the termination to the CONTRACTOR specifying the part of the Contract terminated and when termination becomes effective.
- b. CONTRACTOR'S obligations. The CONTRACTOR shall incur no further obligations in connection with the terminated performance and on the date(s) set in the notice of termination the CONTRACTOR will stop performance to the extent specified. The CONTRACTOR shall also terminate outstanding orders and subcontracts as they relate to the terminated performance. The CONTRACTOR shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated performance subject to the STATE'S approval. The Agency procurement officer may direct the CONTRACTOR to assign the CONTRACTOR'S right, title, and interest under terminated orders or subcontracts to the STATE. The CONTRACTOR must still complete the performance not terminated by the notice of termination and may incur obligations as necessary to do so.

- c. Right to goods and work product. The Agency procurement officer may require the CONTRACTOR to transfer title and deliver to the STATE in the manner and to the extent directed by the Agency procurement officer:

- (1) Any completed goods or work product; and
- (2) The partially completed goods and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (hereinafter called "manufacturing material") as the CONTRACTOR has specifically produced or specially acquired for the performance of the terminated part of this Contract.

The CONTRACTOR shall, upon direction of the Agency procurement officer, protect and preserve property in the possession of the CONTRACTOR in which the STATE has an interest. If the Agency procurement officer does not exercise this right, the CONTRACTOR shall use best efforts to sell such goods and manufacturing materials. Use of this paragraph in no way implies that the STATE has breached the Contract by exercise of the termination for convenience provision.

- d. Compensation.

- (1) The CONTRACTOR shall submit a termination claim specifying the amounts due because of the termination for convenience together with the cost or pricing data, submitted to the extent required by chapter 3-122, HAR, bearing on such claim. If the CONTRACTOR fails to file a termination claim within one year from the effective date of termination, the Agency procurement officer may pay the CONTRACTOR, if at all, an amount set in accordance with subparagraph 14d(3) below.
- (2) The Agency procurement officer and the CONTRACTOR may agree to a settlement provided the CONTRACTOR has filed a termination claim supported by cost or pricing data submitted as required and that the settlement does not exceed the total Contract price plus settlement costs reduced by payments previously made by the STATE, the proceeds of any sales of goods and manufacturing materials under subparagraph 14c, and the Contract price of the performance not terminated.
- (3) Absent complete agreement under subparagraph 14d(2) the Agency procurement officer shall pay the CONTRACTOR the following amounts, provided payments agreed to under subparagraph 14d(2) shall not duplicate payments under this subparagraph for the following:
 - (A) Contract prices for goods or services accepted under the Contract;
 - (B) Costs incurred in preparing to perform and performing the terminated portion of the performance plus a fair and reasonable profit on such portion of the performance, such profit shall not include anticipatory profit or consequential damages, less amounts paid or to be paid for accepted goods or services; provided, however, that if it appears that the CONTRACTOR would have sustained a loss if the entire Contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss;
 - (C) Costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to subparagraph 14b. These costs must not include costs paid in accordance with subparagraph 14d(3)(B);
 - (D) The reasonable settlement costs of the CONTRACTOR, including accounting, legal, clerical, and other expenses reasonably necessary for the preparation of settlement claims and supporting data with respect to the terminated portion of the Contract and for the termination of subcontracts thereunder, together with reasonable storage, transportation, and other costs incurred in connection with the protection or disposition of property allocable to the terminated portion of this Contract. The total sum to be paid the CONTRACTOR under this subparagraph shall not exceed the

total Contract price plus the reasonable settlement costs of the CONTRACTOR reduced by the amount of payments otherwise made, the proceeds of any sales of supplies and manufacturing materials under subparagraph 14d(2), and the contract price of performance not terminated.

- (4) Costs claimed, agreed to, or established under subparagraphs 14d(2) and 14d(3) shall be in accordance with Chapter 3-123 (Cost Principles) of the Procurement Rules.

15. Claims Based on the Agency Procurement Officer's Actions or Omissions.

a. Changes in scope. If any action or omission on the part of the Agency procurement officer (which term includes the designee of such officer for purposes of this paragraph 15) requiring performance changes within the scope of the Contract constitutes the basis for a claim by the CONTRACTOR for additional compensation, damages, or an extension of time for completion, the CONTRACTOR shall continue with performance of the Contract in compliance with the directions or orders of such officials, but by so doing, the CONTRACTOR shall not be deemed to have prejudiced any claim for additional compensation, damages, or an extension of time for completion; provided:

- (1) Written notice required. The CONTRACTOR shall give written notice to the Agency procurement officer:

- (A) Prior to the commencement of the performance involved, if at that time the CONTRACTOR knows of the occurrence of such action or omission;

- (B) Within thirty (30) days after the CONTRACTOR knows of the occurrence of such action or omission, if the CONTRACTOR did not have such knowledge prior to the commencement of the performance; or

- (C) Within such further time as may be allowed by the Agency procurement officer in writing.

- (2) Notice content. This notice shall state that the CONTRACTOR regards the act or omission as a reason which may entitle the CONTRACTOR to additional compensation, damages, or an extension of time. The Agency procurement officer, upon receipt of such notice, may rescind such action, remedy such omission, or take such other steps as may be deemed advisable in the discretion of the Agency procurement officer;

- (3) Basis must be explained. The notice required by subparagraph 15a(1) describes as clearly as practicable at the time the reasons why the CONTRACTOR believes that additional compensation, damages, or an extension of time may be remedies to which the CONTRACTOR is entitled; and

- (4) Claim must be justified. The CONTRACTOR must maintain and, upon request, make available to the Agency procurement officer within a reasonable time, detailed records to the extent practicable, and other documentation and evidence satisfactory to the STATE, justifying the claimed additional costs or an extension of time in connection with such changes.

b. CONTRACTOR not excused. Nothing herein contained, however, shall excuse the CONTRACTOR from compliance with any rules or laws precluding any state officers and CONTRACTOR from acting in collusion or bad faith in issuing or performing change orders which are clearly not within the scope of the Contract.

c. Price adjustment. Any adjustment in the price made pursuant to this paragraph shall be determined in accordance with the price adjustment provision of this Contract.

16. Costs and Expenses. Any reimbursement due the CONTRACTOR for per diem and transportation expenses under this Contract shall be subject to chapter 3-123 (Cost Principles), HAR, and the following guidelines:

- a. Reimbursement for air transportation shall be for actual cost or coach class air fare, whichever is less.
- b. Reimbursement for ground transportation costs shall not exceed the actual cost of renting an intermediate-sized vehicle.
- c. Unless prior written approval of the HOPA is obtained, reimbursement for subsistence allowance (i.e., hotel and meals, etc.) shall not exceed the applicable daily authorized rates for inter-island or out-of-state travel that are set forth in the current Governor's Executive Order authorizing adjustments in salaries and benefits for state officers and employees in the executive branch who are excluded from collective bargaining coverage.

17. Payment Procedures; Final Payment; Tax Clearance.

- a. Original invoices required. All payments under this Contract shall be made only upon submission by the CONTRACTOR of original invoices specifying the amount due and certifying that services requested under the Contract have been performed by the CONTRACTOR according to the Contract.
- b. Subject to available funds. Such payments are subject to availability of funds and allotment by the Director of Finance in accordance with chapter 37, HRS. Further, all payments shall be made in accordance with and subject to chapter 40, HRS.
- c. Prompt payment.
 - (1) Any money, other than retainage, paid to the CONTRACTOR shall be disbursed to subcontractors within ten (10) days after receipt of the money in accordance with the terms of the subcontract; provided that the subcontractor has met all the terms and conditions of the subcontract and there are no bona fide disputes; and
 - (2) Upon final payment to the CONTRACTOR, full payment to the subcontractor, including retainage, shall be made within ten (10) days after receipt of the money; provided that there are no bona fide disputes over the subcontractor's performance under the subcontract.
- d. Final payment. Final payment under this Contract shall be subject to sections 103-53 and 103D-328, HRS, which require a tax clearance from the Director of Taxation, State of Hawaii, and the Internal Revenue Service, U.S. Department of Treasury, showing that all delinquent taxes, if any, levied or accrued under state law and the Internal Revenue Code of 1986, as amended, against the CONTRACTOR have been paid. Further, in accordance with section 3-122-112, HAR, CONTRACTOR shall provide a certificate affirming that the CONTRACTOR has remained in compliance with all applicable laws as required by this section.

18. Federal Funds. If this Contract is payable in whole or in part from federal funds, CONTRACTOR agrees that, as to the portion of the compensation under this Contract to be payable from federal funds, the CONTRACTOR shall be paid only from such funds received from the federal government, and shall not be paid from any other funds. Failure of the STATE to receive anticipated federal funds shall not be considered a breach by the STATE or an excuse for nonperformance by the CONTRACTOR.

19. Modifications of Contract.

- a. In writing. Any modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract permitted by this Contract shall be made by written amendment to this Contract, signed by the CONTRACTOR and the STATE, provided that change orders shall be made in accordance with paragraph 20 herein.
- b. No oral modification. No oral modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract shall be permitted.

- c. Agency procurement officer. By written order, at any time, and without notice to any surety, the Agency procurement officer may unilaterally order of the CONTRACTOR:
 - (A) Changes in the work within the scope of the Contract; and
 - (B) Changes in the time of performance of the Contract that do not alter the scope of the Contract work.
 - d. Adjustments of price or time for performance. If any modification increases or decreases the CONTRACTOR'S cost of, or the time required for, performance of any part of the work under this Contract, an adjustment shall be made and this Contract modified in writing accordingly. Any adjustment in contract price made pursuant to this clause shall be determined, where applicable, in accordance with the price adjustment clause of this Contract or as negotiated.
 - e. Claim barred after final payment. No claim by the CONTRACTOR for an adjustment hereunder shall be allowed if written modification of the Contract is not made prior to final payment under this Contract.
 - f. Claims not barred. In the absence of a written contract modification, nothing in this clause shall be deemed to restrict the CONTRACTOR'S right to pursue a claim under this Contract or for a breach of contract.
 - g. Head of the purchasing agency approval. If this is a professional services contract awarded pursuant to section 103D-303 or 103D-304, HRS, any modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract which increases the amount payable to the CONTRACTOR by at least \$25,000.00 and ten per cent (10%) or more of the initial contract price, must receive the prior approval of the head of the purchasing agency.
 - h. Tax clearance. The STATE may, at its discretion, require the CONTRACTOR to submit to the STATE, prior to the STATE'S approval of any modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract, a tax clearance from the Director of Taxation, State of Hawaii, and the Internal Revenue Service, U.S. Department of Treasury, showing that all delinquent taxes, if any, levied or accrued under state law and the Internal Revenue Code of 1986, as amended, against the CONTRACTOR have been paid.
 - i. Sole source contracts. Amendments to sole source contracts that would change the original scope of the Contract may only be made with the approval of the CPO. Annual renewal of a sole source contract for services should not be submitted as an amendment.
20. Change Order. The Agency procurement officer may, by a written order signed only by the STATE, at any time, and without notice to any surety, and subject to all appropriate adjustments, make changes within the general scope of this Contract in any one or more of the following:
- (1) Drawings, designs, or specifications, if the goods or services to be furnished are to be specially provided to the STATE in accordance therewith;
 - (2) Method of delivery; or
 - (3) Place of delivery.
- a. Adjustments of price or time for performance. If any change order increases or decreases the CONTRACTOR'S cost of, or the time required for, performance of any part of the work under this Contract, whether or not changed by the order, an adjustment shall be made and the Contract modified in writing accordingly. Any adjustment in the Contract price made pursuant to this provision shall be determined in accordance with the price adjustment provision of this Contract. Failure of the parties to agree to an adjustment shall not excuse the CONTRACTOR from proceeding with the Contract as changed, provided that the Agency procurement officer promptly and duly makes the provisional adjustments in payment or time for performance as may be reasonable. By

proceeding with the work, the CONTRACTOR shall not be deemed to have prejudiced any claim for additional compensation, or any extension of time for completion.

- b. Time period for claim. Within ten (10) days after receipt of a written change order under subparagraph 20a, unless the period is extended by the Agency procurement officer in writing, the CONTRACTOR shall respond with a claim for an adjustment. The requirement for a timely written response by CONTRACTOR cannot be waived and shall be a condition precedent to the assertion of a claim.
- c. Claim barred after final payment. No claim by the CONTRACTOR for an adjustment hereunder shall be allowed if a written response is not given prior to final payment under this Contract.
- d. Other claims not barred. In the absence of a change order, nothing in this paragraph 20 shall be deemed to restrict the CONTRACTOR'S right to pursue a claim under the Contract or for breach of contract.

21. Price Adjustment.

- a. Price adjustment. Any adjustment in the contract price pursuant to a provision in this Contract shall be made in one or more of the following ways:
 - (1) By agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;
 - (2) By unit prices specified in the Contract or subsequently agreed upon;
 - (3) By the costs attributable to the event or situation covered by the provision, plus appropriate profit or fee, all as specified in the Contract or subsequently agreed upon;
 - (4) In such other manner as the parties may mutually agree; or
 - (5) In the absence of agreement between the parties, by a unilateral determination by the Agency procurement officer of the costs attributable to the event or situation covered by the provision, plus appropriate profit or fee, all as computed by the Agency procurement officer in accordance with generally accepted accounting principles and applicable sections of chapters 3-123 and 3-126, HAR.
- b. Submission of cost or pricing data. The CONTRACTOR shall provide cost or pricing data for any price adjustments subject to the provisions of chapter 3-122, HAR.

22. Variation in Quantity for Definite Quantity Contracts. Upon the agreement of the STATE and the CONTRACTOR, the quantity of goods or services, or both, if a definite quantity is specified in this Contract, may be increased by a maximum of ten per cent (10%); provided the unit prices will remain the same except for any price adjustments otherwise applicable; and the Agency procurement officer makes a written determination that such an increase will either be more economical than awarding another contract or that it would not be practical to award another contract.

23. Changes in Cost-Reimbursement Contract. If this Contract is a cost-reimbursement contract, the following provisions shall apply:

- a. The Agency procurement officer may at any time by written order, and without notice to the sureties, if any, make changes within the general scope of the Contract in any one or more of the following:
 - (1) Description of performance (Attachment 1);
 - (2) Time of performance (i.e., hours of the day, days of the week, etc.);
 - (3) Place of performance of services;

- (4) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the STATE in accordance with the drawings, designs, or specifications;
 - (5) Method of shipment or packing of supplies; or
 - (6) Place of delivery.
- b. If any change causes an increase or decrease in the estimated cost of, or the time required for performance of, any part of the performance under this Contract, whether or not changed by the order, or otherwise affects any other terms and conditions of this Contract, the Agency procurement officer shall make an equitable adjustment in the (1) estimated cost, delivery or completion schedule, or both; (2) amount of any fixed fee; and (3) other affected terms and shall modify the Contract accordingly.
 - c. The CONTRACTOR must assert the CONTRACTOR'S rights to an adjustment under this provision within thirty (30) days from the day of receipt of the written order. However, if the Agency procurement officer decides that the facts justify it, the Agency procurement officer may receive and act upon a proposal submitted before final payment under the Contract.
 - d. Failure to agree to any adjustment shall be a dispute under paragraph 11 of this Contract. However, nothing in this provision shall excuse the CONTRACTOR from proceeding with the Contract as changed.
 - e. Notwithstanding the terms and conditions of subparagraphs 23a and 23b, the estimated cost of this Contract and, if this Contract is incrementally funded, the funds allotted for the performance of this Contract, shall not be increased or considered to be increased except by specific written modification of the Contract indicating the new contract estimated cost and, if this contract is incrementally funded, the new amount allotted to the contract.
24. Confidentiality of Material.
- a. All material given to or made available to the CONTRACTOR by virtue of this Contract, which is identified as proprietary or confidential information, will be safeguarded by the CONTRACTOR and shall not be disclosed to any individual or organization without the prior written approval of the STATE.
 - b. All information, data, or other material provided by the CONTRACTOR to the STATE shall be subject to the Uniform Information Practices Act, chapter 92F, HRS.
25. Publicity. The CONTRACTOR shall not refer to the STATE, or any office, agency, or officer thereof, or any state employee, including the HOPA, the CPO, the Agency procurement officer, or to the services or goods, or both, provided under this Contract, in any of the CONTRACTOR'S brochures, advertisements, or other publicity of the CONTRACTOR. All media contacts with the CONTRACTOR about the subject matter of this Contract shall be referred to the Agency procurement officer.
26. Ownership Rights and Copyright. The STATE shall have complete ownership of all material, both finished and unfinished, which is developed, prepared, assembled, or conceived by the CONTRACTOR pursuant to this Contract, and all such material shall be considered "works made for hire." All such material shall be delivered to the STATE upon expiration or termination of this Contract. The STATE, in its sole discretion, shall have the exclusive right to copyright any product, concept, or material developed, prepared, assembled, or conceived by the CONTRACTOR pursuant to this Contract.
27. Liens and Warranties. Goods provided under this Contract shall be provided free of all liens and provided together with all applicable warranties, or with the warranties described in the Contract documents, whichever are greater.

28. Audit of Books and Records of the CONTRACTOR. The STATE may, at reasonable times and places, audit the books and records of the CONTRACTOR, prospective contractor, subcontractor, or prospective subcontractor which are related to:
- a. The cost or pricing data, and
 - b. A state contract, including subcontracts, other than a firm fixed-price contract.

29. Cost or Pricing Data. Cost or pricing data must be submitted to the Agency procurement officer and timely certified as accurate for contracts over \$100,000 unless the contract is for a multiple-term or as otherwise specified by the Agency procurement officer. Unless otherwise required by the Agency procurement officer, cost or pricing data submission is not required for contracts awarded pursuant to competitive sealed bid procedures.

If certified cost or pricing data are subsequently found to have been inaccurate, incomplete, or noncurrent as of the date stated in the certificate, the STATE is entitled to an adjustment of the contract price, including profit or fee, to exclude any significant sum by which the price, including profit or fee, was increased because of the defective data. It is presumed that overstated cost or pricing data increased the contract price in the amount of the defect plus related overhead and profit or fee. Therefore, unless there is a clear indication that the defective data was not used or relied upon, the price will be reduced in such amount.

30. Audit of Cost or Pricing Data. When cost or pricing principles are applicable, the STATE may require an audit of cost or pricing data.

31. Records Retention.

- (1) Upon any termination of this Contract or as otherwise required by applicable law, CONTRACTOR shall, pursuant to chapter 487R, HRS, destroy all copies (paper or electronic form) of personal information received from the STATE.
- (2) The CONTRACTOR and any subcontractors shall maintain the files, books, and records that relate to the Contract, including any personal information created or received by the CONTRACTOR on behalf of the STATE, and any cost or pricing data, for at least three (3) years after the date of final payment under the Contract. The personal information shall continue to be confidential and shall only be disclosed as permitted or required by law. After the three (3) year, or longer retention period as required by law has ended, the files, books, and records that contain personal information shall be destroyed pursuant to chapter 487R, HRS or returned to the STATE at the request of the STATE.

32. Antitrust Claims. The STATE and the CONTRACTOR recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, the CONTRACTOR hereby assigns to STATE any and all claims for overcharges as to goods and materials purchased in connection with this Contract, except as to overcharges which result from violations commencing after the price is established under this Contract and which are not passed on to the STATE under an escalation clause.

33. Patented Articles. The CONTRACTOR shall defend, indemnify, and hold harmless the STATE, and its officers, employees, and agents from and against all liability, loss, damage, cost, and expense, including all attorneys fees, and all claims, suits, and demands arising out of or resulting from any claims, demands, or actions by the patent holder for infringement or other improper or unauthorized use of any patented article, patented process, or patented appliance in connection with this Contract. The CONTRACTOR shall be solely responsible for correcting or curing to the satisfaction of the STATE any such infringement or improper or unauthorized use, including, without limitation: (a) furnishing at no cost to the STATE a substitute article, process, or appliance acceptable to the STATE, (b) paying royalties or other required payments to the patent holder, (c) obtaining proper authorizations or releases from the patent holder, and (d) furnishing such security to or making such arrangements with the patent holder as may be necessary to correct or cure any such infringement or improper or unauthorized use.

34. Governing Law. The validity of this Contract and any of its terms or provisions, as well as the rights and duties of the parties to this Contract, shall be governed by the laws of the State of Hawaii. Any action at law or in equity to enforce or interpret the provisions of this Contract shall be brought in a state court of competent jurisdiction in Honolulu, Hawaii.
35. Compliance with Laws. The CONTRACTOR shall comply with all federal, state, and county laws, ordinances, codes, rules, and regulations, as the same may be amended from time to time, that in any way affect the CONTRACTOR'S performance of this Contract.
36. Conflict Between General Conditions and Procurement Rules. In the event of a conflict between the General Conditions and the procurement rules, the procurement rules in effect on the date this Contract became effective shall control and are hereby incorporated by reference.
37. Entire Contract. This Contract sets forth all of the agreements, conditions, understandings, promises, warranties, and representations between the STATE and the CONTRACTOR relative to this Contract. This Contract supersedes all prior agreements, conditions, understandings, promises, warranties, and representations, which shall have no further force or effect. There are no agreements, conditions, understandings, promises, warranties, or representations, oral or written, express or implied, between the STATE and the CONTRACTOR other than as set forth or as referred to herein.
38. Severability. In the event that any provision of this Contract is declared invalid or unenforceable by a court, such invalidity or unenforceability shall not affect the validity or enforceability of the remaining terms of this Contract.
39. Waiver. The failure of the STATE to insist upon the strict compliance with any term, provision, or condition of this Contract shall not constitute or be deemed to constitute a waiver or relinquishment of the STATE'S right to enforce the same in accordance with this Contract. The fact that the STATE specifically refers to one provision of the procurement rules or one section of the Hawaii Revised Statutes, and does not include other provisions or statutory sections in this Contract shall not constitute a waiver or relinquishment of the STATE'S rights or the CONTRACTOR'S obligations under the procurement rules or statutes.
40. Pollution Control. If during the performance of this Contract, the CONTRACTOR encounters a "release" or a "threatened release" of a reportable quantity of a "hazardous substance," "pollutant," or "contaminant" as those terms are defined in section 128D-1, HRS, the CONTRACTOR shall immediately notify the STATE and all other appropriate state, county, or federal agencies as required by law. The Contractor shall take all necessary actions, including stopping work, to avoid causing, contributing to, or making worse a release of a hazardous substance, pollutant, or contaminant, and shall promptly obey any orders the Environmental Protection Agency or the state Department of Health issues in response to the release. In the event there is an ensuing cease-work period, and the STATE determines that this Contract requires an adjustment of the time for performance, the Contract shall be modified in writing accordingly.
41. Campaign Contributions. The CONTRACTOR is hereby notified of the applicability of 11-355, HRS, which states that campaign contributions are prohibited from specified state or county government contractors during the terms of their contracts if the contractors are paid with funds appropriated by a legislative body.
42. Confidentiality of Personal Information.
- a. Definitions.
- "Personal information" means an individual's first name or first initial and last name in combination with any one or more of the following data elements, when either name or data elements are not encrypted:
- (1) Social security number;
 - (2) Driver's license number or Hawaii identification card number; or

- (3) Account number, credit or debit card number, access code, or password that would permit access to an individual's financial information.

Personal information does not include publicly available information that is lawfully made available to the general public from federal, state, or local government records.

"Technological safeguards" means the technology and the policy and procedures for use of the technology to protect and control access to personal information.

b. Confidentiality of Material.

- (1) All material given to or made available to the CONTRACTOR by the STATE by virtue of this Contract which is identified as personal information, shall be safeguarded by the CONTRACTOR and shall not be disclosed without the prior written approval of the STATE.
- (2) CONTRACTOR agrees not to retain, use, or disclose personal information for any purpose other than as permitted or required by this Contract.
- (3) CONTRACTOR agrees to implement appropriate "technological safeguards" that are acceptable to the STATE to reduce the risk of unauthorized access to personal information.
- (4) CONTRACTOR shall report to the STATE in a prompt and complete manner any security breaches involving personal information.
- (5) CONTRACTOR agrees to mitigate, to the extent practicable, any harmful effect that is known to CONTRACTOR because of a use or disclosure of personal information by CONTRACTOR in violation of the requirements of this paragraph.
- (6) CONTRACTOR shall complete and retain a log of all disclosures made of personal information received from the STATE, or personal information created or received by CONTRACTOR on behalf of the STATE.

c. Security Awareness Training and Confidentiality Agreements.

- (1) CONTRACTOR certifies that all of its employees who will have access to the personal information have completed training on security awareness topics relating to protecting personal information.
- (2) CONTRACTOR certifies that confidentiality agreements have been signed by all of its employees who will have access to the personal information acknowledging that:
 - (A) The personal information collected, used, or maintained by the CONTRACTOR will be treated as confidential;
 - (B) Access to the personal information will be allowed only as necessary to perform the Contract; and
 - (C) Use of the personal information will be restricted to uses consistent with the services subject to this Contract.

d. Termination for Cause. In addition to any other remedies provided by this Contract, if the STATE learns of a material breach by CONTRACTOR of this paragraph by CONTRACTOR, the STATE may at its sole discretion:

- (1) Provide an opportunity for the CONTRACTOR to cure the breach or end the violation; or
- (2) Immediately terminate this Contract.

In either instance, the CONTRACTOR and the STATE shall follow chapter 487N, HRS, with respect to notification of a security breach of personal information.

e. Records Retention.

- (1) Upon any termination of this Contract or as otherwise required by applicable law, CONTRACTOR shall, pursuant to chapter 487R, HRS, destroy all copies (paper or electronic form) of personal information received from the STATE.
- (2) The CONTRACTOR and any subcontractors shall maintain the files, books, and records that relate to the Contract, including any personal information created or received by the CONTRACTOR on behalf of the STATE, and any cost or pricing data, for at least three (3) years after the date of final payment under the Contract. The personal information shall continue to be confidential and shall only be disclosed as permitted or required by law. After the three (3) year, or longer retention period as required by law has ended, the files, books, and records that contain personal information shall be destroyed pursuant to chapter 487R, HRS or returned to the STATE at the request of the STATE.

Exhibit B

Revised Environmental Impact Statement for the Agricultural Park and Residential Lots Subdivision (excluding its Exhibit C – Comments and Replies)

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EXECUTIVE CHAMBERS

HONOLULU

FILE COPY

GEORGE R. ARIYOSHI
GOVERNOR

February 19, 1985

Ms. Letitia N. Uyehara
Director
Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Ms. Uyehara:

Based on the recommendation of the Office of Environmental Quality Control, I am pleased to accept the supplemental environmental impact statement for the Waiahole Valley agricultural park and residential lots subdivision as satisfactory fulfillment of the requirements of Chapter 343, Hawaii Revised Statutes.

This environmental impact statement will be a useful tool in deciding whether this project should be allowed to proceed. My acceptance of the statement is an affirmation of its adequacy under applicable laws and does not constitute an endorsement of the proposal.

When the decision is made regarding this action, I expect the proposing agency to carefully weigh the societal benefits against the environmental impacts which will likely occur. This impact is adequately described in the statement, and, together with the comments made by reviewers, provides a useful analysis of alternatives to the proposed action.

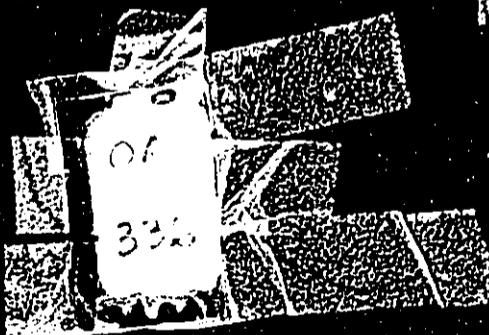
With warm personal regards, I remain,

Yours very truly,


George R. Ariyoshi

cc: Mr. Russell Fukumoto

REVISED
ENVIRONMENTAL IMPACT STATEMENT
FOR THE
WAIHOLE VALLEY AGRICULTURAL PARK
AND
RESIDENTIAL LOTS SUBDIVISION
KOO LAUPUHE DISTRICT, OAHU, HAWAII



M&E Pacific, Inc.
Consulting Engineers



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REVISED
ENVIRONMENTAL IMPACT STATEMENT
FOR THE
WAIAHOLE VALLEY AGRICULTURAL PARK
AND
RESIDENTIAL LOTS SUBDIVISION
KOOLAUPOKO DISTRICT, OAHU, HAWAII

Proposing Agency:

Hawaii Housing Authority
State of Hawaii

THIS STATEMENT WAS DEVELOPED IN ACCORDANCE WITH THE ENVIRONMENTAL IMPACT
STATEMENT REGULATIONS, STATE OF HAWAII, AND SUBMITTED PURSUANT TO:

CHAPTER 343
HAWAII REVISED STATUTES

January 14, 1985

DATE


EXECUTIVE DIRECTOR

REVISED
 ENVIRONMENTAL IMPACT STATEMENT
 JANUARY 1985

PROJECT: Waiahole Valley Agricultural Park and Residential Lots Subdivision

LOCATION: Waiahole Valley, Koolaupoko, Oahu, Hawaii

PROPOSING AGENCY: Hawaii Housing Authority
 State of Hawaii

ACCEPTING AUTHORITY: Governor
 State of Hawaii

CONTACT: Hawaii Housing Authority (HHA)
 P. O. Box 17907
 Honolulu, Hawaii 96817
 Telephone: 848-3272

- NOTE: The following special studies have been compiled into a separate volume:
1. Agricultural Feasibility and Environmental Impact (Frank S. Scott, Jr., 1981)
 2. Preliminary Engineering Report Covering Water Resources in Waiahole Valley (Russ Smith Corp., 1980)
 3. Economic Benefit-Cost Analysis (Environment Capital Managers, 1981)
 4. Flora and Fauna Survey of the Proposed Waiahole Agricultural Park (Kenneth M. Nagata, 1982)
 5. Waiahole Valley, Oahu: Archaeological Reconnaissance (Chiniago, Inc., 1982)
 6. Archaeological Resources in Waiahole Valley (Tomonari-Tuggle, 1983)

This volume is available at the public libraries, Hawaii Housing Authority, Department of Planning and Economic Development library, Municipal library, and the Office of Environmental Quality Control. The contents of these studies have been summarized and incorporated into appropriate sections of this EIS. This volume should be examined if further detail is desired.

PREFACE

The EIS Preparation Notice for this project was published on February 8, 1980. Since that time, details in the subdivision and water system design have undergone several changes prior to the submittal of the Draft EIS in June 1983. Since the release of the Draft EIS, the subdivision and water systems have undergone further changes. The submittal of this Revised EIS was therefore withheld until as near an accurate description of the proposed action was available and could be assessed for its impacts. During the interval since the preparation notice, several concerns relating especially to the subdivision, lease, and water system have been diminished due to a close working relationship with the Waihole community.

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SUMMARY

1. Description of the Proposed Project

The proposed project involves the development of an agricultural park supplemented by a residential lot subdivision in Waiahole Valley on property acquired by the Hawaii Housing Authority from Elizabeth Loy McCandless Marks by quit claim deed on November 30, 1977. The proposed actions include the following:

a. Subdivision

- . Agricultural lots - 45 lots (379.4 acres); 36 lots are encumbered by existing tenancies and 9 additional tenancies have been made available.
- . Residential lots - 80 lots (40.0 acres); 47 lots are encumbered by existing tenancies and 33 are new additional lots. 22 of the 47 encumbered lots will remain in the agricultural land use district classification.
- . Commercial lots - 2 lots (0.8 acres); both are existing lots.
- . Open space - 5 lots (149 acres)
- . Reservoir and booster pump sites - 3 lots (3 acres)

b. Long-term agricultural and residential leases with preference to residents of record in Waiahole Valley as of March 1977. Agricultural leases include provisions for mandatory agricultural use of land.

c. Physical improvements

- . Roads - widening, paving, realignment, new roadways, resurfacing, and bridge replacement.
- . Drainage - roadside swales.
- . Water - a dual-use domestic and agricultural system that will utilize groundwater. Water supply will be increased by 1.1 mgd over the present supply through a pending reapportionment of an existing lease between the Waiahole Water Company and the state (DLNR).
- . Wastewater - acceptable disposal systems for new lots such as cesspools below BWS "no pass" line and closed vaults above the "no pass" line.
- . Electrical and communications - overhead electrical and telephone lines to serve all lessees and street lights along Waiahole Valley Road between the fork of the north and south branches and Kamehameha Highway.

Total estimated cost for the acquisition and development of Waiahole Valley is \$13,100,000. Construction is projected to start in 1985, with completion of improvements in 1986.

2. Relationship to Land Use Plans, Policies, and Controls

The proposed actions conform with the policies in the following plans:

State

- a. Hawaii State Plan
- b. State Functional Plans - Agriculture, Housing, Water
- c. Coastal Zone Management

County

- a. City and County General Plan
- b. Koolaupoko Development Plan (the predominance of agricultural use is consistent with the plan; however, the areas for residential lots will require an exemption)

The necessary permits and approvals include the following:

- a. Land Use Commission District Boundary Amendment - about 35.86 acres are proposed for various types of reclassification, including urban to agriculture, conservation to agriculture, agriculture to urban.
- b. Conservation District Use Application - water line and reservoir in conservation district.
- c. Corps of Engineers Permit - drainage discharge into stream and boulder riprap lining to prevent stream bank erosion.
- d. City and County Council approval of development plan exemptions to county controls including subdivision regulations, Comprehensive Zoning Code (CZC), Park Dedication Ordinance, and Special Management Area Permit (SMA).

Tenants whose lots adjoin Waiahole Stream opting to independently build and maintain their own irrigation system that drafts stream water will be required to submit the following permits:

- a. Corps of Engineers Permit - irrigation intake structure.
- b. Instream Use Permit - assurance that minimum instream flows will be maintained.

3. Environmental Setting

Physical-Biological Characteristics

Waiahole Valley is located on the windward side of Oahu. Its topography includes the near-vertical palis of the Koolau Range and the primary and secondary alluvial deposits of the valley floor. The rainfall pattern in the valley is orographic; the highest precipitation occurs near the top of the Koolau Range and correspondingly decreases with elevation. Stream flow consists of a combination of direct runoff and groundwater flow from the Koolau dike complex. Constructed early in this century, the Waiahole Ditch-tunnel system for transporting water to Leeward Oahu has significantly reduced the base stream flow entering Kaneohe Bay from Waiahole Valley.

There is a long history of agricultural use of Waiahole Valley. Several soil types usable for agriculture (Pearl Harbor, Hanalei, Waikane, and Alaaloa series) exist in the valley. The proposed project would include expansion of agricultural activity into areas not presently used but suitable for agriculture.

Due to past land uses, the native ecosystem has been replaced by introduced flora and fauna species. Remnants consisting of a few native flora can be found in the forest reserve. Other native fauna can be found in the stream because of the perennial flow characteristics. None of these native flora or fauna are considered endangered.

Cultural Characteristics

From the time of the early Hawaiians to the present, Waiahole has experienced peaks of intensive land use. During the late Hawaiian period, as many as 500 people lived in the valley. In the 1920's, Chinese rice farmers revived agriculture in Waiahole, although not as intensively as the Hawaiians. Settlement by the Hawaiians and Chinese concentrated in the coastal plain and along streams. Reconnaissance surveys have identified eight sites with potential significance. Two of these sites are among the six sites planned for salvaging prior to road construction. There is one site on the State Register of Historic Places located outside the project area.

Socioeconomic Characteristics

The population of Waiahole Valley has declined in the last 15 years from 453 people in 1962 to about 300 in 1977. Over 60 percent of the present population have resided in the valley for over 20 years. This long-term residency is reflected in the relatively older population of the valley compared to other parts of Oahu (median age of 31 for Waiahole population compared to 26 for Oahu). Predominant ethnic groups include Filipino, Japanese, and Hawaiian or part-Hawaiian. More than half of the households earn incomes less than the average household income for Oahu.

Sensitive Resources

Sensitive resources present within the project area that are unique, scarce, or irreplaceable are as follows:

- a. Perennial stream ecosystem
- b. Prime and unique agricultural lands
- c. Conservation land
- d. Archaeological resources

The marginal dike zone, which is a prime source of drinking water, is located outside of the project area. Also located outside of the project area but within Waiahole Valley are an endangered plant species and a registered archaeological site. Taro fields, which are considered as wetlands, are present in the project area but are not considered significant habitats for water fowl.

4. Impacts of the Proposed Action and Alternatives

A range of development scheme alternatives were considered for Waiahole Valley. These alternatives ranged from minimal development to the maximum allowed by existing zoning. Maximum development schemes enhance benefits to the general public (increased affordable housing, improved recreation opportunity, higher benefit-cost ratio) at the expense of several adverse impacts, such as loss of prime agricultural land, degradation of the rural character, increased traffic, and higher potential for incompatibilities to occur between agricultural and residential uses.

The proposed action, which embraces a minimal development concept, was selected because it best met the objectives for purchasing the valley and also resulted in the least adverse impacts (see Table S-1). Most of the adverse impacts are mitigable to acceptable levels. Those adverse impacts that are unavoidable are either negligible or are deliberate policy tradeoffs (see Table S-2). For example, a major tradeoff is the promotion of agriculture at the expense of limiting housing in the valley. There are no adverse effects to public health, safety, or welfare. Moreover, there are no irreversible commitments of resources. Therefore, adverse impacts are not significant.

Beneficial impacts include increased agricultural productivity, maintenance of environmental quality, and preservation of rural lifestyle. The direct cash inflow-outflow ratio for the overall project is 1.85:1.

Present plans for the water system can provide a significant benefit by increasing the quantity of irrigation water and improving the quality of the domestic water supply. This expected increase would be largely the result of a reapportionment of an existing lease between the Waiahole Water Company and the state (DLNR) as authorized under Section 171-37(3), HRS. The additional

TABLE S-1

SUMMARY OF IMPACTS OF THE PROPOSED ACTIONS

Impacts	PROPOSED ACTIONS								
	Subdivision	Lease Agreements	Water System	Wastewater System	Road Improvements	Drainage	Electrical/ Telephone	Agricultural Activity	
								Fert/Pest.	Irrigation
Direct Impacts									
Sensitive Resources									
Groundwater									
Quantity	N	N	+	-	N	0	N	-	0
Quality	N	N	0	+	N	0	N	-	0
Stream									
Quality	N	N	0	-	0	0	N	-	0
Flow	N	N	+	0	0	0	N	N	0
Agricultural Lands	+	+	+	0	-	0	N	+	+
Conservation Lands	0	N	-	0	0	0	0	0	0
Endangered Species	0	N	0	0	0	0	0	0	0
Archaeological	0	N	0	0	-	0	0	N	0
Public Health & Safety									
Flood Hazards	0	N	0	0	0	+	N	N	N
Unstable Slopes & Soils	0	N	N	N	0	0	N	N	N
Drinking Water Quality	N	N	+	0	N	0	N	0	N
Sanitation	N	N	N	+	N	0	N	N	N
Air Quality	-	N	N	+	-	N	N	-	N
Noise	0	N	N	0	-	N	N	-	N
Public Welfare									
Rural Lifestyle	+	+	+	+	+	0	0	N	+
Sense of Community	+	+	N	N	N	N	N	N	N
Affordable Housing	+	+	N	N	N	N	N	N	N
Recreation	N	N	N	N	N	N	N	N	N
Crime	N	N	N	N	N	N	0	N	N
Fiscal									
Public Perspective (benefit-cost)	+	+	+	+	+	+	+	N	0
Private Perspective Residents	N	+	+	+	N	N	0	N	0
Farmers	N	+	+	+	N	N	0	0	+
Secondary and Cumulative Impacts									
Growth	0	N	0	0	0	N	0	N	N
Water Supply	0	N	+	0	N	N	N	N	0
Transportation	0	N	N	N	0	N	N	N	N
Kaneohe Bay Water Quality	0	N	0	0	0	0	N	0	0

+ Beneficial Impact

- Adverse Impact

0 No Impact

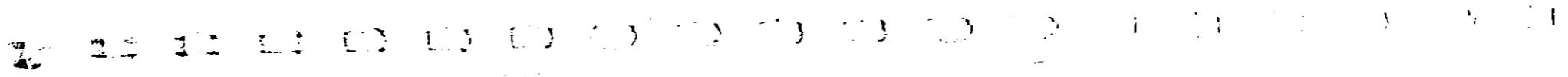
N No Applicable

TABLE S-2

SUMMARY OF MITIGATION MEASURES-UNAVOIDABLE ADVERSE IMPACTS

ADVERSE IMPACTS	MITIGATION MEASURE	UNAVOIDABLE	IMPLEMENTATION
Limited Number of Affordable Housing		X	(Policy tradeoff)
Potential Streamflow Reduction- Impact on stream fauna	Applicants will be subject to DLNR regulatory control		Specify as a permit condition in minimum streamflow permit (DLNR).
Waterline Construction in Conservation District	Restoration of disturbed-land areas; best management practice for erosion control		Specify as permit condition in Conservation District Use Permit (DLNR). Specify in construction contract (HHA).
Degradation of Stream, Groundwater & Kaneohe Bay Water Quality			Implementation of the following mandated through lease agreements:
1. Wastewater leachate		X	(Negligible)
2. Fertilizers	Select less mobile fertilizers; minimize application during rainy periods		Technical assistance (UH Cooperative Extension Service).
3. Pesticides	Application by certified operators and according to label instructions		Promote operator certification program (State Dept. of Agriculture, USDA Soil Conservation Service).
4. Drainage discharge		X	(Negligible)
5. Agricultural erosion	Information provided to farmers on best management practices		Technical assistance (USDA Soil Conservation Service).
Road Construction			
1. Loss of agricultural land from realignment		X	(Negligible)
2. Temporary inconvenience	Noise - compliance with noise regulations Dust - sprinkling as required Traffic - barriers, guards, detours, and other safeguards		Specify in construction contracts (HHA).
3. Potential archaeological resources	Qualified archaeologist hired to conduct pre-construction exploratory surveys and monitor construction		Excavation of impacted sites prior to construction and specify in construction contracts (HHA).
Street Lights - Rural Character		X	(Policy tradeoff for driver and pedestrian safety).

10



1.1 mgd that would be available due to the lease reapportionment would more than offset the proposed groundwater withdrawals and maintain an adequate instreamflow for taro farmers and native biota. Formal agreements have yet to be confirmed between Waiahole Water Company and the state regarding the lease reapportionment.

5. Unresolved Issues

Major concerns at the outset of this project included the provision of long-term leases, displacement of elderly and nonfarming residents, preservation of rural lifestyle, effects on streamflow, water cost, and potential effects on the Kaneohe Bay water quality. The proposed project favorably resolves each of these major issues (see Table S-3).

One major concern that remains is the formal reapportionment of Waiahole Water Company's water rights to 1.1 mgd. Readjustment of this lease to gain this additional quantity of water is necessary to meet water needs.

Other major concerns are the determination of which government agency or private association will operate and maintain this dual use water system and the assessment and collection of water fees. Although the DLNR is empowered to maintain agriculture park infrastructures, the DLNR presently has no mechanism for collecting domestic water fees to establish a revolving operation and maintenance fund for the water system. Such an action would likely require legislative amendment of DLNR statutes.

TABLE S-3

WAI AHOLE VALLEY AGRICULTURAL PARK EIS - MAJOR ISSUES

<u>Issue</u>	<u>Affected Party</u>	<u>Resolved</u>	<u>Unresolved</u>	<u>Comments</u>
<u>Socioeconomic</u>				
1. Lease Agreement - Long-Term - Rent - Lot Boundaries - Lease Priorities	Existing and future residents/ farmers	X		HHA has addressed these concerns in the lease agreements (see Chap 1).
2. Water System - Cost - Adequacy	Farmers, especially taro farmers		X	There will be sufficient water available to farmers (see Chap I). Development and maintenance water cost to farmers and procurement of Waiahole Water Co. lease reapportionment remain unresolved. Rural lifestyle will be preserved (see Chap IV)
3. Rural/Agricultural Life-style - Population Density - Improvement Standards (road width, curb & gutter, etc.)	Residents/farmers; general public	X		Rural lifestyle will be preserved (see Chap IV)
4. Dislocation	Existing residents who are elderly or non-farming residents	X		Only one (voluntary) relocation has occurred.
5. Agricultural/Residential Compatibility - Noise - Odor - Pesticide Spraying	Neighboring farmers and resident	X		The land use plans minimize incompatibilities by clustering the residential area (see Chap IV).
6. Cost/Benefit of Public Funds	General public	X		Cost-benefit ratio is positive (see Chap IV).
<u>Physical/Biological</u>				
1. Water Quality (Streams & Kaneohe Bay) - Wastewater Disposal - Fertilizer/Pesticide - Erosion	General Public, residents/farmers	X		Cumulative impact to Kaneohe Bay is insignificant (see Chap IV).
2. Minimum Stream Flow - Native Stream Fauna - Taro farmers	General public, taro farmers, biota	X		Taro farmers will benefit from enhanced streamflows (See Chap IV). Minimum flow to support aquatic fauna will be maintained (see Chap IV).

CHAPTER I

PROJECT DESCRIPTION

In December 1977, the State of Hawaii, through the Hawaii Housing Authority, purchased 590 acres of land in Waiahole Valley. Adding to what it already owned, the state gained almost complete ownership of the valley (see Figure I-1). Except for the steep hillside at the back of the valley, almost all of the land has been in agriculture or affected by related activities. Subsequent to acquisition of this land and a study of alternative uses, the Hawaii Housing Authority (HHA) has determined that Waiahole Valley should remain in agricultural use with a minimum of disruption to its rural lifestyle. Development of a number of new residential lots will also be provided in accordance with HHA planning objectives.

PROJECT LOCATION

Waiahole Valley is located on the windward side of Oahu, between Kaalaea and Waikane Valleys, and extends from the Koolau Ridge to Kaneohe Bay (see Figure I-2). It is in the Koolaupoko judicial district.

The project site involves only a portion of Waiahole Valley--namely, those lands acquired from Elizabeth Marks and some state land that is required for roadways. The project boundaries are defined generally by Kamehameha Highway (makai), Waiahole-Waikane boundary (north), the forest reserve boundary (mauka), and Waiahole Homestead Road (south). Pockets of privately-owned parcels within the project boundaries are excluded from the proposed development plans (see Figure I-3). In total, the project area comprises about 590 acres, which is about 24 percent of the entire Waiahole Valley drainage basin. Other state lands are in the conservation district and are not suitable for development. Tax parcels within the project area are listed in Appendix A.

PROJECT OBJECTIVES

After studying alternative uses of Waiahole Valley, the state determined that the following objectives should guide the planning and development of Waiahole Valley.

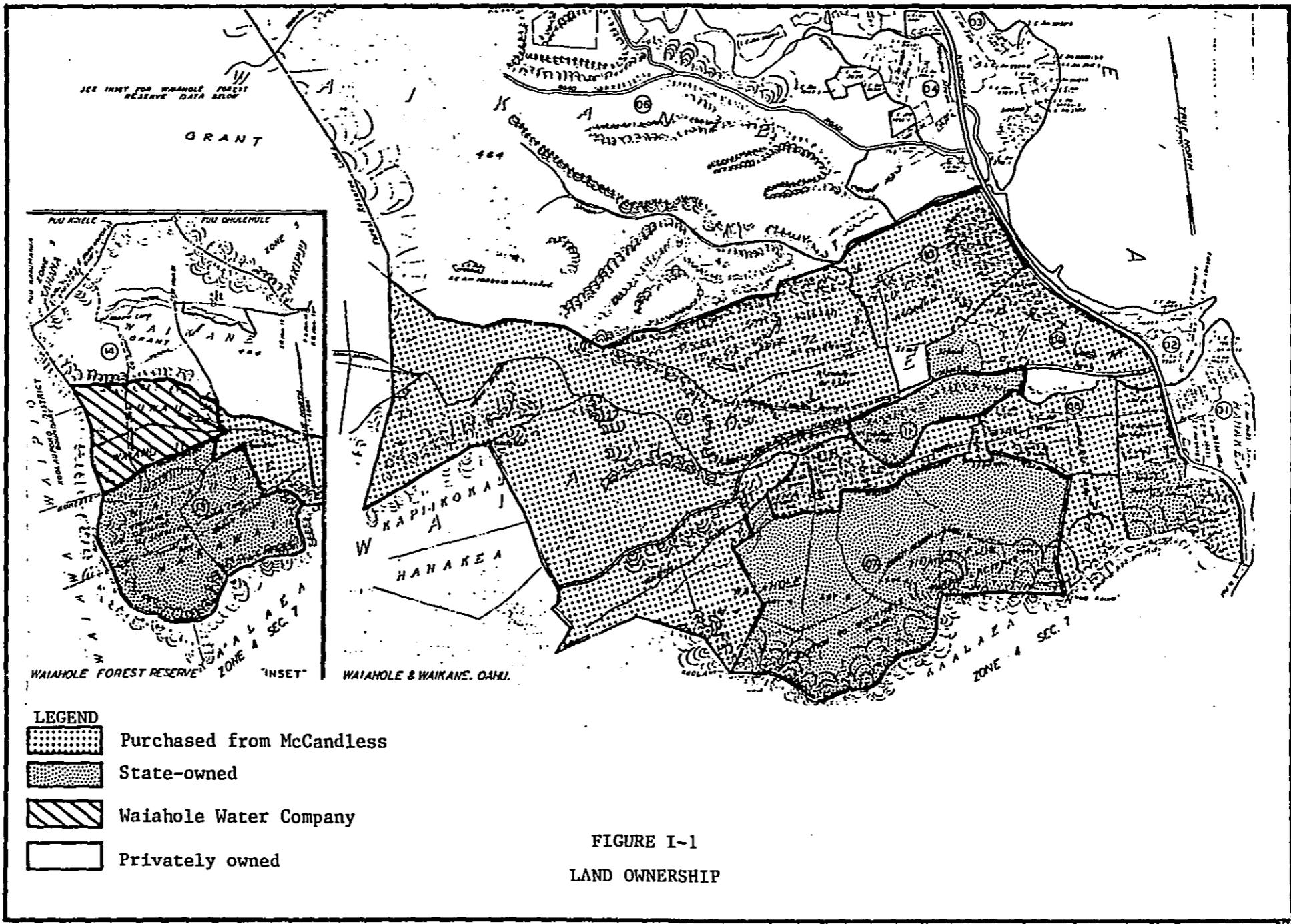
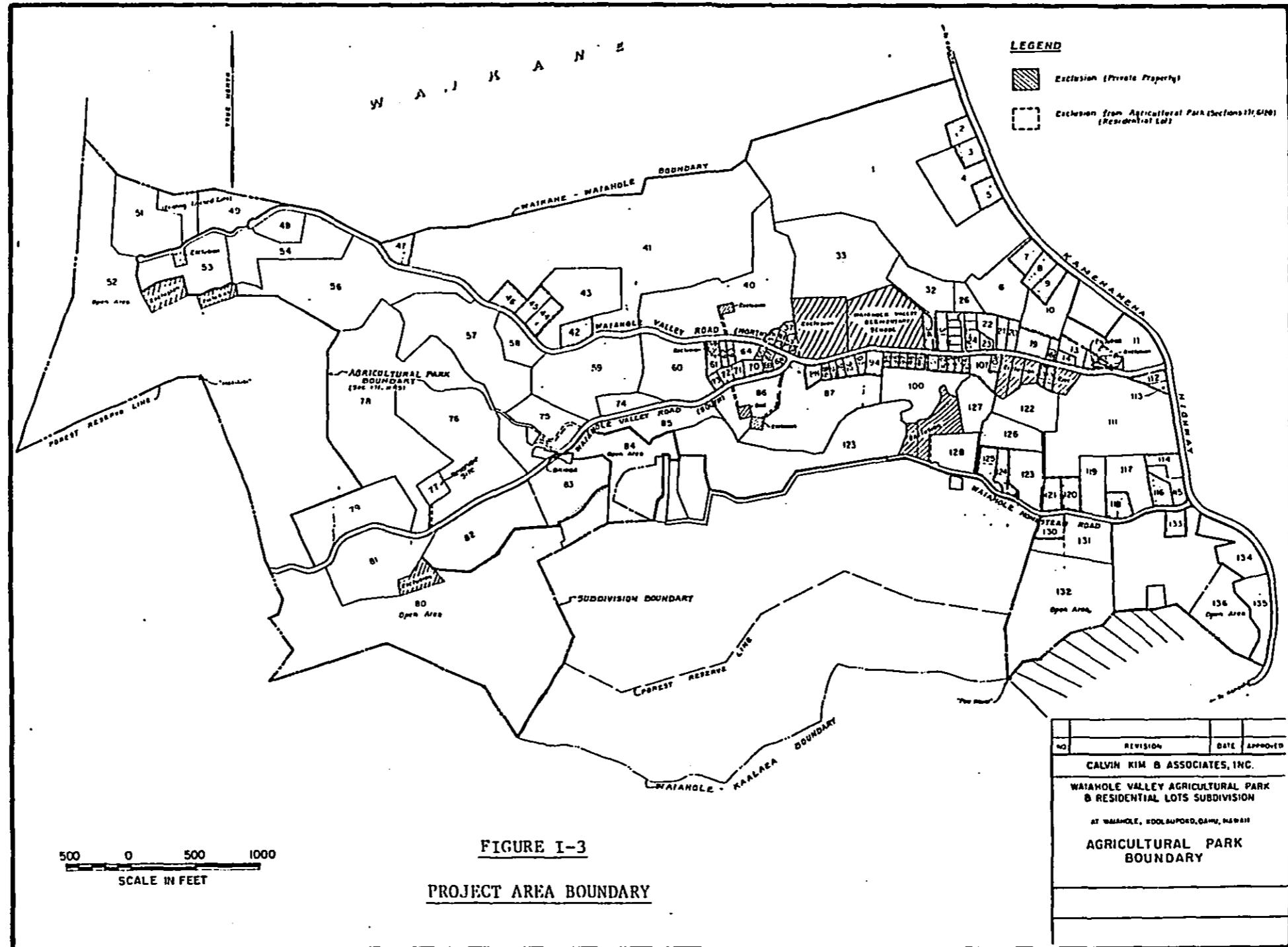


FIGURE I-1
LAND OWNERSHIP



I-4

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136

Land Use

1. To maximize agricultural potential and to promote diversified agriculture;
2. To preserve the integrity and lifestyle of the community;
3. To provide housing and housing improvements;
4. To conserve and develop water resources; and
5. To retain the open space provided by the valley as a deterrent to urban sprawl along the windward coast in keeping with both state and county planning objectives.

Leases

1. Provide reasonable long-term leases.
2. Minimize displacement or relocation of families by keeping intact, wherever possible, areas currently utilized for farming and residences and by offering leases to persons who were residents or had lineage to a residence as of March 1977.
3. Restrict leases for agricultural lands to persons who intend to use the land for agricultural purposes (i.e., derive a major portion of their total annual income from agricultural production); persons who are not engaged in agriculture shall be offered residential leases.

Improvements

1. Preserve the rural character by providing the minimum facilities required to support the agricultural operations and residential areas.
 - a. All lots shall be serviced by roadways; drainage systems will be provided to lots that do not already drain into the stream.
 - b. All residential and agricultural lots shall be serviced with electricity, telephone, and water that meets the safe drinking water standards contained in Chapter 20 of Title 11, Administrative Rules.

- c. Agricultural lots shall be serviced with irrigation water.
2. Encourage an open-stall market to facilitate marketing of agricultural produce.

Financial and Technical Assistance

1. Assist individuals in applying for financial aid to government programs for home construction or improvements.
2. Provide informational assistance to improve agricultural practice, distribution, and marketing by using services offered from the University of Hawaii's Agricultural Extension Service, the state Department of Agriculture, and the U.S. Department of Agriculture's Soil Conservation Service.

DESCRIPTION OF PROPOSED ACTION

The proposed action will primarily entail subdividing, leasing, and providing infrastructure improvements. Existing conditions are first described, followed by a description of the proposed action, in order to better illustrate the proposed changes.

Land Use and Subdivision

Existing Conditions. There are approximately 84 tenancies totaling about 265 acres. About 29 of these tenancies (11 acres) are in residential, residential/agricultural, or commercial use with areas less than 1 acre. The remaining 55 tenancies (254 acres) are in active or inactive agricultural use. In 1978, less than 70 percent of the 265 acres were in active crop or pasture use and the remainder was abandoned. The high percentage of inactive land was due to the uncertainty in month-to-month leases at that time. Although the existing boundaries established by Mrs. Elizabeth Marks have been accepted and respected by the residents for many years, they have not been officially registered with the state. In order for individual long-term leases to be made, the valley must be properly subdivided under the rules and regulations of the City and County of Honolulu and the subdivision recorded in the state Bureau of Conveyances.

Proposed Action. The state's objective of preserving the integrity of the Waiahole Valley community was an important factor in the establishment

of lot boundaries. The proposed boundaries generally follow the existing tenancy boundaries to minimize the disruption of existing fields, local irrigation systems, tractor roads, and access points. Some adjustments in boundaries, however, were necessitated by such factors as: (1) the re-alignment of roadways, (2) the creation of an access to otherwise land-locked tenancies and other private lands, (3) the resident's use of land beyond the tenancy boundary for yard area, storage, parking, gardens, and other similar uses, (4) the enlargement of small agricultural parcels to a minimum area of one acre, and (5) neighbor boundary disputes.

The proposed development plan has subdivided the land into agricultural, residential, and open space lots as shown on Figure I-4. Existing tenants are listed in Appendix A-1 and the lots encumbered by existing tenancies are cross-referenced in Appendix A-2.

Agricultural Lots. There will be 45 agricultural parcels (379.4 acres). Of the 45 agricultural parcels, 36 are encumbered by existing tenancies. Nine additional tenancies created from formerly vacant lands will be made available.

The City and County of Honolulu's Comprehensive Zoning Code requires a minimum lot size of two acres for restricted use agricultural AG-1 zoning. There are existing agricultural uses and existing residential uses in Waiahole Valley that are presently in AG-1 zoning. An exemption will be sought to reduce the minimum permissible lot size of two acres to one acre, which would allow the existing residential uses to remain (see Chapter II). Enlarging all existing residential-use tenancies to a minimum lot size of two acres would require taking substantial land from adjacent tenancies, require the deletion of a tenancy and the relocation of a family.

Residential Lots. There will be 80 residential lots (40.0 acres), of which 47 lots will be created around existing dwellings and 33 will be new residential lots. Of the 47 lots, 22 will remain in the agricultural classification, while the remainder are classified by the state for urban land use. The new Koolaupoko Development Plan has zoned these agricultural use, thus an exemption will be sought from the development plan. The proposed number of new residential lots (33) will have a minimum acreage of 7,500 square feet and an approximate density of 2.4 lots per acre. Most of

I-8

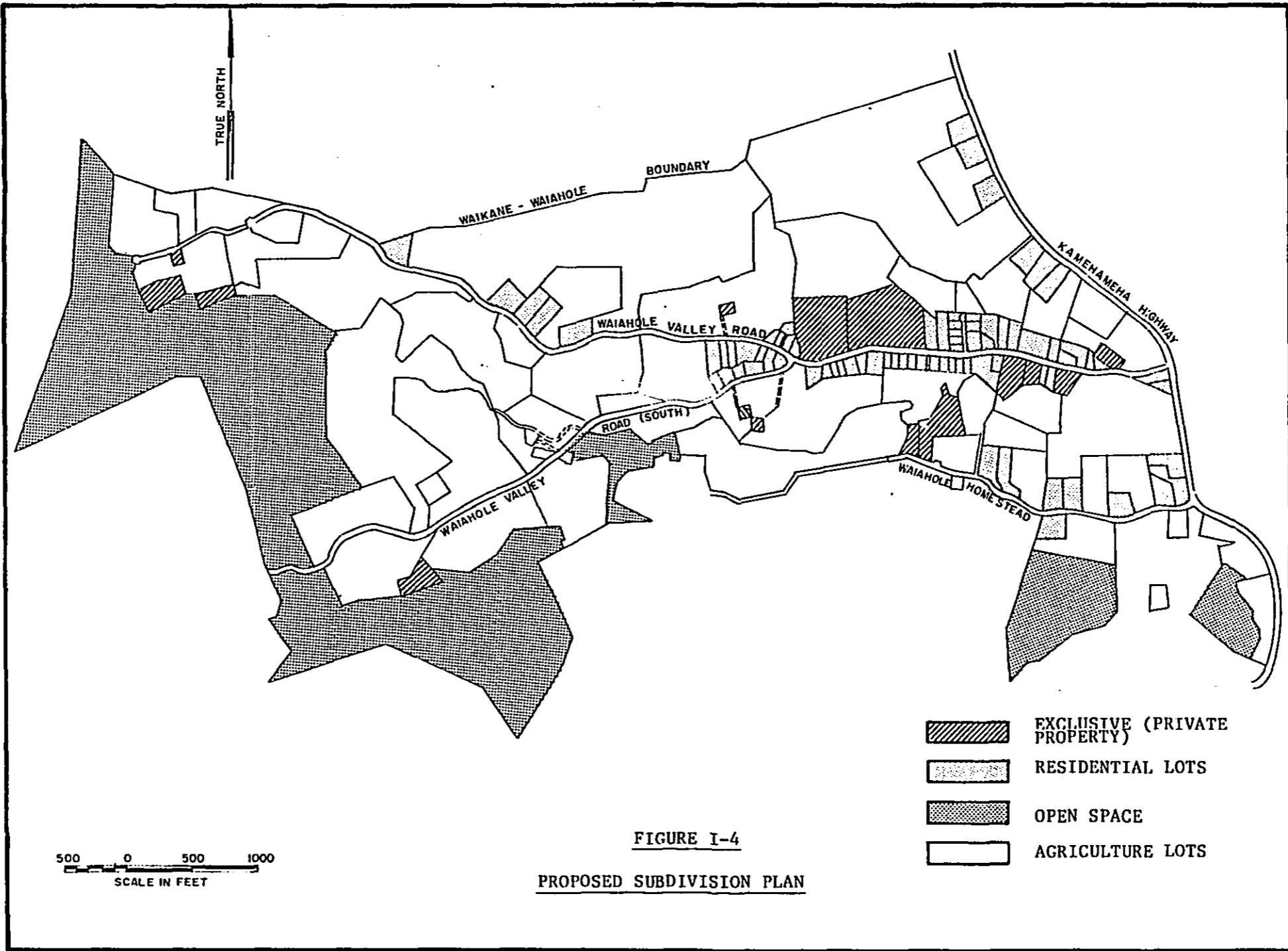


FIGURE I-4

PROPOSED SUBDIVISION PLAN

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

these lots will be centrally located in the Waiahole Valley Elementary School area. Some of the residential lots, however, will fall within the existing state Land Use Agricultural District and will have to be redesignated as urban. It is intended to cluster additional residential lots around the existing residential lots to minimize encroachment on any agricultural land. Because the land around the existing residential lots are considered prime agricultural land, some of the land will be traded-off to achieve this clustering to residential lots. This impact is discussed in Chapter IV.

Commercial Lots. There are two existing commercial lots (0.8 acres) for a poi factory and store. The state has classified these lots for urban land use and the county has zoned these lots as agricultural, therefore the same exemptions sought for residential lots will also be pursued.

Conservation or Open Space Lots. There will be five parcels in the conservation district that will be used for open space and a buffer to the forest reserve (149 acres). These parcels are located on marginal lands with steeper slopes and will not be leased.

Reservoir and Booster Pump Lots. There are two lots tentatively sited for the domestic and irrigation water supply system reservoirs and one lot for the booster pump station (3 acres).

Lease Agreements. The major lease stipulations include the lease term and rent, ownership of site improvements, speculative safeguards, and special requirements for the agricultural lots that are derived from the agricultural park law (Chapter 171, HRS). These provisions are highlighted below.

	<u>Residential</u>	<u>Agricultural</u>
Lease	55-year lease, 4 terms:	55-year lease, 3 terms:
Terms &	1st term (15 yr) \$500/yr	1st term (25 yr) \$100/acre/yr
Rent	2nd term (10 yr) \$650/yr	plus 3% of 30% of lessee's
	3rd term (15 yr) negotiated	gross farm income of pre-
	4th term (15 yr) negotiated	ceding calendar year
	Minimum lot size is 7,500 sf;	(% portion waived for
	Additional charge for lots	the first 2 yrs of the
	larger than 7,500 sf, add	55 lease for capital
	3.5¢/sf for 1st and 2nd	start-up cost);
	terms; additional charge to	house site (7500 sf)-\$500/yr
	be renegotiated in 3rd and	2nd term (15 yr) negotiated
	4th terms	3rd term (15 yr) negotiated

Site Improvements	Lessee owns improvements which must be portable, removable, or demolishable	Same
Speculative Safeguards	Lessee is not allowed to sublease, sell, or transfer lease; if termination of lease is desired, it must be turned back to HHA	Same
Special Agricultural Requirements	Not applicable	<p><u>Water:</u> The state shall provide the amount of water at least equal to the present requirements. Water rights are reserved by the state.</p> <p><u>Ag Practice:</u> Agriculture must comprise a significant portion of tenant's time and income, as defined:</p> <ul style="list-style-type: none"> . 1/3 of time must be devoted to agriculture . 1/2 of total annual income should be derived directly from leased property . the arable portion of the land must be in continuous cultivation, except for the normal fallow period <p>Livestock will be limited as follows:</p> <ul style="list-style-type: none"> . no new pasture leases will be allowed--only small livestock such as pigs and chickens will be allowed . stockproof fencing required around lot perimeter if there are livestock on the premises.
Special Provisions	<p>No new cesspools above the BWS "no pass" line will be allowed. New tenants will be required to install closed vaults or other approved wastewater system.</p> <p>The lessee must comply with all federal and state laws regarding environmental quality control.</p>	<p>Farmers will be required to comply with all relevant regulations and recommendation of the Soil Conservation Service and the Department of Agriculture to minimize soil erosion and safeguard the valley soil and water from pesticide and fertilizer misuse.</p> <p>The lessee must comply with all federal and state laws regarding environmental quality control.</p>

Improvements

Minimal improvements are proposed to preserve the rural character.

Roads.

Existing Conditions. There are two existing roads in Waiahole Valley: Waiahole Valley Road, which forks into north and south branches, and Waiahole Homestead Road. Waiahole Valley Road has an existing right-of-way of approximately 40 feet, with a varying pavement width between 14 and 20 feet. The paved portion extends from Kamehameha Highway to almost one mile up the north branch. The remaining portion of the north branch and the entire south branch are uneven, potholed, gravel-dirt roads. The south branch extends approximately 5,000 feet past the forest reserve boundary to the Waiahole Water Company's Pumping Station. There are a few sharp blind curves on the north and south branches. Waiahole Homestead Road has a 30-foot right-of-way, with the road width varying from 10 to 15 feet. The road surface at the entrance from Kamehameha Highway is composed of well-graded soil, but the remaining portion consists of soil and exposed rock.

Proposed Action. Proposed road improvements will include the following:

1. Widening and paving. The right-of-way for Waiahole Valley Road and Waiahole Homestead Road will be expanded to 44 feet and 32 feet respectively. The existing paved length will be resurfaced, and new asphaltic concrete pavement will be provided for roadways where none presently exist. The pavement width for the roads within the subdivision boundary will be approximately 18 feet. The existing gravel Waiahole valley Road (South branch) that extends 2,000 linear feet beyond the forest reserve line will be regraded and compacted.
2. Realignment. Waiahole Valley Road will be realigned in three major places: (1) near the Kamehameha Highway intersection where Waiahole Stream comes near the road; (2) at the north branch to eliminate a blind curve; and (3) at the south

branch over Waianu Stream in conjunction with the new bridge.

3. Maintenance road. At the end of the south fork of Waiahole Valley Road, about 5,000 linear feet of existing gravel road will be regraded and compacted. This will allow access for maintenance vehicles into the forest reserve. It will also provide access to remote lots located deep in the valley.
4. Bridge. A new concrete bridge will replace the existing timber trestle bridge at the south branch crossing of Waianu Stream.

The roads and the bridge will be maintained by the state (DLNR).

Drainage.

Existing Conditions. There are no drainage facilities in Waiahole Valley. Storm drainage is by overland flow to nearby streams, which discharge into Kaneohe Bay.

Proposed Action. Most of the drainage improvements will consist of roadside swales; where erosion is a problem, culverts will be utilized at gully crossings. The residential area along Waiahole Valley Road between Kamehameha Highway and the south branch intersection will be served by a drainage pipe system. The flood water from the drains and culverts will discharge into Waiahole Stream. The drainage system will result in a negligible increase in stream flow.

The banks of Waiahole Stream will be lined with boulder riprap from the poi factory to about 600 feet upstream for bank stabilization and protection. This will prevent undermining of the stream bank adjoining Waiahole Valley Road. Revetments will be placed under the new concrete Waianu Stream bridge to prevent the undermining of the bridge supports. The drainage improvement structures will not significantly alter the nature of the natural stream channel bottom, thus should not adversely effect diadromous species.

The swales and the bridge revetments will be cleared and maintained by the state (DLNR).

Water.

Existing Conditions. Various Waiahole Valley residents are presently served by two water systems: the Board of Water Supply (BWS) system and the McCandless system. The BWS system serves various residents along Kamehameha Highway and a few residents along Waiahole Valley Road from Kamehameha Highway to the school.

The McCandless system refers to a water rights agreement between the McCandless Estate and Waiahole Water Company, whereby 0.5 mgd was committed to the estate's Waiahole and Waikane Valley lands from the Waiahole Ditch-tunnel system. The state acquired one quarter of those rights when it purchased approximately 590 acres of the McCandless land holdings in Waiahole Mauka. The existing system removes water from Intake 29 of the Waiahole tunnel and transports it in a 4-inch cast iron pipe to a weir box. The weir box provides a means to measure the flow (although there are no flow records) and discharges the water into Waianu Stream. Approximately 200 yards downstream from the weir box, an intake box along Waianu Stream collects stream water, which is then transported in a 6-inch cast iron transmission line to a pressure break tank. From the pressure break tank, the water is carried in a 6-inch delivery pipe, which extends along Waiahole Valley Road to the old Waiahole Poi Factory. Users of McCandless' water tap off the 6-inch pipe line at various locations with 3/4- or 1-inch service laterals for domestic and irrigation use.

Common problems associated with the McCandless system include low water pressure and "muddy" water. Downstream users of the 6-inch delivery line have occasionally experienced low pressure. This is probably due to an undersized, partially corroded supply line and simultaneous water demand creating a pressure reduction to these downstream users during peak demand periods.

The Waiahole Water Company intercepts dike impounded water in upper Waiahole Valley through the Waiahole Ditch-tunnel system. This water is conveyed to Central Oahu for sugar cane irrigation. In addition, 1.1 mgd is pumped from Waiahole Stream to the Waiahole Ditch under a lease between Waiahole Water Company and the state (DLNR).

Proposed Action. The state will develop a water system to provide domestic and irrigation water to the residents. The determination of who will operate and maintain this water system is still unresolved.

A single water system will be provided for both domestic and irrigation use (See Figures I-5 and I-6). The estimated domestic requirement is 80,000 gpd (Russ Smith Corporation, 1980). The estimated irrigation quantity of 700,000 has been derived from an agricultural needs study (Scott, 1981); however, the parameters and assumptions have been revised, utilizing more realistic and justifiable criteria (Table I-1). The supply source will be groundwater, which would obviate the need for the extensive treatment required for domestic use of surface water supplies. The wells will be located near the upper reaches of Waiahole Stream. New 12- and 8-inch waterlines will connect the wells to the 1.0 million gallon steel reservoir tank and distribute water throughout the project area. A 350 gpm booster pump and a 200,000 gallon steel reservoir tank will provide Waianu Valley residents at the higher elevations with a dependable water supply. Fire protection (fire hydrants) will also be provided through this water system.

Through prior McCandless water rights agreements, the 0.5 mgd from the McCandless water system was to be equally distributed to the areas of Waiahole Mauka, Waiahole Makai, Waikane Mauka, and Waikane Makai. By virtue of this four-way water rights allocation, the Waiahole Mauka parcel purchased by the state has rights to 125,000 gpd. The existing McCandless water system will remain unmodified by the proposed project. "Surplus" water that overflows into and supplements Waianu Stream will continue.

Wastewater Management System.

Existing Conditions. There are no existing sewer mains or treatment facilities in the area. The current method of wastewater disposal in Waiahole Valley is dependent on individual onsite cesspools. These cesspools are generally 7 feet in diameter, with depths of at least 10 feet. There are approximately 80 cesspools in Waiahole Valley, of which about 15 have required pumping more than once a year. Most of the cesspools that require frequent pumping are located at lower elevations adjacent to Waiahole and Waianu streams and the low-lying areas near Kamehameha Highway, where the soils are subject to periods of prolonged saturation.

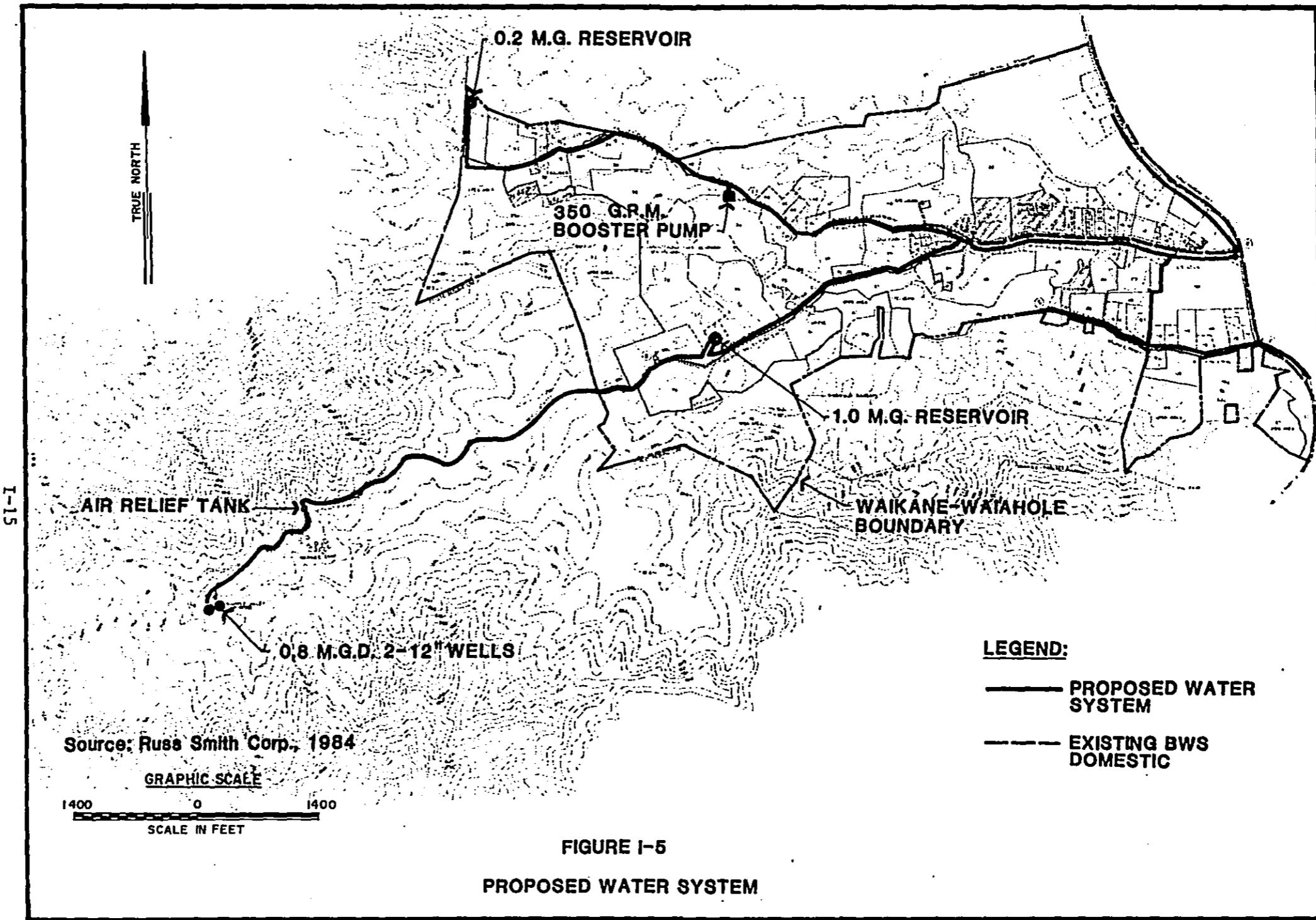


FIGURE I-5
PROPOSED WATER SYSTEM

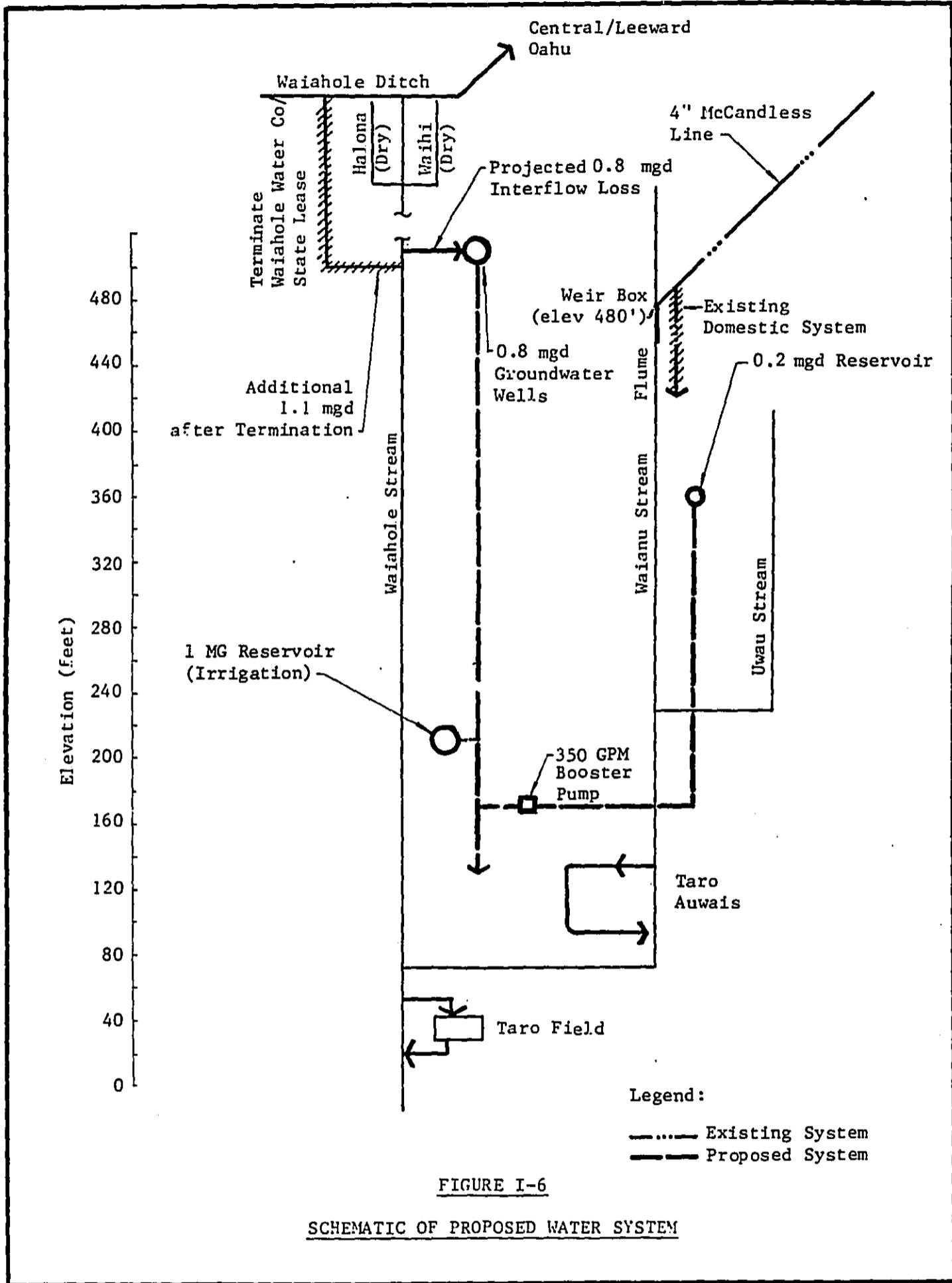


FIGURE I-6

SCHMATIC OF PROPOSED WATER SYSTEM

TABLE I-1

WATER REQUIREMENTS FOR DOMESTIC AND AGRICULTURAL
USE IN WAIHAOLE VALLEY^{a/}

DOMESTIC

<u>Projected Population</u>	<u>Per Capita Demand Avg/Day gpd</u>	<u>Total Demand Avg/Day gpd</u>
460	175	80,000

AGRICULTURE

<u>Crop</u>	<u>Acreage</u>	<u>Gallons/Acre/Day</u>	<u>Total Requirements</u>
Bananas	100	5,431	543,100
Papayas	25	4,073	101,825
Sweet Potatoes	40	4,073	162,920
Cucumbers	20	4,073	81,460
Tomatoes	30	4,073	122,190
Snap Beans	10	4,073	40,730
Miscellaneous Truck Crops	20	4,073	81,460
Flowers, Foliage, & Potted Plants (Shade House)	50	3,000	150,000
Subtotal	295		1,283,685
Prawns	10	21,600	216,000
TOTAL	305		1,499,685 ^{b/}

Source: Frank S. Scott, Jr., Agricultural Feasibility and Environmental Impact, December 1981.

a/ These water requirements are based on the amount of water required for each crop during the dry season when rainfall is negligible. During the rainy season, only supplemental water or no water would be required for all crops, except prawns and shade house plants. Stream requirements for prawns do not take into consideration water that is saved for reuse. Taro requirements are not included. Taro utilizes flow-through water to primarily maintain temperature conditions and consumes very little water. Taro needs will be met by existing flow-through (auwai) systems.

b/ This total assumes simultaneous needs of all crops. If field crops are watered twice a week as Scott recommends, 700,000 gpd would be sufficient.

The "pass/no pass" line developed by the BWS to protect potential groundwater supplies cuts across the upper third of Waiahole Valley (see Figure I-7). Above the "no pass" line, no cesspool or leach field construction is ordinarily permitted. There are 15 existing dwellings within the project area above the "no pass" line. The proposed development will result in approximately 3 additional agricultural lots above the "no pass" line within the project area.

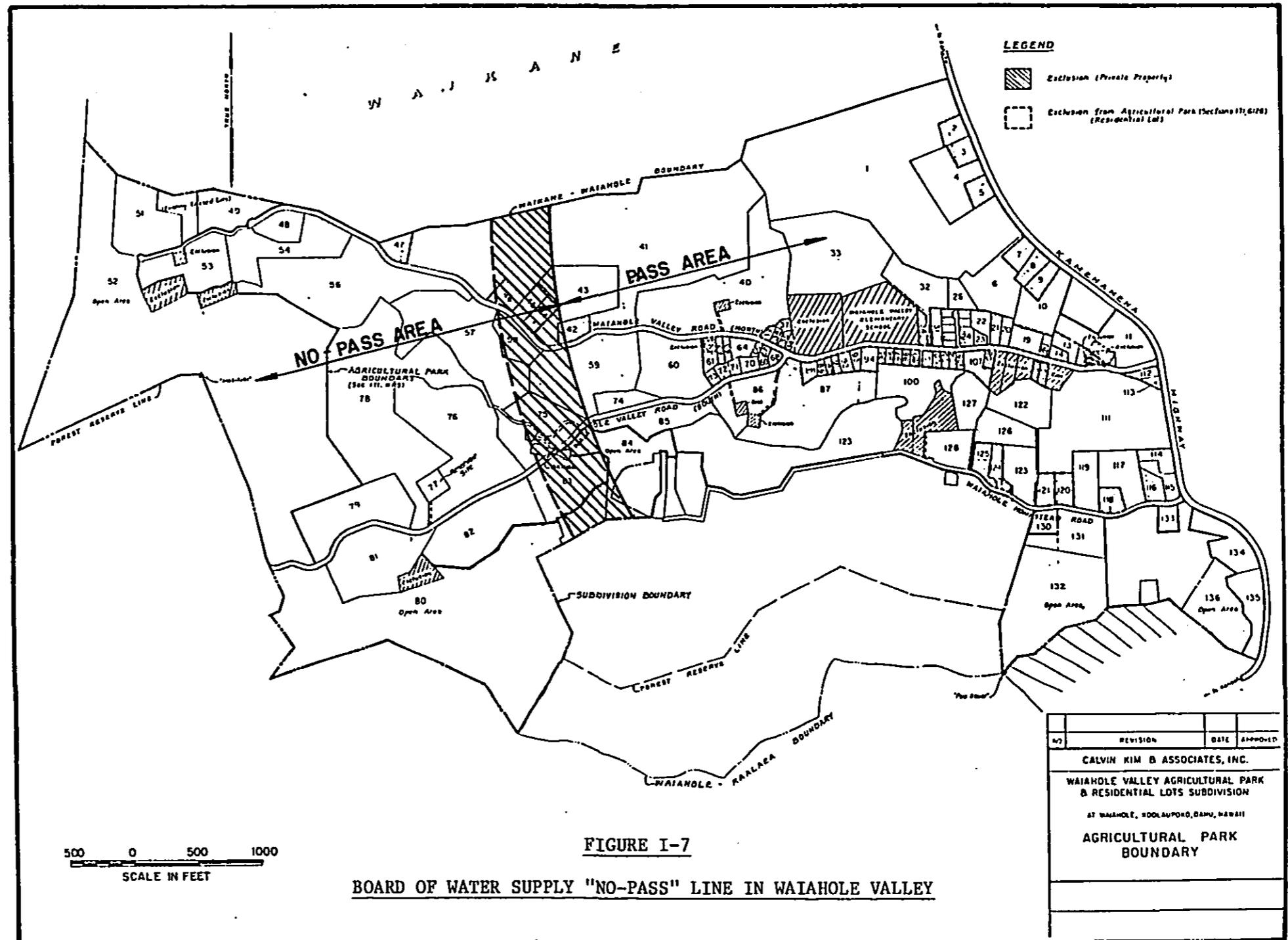
Proposed Action. The tenants will be responsible for providing their own individual wastewater disposal systems that comply with Chapter 57 of Title 11, Department of Health Administrative Rules and any other applicable laws. The suggested wastewater management system for the Waiahole Valley area consists of onsite individual disposal systems, primarily the closed vault and cesspool. The selection of one type of onsite individual disposal unit over the other will be dependent upon the location and geological conditions present at each specific site.

Specifically, it has been proposed that cesspools continue to be used as the method for wastewater disposal for the area down gradient from the "pass/no pass" line of the Board of Water Supply. In areas where malfunctioning is prevalent, a closed vault or some other approved system may be required for new tenants.

In the areas above the "no pass" line, it is proposed that a Department of Health-approved system such as the closed vault be implemented by new tenants to conform to the BWS's policy of groundwater protection. Such a system would entail the construction of singular or multiple closed vaults for the collection of each tenant's wastewater flow. The vaults will require periodic pumping by a private pumping company. The state Department of Health has "grandfathered" existing cesspool uses above the no pass line. Wastewater system construction permits and maintenance will be the responsibility of the lessee.

To minimize the frequency of vault pumping, composting toilets or other waterless systems could be installed as supplemental systems if approved by the Department of Health. Properly composted residential wastewater solids could then be added to non-food crop land as a solids amendment.

I-19



The proposed wastewater management system of new plus existing units will consist of 110 to 130 individual treatment units, handling approximately 33,000 to 39,000 gpd of domestic wastewater.

Electrical and Communications.

Existing Conditions. Three overhead lines (12,470 volts each) provide electricity to Waiahole Valley. Two of these electrical lines presently tap a 46 kV (kilovolt) transmission line located along Kamehameha Highway. One line runs along Waiahole Valley Road to the Waiānu Stream crossing, then cuts across to the northern portion of the valley. The second 12.5 kV line runs a short distance along Waiahole Homestead Road. The third electrical line originates in Kaalaea Valley and serves Waiahole Camp and the Waiahole Irrigation Company pumping station. There are no street lights.

Telephone service is provided to valley residents by a main cable which extends from the Waiahole Poi Factory to the north fork of Waiahole Valley Road. Residents along Waiahole Homestead Road are provided telephone service on an individual basis.

Proposed Action. Widening of the existing roads will require relocation of the existing overhead telephone and electric distribution lines. In addition, the overhead system will be extended to provide electric and telephone services to all lots in Waiahole Valley.

High pressure sodium vapor street lights will be provided along Waiahole Valley Road up to the fork in the road and the lower end of Waiahole Homestead Road. The average illumination will be 0.4 to 0.6 foot candles. Maintenance of electrical and telephone lines will be the responsibility of the respective utilities.

Site Improvements. Site improvements for existing dwellings will be limited to driveway and grade adjustments, hookup of utility services, relocation of mail boxes, and restoration of property that is damaged by the road construction.

HHA will provide information to those leasing new agricultural and residential lots to obtain financing for construction of homes.

Project Costs and Funding

Project Costs. The estimated cost of the proposed Waiahole Valley development totals about \$13,100,000. Table I-2 shows a breakdown of the cost.

Funding. All proposed actions occur entirely on public lands and are funded entirely by public sources. Table I-3 lists the sources of the funds.

The project is being funded by the Hawaii Housing Authority's Dwelling Unit Revolving Fund (DURF) and Capital Improvement Project (CIP) appropriations. The CIP funds have been encumbered to continue beyond the fiscal year that the funds were appropriated for. The CIP funds have also been delegated to the Hawaii Housing Authority (HHA) as the expending agency for the \$3.6 million Department of Land and Natural Resources (DLNR) appropriation and the \$1.4 million Department of Agriculture (DOA) appropriation. An additional \$1.3 million has been appropriated directly to the Department of Social Services and Housing (DSSH) for the HHA. As mandated by the 1984 legislature, HHA will recover all DURF monies and carrying costs by exchanging the entire Waiahole project with the DLNR for lands of equal value that are suitable for housing developments; then land and water resources will be under the jurisdiction of the appropriate respective agencies.

No federal or municipal funds were used for this project.

PHASING AND TIMING OF ACTION

The proposing agency, Hawaii Housing Authority, has finalized the design of the Waiahole Valley Agricultural Park and Residential Lots Subdivision. Construction groundbreaking is projected for mid-1985, with the completion of improvements tentatively projected for late 1986. The approval of the subdivision by the City and County of Honolulu would allow long-term leases to be granted. Until that time, the state has granted interim leases to qualifying existing tenants of record.

The proposed construction work has been divided into two projects:

1. Project I will include: (1) waterlines within the project area boundary; (2) the reservoirs; (3) booster pump; (4) roadway improvements; (5) drainage systems; and (6) electrical systems.

TABLE I-2

PROJECTED COST OF DEVELOPMENT - WAIHOLE VALLEY
AGRICULTURAL PARK AND RESIDENTIAL LOTS SUBDIVISION

	PROJECTED AGENCY COSTS		
	HHA	DOA	DLNR
<u>LAND</u>			
Acquisition	\$ 6,000,000		
Other Land Costs	200,000		
Feasibility	50,000		
Architect and Engineering Fees	70,000		
Legal Fees	80,000		
Contingency	150,000		
Administrative Expenses	110,000		
Total	\$ 6,660,000	\$ 6,660,000*	
<u>AGRICULTURAL PARK IMPROVEMENTS</u>			
Planning	\$ 99,000		
Design	659,252		
Total Pln. & Des.	\$ 758,752	\$ 758,752	
Construction (Estimated)			
Roadway Improvements	\$ 1,414,060		
Drainage System	741,060		
HECO & HTCO Charges	185,000		
Street Lighting System	30,000		
Total Estimated			
Construction Cost	\$ 2,371,000		
Allocation of Est. Construction Cost:			
a. Ag Park Share	65.10%		\$ 1,543,860
b. Residential Share	34.90%	\$ 827,140*	
<u>WATER FACILITIES</u>			
Planning	\$ 40,000		
Design	363,747		
Total Pln. & Des.	\$ 403,747		\$ 403,747
Construction (Estimated)	\$ 2,900,000		\$ 2,900,000
<u>AGRICULTURAL PARK COST</u>			
PER AGENCY		\$ 6,660,000	\$ 2,302,610
TOTAL	\$ 12,266,360		\$ 3,303,750
<u>RESIDENTIAL LOT COSTS</u>			
PER AGENCY		\$ 827,140	
TOTAL	\$ 827,140		

* Interest expense not included.

Source: Environment Capital Manager, 1981, as amended by Calvin Kim & Associates, the Russ Smith Corp., and the Hawaii Housing Authority, 1984.

TABLE I-3

FUNDING OF PROJECT

WAIAHOLE VALLEY AGRICULTURAL PARK

HHA's Dwelling Unit Revolving Fund (DURF)*	\$ 6,660,000
DOA - CIP Funds (Act 218, SLH 1974; Act 226, SLH 1976)	\$ 1,400,000
DLNR - CIP Funds (Act 218, SLH 1974; Act 226, SLH 1976)	\$ 3,600,000
DSSH - Supplemental CIP Funds (Act 285, SLH 1984)	<u>\$ 1,130,000</u>
	\$12,790,000

* Government General Obligation Bond Issue, November 1977 - November 1997, 6% per annum interest

Source: Environment Capital Manager, 1981, as amended by the Hawaii Housing Authority, 1984.

2. Project II will include: (1) development of the groundwater source; and (2) pipeline within the Forest Reserve area.

HISTORIC PERSPECTIVE

The existence of the proposed development plan and the form it has taken are the product of past historical events. Understanding the past may provide a better insight into the rationale behind many of the proposed actions.

In historic perspective, Waiahole Valley has been effectively in agricultural use since the time prior to the discovery of Hawaii by Captain James Cook (1778). After the discovery of Hawaii, however, Waiahole Valley experienced many changes. The feudal system of land ownership by the chiefs and land agents was replaced by the private system of land ownership. By the late 1800's, when many of the Hawaiian-owned kuleanas were absorbed, L. L. McCandless began to purchase land parcels in Waiahole Valley. With the migration of the Chinese into the valley and the introduction of rice to the valley, both population density and land use intensified.

In the 1910's, the majority of the land in the valley still belonged to the government and non-Hawaiians. McCandless, however, continued to acquire valuable land in the valley. Taro, rice, and pineapple were the main crops, but the latter two soon declined in productivity.

McCandless owned most of the desirable land in the valley by the late 1930's. Diversified agriculture was introduced to Waiahole Valley by the Japanese with such crops as taro, bananas, papayas, sweet potatoes, and other truck crops. Filipinos were the next racial group to migrate into the valley.

In recent times, the trustees of the McCandless Estate notified the tenants in January 1956 of a pending development in Waiahole Valley. The leases were changed to monthly terms and the insecurity of such a short tenure made extensive agriculture impractical. The valley thus remained in this position until the mid-1970's.

In 1974, the McCandless Estate heirs had planned to develop 1,337 acres of land in Waiahole and Waikane Valleys. The state Land Use Commission denied approval of the plan, however, which included the construction of 6,700 residential units.

A four-point program was instead proposed by the Waiahole-Waikane Community Association that was aimed at preserving the agricultural theme of the region. These were:

- "1. Expand agriculture in the area by opening more land for it.
2. Grant long-term leases to all agricultural lessees in the area to encourage serious pursuit of commercial agricultural activities.
3. Maintain the integrity of the Waiahole-Waikane community by preserving its rural lifestyle.
4. Institute regional planning with community participation."¹

In 1975, two related events occurred. Mrs. Elizabeth Loy McCandless Marks consolidated ownership of land from others in the family whereupon lease rents were raised after the consolidation of ownership. Mrs. Marks stated that the increase was based on the current market value and the property taxes imposed upon the land.²

Proposals made in 1975 by developer Joe Pao to develop residential units in Waiahole-Waikane were rejected because of state and city opposition to development in the area. The city sought urban development to be in the Ewa area, while the state wanted to preserve prime agricultural land on the windward side. In the existing agricultural zoning situation, however, several two-acre lots could conceivably be sold and developed by the land-owners.

The tenants, many of whom have occupied their tenancies for over 20 years, and Joe Pao/Mrs. Marks attempted to arrive at a settlement during the following year. The issues could not be resolved, however, because of a disagreement on the amount and location of land that would be made available for tenants wishing to farm or live in the valley. During this confrontation, the tenants refused to pay the higher rents, consequently leading to Circuit Court Judge Arthur Fong's ruling in favor of the eviction of 79 families.

¹ Honolulu Star Bulletin, October 29, 1974, Section D., p. 11.

² Honolulu Star Bulletin, May 22, 1975, Section B, p. 2.

In February 1977, Governor George Ariyoshi proposed to buy the 590 acres in Waiahole Valley in the public interest and seek development according to the State's agricultural preservation goals. The six million dollars required would come from the Dwelling Unit Revolving Funds created by Act 105.

Because Windward Partners (headed by the late Joe Pao) did not exercise its option to purchase the 590 acres in Waiahole Valley from Mrs. Marks, the state gained and exercised the option to buy the land. HHA announced the purchase in December of the same year. State plans for Waiahole Valley development proceeded and subsequently were based on retaining the rural profile associated with an agricultural district.

CHAPTER II

RELATIONSHIP TO LAND USE PLANS, POLICIES, AND CONTROLS

The Hawaii State Plan, codified into law as Chapter 226, Hawaii Revised Statutes, has set forth goals, objectives, and policies to guide the state's future growth. A system for coordinating the actions of state and county agencies to implement the plan is also established. Through this system, the Hawaii State Plan acts as an umbrella document. State functional plans and programs, county general plans, and development plans fall under this umbrella and further define and implement the State Plan. In this chapter, the policies and plans contained in the Hawaii State Plan, State Functional Plans, City and County General Plan, and City and County Development Plan for Koolaupoko will be related to the proposed action to determine conformance. In addition, coastal zone management policies will be examined since a portion of the development is in the Special Management Area.

Besides being in conformance with adopted plans and policies, a development proposal must also be reviewed and approved by several agencies responsible for ensuring environmental quality and public health, safety, and welfare. The approvals necessary for this proposed project are discussed in the latter part of this chapter.

CONFORMANCE WITH PLANS AND POLICIES

State

Hawaii State Plan. The three goals set forth in the State Plan (Section 226-4, HRS) constitute three of the major reasons for the purchase and development of Waiahole Valley as an agricultural park. These goals and their relationship to the proposed action are as follows:

1. Goal: A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawaii's present and future generations.

The visitor industry and federal expenditures presently dominate the economy in Hawaii. Diversified agriculture is promoted in the plan as one means to stabilize the economy (Section 226-7[a][2]).

The proposed action establishes diversified agriculture as the principal long-term land use of Waiahole Valley. Lease stipulations for agricultural lots require continuous cultivation and a percentage of the lessee's income to be derived directly from farming the land in order to ensure agricultural productivity. These lease conditions conform to the agricultural park provisions of Chapter 171, HRS. The creation of additional agricultural parks is one of the priority items in the State Plan (Section 226-103[d][9]).

2. Goal: A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.

Verdant beauty, cleanliness, and quiet make Waiahole Valley one of the few such areas remaining on Oahu. Protection of this type of priceless, fragile resource is in accordance with the environmental quality policies of the State Plan (Section 226-11). The natural environment of Waiahole Valley not only possesses physical beauty but is also an integral part of Hawaii's unique rural lifestyle (Section 226-12).

3. Goal: Physical, social, and economic well-being for individuals and families in Hawaii that nourishes a sense of community responsibility, of caring, and of participation in community life.

Besides the diversified agricultural goals and the natural beauty of Waiahole, the proposed action protects its most important resource--the people and their sense of community. Long-term leases will allow the community to continue living together in their rural setting.

A limited amount of residential lots will be developed along with the agricultural lots. The residential lots are anticipated to be directed to the low to moderate income households and foster a lifestyle traditional to Hawaii (Section 226-19[2][b][7]). The private development that would have occurred had not the state intervened would have negated state policies by changing the character of Waiahole and pricing homes beyond the range of the low to moderate income households.

State Plans. The proposed development plan for Waiahole Valley involves three broad categories of state programs: agriculture, water, and housing. A plan has been prepared for each category in order to provide interim guidelines to state agencies in the execution of their responsibilities. These plans constitute interim guidelines until the legislature adopts state functional plans pursuant to Chapter 226, Hawaii Revised Statutes.

State Agricultural Plan. The proposed action conforms to the State Agricultural Plan in the following respect:

1. Land. Waiahole Valley adds to the list of agricultural parks for diversified agriculture (Implementing Action B(3)[a]). As much as possible, land will be rezoned to reserve prime agricultural land for agriculture while attempting to limit residential development to the marginal lands (Implementing Action B(5)[c]).
2. Water. An irrigation system will be developed to provide adequate water at reasonable cost (Implementing Action C(2)[a]). No specific conditions were attached to the state lease that would require appropriate water conservation and erosion practices, as suggested in the plan (Implementing Action C(1)[c]) but the lessee will be required to comply with all federal, state, and county rules and ordinances, such as leaving all drainage patterns unaltered. The Soil Conservation Service will work with farmers on a voluntary basis.

Water Resources Development Plan. The state Water Resources Development Plan complements the agricultural plan in its support for state-operated irrigation systems to encourage diversified crop production (Implementing Actions E(1)[b] and E(4)[a]). Other concerns where the proposed action conforms with the water plan include:

1. Aquifer management. Subsurface wastewater disposal methods will be located and designed to avoid contamination of the groundwater supply (Implementing Action B(2)[b]).
2. Flood plain management. There will be no new residential developments within the 100-year flood plain (Objective C).

3. Instream uses. Groundwater will be developed as the primary water source. Individual tenants opting for stream source irrigation must each demonstrate that economic use of the surface water resources will be balanced with the natural value of the stream. Regulatory control by the DLNR will assure that the cumulative effect of these individual withdrawals will maintain a minimum streamflow suitable to the aquatic organisms (Implementing Action G(1)[b]).

State Housing Plan. In conformance with the State Housing Plan, a limited amount of residential lots will be made available for affordable housing (Implementing Action A(2)[c]). Because the major objective of the proposed plan was to preserve agriculture and maintain a rural environment, the amount of affordable housing lots had to be limited. Constraining housing development to protect important agricultural lands conforms to the housing plan (Implementing Action B(1)[a]).

Coastal Zone Management. Coastal zone management (CZM) policies have been codified into law as Chapter 205A, HRS. These policies are applicable to any proposed activity within the Special Management Area (SMA). SMA approval is actually under the jurisdiction of the City and County of Honolulu. Under the state's federal consistency provisions regarding the CZM Act of 1972 (Public Law 92-583), as amended, all federally licensed or permitted activities affecting the coastal zone must also furnish certification that the proposed activity will comply with the state's Hawaii Coastal Zone Management Program (HCZMP). For HHA's proposed action, these policies would only apply to the small portion of the total project area in the SMA and the U.S. Army Corps of Engineers' permit regarding stream bank protection.

A discussion of the CZM policies in regard to resource categories are as follows:

Recreational Resources. There are no unique coastal resources in the SMA. Shoreline access for recreational purposes will be maintained since the existing Waiahole Beach Park will not be affected by any of the proposed activities.

Historic Resources. There is one archaeological site located in the SMA that is on the State Register of Historic Places. This site, which is outside of the project area boundary, will not be impacted by any activity.

Scenic and Open Space Resources. Alteration of natural land forms will be restricted to minor road and water improvements. Public views to and along the shoreline will not be affected.

Coastal Ecosystems. Degradation of coastal water quality will be minimized through the farmers' voluntary compliance with the SCS's soil conservation program for the valley. A minimum stream flow will be maintained to ensure that stream and estuarine habitats are not adversely affected. Stream bank protection for a short length of Waiahole Stream will not degrade the stream habitat since a natural wetted channel bottom and a continuous flow to the bay will be maintained at all times.

Economic Uses. The proposed activity within the SMA includes the continued existence of limited residences. Further development, whether coastal-dependent or not, is not planned within the SMA.

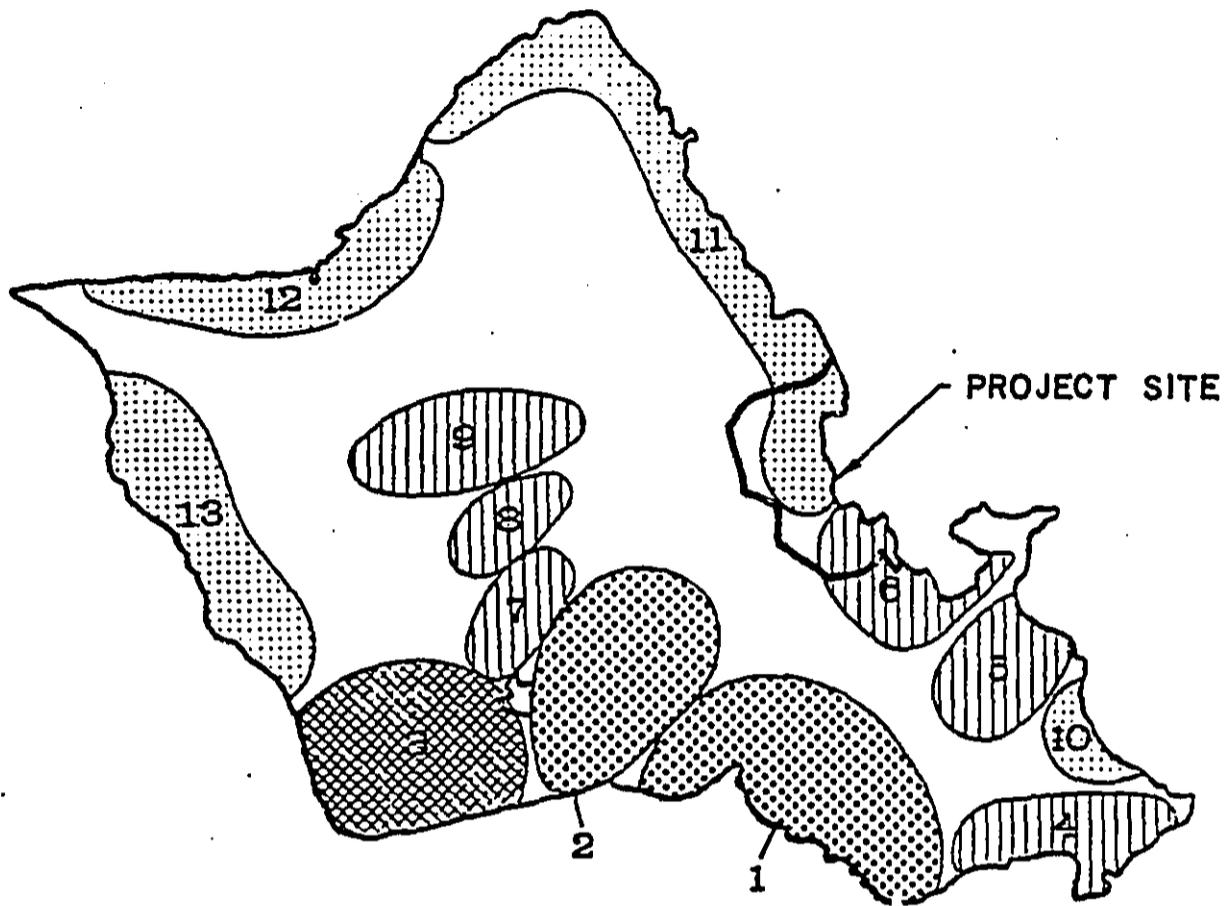
Coastal Hazards. No residences will be located within the 100-year flood plain. The proposed stream realignment will be designed to accommodate storm flows and remedy erosional problems.

Managing Development. The necessary permits have been subsequently identified in this chapter. The impact assessment and public input provided by the EIS process should facilitate the timely processing of those permits.

County

Special Management Area. (See previous state section.)

City & County General Plan. The General Plan has specifically stated that the maintenance of agricultural land along the windward and Waianae coasts for truck farming, flower growing, livestock production, and other types of diversified agriculture is a major policy objective (Economic Activity, Obj. C, Policy 4). The General Plan's population growth area objectives are illustrated on Figure II-1.



POPULATION AREAS
CITY AND COUNTY OF HONOLULU

- LEGEND**
-  **PRIMARY URBAN CENTER**
 - 1. Honolulu (Wai'alae/Kehala-Malawa)
 - 2. Aiea-Pearl City
 -  **SECONDARY URBAN CENTER**
 - 3. Ewa-Makakilo
 -  **URBAN-FRINGE**
 - 4. Aiea Koa - Hawaii Kai
 - 5. Kailua
 - 6. Kaneohe - Ahuimanu
 - 7. Waipahu - Crestview
 - 8. Mililani - Waipio
 - 9. Wahiawa
 -  **RURAL**
 - 10. Waimanalo
 - 11. Kahala-Kahuku
 - 12. North Shore
 - 13. Waianae Coast

Adapted from: General Plan
City and County of Honolulu
January 18, 1977

FIGURE II-1
CITY AND COUNTY GENERAL PLAN
POPULATION AREAS

Koolaupoko Development Plan. Since adoption by the City Council and the Mayor in 1983, the development plans have become the underlying basis for zoning for each district. In areas where the development plan designations are more restrictive than the existing zoning, interim zoning has been adopted. Waiahole Valley is included in the scope of the Koolaupoko Development Plan. Except for the elementary school site which has been designated for public facilities, the entire valley has been designated for agriculture. The proposed plan for Waiahole will not conform to the development plan in the areas where residential use is proposed. As defined in Sections 171-111 through 118 and Section 359G-4.1, HRS, the state can exempt itself from the development plan. The City Council will review the proposed exemptions.

NECESSARY APPROVALS

The necessary approvals for the proposed action can generally be grouped into the following categories:

1. Approvals related to general planning and land use within the valley
2. Approvals related to the infrastructure improvements
3. Approvals related to certain agricultural practices
4. Approvals related to site improvements

These approvals are listed in Table II-1 along with the approving agency and status of the application. HHA is the applicant in the first two categories, while the lessee is the applicant for the latter two categories.

Planning and Land Use Approvals

The proposed actions are subject to state approvals, including acceptance as mandated by EIS requirements (Chapter 343, HRS) and land use laws (Chapter 205, HRS), but are exempt from typical city development approvals because of legislative provisions related to state-assisted housing projects (Section 359G-4.1, HRS) and agricultural park developments (Section 171-111 through 118, HRS). Instead, the City Council has a 45-day review period to determine the appropriateness of any exemptions.

TABLE II-1

LIST OF NECESSARY APPROVALS

Action	Applicant	Approval/Authority	Approving Agency	Status/Timing
<u>Planning and Land Use</u>				
Use of public funds and land	HHA	EIS (Chapter 343, HRS)	Governor	In review
Rezoning	HHA	LUC Dist Boundary Change (Chap. 205, HRS)	LUC	Application to be filed
. LUC districts	HHA	CZC Exemption	City Council	Application to be filed
. CZC				
Construction in SMA	HHA	SMA permit Exemption	City Council	Application to be filed
Subdivision and Park Dedication Ordinance	HHA	Exemptions from Subdivision Park Dedication Ordinance	City Council	Application to be filed
. Lot Size				
. Park Dedication Waiver				
. Road Design Standards				
. Overhead Electrical Lines in Nonagricultural Portions				
<u>Infrastructure Improvements</u>				
Roads				
. Stream Realignment	HHA	COE permit	Corps of Engrs.	Application to be filed
. Standards	HHA	Exemption from Subdivision Standards	City Council	Application to be filed
. Grading	HHA	Grading permit	DLU	Application to be filed
Drainage				
. Discharge into Stream	HHA	COE permit	Corps of Engrs.	Application to be filed
Water				
. Pipeline through Forest Reserve	HHA	CDUA (DLNR Reg. 4)	DLNR	Application to be filed
. Stream Withdrawal	Lessee	COE permit	Corps of Engrs.	Application to be filed
. Minimum Instream Flow Standards	Lessee	Stream Channel Alteration Permit (Chapter 167 of Title 13)	DLNR	Application to be filed
. Safe Drinking Water Quality	HHA	Safe Drinking Water Act Standards	DOH	Application to be filed
. Well Construction	HHA	Well Construction Permit	BWS	Application to be filed
Electrical/Telephone				
. Standards	HHA	Exemption from Subdivision Ordinance	City Council	Application to be filed
Wastewater				
. Cesspools	Lessee	DOH Cesspool Construction Permit	DOH BWS	Application to be filed Application to be filed
<u>Agricultural Practice</u>				
Stream Diversion	Lessee		DLNR	Application to be filed
<u>Site Improvements</u>				
Home Construction/Remodeling, Cesspool, Fences, etc.	Lessee	1) Review by HHA according to lease agreements 2) Building permit	HHA Building Dept.	Application to be filed Application to be filed

II-8

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

State Land Use Districts.

Existing. Most of the project area has been designated as agricultural land use districts. A central core of urban land use districts exists along Waiahole Valley Road from Kamehameha Highway to the school. A conservation land use district adjoins the project area on the mauka and southern sides. A regional perspective of the land use classifications are shown on Figure II-2.

Proposed. A total of about 35.86 acres are proposed for reclassification, as shown on Figure II-3. The proposed changes include the reclassification of approximately 25.02 acres of the existing urban district to agricultural for:

TMK: 4-8-8:portion of 1, 10, 10;

TMK: 4-8-9:portion of 1;

TMK: 4-8-11:portions of 2;

TMK: 4-8-12:portions of 5; (referenced in map as area 'A') and

The reclassification of approximately 7.35 acres of the existing agricultural district to urban land for:

TMK: 4-8-9:portion of 1;

TMK: 4-8-12:portions of 5 & 10;

TMK: 4-8-11:portion of 2; (referenced in map as area 'B') and

The reclassification of approximately 3.49 acres of existing conservation district land to agricultural land for:

TMK: 4-8-01:portion of 1 (referenced in map as area 'C')

The conservation district amendment has been sought because the indicated parcel fraction is already under agricultural cultivation.

All lots within the agricultural district will be restricted by a minimum lot size of 1 acre.

City and County Zoning.

Existing. The previous zoning had been consistent with state land use boundaries. The existing state Urban Land Use District had been zoned R-6 (single- and two-family residential); the new Koolaupoko Development

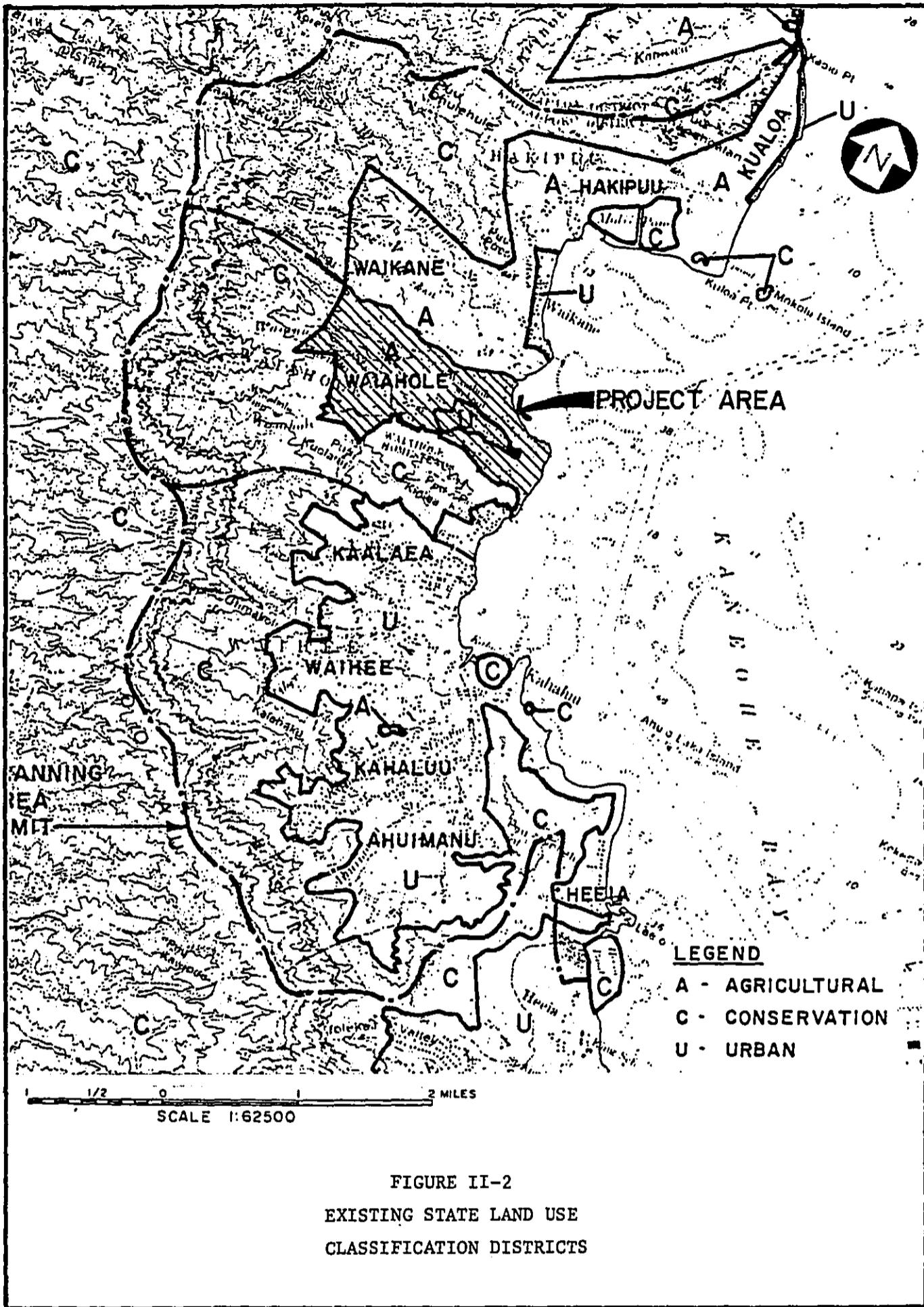
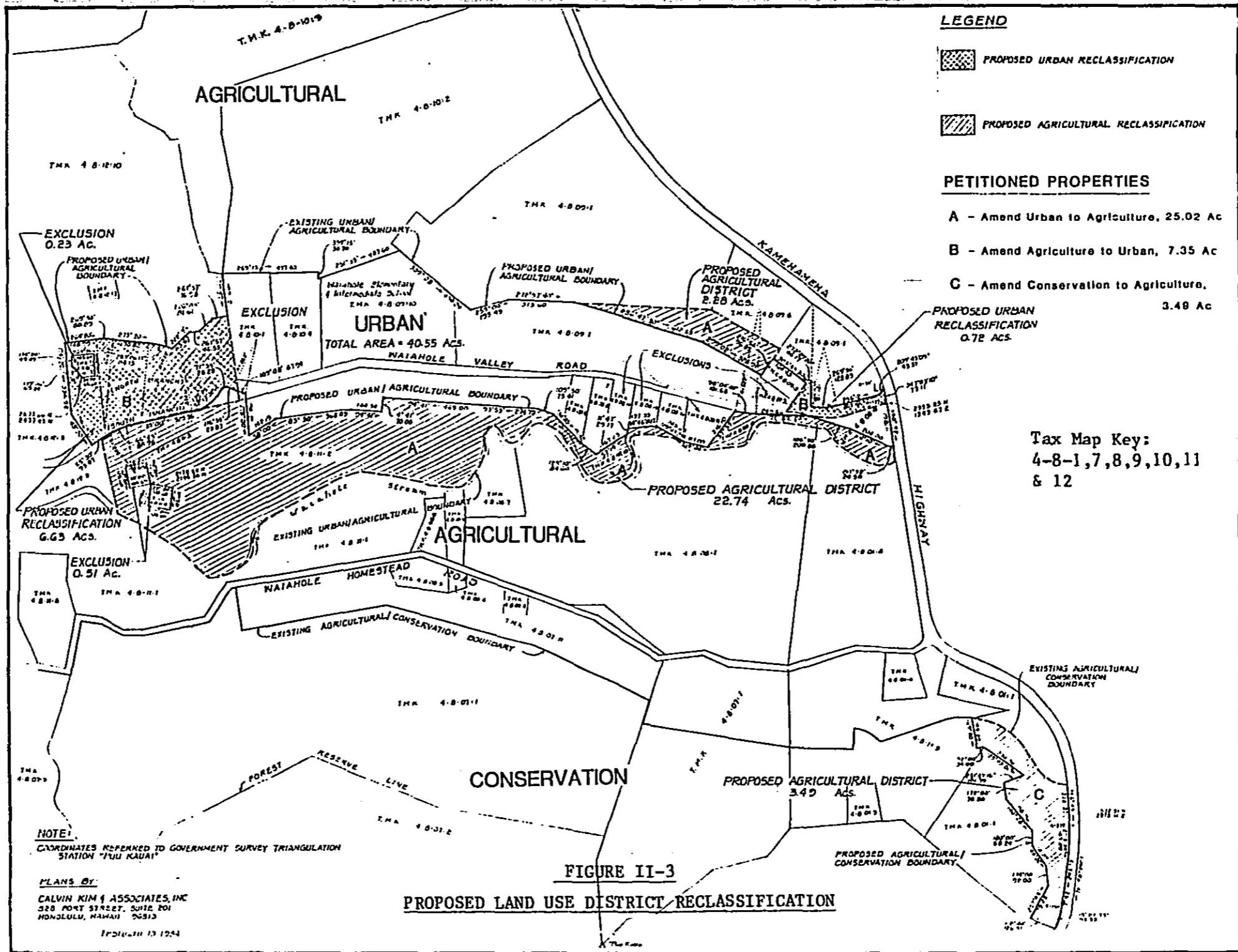


FIGURE II-2
 EXISTING STATE LAND USE
 CLASSIFICATION DISTRICTS



LEGEND

PROPOSED URBAN RECLASSIFICATION

PROPOSED AGRICULTURAL RECLASSIFICATION

PETITIONED PROPERTIES

A - Amend Urban to Agriculture, 25.02 Ac

B - Amend Agriculture to Urban, 7.35 Ac

C - Amend Conservation to Agriculture, 3.48 Ac

Tax Map Key:
4-8-1,7,8,9,10,11
& 12

II-11

NOTE:
COORDINATES REFERRED TO GOVERNMENT SURVEY TRIANGULATION STATION "I'UHU KAUAI"

PLANS BY:
CALVIN KIM & ASSOCIATES, INC
328 FORT STREET, SUITE 201
HONOLULU, HAWAII 96813
12/16/10 13 1254

FIGURE II-3
PROPOSED LAND USE DISTRICT RECLASSIFICATION

Plan adopted May 10, 1983 resulted in the elimination of any residential zoning (Figure II-4). The existing Agricultural Land Use District and the existing Conservation Land Use District are compatibly zoned AG-1 (restricted agriculture) and P-1 (preservation), respectively.

Proposed. The areas proposed for reclassification to Urban districts will not conform to development plan designations. The minimum agricultural lot size of 1 acre will not conform to the City and County's two-acre minimum required for AG-1 zones. Exemptions will be sought for both zoning requirements (Section 359G-4.1, HRS, and Section 171-111 through 118, HRS).

Special Management Area (SMA).

Existing. The SMA extends into the project area as a narrow band just inland of Kamehameha Highway (see Figure II-4).

Proposed. The only activity proposed by HHA includes road improvements. An exemption from county SMA procedures will be sought.

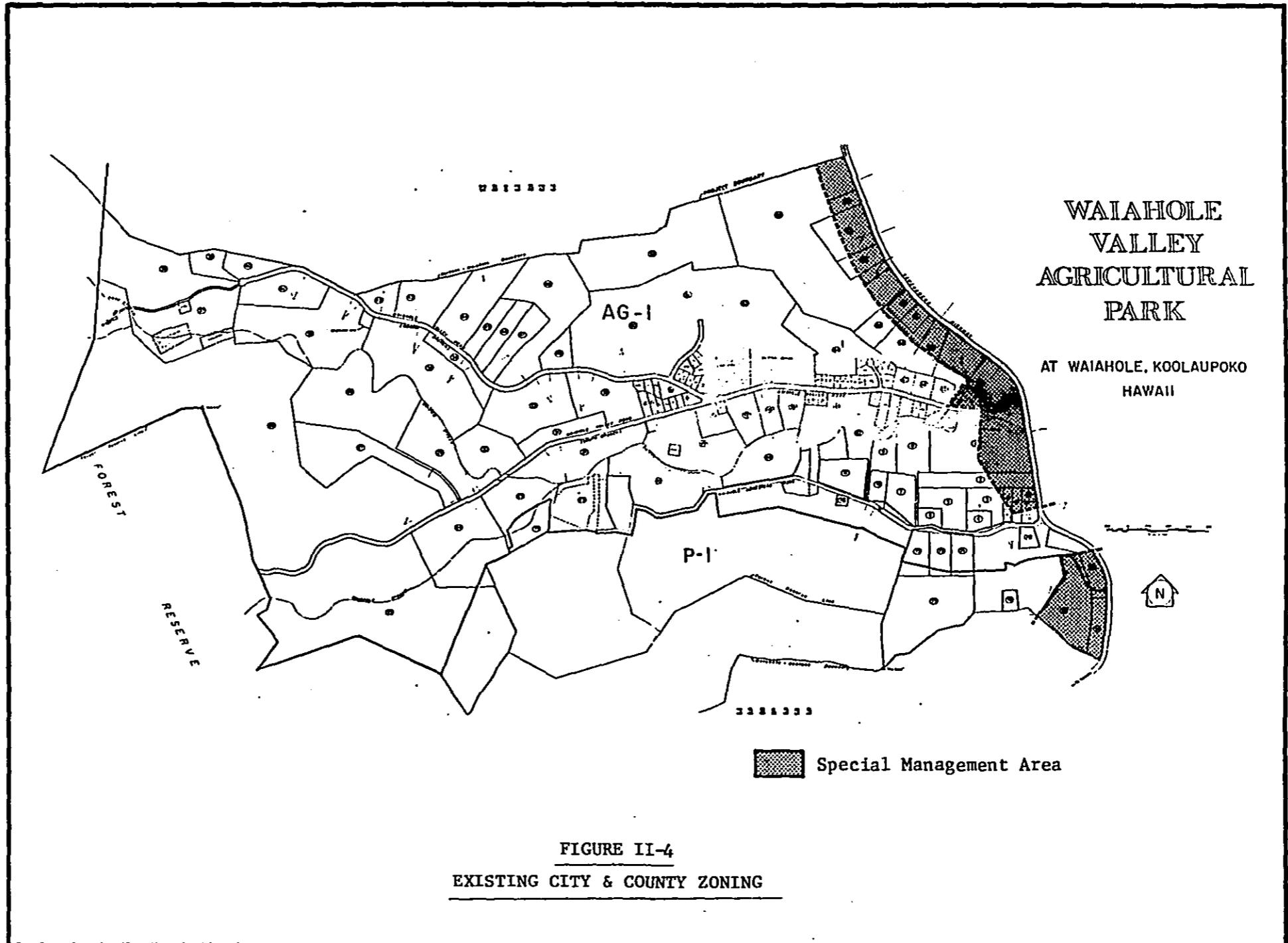
Infrastructure Improvement Approvals

Corps of Engineers (COE) Permit. A COE permit is necessary for the following actions:

1. Drainage. Storm drainage water will be discharged into Waiahole Stream near the Poi Factory.
2. Road. A 600-foot length of Waiahole Stream will need to be lined with boulder riprap where it meanders toward the existing Waiahole Valley Road near Kamehameha Highway intersection. These stream modification measures are necessary to provide bank stabilization and erosion protection.
3. Tenants adjoining Waiahole Stream opting for stream withdrawal for irrigation will need a permit for the intake structure.

Protection of Instream Uses of Water, Windward Oahu. The diversion of stream flow will require a permit for stream channel alteration. Tenants opting for stream withdrawal will be regulated by permit to maintain adequate minimum instream flows.

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Conservation District Use Application (CDUA). A CDUA is necessary for the proposed pipeline in the forest reserve.

Safe Drinking Water Act (SDWA). The developer of a public water supply must demonstrate compliance with SDWA standards to the State Department of Health.

Welling Drilling Permit. A well drilling permit is necessary to demonstrate adequate construction that will not endanger groundwater supplies (Board of Water Supply).

Agricultural Practice and Site Improvements

Home Construction/Improvements. A building permit will need to be obtained by the lessee. This permit will ensure adequacy of sewer and water facilities and structural safety. HHA must review the plans prior to seeking the building permit according to provisions in the lease agreements.

CHAPTER III

ENVIRONMENTAL SETTING

The environmental setting for the project area and its surroundings are described in this chapter. This description provides baseline data against which prediction and assessment of the impacts of the proposed action and alternatives can be compared. Environmentally significant features are also highlighted. The environmental parameters are organized in the following categories: physical-biological, cultural, and socio-economic.

PHYSICAL-BIOLOGICAL CHARACTERISTICS

Climate

Rainfall. Due to its location on the windward side of the island, Waiahole Valley receives higher rainfall than the central and leeward parts of the island. Within the valley, the median annual rainfall ranges from 50 inches near the shoreline to 200 inches near the Koolau crest (see Figure III-1). The sharp increase of rainfall with elevation is the result of a dominant orographic precipitation regime due to persistent moisture-laden tradewinds that are rapidly cooled while flowing over the steep windward mountain slopes.

During the wet weather season, orographic rainfall is frequently supplanted by intense cyclonic storms. Median monthly rainfall data has shown that the wet weather season occurs between October and May, as shown on Figure III-2. The difference between the precipitation of the driest month (June) and the wettest month (December) is 4 inches. Data from rain gages located at two different elevations are shown. At the higher elevation, there are three pairs of high rainfall months, March-April, July-August, and November-December. This precipitation pattern is typical of high-rainfall areas in the Hawaiian Islands (Takasaki et al. 1968).

Wind. The closest long-term wind data available are from the Kaneohe Marine Corps Air Station (KMCAS). Wind speed and direction data, gathered during a 24-year period, are summarized in Table III-1. Since the open area of the KMCAS is exposed to higher wind speeds than valley areas, the wind speed data should be used only as general indication of magnitude.

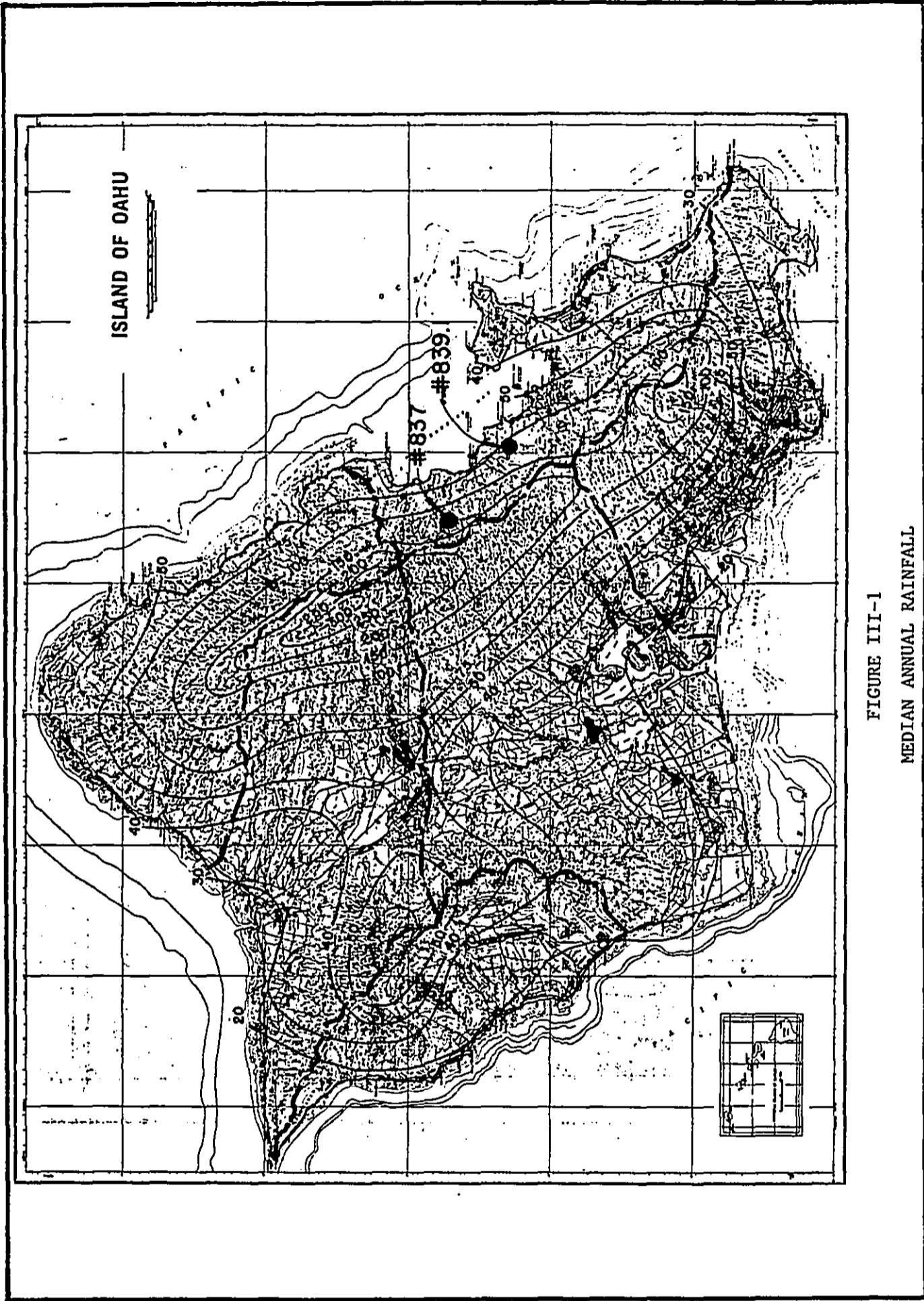
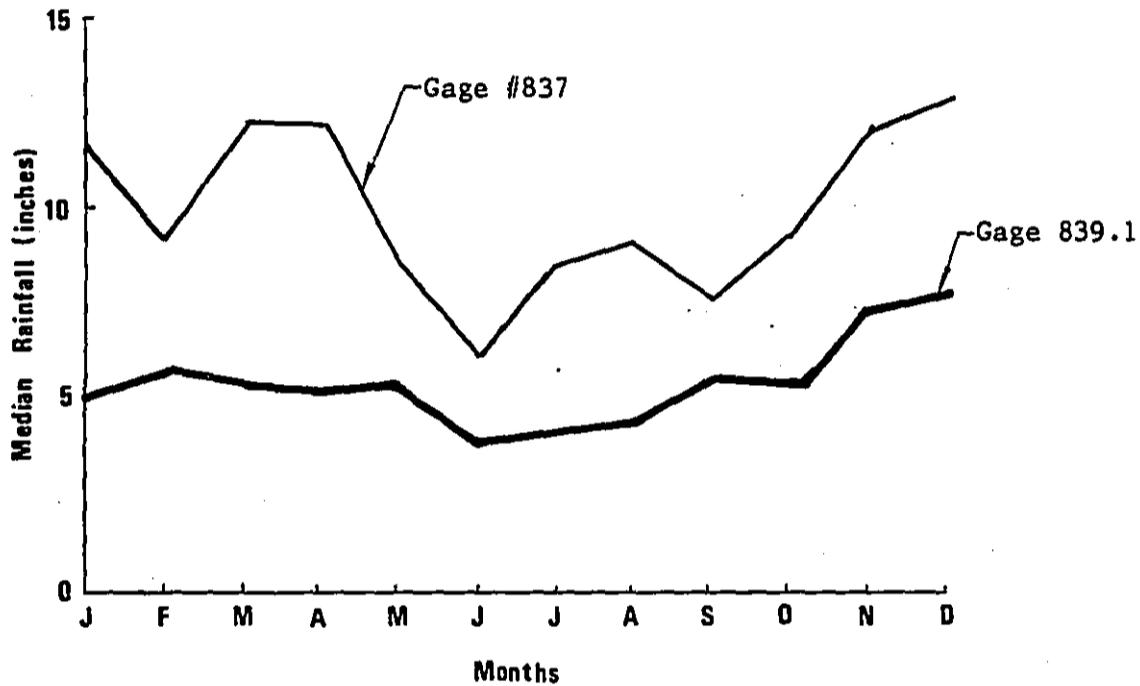


FIGURE III-1
MEDIAN ANNUAL RAINFALL

NOTE: A rain gage station is located in Waikane Valley at elevation 80' (gage #886.6). However, since the station has less than 10 years of record, the median rainfall was determined from another station along the same isohyet with longer-term records (839.1).



Gage Name	Elevation (ft)	Record Years	Annual Median(in)
#837 Waiahole	745	59	133.0
#839.1 Ahuimanu	240	21	81.1

FIGURE III-2
MEDIAN MONTHLY RAINFALL

TABLE III-1
PERCENTAGE FREQUENCY WIND VELOCITY AND DIRECTION
FROM KMCAS OBSERVATIONS 1945-49 AND 1952-72

Speed (knots) Direction	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	%	Mean Wind Speed
N	0.3	1.3	2.4	2.9	1.0	0.3	0.1		8.3	11.4
NNE	0.3	1.5	3.4	2.7	1.3	0.3			9.5	11.1
NE	0.3	1.5	3.2	3.5	1.3	0.3			10.1	11.3
ENE	0.5	1.6	4.9	8.3	2.3	0.4	0.1		18.1	12.3
E	0.8	1.4	3.4	4.8	1.6	0.2			12.2	11.5
ESE	0.3	1.3	1.8	2.0	0.7	0.3	0.0		6.4	11.0
SE	0.2	0.6	0.8	0.6	0.2				2.4	9.5
SSE	0.3	0.4	0.7	0.7	0.4	0.1			2.6	11.2
S	0.3	1.1	0.7	0.5	0.3	0.3	0.2	0.0	3.4	11.3
SSW	0.6	0.7	0.3	0.6	0.7	0.3	0.3	0.0	3.5	13.5
SW	0.3	0.8	0.6	0.2	0.2	0.3	0.3	0.0	2.7	12.6
WSW	0.2	1.0	0.3	0.2	0.0	0.0	0.0	0.0	1.7	8.1
W	0.6	1.7	1.0	0.2	0.1				3.6	6.6
WNW	0.2	0.6	0.8	0.2	0.2	0.1			2.1	9.0
NW	0.3	0.9	0.8	1.0	0.3				3.3	9.3
NNW	0.1	0.6	1.9	2.4	0.7	0.2	0.2		6.1	12.5
Calm									3.4	
	5.6	17.0	27.0	30.8	11.3	3.1	1.2	0.0	100.0	10.75

4-III

Source: U.S. Army Engineer District, Kaneohe Bay Urban Water
 Resources Data Evaluation Study, 1976.

As shown on Figure III-3, the predominant wind direction is up the valley in a mauka (inland) direction. Winds blow in the up-valley direction (NNE-SSE) about 60 percent of the time.

Temperature and Humidity. Temperature and humidity of the project area are typically subtropical like other parts of Hawaii. In the lower elevations where the proposed actions will occur (less than 200 feet), temperatures range from a monthly average of 68°F in February to 80°F in September, with an annual average of 75°F (BWS, 1963). The average relative humidity varies between 70 and 80 percent, with the winter months somewhat more humid than the summer ones.

Geology and Topography

The island of Oahu was formed by the coalescence of two volcanoes--Waianae Volcano and the Koolau Volcano.

Waiahole Valley, like other amphitheater-headed valleys on the windward side, was carved out of the Koolau Volcano by erosion. The erosion process has created a topography characterized by steep valley walls, a moderately steep, irregular ridge between Waiahole and Kaalaea, lower intertributary divides, alluvial benches and isolated terraces, a long narrow flood plain and coastal plain. The elevation ranges from 2,750 feet at the Koolau crest to sea level at Kaneohe Bay. The valley floor, where development occurs, has slopes from less than 15 percent to 40 percent locally (see Figure III-4).

Most of the windward side was part of the rift zone where repeated fissure eruptions occurred. Rift zones are characterized by numerous dikes, which are sheetlike vertical intrusions formed by slower cooling magma. Where dikes are numerous, closely spaced and generally comprise 10 percent or more of the rock, the term "dike complex" is applicable. The zone that adjoins the dike complex has more scattered dikes, generally less than 5 percent of the rock, and is called the marginal dike zone (Takasaki and Mink, 1981). In Waiahole, the dike complex extends from the coast to within a half mile of the crest and underlies the alluvium of the coastal lowlands and the valley floors. The marginal dike zone is a mile wide and is about equally proportioned on both sides of the range crest (see Figure III-5).

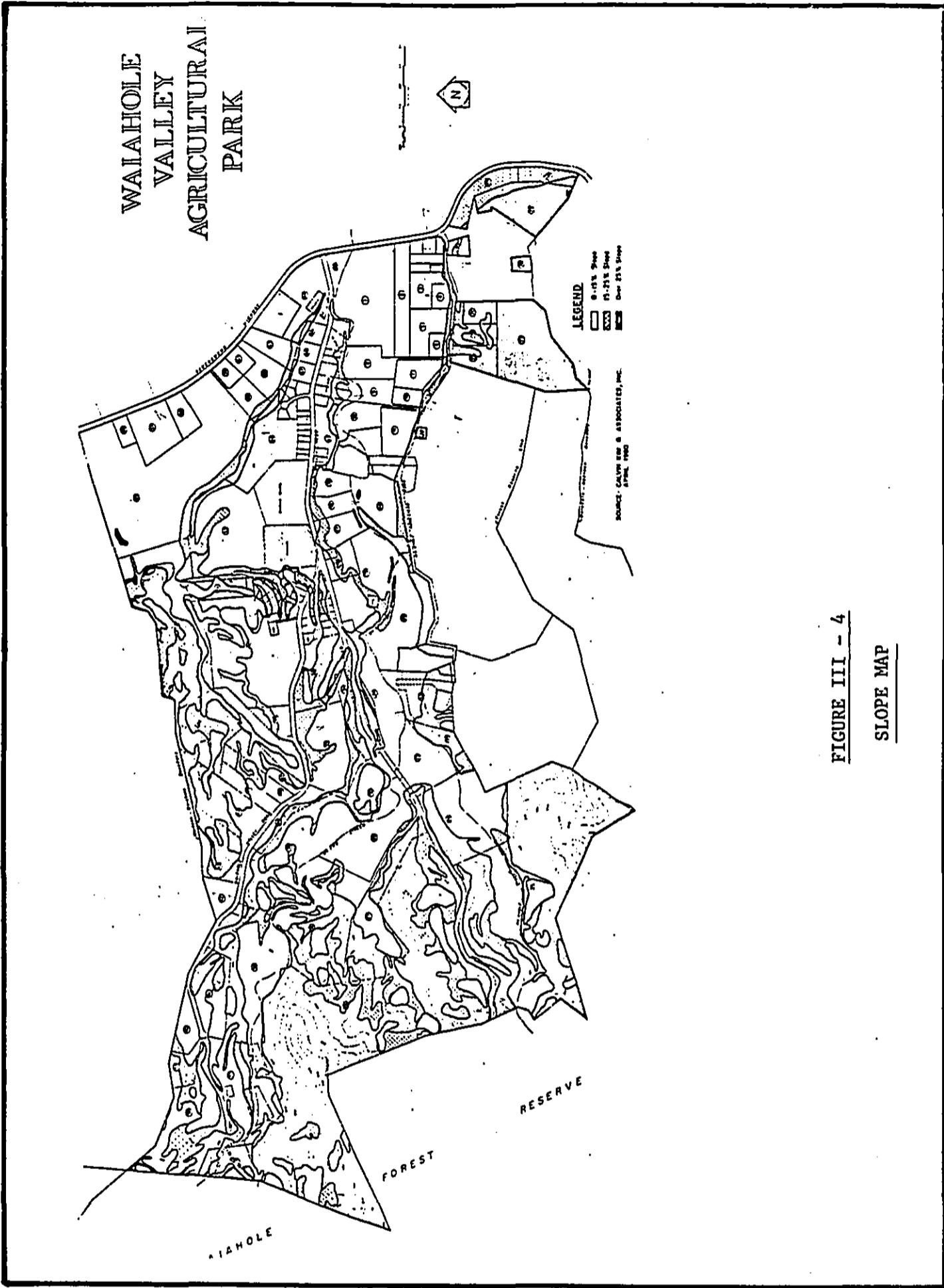
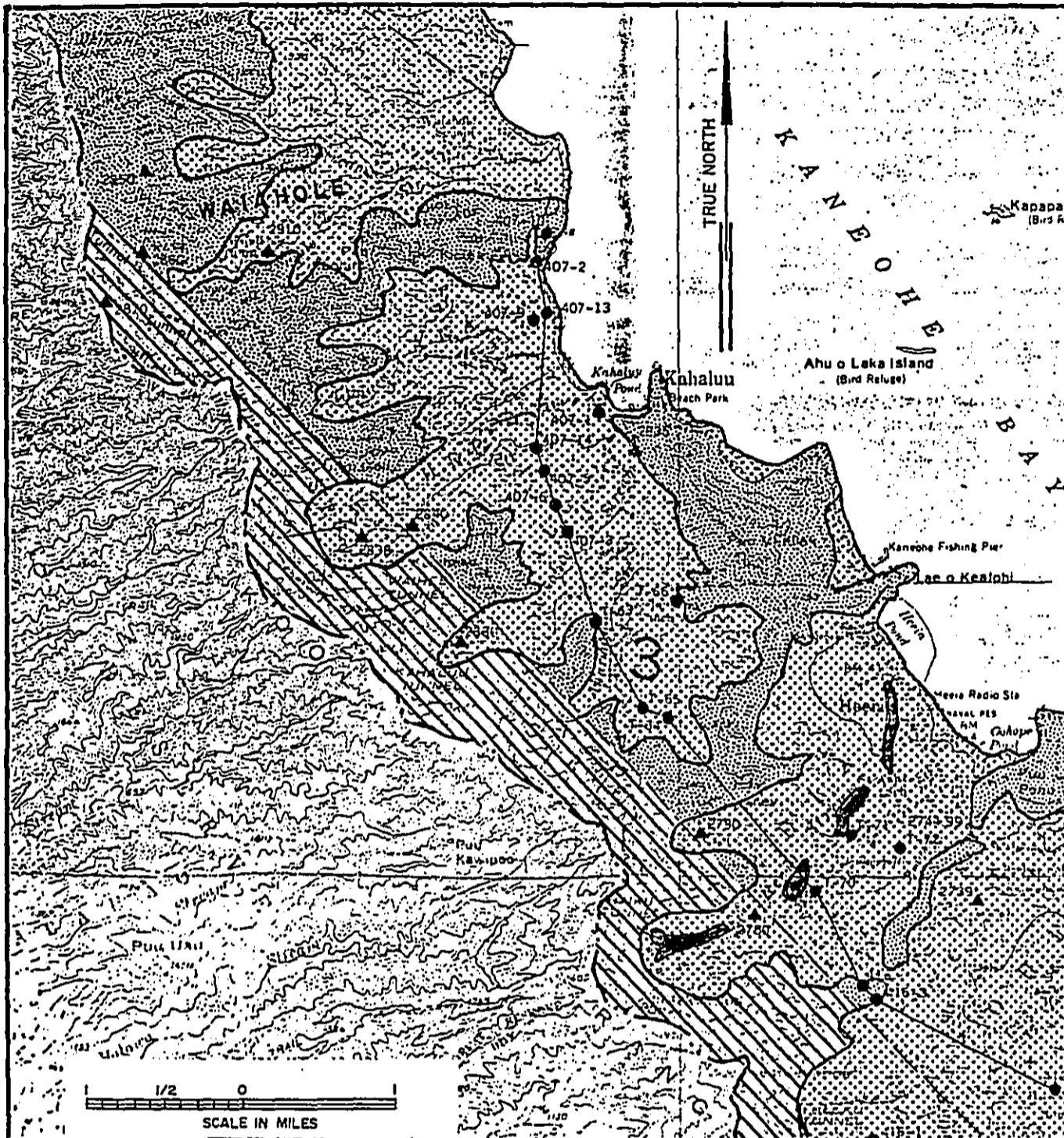


FIGURE III - 4

SLOPE MAP



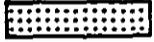
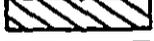
- LEGEND**
-  Dike complex
 -  Alluvium
 -  Marginal zone of dikes
 -  Honolulu Volcanic Series
lava flows, cinders and tuff

FIGURE III-5
GENERALIZED GEOLOGIC MAP OF WINDWARD OAHU

Source: Takasaki et al. 1960

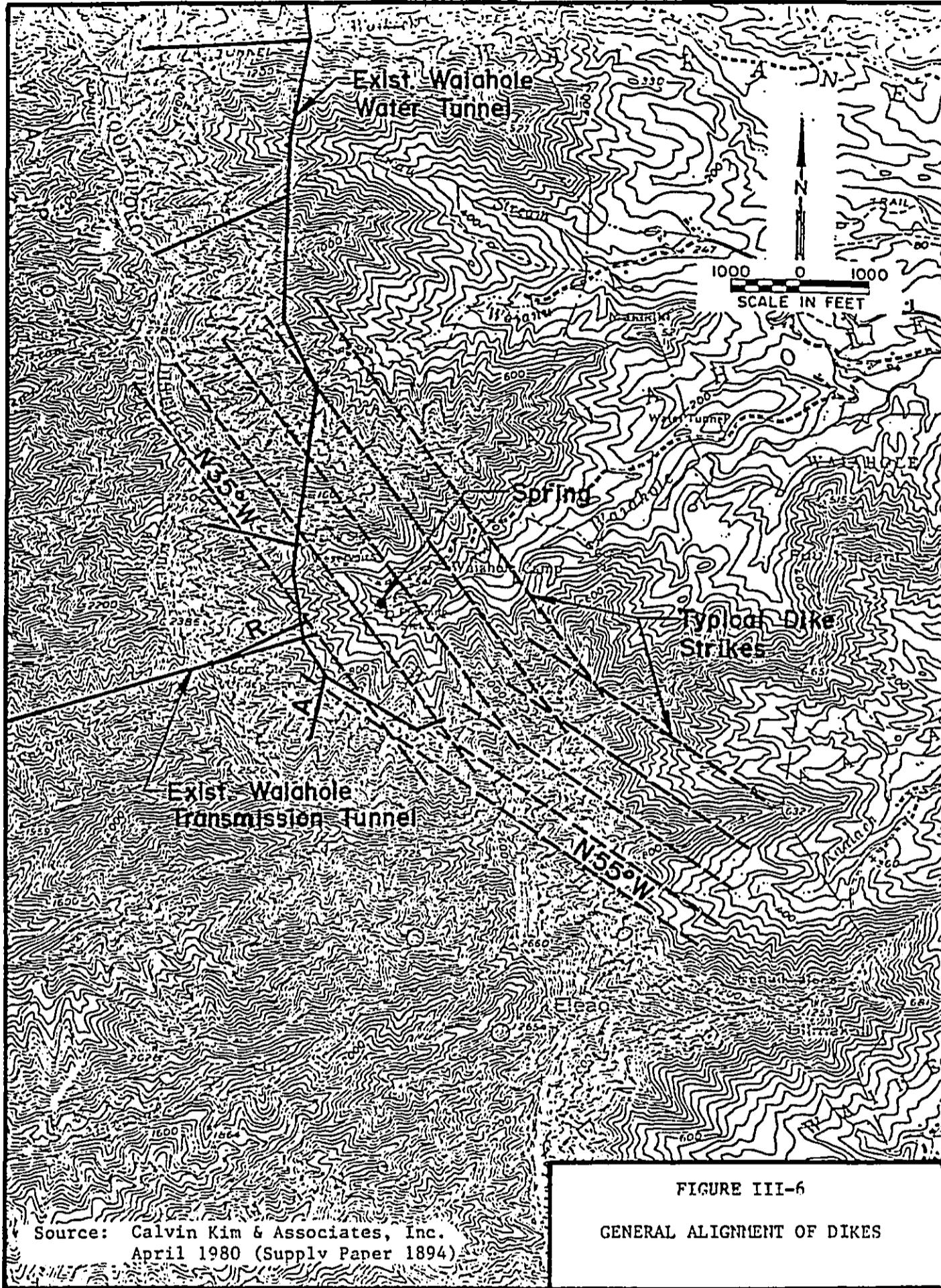
The dikes exercise much control in the occurrence and movement of groundwater. Because of the dikes' relative impermeability, groundwater moves parallel to the strike of the dikes. In the area southward of Waiahole Stream, the predominant strike of individual dikes is about N55°W. Northward from Waiahole Stream, dikes that strike N35°W become increasingly frequent (see Figure III-6). High-level rainfall, confined behind the individual dike walls, would slowly seek a point of discharge. Perennial streams are the primary discharge points, but other discharges occur through tunnels, wells, and springs. Figure III-7 illustrates the movement of dike-impounded groundwater for an area near Waiahole Valley. The figure shows how the recharged groundwater in one valley feeds a stream in another valley. The productivity of Waiahole Ditch stems from the fact that it intercepts the flow from several dike compartments.

Overflow from the dike compartments drain into Waiahole Stream and its tributaries (Figure III-8). During the dry weather season this groundwater seepage constitutes nearly all of the streamflow. During the wet weather season, surface runoff augments the groundwater contribution.

Hydrology

Surface Water Drainage System. Waiahole Stream is a perennial stream about 3 miles long with a drainage basin of about 3.82 square miles. There is one major tributary, Waianu Stream, which joins Waiahole Stream at an elevation of about 80 feet. Waianu Stream has one first-order tributary, Uwau Stream. Two other second-order tributaries at the head of Waiahole Stream, Halona on the south and Waihi on the north, have since dried up as a result of Waiahole Ditch (Takasaki et al. 1969).

Waianu Stream is artificially supplemented by a flow of 0.5 mgd from the Waiahole Ditch system as a result of an agreement between the McCandless Estate and the Waiahole Water Co. in 1912. Part of this flow is diverted into the existing water distribution system, with the remainder overflowing into Waianu Stream. Flow measurements taken in October 1979 indicated that only 0.4 mgd, rather than 0.5 mgd, was flowing from the Waiahole Ditch intake into the McCandless pipeline. Only half of that flow entered the existing water distribution system, while the other 0.2 mgd overflowed back into Waianu Stream. The 0.2 mgd overflow comprised



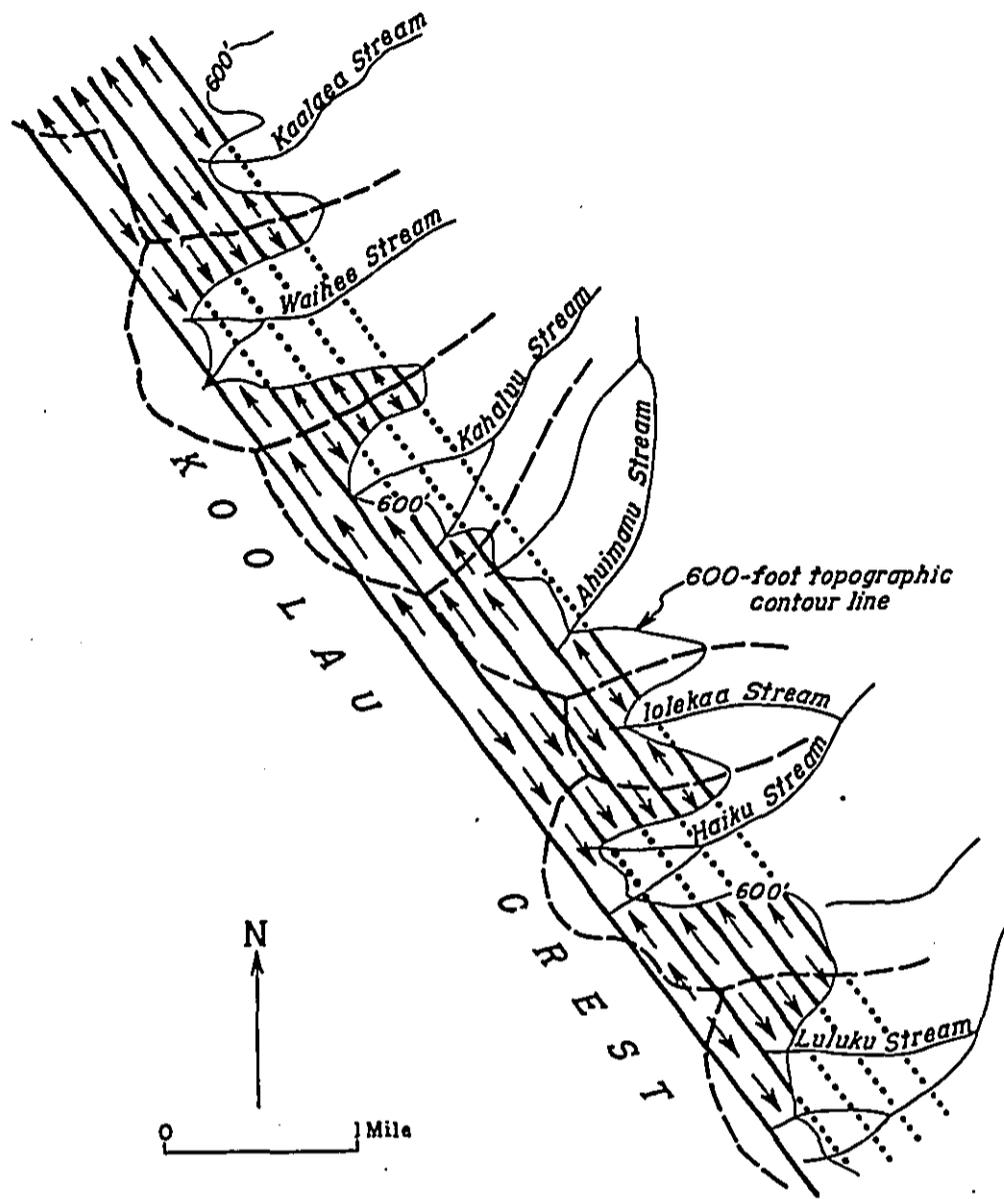
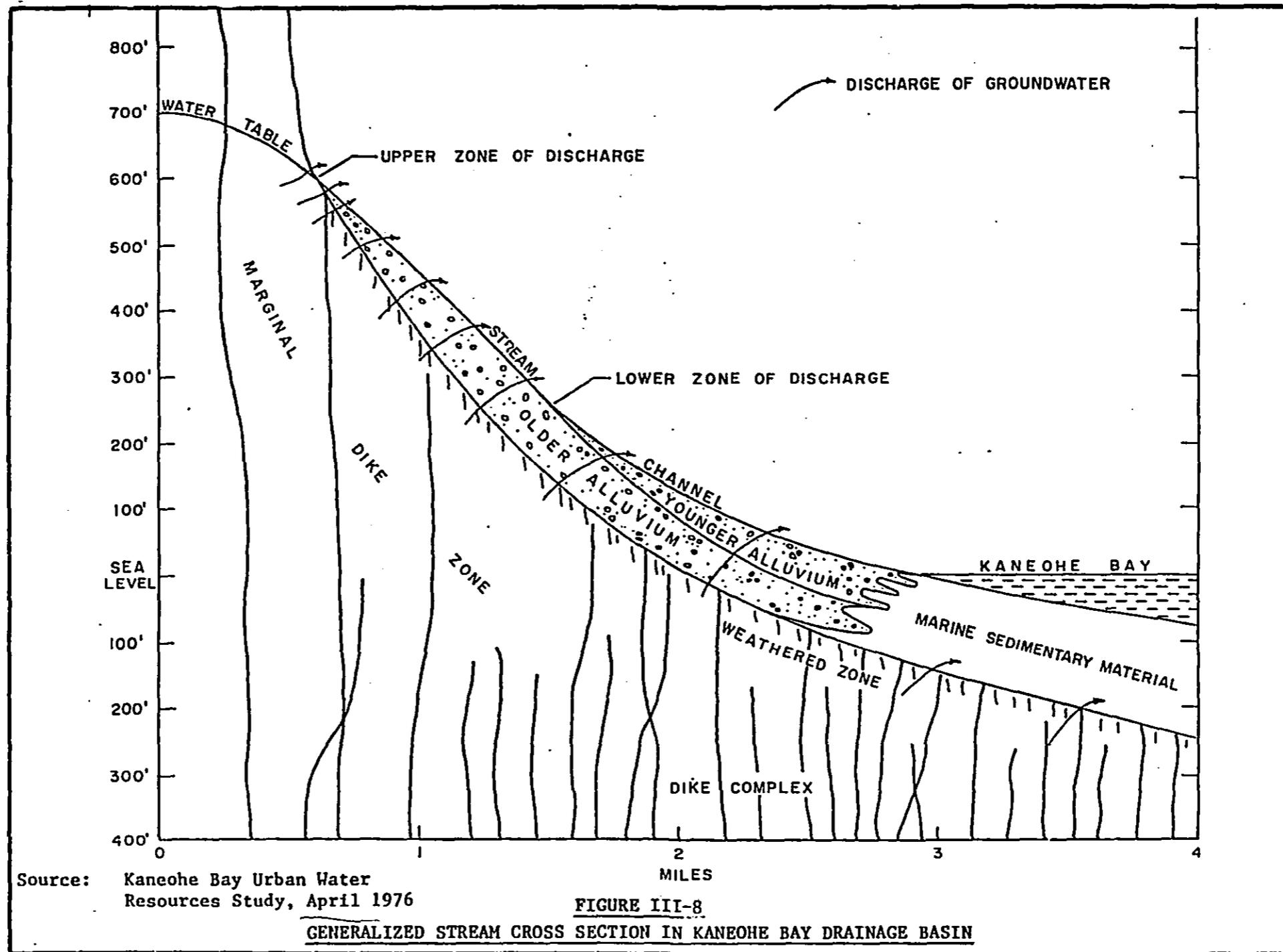


FIGURE III-7
 SCHEMATIC OF THE PROBABLE GROUNDWATER MOVEMENT BETWEEN PARALLEL DIKES
 ABOVE AN ALTITUDE OF 600 FEET IN AREA BETWEEN LULUKU AND KAALAEA STREAMS

Source: Takasaki et al. 1962

III-12



Source: Kaneohe Bay Urban Water Resources Study, April 1976

FIGURE III-8

GENERALIZED STREAM CROSS SECTION IN KANE OHE BAY DRAINAGE BASIN

one-third (0.2/0.55 mgd) of the Waianu Stream flow near its confluence with Waiahole Stream during the period of measurement (Russ Smith Corp., 1980).

The Waiahole Ditch system must be considered the major diversion since much of the flow in the ditch previously flowed through Waiahole Stream and its tributaries. Another existing diversion includes 1.1 mgd that is being pumped from Waiahole Stream at the 500-foot elevation to Waiahole Ditch. Entitlement of the pumped water was obtained by the Waiahole Water Co. in a lease with the state on December 31, 1970 that will extend to the end of year 2000. For the past several years, the Waiahole Water Company has voluntarily ceased pumping due to electrical costs. Negotiations are currently under way with the Waiahole Water Company to readjust their lease.

Streamflow Records. The only long-term streamflow record is based on measurements taken at the USGS gaging station (2910) on Waiahole Stream at the 250-foot elevation. Daily streamflow records were gathered over a 13-year period from 1955 to 1968, a considerable hiatus since the construction of the Waiahole Ditch system. Short-term records, however, are available for Waiahole Stream and its tributaries for 1911 (prior to the Waiahole Ditch construction), 1959 to 1961, and 1979. Stream gage station locations are indicated on Figure III-9, and stream gage records are summarized in Table III-2.

Streamflow records show that the impact of the Waiahole Ditch system has been significant:

<u>Stream Segment</u>	<u>Pre-Construction (mgd)</u>	<u>Post-Construction (mgd)</u>
Waihi Stream (750')	5.8	0
Halona Stream (750')	2.4	0
Waianu Stream (225')	7.7	0.55 (Russ Smith, 1980)
Uwau Stream (230')	1.4	0.153 (Takasaki, et al. 1969)
Waiahole Stream (250')	16.2	1.68 (Russ Smith, 1980)
Stream Mouth	25.2	3.32 (Russ Smith, 1980)

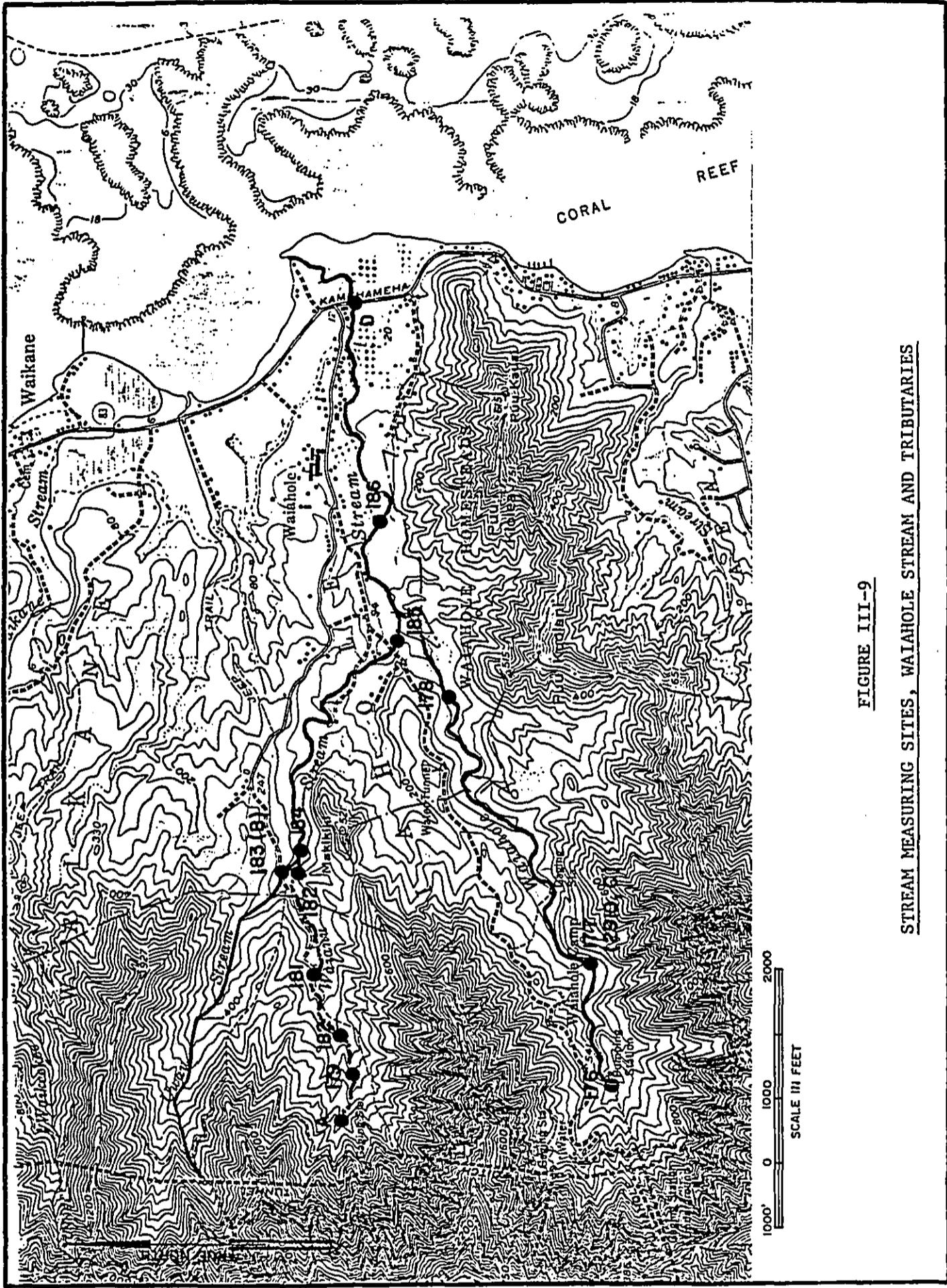


TABLE III-2

SUMMARY OF STREAM DISCHARGE DATA, WAIHAOLE STREAM AND TRIBUTARIES

<u>Station</u>	<u>Elevation</u> Ft	<u>Date</u>	<u>Discharge</u> mgd	<u>Reference</u>		
<u>Halona Stream</u>	750	Aug-Oct, 1911 (27 rdgs)	Ave 6.0 *	1		
			max 7.1 *	1		
			min 5.8 *			
<u>Waihi Stream</u>	750	Aug-Oct, 1911 (32 rdgs)	Ave 2.4 *	1		
			max 2.9 *	1		
			min 2.4 *			
<u>Waianu Stream</u>	A	650	10-11-11	5.4 *	1	
		179	480 **	7-21-59	.224	2
			9-26-61	.348	2	
	180	400	7-21-59	.026	2	
			3-28-61	.142	2	
	181	320	7-21-59	.200	2	
			7-19-60	.231	2	
			3-28-61	.259	2	
			9-26-61	.195	2	
	182	230	7-19-60	.505	2	
	184	200	7-21-59	.377	2	
			3-28-61	.724	2	
			9-26-61	.424	2	
			Sept-Nov, 1911 (22 rdgs)	Ave 8.1 * Max 9.7 * Min 7.7 *	1 1 1	
	185	80	7-21-59	.619	2	
			7-19-60	1.06	2	
			3-28-61	.918	2	
			10-27-61	1.34	2	
			10-17-79	.55	3	
	<u>Uwau Stream</u>	B	230	9-9-11	1.3 *	1
				10-11-11	1.4 *	1
	183	230	7-21-59	.083	2	
7-19-60			.235	2		
3-28-61			.153	2		

Table III-2, Cont.

<u>Station</u>	<u>Elevation</u> Ft	<u>Date</u>	<u>Discharge</u> mgd	<u>Reference</u>
<u>Waiahole Stream</u>				
176	480	7-20-59	.128	2
		7-19-60	.412	2
C	250	Sept-Dec, 1911 (98 rdgs)	ave 27.3* max 84.0* min 21.3*	1
(2910)	250	1955-1967	median 3.25	3
177		1955-1968	ave 6.14 max 1440.6 min 1.5	4
		10-17-79	1.68	3
178	120	7-20-59	2.34	2
		7-19-60	2.96	2
186	50	7-21-59	2.73	2
		7-19-60	3.90	2
D	0	Sept-Dec, 1911 (98 rdgs)	ave 30.2* max 31.7* min 28.7*	1
		10-17-79	3.32	3

- 1) Martin & Pierce, 1913
- 2) Takasaki, et al., 1969
- 3) Russ Smith Corp, 1980
- 4) USGS, 1977

* Prior to construction of Waiahole Ditch/Tunnel System.

** McCandless pipe discharges into Waianu Stream at this point.

The average flow conveyed by the Waiahole Ditch to Leeward Oahu is about 26 mgd. As a result, the amount of flow being discharged at Waiahole Stream mouth is almost 90 percent less than what flowed prior to the ditch construction.

Waiahole Stream records have shown that there is an increase in stream flow as measurements are taken progressively downstream. Between the gaging station (250 feet) and the confluence with Waianu Stream (70 feet), there is about a 25 percent gain in streamflow from groundwater seepage. There is an additional 25 percent influent stream gain between the confluence of Waiahole-Waianu and the stream mouth.

Monthly average and minimum stream flows are shown on Figure III-10. The average daily flow for the wet weather months (November to April) is about 12.4 mgd, which is three times the 4.1 mgd average flow for the dry weather months (May to October). According to the flow duration curve shown on Figure III-11, the 12.5 mgd average is equalled or exceeded about 8 percent of the time. The 4.1 mgd average is equalled or exceeded about 35 percent of the time. The minimum monthly flow is fairly constant at 1.5 mgd throughout the year, as shown on Figure III-10.

Water Quality. Water quality standards have been promulgated by the state Department of Health for the purpose of protecting public health and environmental quality (Chapter 54 of Title 11). The available water quality data for Waiahole Stream have been contrasted with the standards in Table III-3. Three previous studies collected water quality data on Waiahole Stream: Young et al. 1968; Lau et al. 1976; and Hathaway, 1978. In addition, a limited field sampling was conducted by M&E Pacific, Inc. (MEPAC) in 1982. The sampling station locations for the various studies are shown on Figure III-12. The fecal coliform count was the only parameter that exceeded the maximum allowable limit. Although the small sampling size did not meet the statistical requirement of the standards, it did qualitatively indicate through the FC:FS ratio that pollutant sources are a mix of human and animal wastes.

Instream Values. The primary instream value of Waiahole Stream and its tributaries has been its significance as a stream fauna habitat. Waiahole Stream and its tributaries were found to be among the best on Oahu when the abundance of native fish and shrimp are used as criteria

81-III

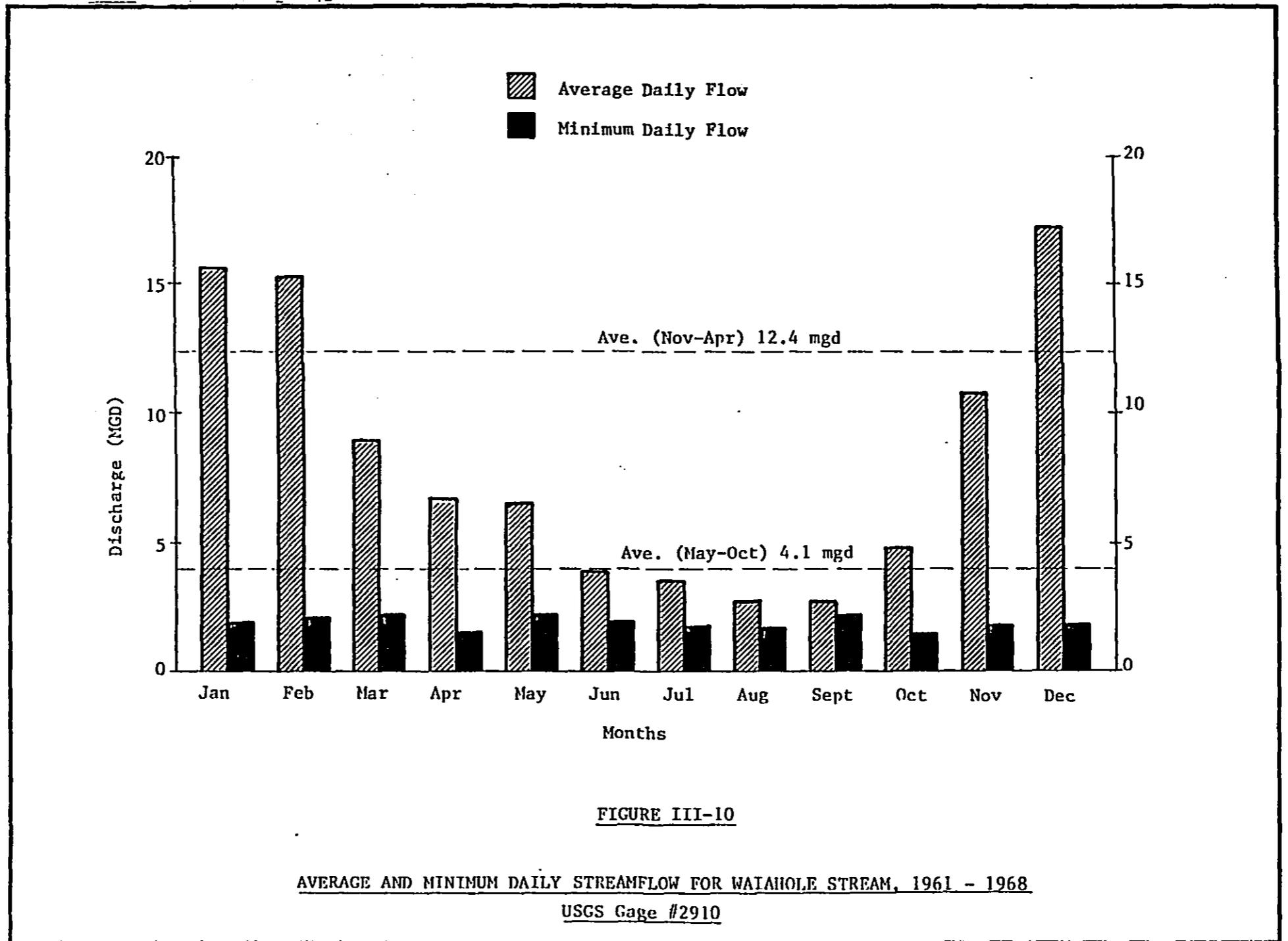


FIGURE III-10

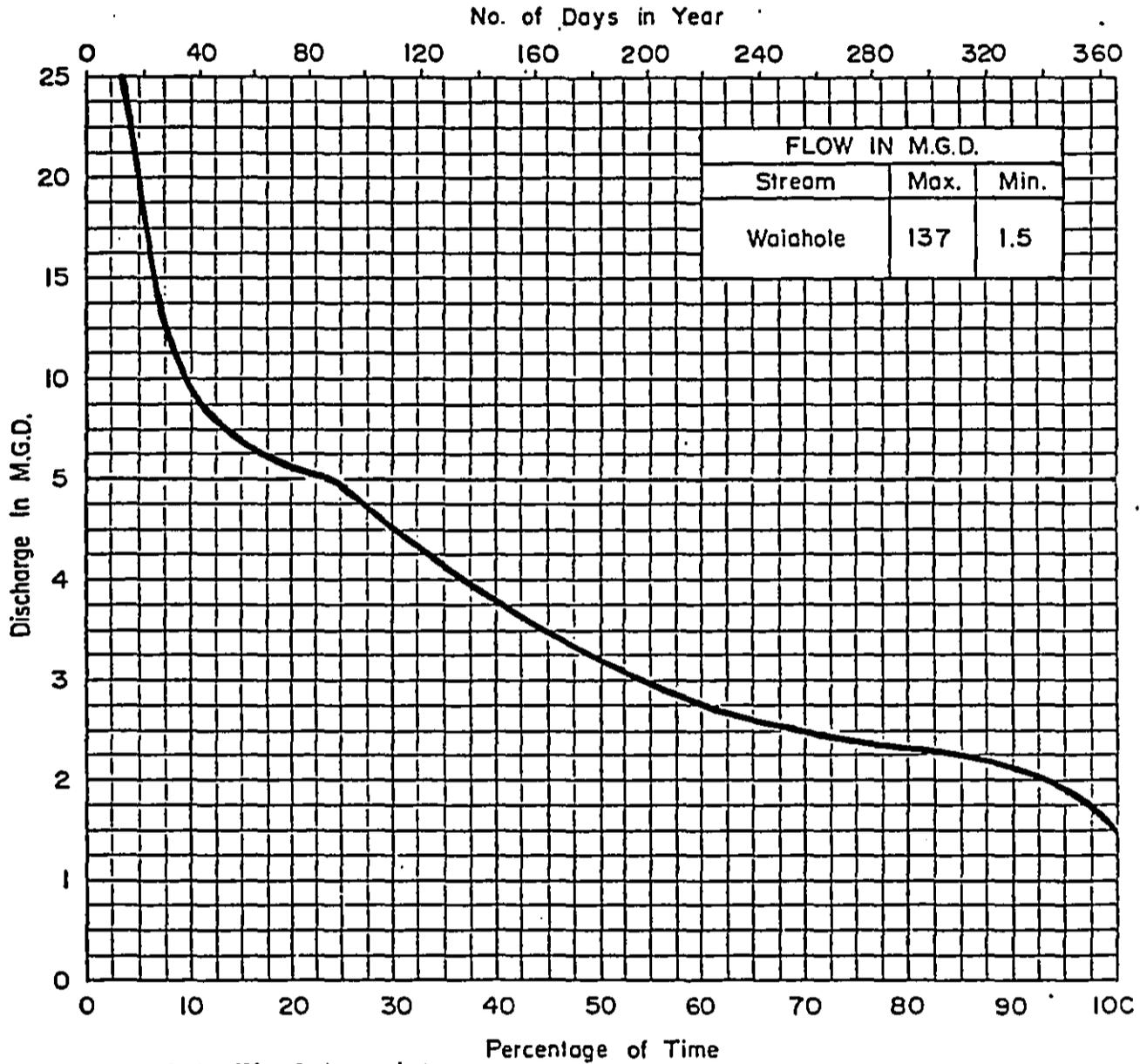
AVERAGE AND MINIMUM DAILY STREAMFLOW FOR WAIHOLE STREAM, 1961 - 1968

USGS Gage #2910

Waiahole Stream at 250' Altitude near Waiahole

Record-12 Years
1955-1967

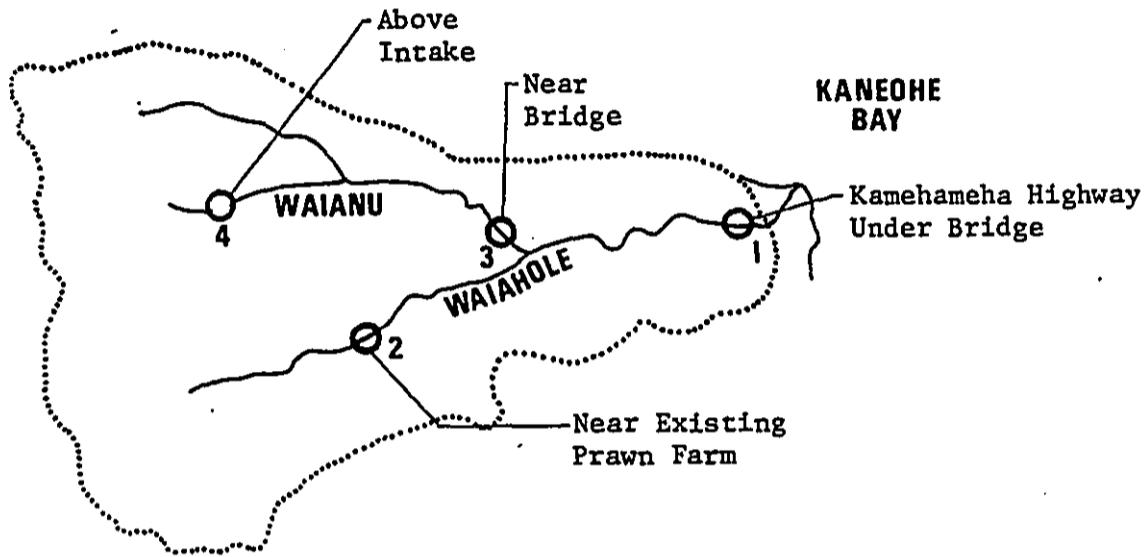
Period of Record 4383 days	Discharge Equal to or Exceeding - in M.G.D.							
	20	15	10	5	4	3	2	1.5
	219	334	420	1059	1665	2388	4090	4383
No. of Dcys in Avg. Yr.	18	28	35	88	139	199	341	365
Percentage of Time	5.00	7.62	9.58	24.2	38.0	54.4	93.3	100



Source: Calvin Kim & Associates,
Inc. (The Russ Smith
Corporation), April 1980

FIGURE III-11
WAIHOLE STREAM DURATION DISCHARGE CURVE

TRUE NORTH



○ Sampling Station

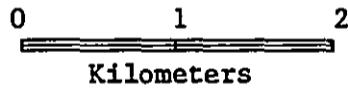


FIGURE III-12
STREAM WATER QUALITY STATIONS, WAIHOLE STREAM
AND TRIBUTARIES

(Timbol and Maciolek, 1978). Native species require a continuous flow to the ocean since part of their life cycle is spent in marine waters (i.e., they are diadromous). Of the 54 perennial streams on Oahu, Waiahole is one of 23 that has not been altered. Values associated with the stream fauna include:

- a. Scientific/educational. The endemic native species have evolved in Hawaii. Their evolutionary adaptations and limited distribution render them vulnerable to man-made habitat alterations and subsequent extinction.
- b. Food. Only two native species are valued for food--the o'opu nakea and opae kalaole. The other food species are exotic and include the Tahitian prawn, crayfish, and Chinese catfish. Frogs and tilapia are also sought for food by some people. The dojo and opae are sought as fishbait.

Table III-4 summarizes the distribution of stream fauna in Waiahole based on surveys from a previous study (Norton, 1977). Station locations are shown on Figure III-13. O'opu naniha, o'opu okuhe, and opae oehaa inhabit estuaries as well as lower reaches of streams. Aholehole and mullet are also known to frequent the lower reaches as juveniles. The o'opu nakea's primary habitat has been the upper stream reaches because of its fresh water requirements during post larval stages. The opae kalaole also prefers higher elevations and is the predominant species in upper Waiahole Stream.

Offstream Values. Primary offstream uses include irrigation, domestic use, and industrial use (such as cooling). In Waiahole, taro field irrigation is the only offstream use. Taro irrigation is a flow-through system; that is, sufficient water must be continually flowing through the patches to maintain the proper water temperature. (Temperature of the water should be below 72 degrees F. to discourage fungus disease.) Very little water is actually consumed by the plants. Water diverted from the stream is returned to the stream a few yards downstream of the taro patches.

There are presently two taro growers in Waiahole. The farm adjoining Waianu Stream has about 0.2 mgd flowing through its fields. The farm

TABLE III-4

DISTRIBUTION OF STREAM FAUNA IN WAIHAOLE
As Sampled Between February 1976 and May 1977

<u>Species</u>	<u>STATIONS</u>			
	<u>Waiahole Stream</u>		<u>Waianu Stream</u>	
	<u>Upper</u> (Sta 4) (%)	<u>Lower</u> (Sta 1) (%)	<u>Upper</u> (Sta 3) (%)	<u>Lower</u> (Sta 2) (%)
<u>Fish</u>				
Native				
Oopu naniha		0.9		
Oopu nakea	0.1		1.2	
Oopu okuhe		0.9		
Exotic				
Chinese catfish			0.4	
Molly				4.5
guppy	5.3	7.4	56.7	84.8
swordtail	1.9	5.8	10.2	22.4
<u>Crustaceans</u>				
Native				
Opae kalaole	91.7	48.4	16.5	1.4
Opae oehaa		33.2	9.5	9.8
Exotic				
Tahitian prawn	0.6	3.4	5.5	2.8
Crayfish	0.4			

Source: Adapted from Norton, 1977

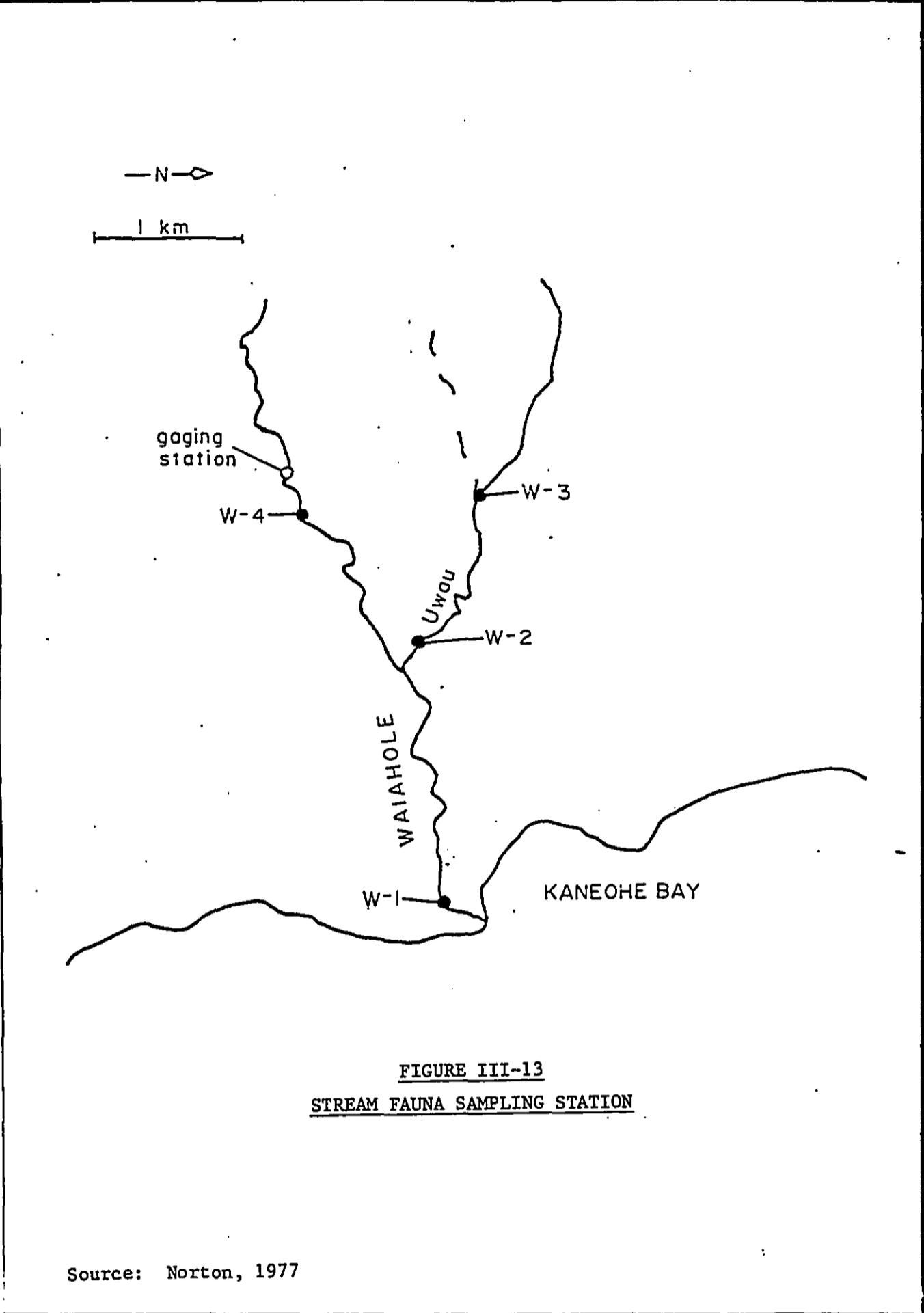


FIGURE III-13
STREAM FAUNA SAMPLING STATION

Source: Norton, 1977

adjoining lower Waiahole Stream also utilizes about 0.2 mgd (see Figure III-14).

Groundwater. In high-rainfall areas such as the windward side, a large percentage of the rain becomes groundwater, whereas in low-rainfall areas most of the rainfall evaporates or is transpired. The base flow of influent streams is maintained by groundwater; it is also the source of tunnels and wells. A part of the groundwater moves to sea as underflow; however, most of this occurs north of Kaneohe Bay where permeable, dike-free basalt extends to the sea (Takasaki et al. 1969).

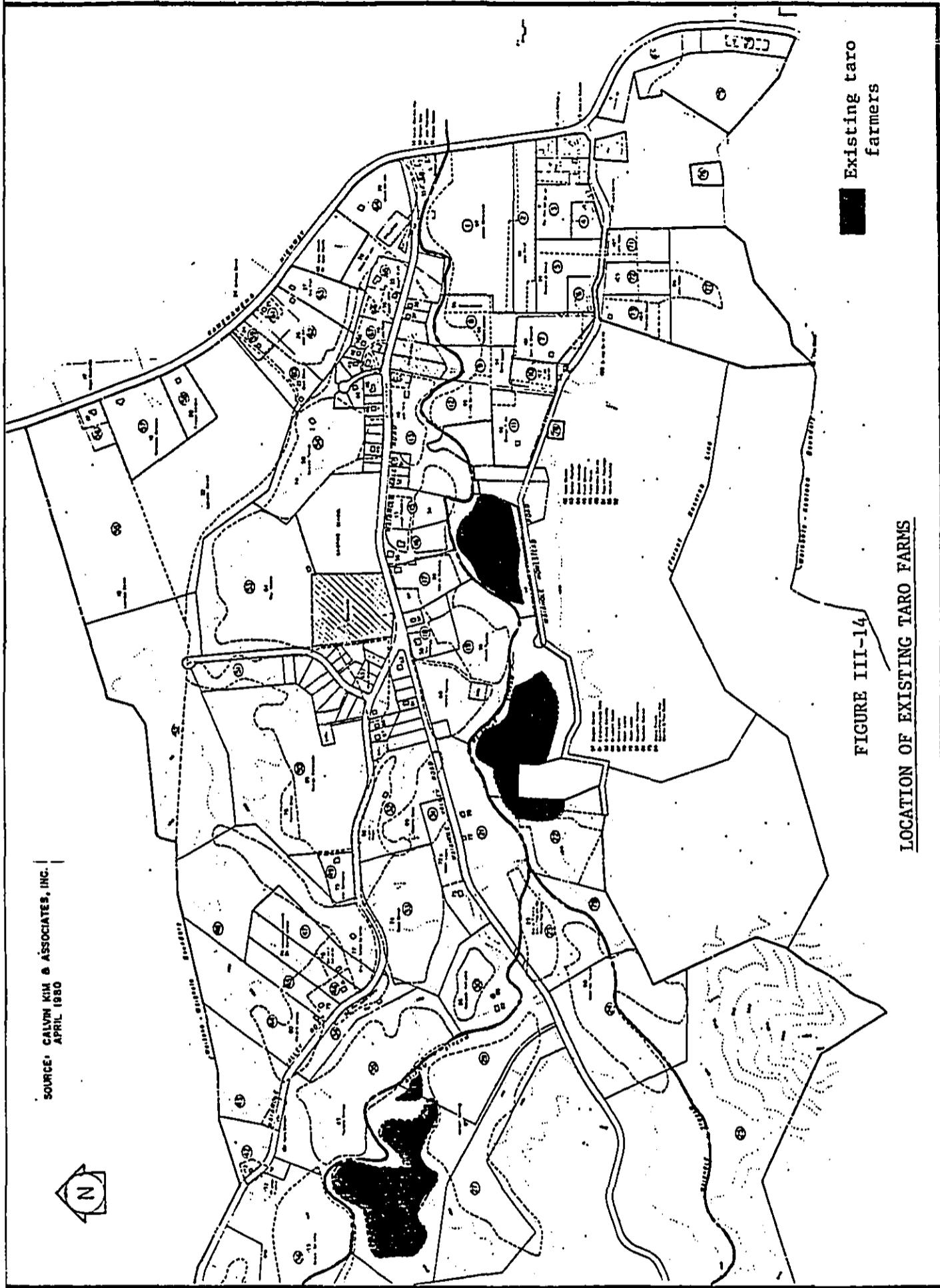
Wells drilled in the dike complex are not expected to yield large quantities of water because of the relatively low permeability of this lithologic unit. The expected yield ranges between 0.1 and 0.3 mgd per well (Takasaki and Mink, 1981). Such wells are not cost effective at the present time, although future needs and the cost of alternative water sources may change the economics of developing these wells.

The most favorable area for water development is the marginal dike zone. Springs once issued at the 1,000-foot elevation (Martin and Pierce, 1913). Since the Waiahole Ditch system lowered the point of discharge to 750 to 800 feet, the high-level springs have dried up. A lower spring still remains active at the 500-foot level. The pump station at this elevation has pumped an average of 1.1 mgd from the spring to the Waiahole Ditch system. Reduced cost effectiveness due to higher pumping electrical costs has curtailed the use of this source in recent years. Although there were instances when the stream has been dry immediately below the pump station, an additional inflow of at least 1.5 mgd reaches the stream above the 250-foot elevation (Russ Smith Corp., 1980).

Soil

Four soil series are represented in the Waiahole area: Pearl Harbor, Hanalei, Waikane and Alaeloa (USDA, 1972) (see Figure III-15).

Pearl Harbor (Ph) series soils in the area consist of very dark gray to gray-brown mottled clay on a muck or peat substratum, found on level plains adjacent to the ocean, such as the northeastern portion of the project area and the area immediately south of Waiahole Valley Road near

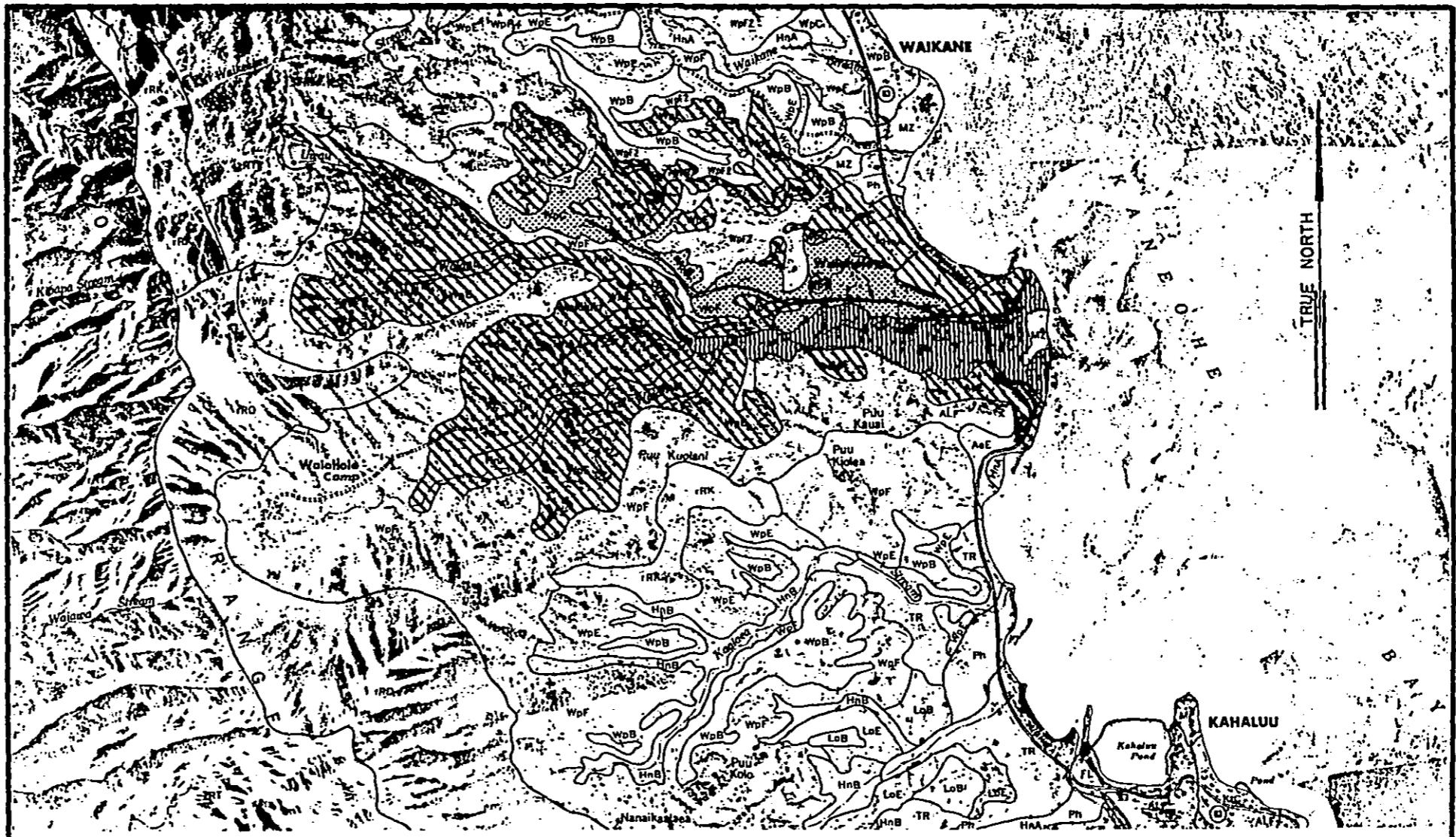


SOURCE: CALVIN KIM & ASSOCIATES, INC.
APRIL 1980

Existing taro farmers

FIGURE III-14
LOCATION OF EXISTING TARO FARMS

III-27



0 1/4 1/2 3/4 1
SCALE IN MILES

-  Prime Agricultural Land
-  Unique Agricultural Land
-  Other Important Agricultural Land

FIGURE III-15

SOILS MAP AND AGRICULTURAL LANDS
OF IMPORTANCE TO THE STATE

Sources: USDA, 1972; State of Hawaii, Dept. of Agricultural, 1977

its intersection with Kamehameha Highway. The soils at these locations have very low permeability.

Hanaiei (Hn) series soils consist of dark gray to very dark gray silty clays with red and dark brown mottles, with a subsoil of mottled dark gray and dark grayish-brown silty clay loam. Substratum varies from massive marine clays to peat, muck, or stratified alluvium. Hanaiei soils, found on floodplains along Waianu and Waiahole streams, have fair to poor drainage. These soils are moderately permeable with good agricultural workability.

Waikane (Wp) series soils consist of a dark reddish-brown silty clay subsoil above a substratum of soft, weathered gravelly alluvium or colluvium, gravel content increasing with depth. The predominant soils in Waiahole Valley, Waikane soils are found on alluvial fans, terraces, and on colluvium. Drainage is good, with moderately high permeability and moderate to rapid runoff. Workability is fair to difficult, depending on gravel content and slope. Slopes range from 3 to 8 percent (WpB), 8 to 15 percent (WpC), 15 to 25 percent (WpD), 25 to 40 percent (AeE), and 40 to 70 percent (ALF).

Agricultural Suitability of Soils. The state Department of Agriculture has classified soils according to their agricultural importance to the state. The categories include:

1. Prime Agricultural Land (100 acres). Land which has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops economically when treated and managed according to modern farming methods (WpB, WpC).
2. Unique Agricultural Land (80 acres). Land that has the special combination of soil quality, location, growing season, and moisture supply, and is used to produce sustained high quality and/or high yields of a specific crop when treated and managed according to modern farming methods (Ph, HnA).
3. Other Important Agricultural Land (270 acres). Land other than Prime or Unique Agricultural Land that is also of statewide or local importance for agriculture use (HnA, HnB, WpE, AeE).

The project area contains all three major soil classifications (refer to Figure III-15). A more detailed analysis of the suitability of the various soil types to grow crops is described in Table III-5.

Engineering Properties of Soil. The Hanalei and Pearl Harbor soils are exposed to seasonal high water tables. The Pearl Harbor soils have a high shrink-swell potential. These two soil types require extra precautions for development. Waikane soils on steeper slopes (WpD, WpE, WpF) may be subject to slope instability as the result of deep weathering. Expansive clays were noted in several areas, usually at the base of slopes greater than 15 percent in conjunction with high water table. Massive slope failures in other areas of Oahu (Palolo, Aina Haina) occurred after housing tracts were developed in areas of similar soil conditions (Dames & Moore, 1977). Both soil types have low to moderate erodibility (USDA, 1972).

Flora and Fauna

Terrestrial. Most of the native flora and fauna in Waiahole Valley were disturbed over a century ago. Early activities included cultivation and settlement by the Hawaiians right up to the present. Moreover, domesticated and feral goats, pigs, and cattle contributed to the destruction of the native vegetation beyond the areas of cultivation. In 1918, 1,169 acres were set aside as the Waiahole Forest Reserve to protect the watershed functions. Reforestation activities were undertaken between 1937 and 1940 on about 46 acres in the reserve. About 17,340 trees of over 294 exotic species were planted (Devaney et al. 1976).

Four major zones within Waiahole Valley can be identified to distinguish the varying geographical features, altitudinal levels, and level of disturbance: (1) beach area; (2) main valley and stream banks; (3) forest reserve, ridges, and puu's; and (4) Koolau pali (Berger, 1974).

Beach Area. The dominant vegetation along the shore consists of the indigenous hau tree (Hibiscus tiliaceus) and two species of introduced mangrove (Rhizophora mangle, Bruguiera conjugata). A few scattered tree heliotropes (Messerschmidia argentea) and coconut palms (Cocos nucifera) are also noticeable (Richmond and Mueller-Dombois, 1972). Migratory shorebirds, such as plovers, ruddy turnstones, wandering tattlers, and

TABLE III-5

SOIL TYPES IN WAIHAOLE VALLEY AND
THEIR SUITABILITY FOR AGRICULTURE

1. WpB (Waikane Silty Clay) - Slope 3 - 8%, well drained. Very good for sweet potatoes, string beans, cucumbers, egg plant, mountain yams. Very good for bananas except for wind problems on ridges. Good for tomatoes. Good for papayas except for wind and disease problems.
2. Ph (Pearl Harbor Clay) - Level, poorly drained. Very good for taro and pasture. Good for bananas, string beans, cucumbers, sweet potatoes, mountain yams, if properly drained. Good location mauka of highway for shade house production of flowers and foliage, greenhouse tomatoes and prawn farms.
3. WpC (Waikane Silty Clay) - Slope 8 - 15%. Fair to good for sweet potatoes, string beans, cucumbers, egg plant, mountain yams, tomatoes and papayas. Good for bananas except for wind problems on ridges.
4. HnA & HnB (Hanalei Silty Clay) - 0 - 6%. Excellent for taro. Good for bananas, snap beans, cucumbers, egg plant, mountain yams, tomatoes, if properly drained. Good location mauka of highway for shade house production of flowers and foliage, greenhouse tomatoes and prawn farms.
5. WpD (Waikane Silty Clay) - Slope 15 - 25%. Not recommended for agriculture, although bananas and certain vegetables could be grown under contour farming and/or terracing.
6. WpE (Waikane Silty Clay) - Slope 25 - 40%. Not recommended for agriculture.
7. WpE (Waikane Silty Clay) - Slope 40 - 70%. Not recommended for agriculture.
8. AeE (Alaeloa Silty Clay) - Slope 15 - 35%. Not recommended for agriculture.
9. ALF (Alaeloa Silty Clay) - Slope 40 - 70%. Not recommended for agriculture.

Source: Scott, 1981

sanderlings, can be seen at low tide during the winter months (Berger, 1976).

Main Valley and Stream Banks. Much of the vegetation in the main valley floor consists of agricultural crops, fallow land, and pastures. The fallow land is covered with a heavy growth of introduced grasses and scattered trees, shrubs, and introduced vines: paragrass (Panicum maximum), scattered pluchea (Pluchea odorata), Christmas berry (Schinus terebinthifolius) and Java plum (Eugenia cumini) (Nagata, 1982). Along the stream banks are dense stands of elephantgrass (Pennisetum purpureum), hau, and bamboo. Several tree species predominant along the streams above the fork include mango, Java plum, umbrella tree (Brassia actinophylla), hala (Pandanus sp.) and kukui (Aleurites moluccana). The fauna in this area are introduced species of birds (e.g., cattle egret, doves, mynah, cardinals), reptiles (e.g., gecko), and mammals (rats, mongoose). Most of the proposed activity occurs in this zone.

Forest Reserve, Ridges, Puus. The valley slopes are dominated by a mixed open-canopied forest of umbrella tree, hala, Java plum, and mango. Koa (Acacia koa), uluhe (Dicranopteris linearis), ie'ie (Freycinetia arborea), and hala represent the vestiges of the native forest which once inhabited these lower slopes. In the head of the valley, several species of the rare and endangered Cyrtandras, the endemic and possibly endangered Pteralyxia and Charpentiera were found in this very wet environment (Dames & Moore, 1977). The forest reserve at the mauka edge of the project is a denser forest. The planted trees in the reforestation project are located primarily at the south fork forest reserve area and include lemon-scented gum, paper bark, swamp mahogany, and brushbox. Native species observed include a tree, papala-kepau, and two fern species (Asplenium nidus and Vandenboschia sp.). The only native bird species that was sighted in this area is the black-crowned night heron. The elepaio, amakihi, and apapane were heard, but are believed to be transients and not nesters in the area (Berger, 1974). Pig-hunting occurs in this zone. Proposed activity would include a water line and reservoir.

Koolau Pali. Because the pali is exceedingly steep, only a few varieties of mosses, ferns, and low shrub growth grow. The steep slopes

provide suitable habitat only for the white-tailed tropic bird and feral pigeon.

Introduced "exotic" species of plants and animals predominate in Waiahole Valley. One known endangered species occurs at the head of the valley outside of the project area (Nagata, 1982).

Wetlands

Wetlands are valued as a habitat for waterbirds and as a "filter" for sediments and nutrients before surface runoff reaches the coastal waters. The only wetlands in Waiahole Valley are taro fields. These wetlands are the result of man-made modifications, including the construction of dikes, irrigation ditches, terraces, and stream diversions. Waterfowl habitation of the taro patches within Hanalei National Wildlife Refuge on the island of Kauai demonstrates the utility of artificial habitats.

Wetland acreage in Waiahole Valley was largest during the period of 1910 to 1920 when rice farming was at its peak. At that time, as much as 320 acres were devoted to wetland rice cultivation (Miyagi, 1963). Rice cultivation declined drastically after 1930; about 98 percent of the wetland areas were lost. Only 6 acres remain in taro cultivation at the present time. These six acres are one of four remaining subregions in the Kaneohe Bay region where wetlands still exist (see Table III-6). The Waiahole-Waikane subregion is not considered of significant value to waterbirds. The other three areas in the Kaneohe Bay region (Nuupia, Kualoa, and Haena), however, are considered significant. Nuupia has been protected as a wildlife sanctuary (U.S. Fish and Wildlife, 1977).

Natural Hazards

Flood Hazards. Flooding of low-lying areas can be caused by storms or tsunamis. Tsunamis are not a problem for shoreline areas adjacent to Kaneohe Bay because the bay area is sheltered by fringing reefs and Mokapu Peninsula (Loomis, 1979). Storm flooding, however, is a concern in Waiahole Valley.

Known historic floods in Waiahole Valley were recorded by a USGS stream gage that was operational from 1955 to 1967 at the 250-foot elevation of Waiahole Stream (Gage #2910). Three floods were recorded:

TABLE III-6

STATUS OF WETLAND ACREAGE IN THE KANEOHE BAY REGION BETWEEN 1900 AND 1968
(Excludes Open Water Areas)

Wetland	Approx. 1900-1928 Acreage*	Approx. 1968-1977 Acreage**	Percent Loss
Waiahole/Waikane	520	6	98.8
Kahaluu/Kaalaea	300	0	100
Heeia/Kaneohe	200	155+	23
Waihee	160	12 ⁺⁺	92.5
Hakipuu	10	0	100
Nuupia	112 [#]	45	59.8
Kualoa	unknown	4	--
TOTALS	1302	222	83

Legend:

- + Heeia only, with Kaneohe containing no remaining wetland area today.
- ++ Hawaii Department of Agriculture 1977 estimate.
- ** Planimeter measurements from 1968 U.S.G.S. topo. maps. Verification by 1977 field observations, and aerial photos.
- * From Coulter and Chun (1937), Chun (1954) and Miyagi (1963).
- # Planimeter measurements from 1928 U.S.G.S. topo. maps.

Source: U.S. Fish and Wildlife, 1977

April 15, 1963 (1440 mgd); May 5, 1965 (1440 mgd); and November 12 to 14, 1965 (592 mgd). About 0.76 square miles, or 10 percent of the combined Waiahole-Waikane drainage basin, were inundated (Ewart and Lee, 1974).

The peak rate of discharge, the duration of the peak flow, the amount of rainfall on lowland areas, and the coincidence of runoff with respect to the tidal cycle all contribute to the extent of overflow. For example, the peak discharge of the November 1965 flood was only 40 percent that of the May 1965 flood, but the extent of inundation was nearly the same because of a longer storm period and greater volume of rainfall.

The condition of culverts and bridge openings has also contributed to flooding problems in Waiahole Valley. Runoff from lowland area drained by a ditch parallel to Kamehameha Highway is conveyed to Kaneohe Bay through several culverts. These culverts are often clogged by debris or are hydraulically inadequate, thus water backs up and overflows over the highway during periods of high rainfall. Moreover, flood levels in Waiahole Stream have risen to the level of the bridge and have caused overflows (see Figure III-16). On May 1965, debris clogged the bridge opening; the hydraulic pressure of the flood waters collapsed the bridge and further dammed the stream.

The National Flood Insurance Program was initiated to improve management of flood plain development and to lessen threats to public safety and property. The City and County of Honolulu has adopted flood insurance maps to comply with its flood hazard ordinance. The county is in the process of conducting further studies to append the area of coverage. The flood insurance maps distinguish zones for the 100-year flood, the 500-year flood, minimal flood hazard, and coastal high hazard (City and County, 1980). Within Waiahole, the following two zones are applicable:

Zone A - Areas of 100-year flood (a flood magnitude with 1 percent chance of being exceeded in any one year)

Zone B - Areas between 100-year and 500-year flood limits (a 500-year flood has a 0.2 percent chance of being exceeded in any one year).

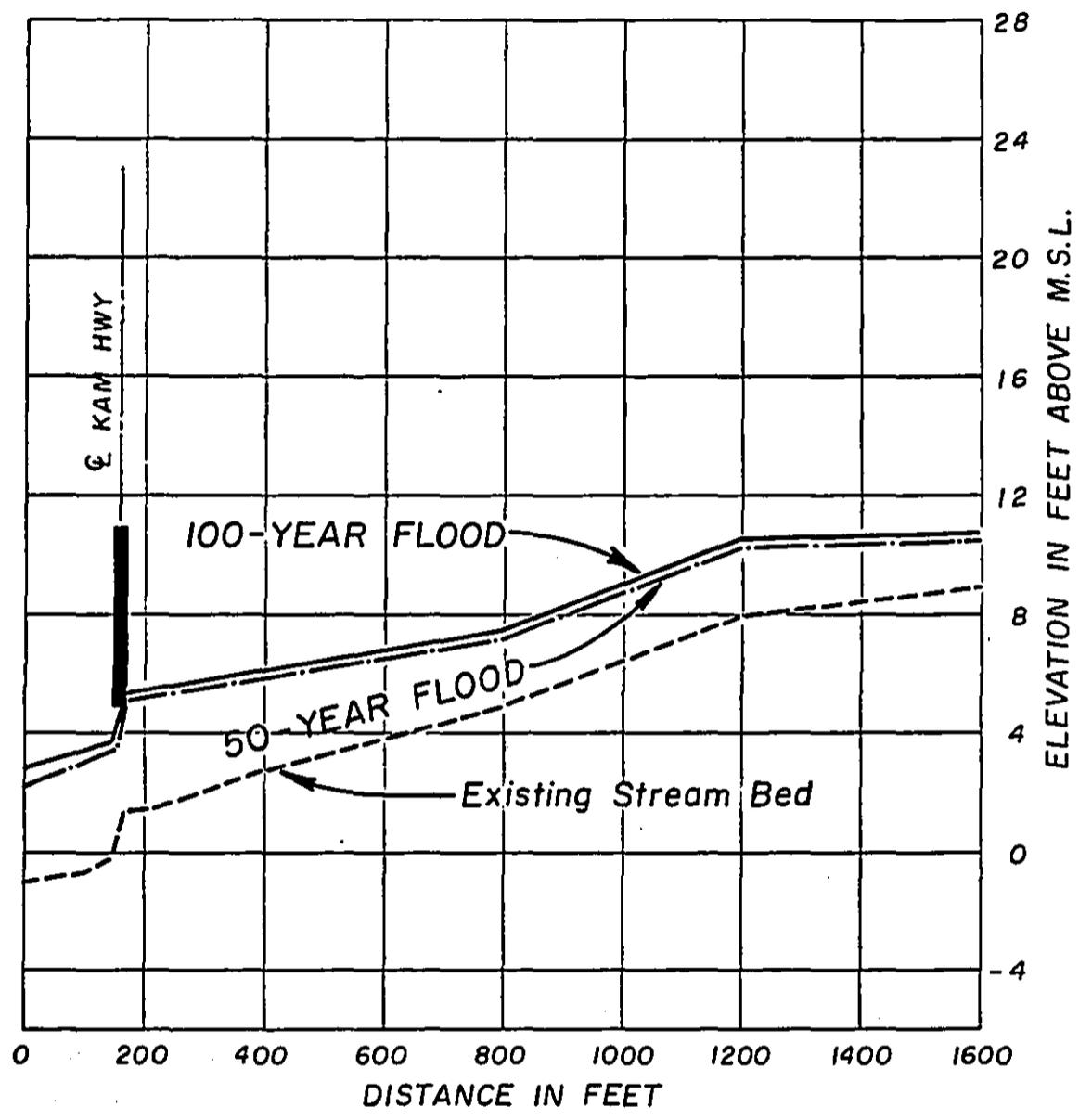


FIGURE III-16
 WAIAHOLE STREAM FLOOD PROFILES

Source: DLNR, 1973

Figure III-17 shows the official delineation of flood insurance zones and the expected water surface elevations of the 100-year flood.

As a point of reference, the destructive May 1965 flood was computed to be a 12-year flood, meaning that there is an 8 percent chance of such an event recurring in any one year (Ewart and Lee, 1974).

Earthquake Hazard

Seismic risk maps have been prepared to show zones of approximately equal seismic risk. They are based upon damage that has occurred in past earthquakes and show the regions of greater or lesser intensity of ground shaking. The zones are as follows:

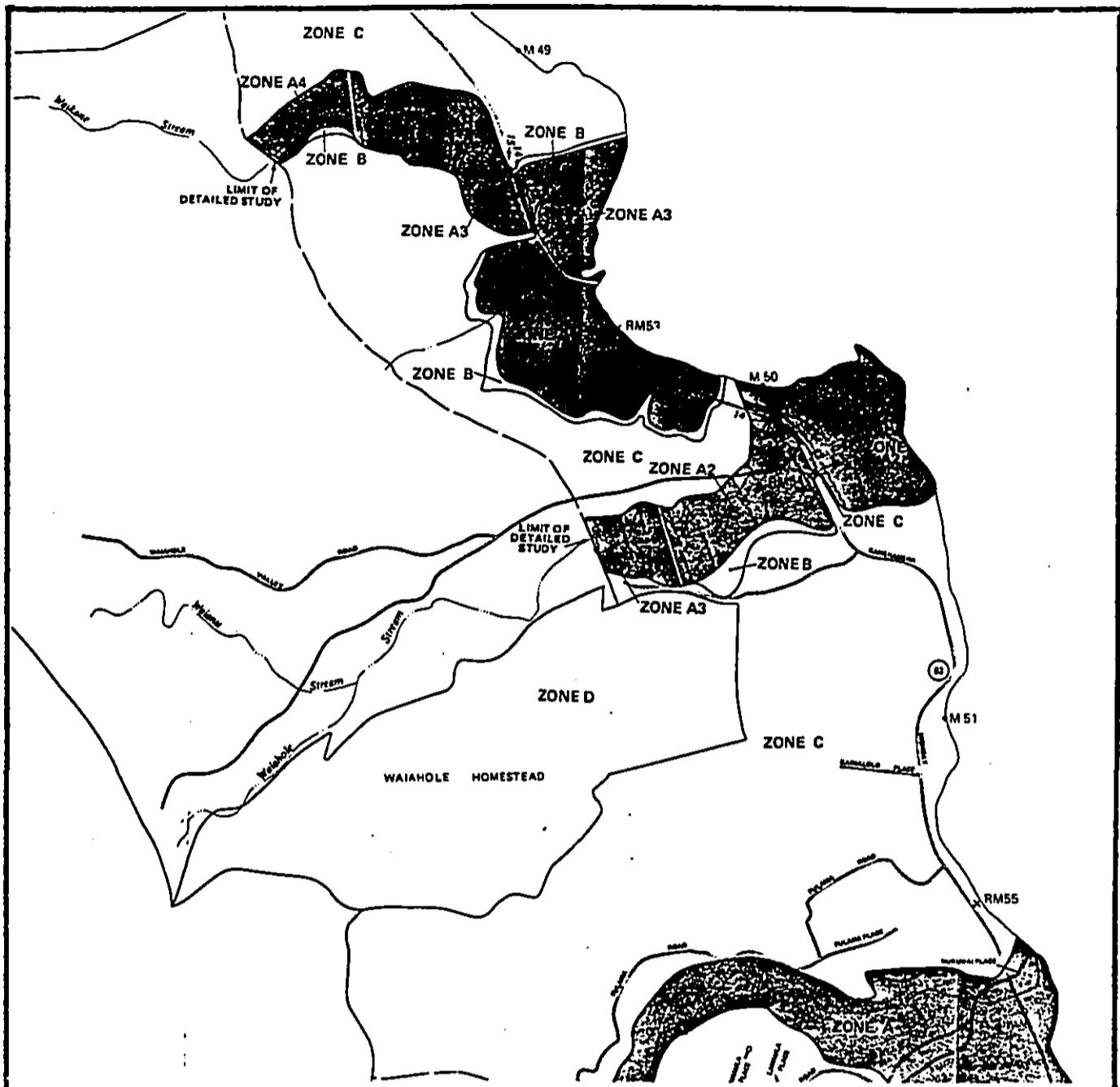
- Zone 0: No damage
- Zone 1: Minor damage
- Zone 2: Moderate damage
- Zone 3: Major damage
- Zone 4: Severe damage

A seismic report recommends that the island of Oahu be designated Zone 1, which corresponds to an intensity on the Modified Mercalli Intensity Scale of less than 6 (see Figure III-18) (Furumoto et al. 1973), or a magnitude 6 earthquake producing a peak acceleration of 0.1 g (Structural Engineering Association of California, Standard No. 1).

Air Quality

The major sources of air pollution in Waiahole are automobiles, open burning, and defective cesspools. Odors, dust, and pesticide aerosols are periodically generated by agricultural activities. During easterly or southeasterly winds, Waiahole Valley may receive pollutants generated in the Kaneohe to Kahaluu area. Fortunately, winds from this direction are infrequent.

The closest air sampling station in the vicinity was maintained by the state Department of Health at Kahaluu during 1961 and 1963. Only particulate matter was measured at the Kahaluu station, and the average concentration was 33 micrograms per cubic meter of air (Nekota, 1974). This is below the present Ambient Air Quality Standard of 55 micrograms



KEY TO MAP

500-Year Flood Boundary	_____	ZONE B
100-Year Flood Boundary	_____	
Zone Designations* With Date of Identification e.g., 12/2/74		
100-Year Flood Boundary	_____	ZONE B
500-Year Flood Boundary	_____	

FIGURE III-17

FLOOD INSURANCE RATE MAP, WAIAHOLE VALLEY

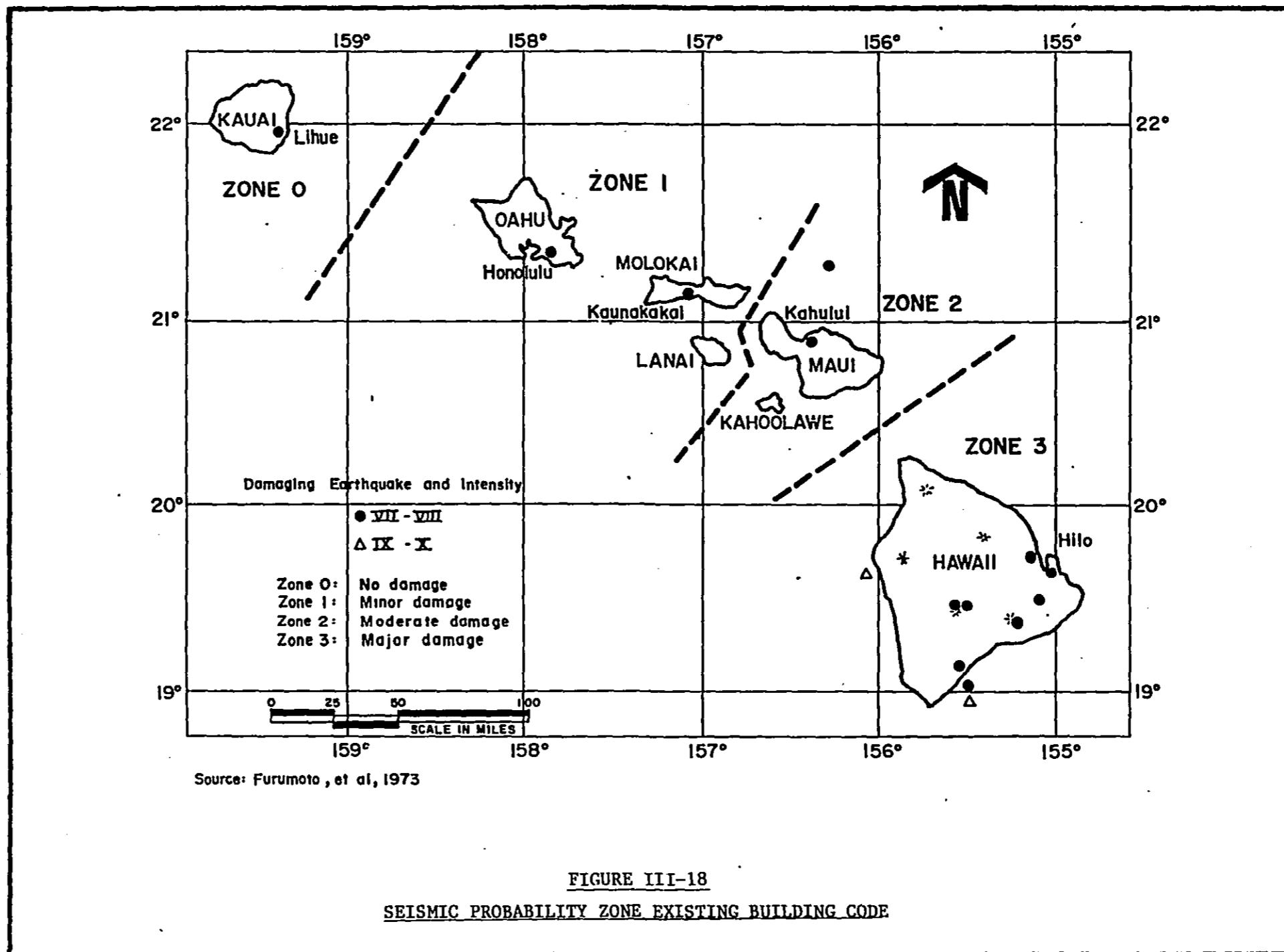


FIGURE III-18
SEISMIC PROBABILITY ZONE EXISTING BUILDING CODE

per cubic meter (Chapter 59 of Title 11, Administration Rules). More recent data were collected for Waimanalo, a rural agricultural area similar to Waiahole Valley. The particulate matter concentration during the period of 1971 to 1978 averaged 31.25 micrograms per cubic meter.

Noise

The only noise survey data applicable to the Waiahole district were collected by the state Department of Health at Waimanalo, about 14 miles southeast of the district boundary.

A report by Iwao Miyake of Acoustical Consultant Design Engineering, Inc. indicated that the noise level exceeded 90 percent of the time in the Waimanalo area was 44.5 decibels. The noise level exceeded 50 percent of the time was 50.0 decibels. These readings are considered to be quiet according to the rating scale developed in the study by C.H.G. Mills and D.W. Robinson of England (Miyake, 1974).

CULTURAL CHARACTERISTICS

Background

In the late Hawaiian period prior to Cook's arrival, settlement in Waiahole Valley was at its peak. As many as 500 persons were believed to have lived in the valley during that period (Miyagi, 1963).

The system of land tenure and use changed with the arrival of Westerners. The traditional land tenure system was replaced by a Western system of fee simple ownership. Commoners were given an opportunity to claim the land on which they lived and farmed. In Waiahole Valley, a total of 53 such awards (Kuleana awards) were granted. Four other awards (of more than 10 acres) were also granted; these were 'ili grants to konohiki (Devaney et al. 1976). The Land Commission Award documented these grants and awards.

The kuleana awards to commoners were spread out along the banks of the valley streams, from the coast to approximately 3.7 km (2.3 miles) inland. Some parcels were situated on the Kaneloa terrace and along the base of the southern spur near the ocean.

In general, the parcels along the stream edges were used for irrigated taro cultivation. The kula parcels were planted in a variety of crops, including potatoes, melons, sugar cane, 'awa, and bananas. Houses were usually located with the kula farms and described as being "separate and not enclosed" (from Land Commission Award claims and testimonies).

Awards in the upper gulches and in the delta area of Waiahole Stream did not have kula parcels.

Within twenty years, however, subsistence taro cultivation was supplanted by rice growing. Thrum (1876) writes that the rice industry took off with the decline of whaling in the early 1860s, so much so that good taro was being pulled up and terraces were being replanted in rice.

An 1878 map of Waiahole Valley shows extensive rice fields, particularly on the coastal flat fronting Kaneloa. The only inland fields are on Crown lands along Waianu Stream mauka of its junction with Waiahole Stream.

By planimetric measuring of historical maps, Miyagi (1963, Fig. 22) calculated the area under rice cultivation to be approximately 280 acres at the height of the rice industry. He also noted that the rice farmers had brought new areas into irrigated cultivation through the construction of new canals, particularly those which crossed the top of the Kaneloa terrace.

The rice industry began a continuous decline from the turn of the century until the final blow in the late 1920s caused by the appearance of the rice borer insect. In Waiahole Valley, rice fields were being abandoned as early as 1910, although Miyagi notes that "farmers in the valley recall some rice being planted as late as 1920" (1963).

Japanese replaced Chinese on the land during this period and truck farming replaced rice cultivation (Miyagi, 1963).

During this same period of rice decline (1910 to 1925), pineapple growing underwent a rapid rise and equally rapid fall on the windward side of Oahu. Focused at Libbyville, the Libby, McNeill, and Libby cannery in Kahaluu, pineapple cultivation took over large tracts of land. In Waiahole and Waikane valleys, Libby acquired leaseholds totalling 600 acres in 1912, and pineapple was grown "by individual Chinese and

Japanese farmers on moderately sloped hill lands where rice and taro could not be grown" (Miyagi, 1963). Farmers used a train (possibly the same used for the construction of the Waiahole Ditch) "to haul pineapples... from Waiahole to Waikane landing...and from Waikane...by boat to the Libby cannery at Wailau" (Ferreira, 1940, in Miyagi, 1963).

For economic reasons, the Libby cannery was closed in 1925 and production was shifted to the more profitable, Central Oahu operations. The closing took its toll on the small planters in Waiahole.

Throughout the decades of rice, pineapple, and truck farming, taro continued to be grown, though of course at a lesser scale than pre-19th century Hawaiian land use. The Waiahole Poi Factory operated continuously from 1904 to 1971, processing taro from the valley as well as from other areas (Sichter n.d; Paglinawan, personal communication). Miyagi was told by a long-time Waiahole resident that "the farmers of the valley sent their taro and other products to Honolulu by muleback by way of the Pali Road as late as 1910. They started early in the morning, sold their produce in the market and returned late in the evening" (1963).

The valley today retains the rural atmosphere of truck farms, which produce bananas, papayas, sweet potatoes, and other vegetable crops. Large nurseries occupy the coastal flat between Kamehameha Highway and the Kaneloa escarpment. Residences line the main and northern segments of Waiahole Valley Road and cluster in the Waiahole Farm Homesteads area along the base of the southern spur.

Waiahole Valley gained its secure place in island history as being the site of the Waiahole Ditch, which tapped the rich water resources of the Koolau range and carried them to the parched sugar fields of Ewa. Construction began in 1913 and the main bore and most of the interceptor tunnels were completed in 1916. It took water from Kahana and Waikane valleys as well as Waiahole and Waianu. Miyagi (1963) accounted for the lessened stream flow in Waiahole Valley by the interception of water by the tunnel system. He figures that the average daily discharge of Waiahole Stream in 1956 to 1958 was only approximately two-fifths that of 1912.

Registered Sites. The background historical understanding of the Waiahole region is based on written records and oral history (interviews).

Archaeological sites are the storehouses of information that could refine our understanding or even provide revelations that could alter our understanding of the past. Unfortunately, detailed archaeological investigations have not been previously undertaken for Waiahole Valley. Consequently, only one site in the entire Ahupua'a has been placed on the state Register of Historic Places (Site #1086). This site, which consists of house platforms, is located outside the project boundaries near the mouth of Waiahole Stream.

To fill this void of knowledge, reconnaissance surveys were undertaken in two steps:

Step 1: Based on a literature review and walk-through survey, areas with high potential for containing significant sites were identified (Chiniago, 1982).

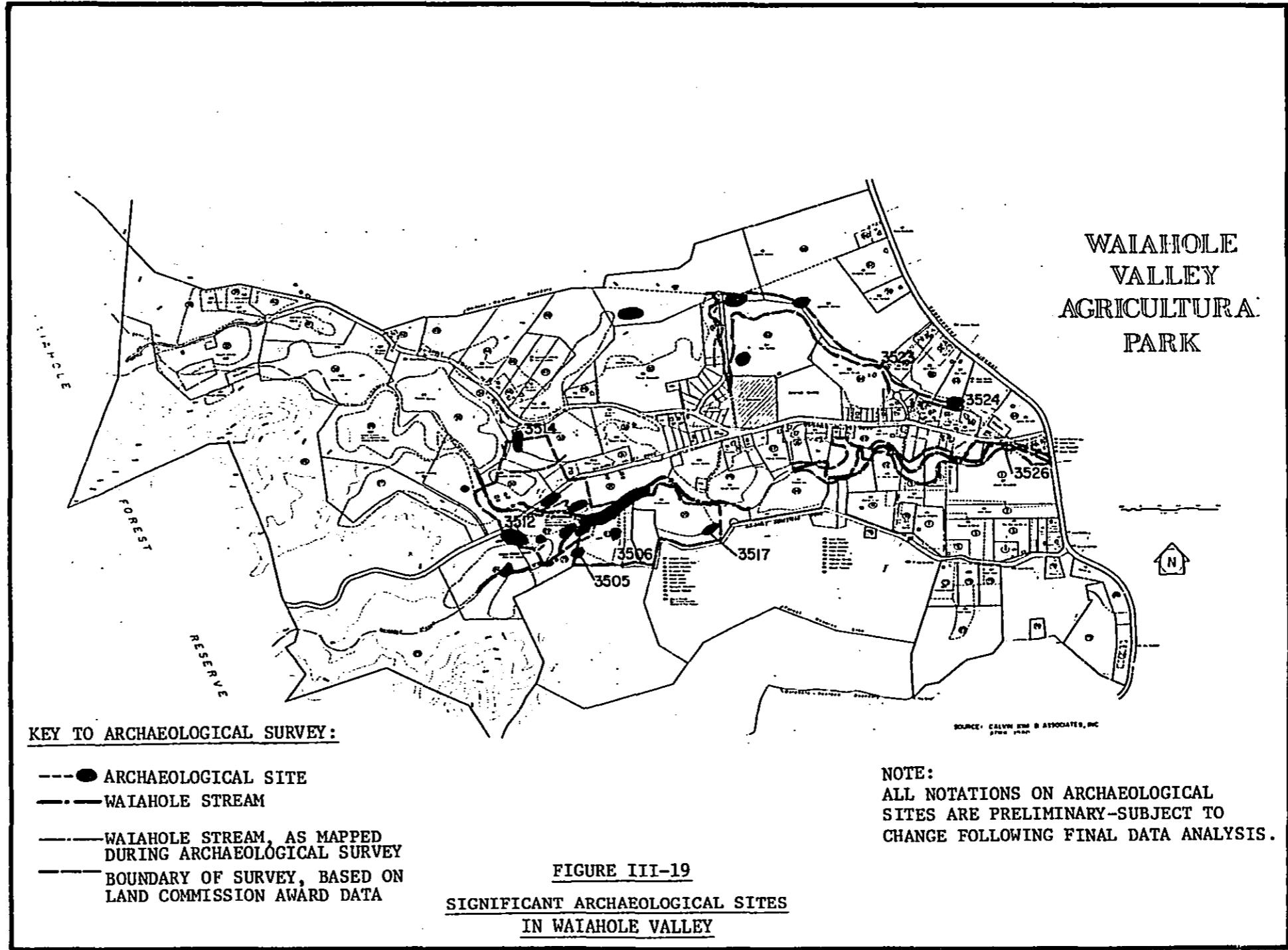
Step 2: A more detailed survey focused on the high potential areas, with particular emphasis on those areas that would be disturbed by the proposed actions. Four areas were specifically identified to receive more detailed study (Tomonari-Tuggle, 1983).

From these reconnaissance surveys, a total of 28 sites and site localities were identified--most appear to be of traditional Hawaiian origin, although almost all show evidence of historical and/or recent modification (Tomonari-Tuggle, 1983). There are 19 agricultural features, 6 habitation sites, and 4 sites of other function. The last category includes a lithic site, a historical road bed, an artifact scatter, and the remains of McCandless Rice Mill.

It should be emphasized that archaeology is not solely confined to the study early Hawaiians. There is growing interest in other ethnic groups, plantation systems, and the effects of urbanization. Therefore, sites related to the rice industry do have a research value, as well as cultural and public interest, albeit of slightly different nature than Hawaiian sites.

Of the 28 sites surveyed, 8 were considered of particular significance in terms of research value (see Figure III-19). The criteria for determining significance include the uniqueness of a site in relation to

III-43



associated features or archaeological areas, availability of supplementary historical information, the condition of the site, and the kind of information retrievable.

Six archaeological sites in Waiahole Valley that would be impacted by construction activities were subsequently excavated to salvage any potential research value (see Appendix B). Two of the six sites (3512, 3526) excavated were among the eight sites considered significant.

A brief description of the eight significant sites are as follows:

Site 3505: Flake deposit. This site is an exposed cultural deposit containing considerable amounts of lithic material, including basalt flakes, adzes, a whetstone, and cores. It has been exposed by the construction of an 'auwai (irrigation canal, site 3506), suggesting an earlier date for the deposition of the lithic deposit.

This site is significant in two respects: (1) it may be possible to trace the lithic material to two quarries located near the top of the ridge, Kuolani, which rises from the valley floor near this site. Raw material, adze preforms and blanks, and large flakes and cores have been found in the quarries and this site may be a basalt tool-making workshop, to which the quarried material was brought to be refined and fashioned into a final product; and (2) it is one of only two sites in the survey areas (site 3512 is the other) which has no historical associations in the form of written documentation or the presence of 19th or 20th century historical artifacts. Thus, they may be unique preservations of pre-Contact Hawaiian lifestyles in these areas, which have seen considerable change since the 1800s.

Site 3506: Irrigation canal. This site is an irrigation canal which begins at site 3505 and winds its way down the south side of the valley, across Kamehameha Highway, and into the ocean. Although its present intake can

be dated to 1950, the 'auwai itself has long appeared on historical maps and is mentioned in several Land Commission Award testimonies from the mid-1800s. Its origin may predate the earliest records since taro cultivation in the valley (for which the south side of the valley is a prime environment) is noted in several legendary traditions.

The significance of this site is its continuity--beginning in the far past, its history continues as a means for irrigating the fields under lease 91 (see Appendix A for identification and location of leases). Thus, its significance lies not so much in its research value, but in its cultural value (as an asset to traditional Hawaiian, 19th century Chinese, and modern farmers) and in its public value (as a tangible link among the different periods of the valley's agricultural history).

Site 3512: Buried occupation deposit. This site appears to be an habitation-agricultural complex with at least two distinct occupational events. The earlier event is related to the agricultural use of the hill slope, with some possible intermittent habitation or specialized activities also taking place. The later event is an intense habitation activity in which wood-working was certainly occurring; this event was probably associated with continuing agricultural use of the hill slope.

The interpretation of this site has been re-evaluated following the results of the excavation. The site has proved to consist of multiple strata, at least two of which are of original deposition. This indicates a discontinuity of occupational activity, possibly two separate occupations of the site area. In addition, preliminary interpretation of results suggests that the site may have an early historical component;

therefore, the "modern" radiocarbon dates may not be erroneous.

Excavation indicated that the site has two major spatial zones: an area of extensive activity and an area of intensive activity. The first zone covers the area of Site 3512 which lies west of the road cut; it consists of a single surface cultural deposit with no features. The latter zone lies east of the road cut and contains a multiple stratum deposit with habitation features. By coincidence, the area where the two zones graded together has been removed by the construction of the dirt road.

Site 3514: Artifact scatter in plowed field. Over 230 artifacts (basalt flakes and cores, polished adze fragments, volcanic glass flakes, ceramic shards, and bottle glass) were noted in an area 20 m by 50 m. The chronological range of these artifacts reflects a continuity of occupation throughout the 19th century and possibly earlier into the 18th century. This field (under lease 74) was surveyed (rather than bypassed as a disturbed area) because (1) it had been freshly plowed but not yet replanted; (2) artifacts had been found earlier in a field outside of the survey boundaries (site 3525); and (3) the field fell within the boundaries of a recorded land grant and was possibly the site of a house noted on the Dove 1897 map.

This site is particularly significant as it shows the viability of plow-zone surveys in Hawaii, a methodology which heretofore has not been attempted, but which has the potential to yield valuable evidence on Hawaiian habitation and agricultural practices (given the large acreages presently under cultivation throughout the islands).

Site 3517: Abandoned wood frame house and associated trash pit.

Although this site may appear to be a broken down, abandoned shack on the edge of Waiahole Homestead Road, it has a history which goes back at least to the turn of the century when it was noted on the 1897 Public Lands map by CVE Dole. The presence of the nearby trash pit or outhouse pit offers an opportunity to investigate the occupation of the flat on which the house stands and its possible association with the rice fields which once occupied the new overgrown expanse of lease 91.

Site 3523: McCandless Rice Mill. The known remains of this rice mill consist of a concrete foundation for a waterwheel and an exposed bedrock channel of an 'auwai which powered the wheel. This rice mill was constructed in the last decades of the 19th century by L.L. McCandless, who played a major role in the 20th century use and modification of the valley landscape.

An interview with the present resident of the site revealed that the escarpment adjacent to the 'auwai had been long used as a trash dump and historical bottles and miscellaneous paraphernalia from the 1800s and early 1900s have been seen exposed on the slope. In controlled excavation and with laboratory cataloging and analysis of this material, such a dump can be significant in two ways: (1) it could add considerable information on the changing character of the occupants of this area, from possibly long-ago Hawaiians, to rice plantation employees, to the present truck farmers, thus adding details to the cultural history of the valley; and (2) in a larger context, it could be used to assess the impact of growing urbanization in Honolulu and in the southern Kaneohe Bay area on a peripheral rural area; i.e., the distribution in the kinds and quantities of historical material could suggest the kinds of economic and

social ties which connected the Waiahole region with other parts of the island.

Site 3524: Irrigation canal and rice fields. This site is the best preserved of any "rice-related" site in the survey areas. It contains the junction of several irrigation canals as well as the fields which were irrigated. Furthermore, there is some hint of traditional Hawaiian use in the presence of a basalt flake on a canal bed. Research value in furthering understanding of technical aspects of the rice irrigation system is high, as well as investigating the possible preservation of a Hawaiian system beneath or integrated with the historical one.

Site 3526: Buried cultural deposits. This site is a probable irrigation agricultural deposit exposed in the bank of lower Waiahole Stream. The uppermost stratum of the five profiles which were examined indicate disturbance of the agricultural soils by historical and/or modern farming activities. The impact of farming is also evident in the numerous artifacts which can be found by walking through the cultivated fields adjacent to the stream (basalt flakes and stone tools have been found in every farm field which has been archaeologically surveyed).

SOCIO-ECONOMIC

The Waiahole Valley area is considered rural-agricultural in character. About 80 percent of the present households reported some farming activity, either for personal or commercial use. In 1972 the overall agricultural contribution from Waiahole Valley farmers to the state's total crop was 54 percent for sweet potatoes, 7 percent for bananas, and 2 percent for papayas (Scott, 1981).

Lifestyle in this rural area has changed very little; more than 60 percent of the leaseholds have been maintained by the same family for over 20 years. Families are close-knit and many people have known their

neighbors for a long time. As in most rural communities, the neighborhood is quiet and the lifestyle leisurely. Some households raise livestock for domestic use and many families have small gardens. A few roadside stands are maintained by the residents, who offer fruits and vegetables from family gardens for sale to passing motorists.

The Waiahole Valley community is small and there are many cultural and social differences among the residents, but a strong sense of community prevails.

Population Profile

Population Size and Density. The population in Waiahole Valley has declined within the past 20 years. According to a report by Michihiro Miyagi (Masters Thesis, 1963), in September 1962 there were 453 people (94 households) residing in the valley. In 1977, when the State of Hawaii conducted its survey of valley residents, 63 households (out of an estimated 80 households) responded. These 63 households accounted for 243 people, or an average of 3.9 people per household (the Oahu average is 3.24 people per household).

If the average household size (3.9) is multiplied by the estimated number of households (80), the estimated population for Waiahole Valley is about 300 persons. The density of this population when computed for the gross land area of Waiahole Valley (590 acres) is 0.5 persons per acre. The density, when computed for the urban-zoned lands (53 acres), is about 6.3 persons per acre.

Age. The age distribution figures in Table III-7 indicate that over 35 percent of the residents are 50 years or older compared to less than 20 percent for Oahu as a whole. This tabulation also shows that the median age of the valley residents is approximately 31 years, compared to 25.9 years for all of Oahu.

Ethnic Background. When Miyagi conducted his survey in 1962, the Filipino, Japanese, and Hawaiian or part-Hawaiian residents each accounted for about one-fourth of the total population (26.9, 25.2, and 24.5 percent respectively). The Caucasian and Portuguese residents made up 7.5 and 7.3 percent of the total. In addition, there were three households of

TABLE III-7

DEMOGRAPHIC CHARACTERISTICS OF WAIAHOLE VALLEY RESIDENTS

	Waiahole Valley* (%)	Oahu** (%)
AGE		
0 - 9	13.2	18.0
10 - 19	16.6	10.6
20 - 29	13.2	20.2
30 - 39	10.7	13.1
40 - 49	8.8	10.6
50 - 59	14.6	9.4
60 - 69	12.7	5.2
70 and Over	10.2	3.4
Median Age	31.0	25.9
ETHNICITY		
Hawaiian and Part-Hawaiian	18.7	15.3
Filipino	32.0	10.2
Japanese	21.3	24.6
Caucasian	3.6	27.9
Samoan	0.4	1.0
Mixed	21.8	8.2
Other	2.2	1.4

	Waiahole Valley (%)	Hawaii (%)
RESIDENCY		
Less than 5 Years	11.3	0
5 - 9 years	21.0	0
10 - 19	4.8	1.6
20 - 29	41.9	16.1
30 - 39	11.3	11.3
40 - 49	8.1	21.0
Over 50 years	1.6	50.0

* Source: State of Hawaii survey, 1977.

** Source: OEO 1975 Census Update Survey.

Table III-7, Cont.

	Waiahole Valley (%)
MARITAL STATUS (HEAD OF HOUSEHOLD)	
Single	6.4
Married	77.4
Divorced	8.1
Widowed	8.1
EMPLOYMENT (HEAD OF HOUSEHOLD)	
Full Time	49.2
Part Time	4.9
Unemployed	21.3
Retired	23.0
Disabled	1.6
FARMING (HEAD OF HOUSEHOLD)	
Full Time	29.0
Part Time	71.0

Chinese ancestry and one household each of Samoan, Korean, and Puerto Rican ancestry.

The 1977 survey shows that there is now a preponderance of people of Filipino ancestry and those of mixed ethnic background and a decline in the part-Hawaiian, Japanese, and Caucasian population. No separate category was established for those of Portuguese ancestry, who may have been included under "mixed."

Residency. Over 30 percent of the present residents have lived in Waiahole Valley for less than 10 years, but the majority have lived in Waiahole at least 20 years or more. Although 30 percent of the people are relative newcomers to the valley, they are not newcomers to the state (Table III-7). Some of the recent arrivals settled in the valley to farm; others may have moved in because they wanted the amenities of a rural setting. Among this group of newcomers, there is almost an equal number of people between the ages of 27 and 35 and between 40 and 59.

Education. The educational level of the residents in Waiahole Valley is lower than for all of Oahu. According to the 1975 Census Update Survey, 77.9 percent of Oahu residents completed high school and 16.6 percent had completed college. Extrapolating the survey responses resulted in the following tabulation of the highest grade completed for those residents in Waiahole Valley who are 18 years or older:

Elementary School:	23.2%
Intermediate School:	19.6%
High School:	50.0%
College:	7.2%

One reason why the educational level in Waiahole Valley is lower than Oahu's total may be due to the type of employment offered in an agricultural environment, where higher education may not be necessary. Ten of the fifty heads of household who indicated farming activity, however, did have some agricultural education, and most who farm had many years of agricultural experience.

Household Size. A household can be a single person or a group of related individuals or unrelated individuals. The majority (77.4 percent) of the Waiahole Valley households are typical families--married couples

with children. The average household size is 3.9, which is larger than the Oahu average of 3.24.

Income. The annual average income for approximately 80 households in Waiahole Valley was provided by Architects Hawaii in its report, "Waiahole Valley," dated January 1978. A breakdown is shown below.

	<u>Number of Households</u>
\$ 0 - \$ 2,999	13
3,000 - 4,999	8
5,000 - 6,999	5
7,000 - 8,999	13
9,000 - 10,999	12
11,000 - 12,999	3
13,000 - 14,999	6
15,000 - 16,999	9
17,000 - 18,999	1
19,000 - 20,999	1
Over \$21,000	9

These figures show that most of the households are in the low income brackets, earning much less than the mean household income for Oahu of \$16,273 (1975 Census Update Survey).

According to the survey responses, 38 households receive some government aid in the form of social security, general assistance, food stamp, medicaid, or unemployment benefits.

Employment

There are approximately 180 people in Waiahole Valley who are 18 years or older. In this group, about 42.7 percent are employed full time, 11.9 percent work part time, 27.3 percent are unemployed, 16.8 percent are retired, and 1.3 percent are disabled.

Miyagi (1963) states that about three-fourths of the households derive their major source of income from secondary and tertiary industries. Most of these residents commute to their jobs in Kaneohe, Kailua, Honolulu, Hickam, or Pearl Harbor. Some residents are employed by Waiahole School and a few are fishermen.

Out of 44 heads of household who responded in the 1977 survey that they are presently farming, 4 indicated commercial farming, 12 for personal use only, and 28 for both commercial and personal use. In addition, 7 households indicated they had farmed previously. Some people have ceased farming because of the uncertainty of Waiahole's future.

Housing Characteristics

Age and Condition. The 1977 survey showed that almost 75 percent of the homes were built over 20 years ago (Table III-8). The oldest home is about 120 years old and two homes are over 70 years old. Of the total number of homes over 20 years old, 82.5 percent are in need of repair; over 70 percent of all the homes in the valley need to be repaired.

In response to the question on types of repairs needed, the residents indicated the following:

Exterior	
Roof	36.8%
Walls	28.9%
Foundation	21.0%
Lanai or Porch	15.8%
Interior	
Plumbing	15.8%
Electric Fixtures	7.9%
Walls	18.4%
Doors	10.5%
Windows	10.5%
Floor	21.0%
All the Above	36.8%

Type. The houses in Waiahole Valley are mostly one-story, single-family dwellings, which is also typical for Oahu as a whole. Most of the homes have the basic kitchen facilities (sink, refrigerator, and stove) and water and plumbing fixtures. Almost one-third of the homes, however, do not have hot running water. A few homes have outdoor bathroom facilities only and some households have kerosene stoves.

TABLE III-8
AGE OF HOUSES AND REPAIR

Age	Percentage	In Need of Repair	
		Yes	No
Less Than 5 Years	7.4	1	3
5 - 9 Years	14.8	3	5
10 - 19	3.7	1	1
20 - 29	27.8	11	4
30 - 39	18.5	8	2
40 - 49	13.0	6	1
50 and Over	14.8	<u>8</u>	<u>0</u>
		38	16

Source: 1877 State of Hawaii survey.

Tenure

Preference. Over 80 percent of the residents would choose to live in a single-family rural district; 10 percent in a single-family suburban area; and 3 percent in a single-family urban area. High rises are not desirable.

Community Perception and Attitudes

This section describes the perception and attitudes of the residents toward their community and toward growth and development.

Community Identification. According to a survey conducted as part of the Kaneohe Bay Urban Water Resources Study (U.S. Army Corps of Engineers, 1975), approximately 85 percent of the Waiahole Valley residents are either satisfied or very satisfied with their community. These residents describe their community as very close knit in that they share similar views and values. This high degree of satisfaction may also be due to frequent neighborhood interaction.

Similarly, Robert Anderson (Waiahole-Waikane: A Socio-Economic Profile, 1974) found that 83 percent of the residents would not be willing to move from their present place of residence. Among the advantages of the area are listed, in ranking order, peace and quiet (or privacy), inexpensiveness, backyard agriculture, closeness to job, and family ties and other. The disadvantages were distance to services, uncertainty of tenure, inadequacy of utilities, other, and no response or no problems (69 percent).

Growth and Development. Waiahole Valley residents express strong opinions on the question of development (U.S. Army Corps of Engineers, 1975). With regard to the Waiahole area, 81.1 percent of the residents favor no growth; 58.7 percent of the residents do not favor growth in any area.

Waiahole residents are very concerned about preserving agricultural lands by limiting future housing development. They feel that residential development should be controlled to protect these agricultural lands and conservation areas and that population growth should be discouraged. In order of priority, Waiahole residents feel they should receive government funds for agricultural development, expansion of sewerage system, and

recreation. Other windward residents, however, ranked environmental quality first, followed by expansion of sewerage system and agricultural development (U.S. Army Corps of Engineers, 1975).

As a result of their concern over growth and development, the residents of Waiahole-Waikane organized a community association. Other valley residents who are not part of the association have similar concerns over development.

Waiahole-Waikane Community Association (WWCA). The WWCA was formally organized in 1974. Among its concerns are the attainment of these goals (Architects Hawaii, Ltd., 1978): (1) long-term leases at fair and reasonable rates, (2) expanded agriculture, (3) preserved community integrity, and (4) regional planning, all achieved through "real community participation."

Other concerns include the following:

1. Preservation of the agricultural/rural nature of Waiahole Valley
2. A residential lot size of 5,000 sq ft is not compatible with a rural environment
3. Leasing of farm lands is most effective in controlling and preserving agricultural land use
4. High-priced housing is not acceptable
5. Lands at the head of the valley would be suitable for open space and park use
6. Self-help programs should be utilized to build new homes instead of by outside developers

Other Valley Residents. The concerns of those people not members of the WWCA are as follows (Architects Hawaii, Ltd., 1978):

1. Make more agricultural zoned land available.
2. Farmers desire to live on their farms.
3. Long-term leases should be offered.
4. The valley should be dedicated to farm use in perpetuity.

5. Agricultural lands should be made available to farmers at the earliest opportunity.
6. Farm leases should be utilized to discourage or prevent speculation.
7. The state should have the right to revoke leases if tenants do not farm.
8. Consider housing for retired farmers.
9. Establish an open air market or rural general store.
10. Commercial development should be done in later phases.
11. A valley cooperative should be considered.
12. Residential development should not be expanded in the valley.
13. Consider recreational mountain cabins.
14. There should be no fee simple sale of property.

Recreation

Existing public recreation resources in Waiahole Valley include (1) a hiking trail in the mauka area, (2) a beach park, and (3) court and field facilities at Waiahole Elementary School for activities such as basketball, softball, football, etc.

Inland Resource - Hiking Trail. Although the hiking trail is located outside the study area, the only access is through the south branch of the Waiahole Valley Road, which will continue to be a public road. Vehicles are not allowed beyond the forest reserve boundary mainly because of vandalism to Oahu Sugar Company's irrigation facilities. The vegetation along the trail are predominantly introduced species. Activities include hiking, hunting, and camping. Day use does not require a forestry permit, but overnight camping does. All recreation activities are restricted to the lower forest, below the closed watershed area. Present usage is low because of the frequent rains in the area.

Improvements to the trail system are being proposed by the state Forestry and Wildlife Division. These improvements include the creation of a loop trail and provision of shelters, outhouses, and picnic tables in the Norfolk pine groves. These improvements are of low priority in the

state Forestry and Wildlife Division's development program.¹ The agricultural park's boundaries include a small portion of the Koolau Pali scenic area - the lower section of the ridge situated between Waianu and Waiahole streams. The unused land areas will be turned over to the DLNR. Although this area will remain open space, the DLNR may reclassify this land from agriculture to conservation if it is deemed necessary.

Coastal Resource - Beach Park. Waiahole Beach Park is also located outside of the study area. It is used primarily for boat launching. There are no facilities such as restrooms.

Improvements are being proposed by the City and County Department of Parks and Recreation. This is a low priority project involving acquisition of 39 acres to accommodate camping.²

Court and Field Facilities. There is one court to accommodate basketball or volleyball and a grassy field large enough for football or softball. Children's playground facilities are also part of the school grounds. These facilities are available for use after school hours by the community.

No improvements to the court or field facilities are being proposed by the state Department of Education or the City and County Department of Parks and Recreation.

Demand. The most popular recreation activities among residents within the Kaneohe-Waimanalo area are swimming/sunbathing, picnicking, and bicycling (see Table III-9). A high need exists in the windward region for inland picnicking and camping areas, and for coastal recreation areas (see Table III-10). Waiahole area residents, however, engage more frequently in beach swimming, fishing, squidding, and picking limu than other residents in the Kaneohe area (U.S. Army Corps of Engineers, 1975).

¹ Personal communications with state Forestry and Wildlife Division.

² Personal communications with county Department of Parks & Recreation.

TABLE III-9
RANKING OF RECREATIONAL ACTIVITIES
(KANEHOHE-WAIMANALO AREA)

Activity	% of Total Activity
Swimming/Sunbathing	22
Picnicking	16
Bicycling	16
Game Playing	10
Outdoor Events	7
Walking/Jogging	6
Camping	5
Surfing	4
Diving	3
Tennis	2
Golf	2
Fishing	1
Hiking	1
Canoe Paddling	1
Other	1

Source: Hawaii State Comprehensive Outdoor
Recreation Plan (SCORP), 1975.

TABLE III-10

EXISTING AND FUTURE RECREATION NEEDS - KOOLAUPOKO

Activity/Resource	Existing 1980	Future	
		1985	1995
Inland Resource			
Camping - Inland	High	*	*
Hiking	Medium	High	High
Hunting	Low	*	*
Picnicking - Inland	*	*	*
Coastal Resource			
Diving	High	*	*
Surfing	High	*	*
Canoe Paddling	High	Low	Low
Fishing	High	Low	Low
Swimming/Sunbathing	High	High	High
Picnicking - Beach Park	High	Medium	Medium
Boating - Launch Ramps	High	Low	Low
Boating - Slips and Moors	Low	*	*
Nonspecific Resource Requirements			
Walking/Jogging	High	High/ Medium	High/ Medium
Bicycling	High	Medium	Medium
Motorcycling	High	Medium	Medium
Outdoor Events	Low	Low	Medium
Courts or Fields			
Court Games	High	Low	Low
Field Games	High	Low	Low
Golf	Low	High	High
Tennis	High	Low	Low

* Insufficient data/no supply/no demand

Source: Department of Land and Natural Resources, 1980.

SENSITIVE ENVIRONMENTAL AREAS

Sensitive environmental areas include those that are recognized by state or federal legislation as possessing ecological, economic, or social value, or pose a hazard to public safety. Resources that are unique or scarce should be preserved and protected from further degradation. Other resources can tolerate multiple uses and should be managed to properly accommodate these uses. Hazard areas need to be carefully managed to avoid threats to life or property.

A list of these sensitive resources is provided in Table III-11. Some of these resources are present in Waiahole Valley, while others are located outside the project area.

TABLE III-11

PRESENCE OF SENSITIVE ENVIRONMENTAL AREAS IN WAIHAOLE VALLEY

Resource	Federal Legislation	State Legislation	Presence/Absence in Waiahole
Areas to Be Preserved, Protected or Maintained:			
Habitats of Endangered Species	Endangered Species Act of 1973	State Plan (Chap. 226, HRS)	+
Wetlands	E.O. 11990, Protection of Wetlands		++
Drinking Water Sources	Safe Drinking Water Act	State Plan; Groundwater Use (Chap. 177, HRS)	+
Agricultural Lands		State Plan; Land Use Law (Chap. 205, HRS)	++
Cultural Resources	National Historic Preservation Act of 1966; E.O. 11593, Protection and Enhancement of the Cultural Environ- ment; Archaeological and Historic Preservation Act of 1977	State Plan; Coastal Zone Management Act (Chap. 205A, HRS) Historic Objects and Sites (Chap. 6E, HRS)	++
Areas to Be Managed for Multiple Uses:			
Forest Reserves		DLNR Conservation Dis- trict Plan	++
Perennial Streams		Hawaii Instream Use Pro- tection Act, CZM Act	++
Shoreline Areas (Kaneohe Bay)		State Plan, CZM Act	+
Hazard Areas to Be Managed:			
Flood-Prone Areas	National Flood Insurance Act of 1968; Flood Disaster Protection Act of 1973	State Plan; CZM Act	++
Erosion and Landslide Areas		State Plan; CZM Act	++
+ Present in Waiahole Valley but not in project area.			
++ Present in project area.			

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CHAPTER IV

PROBABLE IMPACT AND MITIGATION MEASURES OF THE PROPOSED ACTION

This chapter has analyzed the ramifications of the proposed action on the physical environment, the local and regional community, and the fiscal situation of the existing Waiahole residents and the state. Adverse or beneficial impacts may stem directly from the project or indirectly through interaction with external factors. Impacts that depend on external factors are called secondary or cumulative impacts.

Where adverse impacts have been identified, measures to mitigate these impacts are recommended. The methods by which the mitigation measure should be implemented are also identified. In some cases, the impacts may be unavoidable and beyond any means of mitigation.

The chapter concludes with a summary of those impacts that are considered significant.

DIRECT IMPACTS

Direct impacts are categorized according to whether they affect sensitive resources, public health and safety, public welfare, or are fiscal considerations. The first two categories are considered physical impacts. The latter two categories are typically considered social and economic impacts.

DIRECT IMPACTS ON SENSITIVE RESOURCES

Sensitive resources in Waiahole Valley have been identified in Chapter III. These resources are considered sensitive because they are unique, scarce, irreplaceable, or basic to human sustenance and therefore have statewide significance. Sensitive resources present in Waiahole Valley include the groundwater, the stream ecosystem, prime agricultural land, conservation land, endangered species, and archaeological/historic resources.

Groundwater Resources

Because groundwater is the island's primary drinking water source, its quantity and quality are vital concern.

Quantity. The Waiahole Ditch-tunnel system, constructed in the early 1900's to tap the dike groundwater in the Koolau range, currently transports approximately 26 mgd to the leeward side of Oahu for sugar cane irrigation. Through a water rights agreement with the Waiahole Water Company, the McCandless Estate was given the rights to 0.5 mgd from the ditch-tunnel system. The purchase of Waiahole Mauka from the McCandless Estate conveyed one quarter of 0.5 mgd, or 125,000 gpd appurtenant water rights to the state. The source of the proposed 0.8 mgd design capacity water supply is groundwater. Any interflow related surface water decreases from this pumpage would be more than offset by the additional 1.1 mgd available subsequent to the reapportionment of Waiahole Water Company's lease.

Quality. Two sources of potential pollution to the groundwater presently exist: (1) wastewater seepage from cesspools and (2) agricultural seepage from fertilizer and pesticide application. The proposed actions do not introduce new types of pollutant sources, but may intensify the volume of existing pollutants. Agriculture will be expanded, thus greater amounts of fertilizer and pesticides will be used. Since the municipal sewerage system will not be extended to Waiahole Valley [Kahaluu Wastewater Facility Plan (Towill, 1980)], onsite systems will have to be provided for the additional housing units.

Since there are no monitoring wells, the extent of existing pollution, if any, is unknown. Despite this uncertainty, the degree of risk from proposed new impacts can be ascertained based on knowledge of the geohydrology of the region and the characteristics of the wastewater systems, fertilizer and pesticide constituents.

Potential Risks Associated with the Proposed Onsite (Cesspool) Wastewater Disposal. The Board of Water Supply (BWS) has delineated a "no-pass" line to protect existing and potential potable water supplies (Figure I-7). No new surface or subsurface sewage disposal is permitted inland of the no-pass line and no subsurface disposal is permitted deeper than 30 feet in areas below the "no-pass" line. Exceptions may be granted

in "borderline areas" if soil boring logs indicate acceptable subsurface conditions associated with low groundwater contamination potential. In addition, the Department of Health (DOH) requires that each cesspool be located at least 50 feet away from surface water bodies to minimize the risk of surface water contamination. The BWS and DOH have "grandfathered" existing cesspools above the no pass line.

Each new tenant will be required to utilize acceptable onsite disposal systems and certify to the Department of Health (DOH) that the system complies with Chapter 57 of Title 11, Administrative Rules of the DOH. Typically, this will require the use of closed vault systems above the no-pass line and cesspools below the no-pass line if geohydrologic and geomorphological conditions permit (Figure IV-1). No additional risks associated with wastewater disposal due to the proposed project are expected.

Existing BWS and DOH rules and regulations should be more than adequate for protecting existing groundwater quality. Studies have shown that 4 feet of soil is sufficient to remove viruses, bacteria, and phosphorus from cesspool seepage (EPA, 1980). Percolation through the soil filters the larger particles, such as bacteria and phosphate precipitation, and adsorbs viruses and phosphorus onto the clay particles. Nitrate, however, is water soluble and passes freely through the soil. Much of the nitrates are taken up by higher plants or used by microorganisms. The remaining fraction that reaches the groundwater is not considered significant because of its high dilution. The proposed domestic source well for Waiahole residents is upgrade of the subdivision. The BWS has no long term plans for deep drinking water wells seaward of the "no-pass" line in Waiahole (BWS, 1975). Minimum instream flow requirements may also limit groundwater development because of the significant degree of interflow between Windward Oahu streams.

Potential Risks Associated with Expanded Fertilizer and Pesticide Use. The tradeoffs between risks and benefits of fertilization and pesticide use are not unique to the proposed project; it is a worldwide concern. In Waiahole Valley, the risks in terms of water quality are associated with the leaching of fertilizer and pesticide constituents to

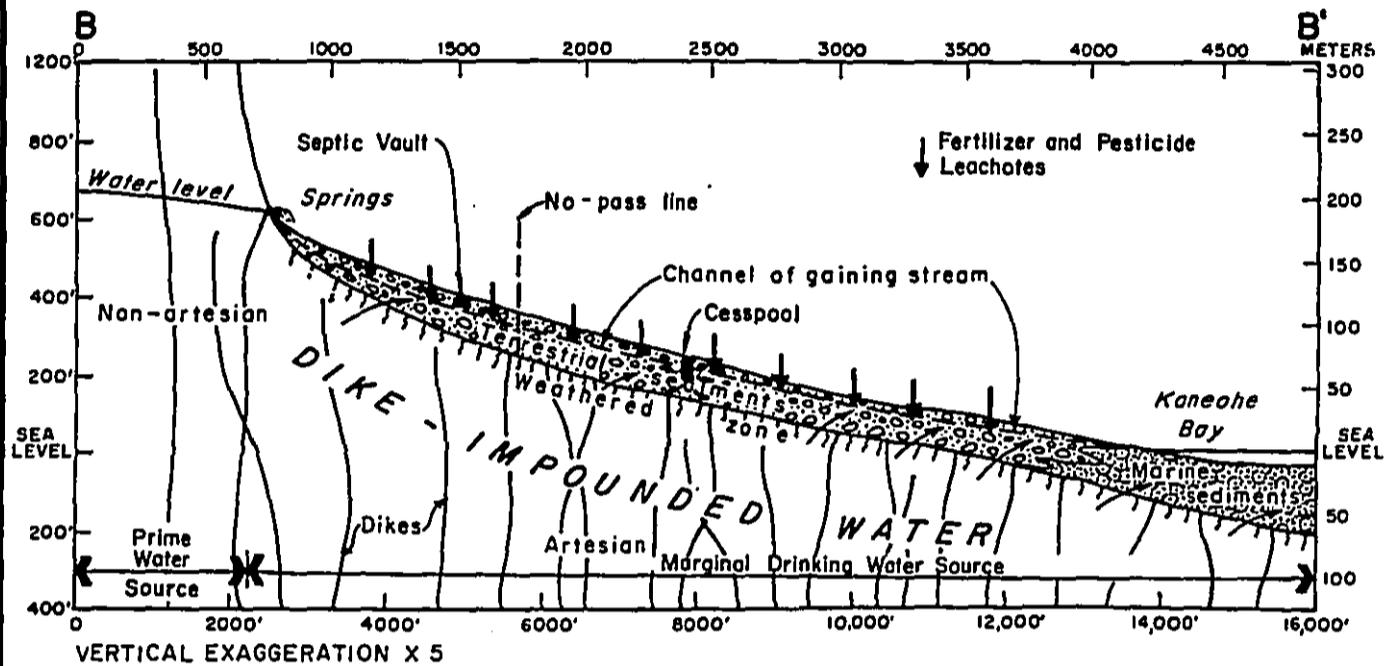


FIGURE IV-1
GROUNDWATER QUALITY IMPACTS FROM
WASTEWATER AND AGRICULTURAL LEACHATES

the groundwater, with subsequent transport to the stream and Kaneohe Bay. Impacts to Kaneohe Bay are discussed in more detail in the latter part of this chapter.

Since the groundwater underlying the agricultural activity is not intended for future development as a potable water source, there is little risk to potable water supplies. Areas of potential risk are ecological; i.e., the potential upset of the stream or nearshore coastal ecosystems, toxic impacts to organisms, or bioaccumulation in food chains, including human consumption.

Despite the risks associated with fertilizer and pesticide use, the promotion of agriculture is one of the major goals of the Hawaii State Plan. Alternative pest management and fertilization practices have been explored, but may not be practical or feasible. A degree of mitigation can be achieved, meanwhile, by implementing available state programs such as--

1. Educate farmers through the University of Hawaii's Cooperative Extension Service to select less mobile fertilizers and to minimize application during rainy periods;
2. The Hawaii Pesticides Act (Chapter 149A, HRS) requires pesticide operator certification (State Department of Agriculture) for registered pesticides and requires that these pesticides be applied properly in the proper dosages; and
3. Monitor Waiahole Stream near the mouth during low flows (Takasaki, 1977). The source of the base flow is primarily groundwater, therefore would serve as a good indicator of groundwater contamination. Should Waiahole Valley ever be designated a future groundwater source, pertinent not to exceed standards of the Safe Drinking Water Act that would then be applicable are as follows:

Nitrate - 10 mg/l

Organic chemicals

Endrin	0.0002 mg/l
Lindane	0.004 mg/l
Methoxychlor	0.1 mg/l
Toxaphene	0.005 mg/l
2,4-D	0.1 mg/l
2,4,5-TP Silvex	0.01 mg/l

Stream monitoring could be periodically conducted as part of the drinking water monitoring program of the Department of Health if Waiahole Valley is ever designated a future water source, or if anomalous tissue bioassay or sediment test results from the Kaneohe Bay receiving waters are noted.

Stream Ecosystem

Waiahole Stream is one of the few remaining unchannelized perennial streams on Oahu. It is a habitat for native aquatic fauna such as o'opu nakea and food species such as prawns. The stream mouth is an estuarine habitat for juveniles of mullet, aholehole, and other ocean species.

Streamflow. Historically, stream habitats on the windward side had been degraded by drastic flow reductions that resulted from the completion of the Waiahole Ditch system in the early 20th century. Despite these reductions, native fauna have persisted and taro farmers still use the stream flow to nourish their fields.

The projected irrigation and domestic water demands should be more than offset by an additional average of 1.1 mgd that will be made available after the state reapportions Waiahole Water Company's water rights lease, as authorized in Section 171-37(3), HRS. Due to higher pumping electrical costs, Waiahole Water Company has voluntarily ceased diverting and pumping Waiahole Stream water from the 500-foot elevation up to the Waiahole Ditch-tunnel for the past several years (Figure IV-2). Sugar cane growers in Central Oahu have correspondingly reduced water needs by reducing sugar cane acreage under cultivation.

Since the new domestic water system will be supplied by wells in lieu of the 4" McCandless pipeline, an additional overflow of 125,000 gpd from the latter will be available to Waianu Stream. No water will be removed

from Waianu Stream. At worst, existing flow conditions will be maintained in Waianu Stream. More likely, there may be an increase over present flow conditions in Waianu Stream.

Native stream fauna in Waianu Stream as well as the taro farmers along Waianu Stream will benefit from the effort to maintain or enhance present streamflows.

The 0.8 mgd design water system will be supplied by two 12-inch wells near Waiahole Stream below the 500-foot elevation level. Like most other perennial streams on the windward side, Waiahole Stream is heavily dependent on influent groundwater. For design purposes, it was assumed that this groundwater would create a corresponding reduction in surface water flow at or near the same elevation. Superposition of this 0.8 mgd demand over the additional 1.1 mgd gained from the Waiahole Water Company lease renegotiation would result in a net increase of 0.3 mgd over existing conditions below the 500-foot elevation level. Correspondingly, the Q_{100} of 1.5 mgd and Q_{90} of 2.1 mgd (Figure III-11) would be increased to 1.8 and 2.4 mgd, respectively.

The Hawaii Instream Use Protection Act of 1982 (Chapter 176D, HRS), through the rules promulgated by the DLNR (Protection of Instream Uses of Water, Windward Oahu; Chapter 167 of Title 13), has set up a program for the establishment of permanent and interim instream standards. Presently, no quantifiable standards have been formally established for Waiahole Stream.

Given the lack of detailed transect data, stream flow discharge methods were the necessary choice as planning guidelines for minimum instream flow, although any such method still needs to be validated for the assessment of Hawaiian streams. The Tenant (Montana) method appeared to be the most compatible with the high annual variability (Figure III-10) yet relatively short period of available stream flow record. The use of only dry weather and wet weather seasonal averages would dampen out any extreme monthly variations within the period of record while still accounting for seasonal variations.

Based on the total draft of 0.8 mgd as supplanted by the additional 1.1 mgd flow for Waiahole Water Company cessation pumping, there would be a net gain of 0.3 mgd. When applied to the dry season flow of 4.1 mgd and

the wet season flow of 12.4 mgd, this will result in the maintenance of 107 percent of 102 percent of existing flow for the respective seasons. According to the Tenant criteria (Table IV-1), this exceeds the "optimum" range for instream habitats.

Tenants that utilize stream withdrawal for irrigation will be required to demonstrate the lack of significant adverse effects through compliance with all regulatory requirements.

Downstream taro farmers along Waiahole Stream are located at a lower elevation below the Waiahole-Waianu confluence where the streamflow is considerably augmented by groundwater. The taro farmer may experience increased flow as a result of interflow from the additional 0.3 available within the drainage basin.

Stream Water Quality. Groundwater seepage into Waiahole Stream accounts for about a 50 percent increase in flow from the 250-foot elevation to the stream mouth. Thus any wastewater, fertilizer, or pesticide leachates that reach the groundwater has a chance of being transported to the stream. In the previous discussion on groundwater quality, it was noted that nitrate from wastewater and fertilizer was the only constituent that leached readily, but nitrate concentrations in the groundwater would be minimal.

To determine the present impact on stream water quality, samples were taken along Waianu and Waiahole streams from stations located above any agricultural fields or residences to the stream mouth (refer to Figure III-12). The concentrations of total phosphorus and nitrate were relatively constant throughout the length of the stream and were well within the water quality standards (refer to Table III-3). These standards were established to protect public health and the integrity of stream ecosystems (DOH, 1977).

Mitigation measures to reduce risks have been previously discussed under the groundwater section.

Agricultural Lands

The state owns about 320 acres of agricultural lands in Waiahole Valley. About 53 percent is presently under cultivation.

TABLE IV-1

STREAMFLOW CRITERIA TO MAINTAIN INSTREAM VALUES¹

IV-10

Percentage of Average Flow		Habitat Condition	Effect
Wet Weather Season	Dry Weather Season		
<10%	<10%	Severe Degradation	---
10%	10%	Poor - Not Acceptable	Fish habitat - Wetted areas for fish survival limited to pools, resulting in overcrowding and interrupted migration.
10%	30%	Fair	Recreation and aesthetics - Severely diminished.
20%	40%	Good	Fish habitat - Satisfactory flow for migration.
30%	50%	Excellent	Recreation and aesthetics - Satisfactory for shallow water recreation, such as wading. Stream aesthetics will be satisfactory.
40%	60%	Outstanding	Fish habitat - Most of the channel substrate will be covered with water, thereby providing ideal conditions for most aquatic life forms during their primary periods of growth. Recreation and aesthetics - Recreation and aesthetics are not significantly different from unaltered flow.
Waiahole Streamflow	60% to 100% of the average flow	Optimum	No significant effect.

¹ Source: Tennant, 1976.

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

The proposed action will have beneficial impacts on the agricultural lands:

1. The subdivision plan will result in beneficial impacts through more efficient and complete utilization of suitable agricultural lands. New agricultural lots will open up areas that are not presently cultivated. The proposed irrigation system will bring water to the existing and additionally available lots.
2. Long-term leases will enable farmers to develop long-term cropping plans and seek the necessary loans and equipment. The lease agreements will also ensure that the land is used for agriculture by mandating continuous cultivation of all arable lands, except for normal fallow periods, and will require a certain percentage of the tenant's time and income to be derived from farming the leased property.
3. Technical assistance for the control of soil erosion is available to farmers through the Windward Oahu Soil and Water Conservation District and the USDA Soil Conservation Service.

Some of the new residential lots will be situated on prime agricultural land. This is a necessary trade off to open up areas that are presently cultivated while maintaining the contiguity of the residential lots.

Conservation Land

Construction of the waterlines will not disturb any endangered species habitat nor will it affect any water resources. Erosion control measures should be effected during construction since the area receives frequent rainfall. Restoration measures should also be undertaken after construction to prevent erosion and aesthetic degradation. These mitigation measures are normally enforced through permit conditions and are also included in contract specifications.

Endangered Species

The habitat for the Hai'wale plant (Cyrtandras), the known endangered species, is located in the head of the valley where no action will occur; consequently, there will be no impact.

Archaeological/Historical Resources

Based on reconnaissance surveys within the project area (Barrera, 1982; Tomonari-Tuggle, 1983), eight sites with potential significance were identified. Two of these eight potentially significant sites (3512, 3526) are among six sites which have been salvaged prior to road and flood control improvements. An archaeological salvage program (see Appendix B) has been enacted under the auspices of the HHA in consultation with the Historic Sites Office prior to and during construction. The State Historic Preservation Officer has concurred that the salvage excavation investigations were adequate for mitigation purposes. Through this program, information relating to pertinent research questions have been recovered through systematic surveys and salvaging. To ensure implementation and coordination with construction activities, necessary requirements will be included in the construction specifications.

DIRECT IMPACTS ON PUBLIC HEALTH AND SAFETY

Flood Hazards

No new residential lots will be located within the 100-year flood hazard zone. Therefore, there is no additional threat to life or residential property due to storm flooding or tsunamis. Some agricultural land, however, is situated within the flood zone, most of which are low-lying lands suitable for taro. Minimization of crop damage will occur if farmers select crops, such as taro, for those areas susceptible to flooding.

Unstable Slopes and Soils

The Pearl Harbor and Honolulu soil series possess high shrink-swell characteristics that could cause structural damage to walls and foundations. Fortunately, these soils are located near the stream within the flood zone and are not found in those areas planned for residential development.

Drinking Water Quality

The proposed domestic water system will significantly improve drinking water quality for those residents who are presently not connected to the BWS system.

During storms, the tap water of those residents connected to the McCandless system has been known to become turbid. This turbidity occurs because the dike water conveyed from the Waihole Ditch-tunnel system is discharged into a stretch of Waianu Stream before it enters the distribution system. When turbidity is high, there is a high probability that bacteriological levels are also high (EPA, 1976). Although there have not been any reported illnesses, the drinking water quality is below acceptable standards. The standard for turbidity is 1 NTU; the standard for bacteria concentrations are based on statistical distributions (Chapter 20 of Title 11, Administrative Rules of DOH).

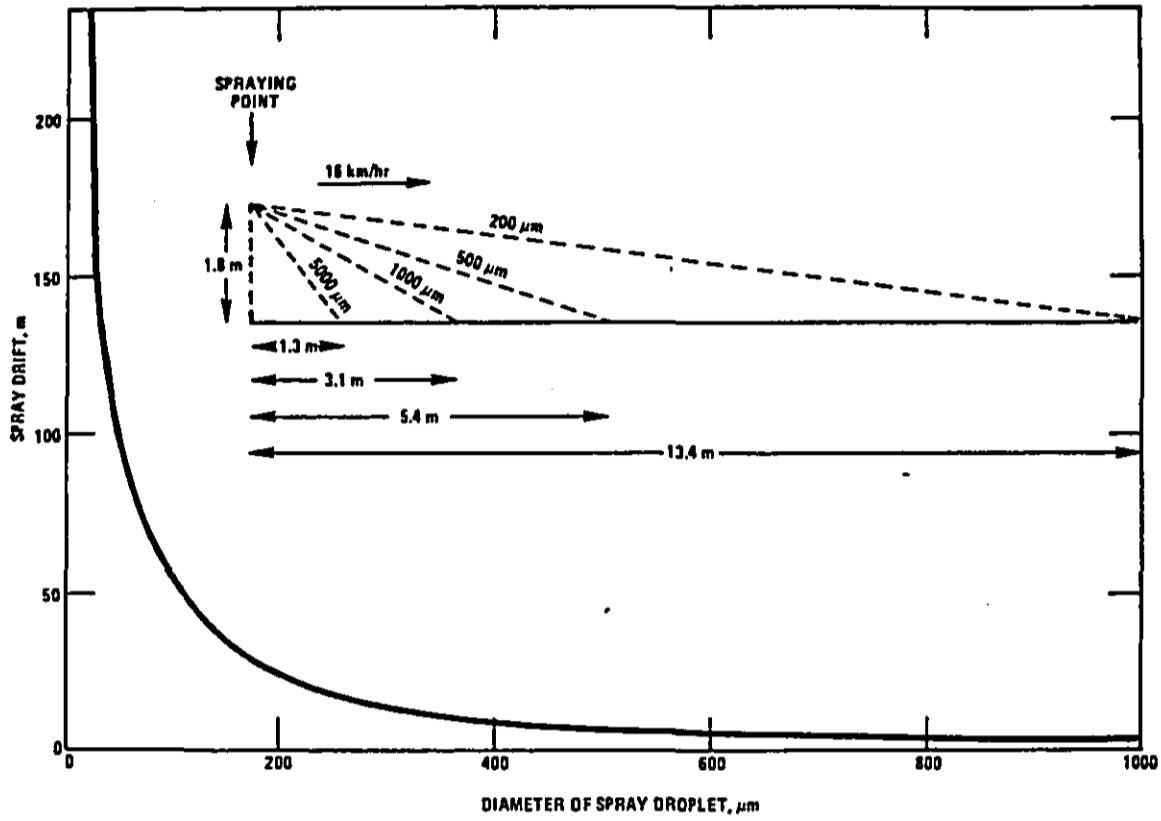
The proposed system would eliminate any intake of stream flow by the completion of the project. The community would be served by two groundwater wells near the 500-foot elevation level. Chlorination facilities will be provided should they ever be necessary.

Air Quality

Residential areas need to be carefully situated relative to agricultural areas in order to mitigate health hazards from pesticide aerosols and nuisance from odors.

Pesticide Aerosols. With the exception of granular pesticides applied to the soil, most pesticides are applied as sprays. Assuming that pesticides are used in accordance with the manufacturer's recommended rates and methods, farm workers can safely apply pesticides in the field when using protective clothing and respiratory equipment. Drift of aerosols to residential areas is affected by the spray equipment, wind direction and velocity, and the height above ground at which the pesticide is applied. In Waihole Valley, pesticides are usually applied by manual or power-operated sprayers at heights less than 6.5 feet (2 m) above ground. Figure IV-3 indicates the influence of droplet size on the drift distance traveled by the droplet. In general, droplet sizes are categorized as follows:

Aerosols	50 um
Mists	50 to 100 um
Fine sprays	100 to 400 um
Coarse sprays	400 um



Source: Lewis and Lee, 1976

FIGURE IV-3
INFLUENCE OF SPRAY DROPLET SIZE ON DRIFT

Normal spray equipment delivers droplets with an average size in the fine spray range. Some mists, aerosols, and coarse sprays are also generated in normal spraying operations; however, these droplets generally contribute collectively less than 10 percent of the total spray. Based on these factors, most pesticides will remain in the field where they are applied, with only a very small fraction of aerosols traveling over 100 meters from the point of application under normal tradewind conditions (10 to 15 mph).

Odors. Odor complaints have been made by existing residents in the past. The primary source of obnoxious odor is animal manure that is spread on the fields as a fertilizer or soil amendment. Determination of the degree of odor nuisance is highly subjective, since the olfactory senses of a person continuously exposed to an odor becomes insensitive to that odor in time. An odor problem may therefore not exist to a farmer, but a resident may be highly sensitive to a problem. Because Waiahole Valley is planned as a rural and not a suburban community, the acceptable levels should not be as strict as an urban or suburban setting. Prospective residential tenants should be made aware of these conditions by HHA before signing leases.

In manure, the malodorous substance is primarily ammonia (NH_3), with traces of aromatic compounds (e.g., indole, skatole) (Miner and Smith, 1975). Ammonia has one of the highest threshold levels among odorous vapors. It takes a concentration of 37 ug/l for ammonia to be detected by a median number of observers. In contrast, hydrogen sulfide needs to be present in only 1.1 ug/l to be detectable (Leffel, 1976).

Atmospheric dispersion equations were used to determine the downwind distance where the threshold odor of 3/ ug/l could still be detected. Assuming an average tradewind speed of 10 to 15 mph, the downwind distance of odor threshold detection is about 300 feet. Besides the intensity of the odor, the frequency of occurrence should be considered in determining the significance of the problem. Farmers apply manure to their fields after harvesting, which amounts to two to three times per year. The infrequency lessens the significance of this problem.

Whenever piles of manure are stored in the field, they should be covered and kept dry to prevent anaerobic processes from starting and

aggravating odor problems. It may be appropriate for the community association to mediate and administer preventive measures. Otherwise, complaints can be directed to the Department of Health.

Noise

Short-term noise inconveniences will result from construction activity. Long-term noise inconveniences may result from agricultural equipment and domestic animals. Noise effects include hearing loss, interference with speech communication, sleep loss, annoyance, and anxiety.

Construction Noise. Because construction will occur in proximity to existing residential areas, high noise levels will be experienced by these residents during the construction period. Construction equipment noise ranges are given on Figure IV-4. Tractors and jack hammers have the highest noise levels, in the range of 78 to 98 dBA. Although noise levels above 70 dBA could impair hearing over a 40-year exposure period, acceptable levels over a short-term period have not been determined (Leffel, 1976). Nevertheless, to minimize annoyance, construction noise can be controlled through maintenance of noise control devices (exhaust mufflers, intake silencers, and engine enclosures) and scheduling equipment operation to coincide with the times of highest ambient levels; i.e., daytime. The necessary permits (Chapter 43 of Title 11, Administrative Rules) will be secured prior to construction.

Agricultural Noise. Noise from agricultural equipment would be mitigated by the distance separating the cultivated fields from the residences. Most of the fields are at least a half mile from the nearest residences. A simple first approximation of the reduced sound level with distance is determined by the following equation:

$$L_p = L_{d_2} - [20 \log(d_1/d_2)]$$

where L_p = reduced sound level, dBA

L_{d_2} = sound level at a known distance from the source, dBA

d_1 = specified distance from source, ft

d_2 = known distance from source, ft

		NOISE LEVEL (dba) AT 50 FT					
		60	70	80	90	100	110
EARTH MOVING	COMPACTERS (ROLLERS)		70-75				
	FRONT LOADERS		70-80				
	BACKHOES		70-85				
	TRACTORS		75-85				
	SCRAPERS, GRADERS		75-85				
	PAVERS			85-90			
	TRUCKS			80-90			
MATERIALS HANDLING	CONCRETE MIXERS		75-85				
	CONCRETE PUMPS			80-85			
	CRANES (MOVABLE)		75-85				
STATIONARY	PUMPS		70-75				
	GENERATORS		70-80				
	COMPRESSORS		75-85				
IMPACT EQUIPMENT	PNEUMATIC WRENCHES			85-90			
	JACK HAMMERS & DRILLS			80-90			
OTHER	VIBRATOR		70-80				
	SAWS		70-80				

NOTE: Based on limited available data samples.

Source: Leffel 1976

FIGURE IV-4
CONSTRUCTION EQUIPMENT NOISE RANGES

Based on the above equation, a tractor with a noise level of 90 dBA at 50 feet (see Figure IV-4) will have a reduced level of 55 dBA a half mile away. A noise level of 55 dBA is below the range of quiet talking (see Table IV-2) and is the permissible noise level within residential districts (Chapter 43 of Title 11, Administrative Rules). The low mechanization requirements of crops such as bananas and papayas would lessen the possibility of exceeding these noise levels. Furthermore, noises will be mitigated by the natural buffers provided by the rolling terrain and mature trees.

Noise from roosters may be considered a nuisance because it occurs early in the morning. This type of noise, however, should be expected by residents who have chosen to live in a rural setting. The bulk of the additional lots will be made available to existing Waiahole and Waikane residents, who should already be aware of the noise levels associated with agricultural areas, if not already accustomed to them. As a precautionary measure, the HHA will make prospective tenants aware of these conditions prior to signing leases. Those wishing to take additional sound attenuative measures may do so at their own option.

DIRECT IMPACTS ON PUBLIC WELFARE

Impacts on public welfare are usually quite subjective because quantifiable standards are not available. Nevertheless, these types of impacts are important to assess because they relate to the quality of life. The factors that will be assessed in this section include rural lifestyle, sense of community, affordable housing, recreation, and crime.

Rural Lifestyle

The factors that distinguish Waiahole Valley as a rural community include a low population density (gross density of less than 0.5 persons per acre), small population (less than 2,500), high open space ratio (greater than 90 percent), predominant agricultural activity, and relatively low median family income that is supplemented by subsistence farming. These rural indices were developed in the Windward Oahu Regional Action Program (DPED, 1978) and reiterated in a study on agricultural land preservation in Windward Oahu (Kenney, 1980).

TABLE IV-2

AVERAGE SOUND LEVELS OF FAMILIAR NOISES

(dBA)

Interior noises

Bedroom at night	30-40
Quiet residence	39-40
Residence with radio	47-59
Small office or store	47-59
Large store	51-63
Large office	57-68
Electric typewriter at 10 ft	62-67
Factory office	60-73
Automobile	64-78
Factory	65-93
School cafeteria	76-85
Railroad car	77-88
Garbage disposal	78-83
Airplane cabin	88-98

Noises 3 ft from source

Whispering	30-35
Quiet ventilating outlet	41-47
Quiet talking	59-66
Noisy ventilating outlet	60-75
Business machine	71-86
Lathe	73-83
Shouting	74-80
Power saw	93-101
Power mower	94-102
Farm tractor	94-103
Power wood planer	97-108
Pneumatic riveter	110-120

Outside noises

Leaves rustling	10-15
Bird call	40-45
Quiet residential street	40-52
150 to 200 ft from dense traffic	55-70
Edge of highway with dense traffic	70-85
Car at 65 mph at 25 ft	75-80
Propeller plane at 1,000 ft	75-84
Pneumatic drill at 50 ft	80-85
Noisy street	84-94
Under elevated train	88-97
Jet plane at 1,000 ft	100-105
Jet takeoff at 200 ft	120-125
50-hp siren at 100 ft	130-135

Based on these indices, the proposed project may cause the following changes to Waiahole Valley community's rural character:

1. Gross population density will increase from the present 0.5 persons per acre to 0.7 persons per acre. This assumes a household size of 3.9 persons (which is the average household size of the existing population), resulting in a 45 percent increase from the present population size.
2. Because most of the additional 33 residential lots have been created between and adjacent to existing homesites, the consumption of open space has been minimal--only 96 percent of the region will remain open space instead of the present 98 percent. The maintenance of the high open space ratio along with the preservation of agricultural activities will mitigate an increased population density, thus help maintain the rural character.
3. The creation of parcels for agriculture and the long-term leases serve to preserve the agricultural lifestyle that exists today. Access to mauka areas that some of the residents use for hunting, hiking, and other recreation and income-supplementing activities will be maintained.
4. All proposed development is aimed toward farmers and residential lots for the low to moderate income households; therefore, the standard of living among the new residents is not expected to be substantially different from the existing residents.

In short, the rural character may be slightly degraded by the increased population density. Mitigation, however, has been provided by the maintenance of a high open space ratio and enhancement of the role of agriculture in the valley. Furthermore, road and utility improvements will be designed according to agricultural subdivision needs rather than residential subdivision standards; road widening in particular will be minimized. Street lighting along the heaviest traveled section of Waiahole Valley Road adjoining the residential district should be provided for safety. Although the light intensity will be the allowable minimum,

some of the ruralness of dark streets will be lost. This is a necessary tradeoff to ensure driver and pedestrian safety.

Sense of Community

The overriding design factor in the formulation of the development plan has been to minimize disruption of existing residents. All residents who were tenants under Mrs. Marks as of March 1977 were entitled to keep their tenancy under HHA. Spot zoning and exemptions will have to be granted from the Land Use Commission (LUC) and the City and County of Honolulu, respectively, to enable pockets of existing residents to remain on lots of one acre (see Chapter II). In addition, the long-term leases have instilled a sense of stability to the community.

Only two leases were eliminated because one family voluntarily decided to move to another parcel within Waiahole Valley and the other lessee was previously evicted for prior lease violations. No forced dislocations or relocations were mandated otherwise.

Forty-two new households will reside in Waiahole Valley as a result of the nine additional agricultural lots and thirty three residential lots. Because the leasing priorities will be given to Waiahole-Waikane households, farmers, and low to moderate income households, the demographic characteristics of Waiahole Valley will not be significantly changed.

A particular concern was the fate of the elderly farmers who desired to keep farming but could not meet the farming requirements stipulated in the long-term agricultural lease. Several families were in this situation. Their fixed incomes and unwillingness to assume financial responsibilities in this late stage of their lives added to the difficulties in taking an agricultural lease. Also, they wanted to continue to reside at their existing dwelling since they were unable to afford moving or building a new home. HHA has handled this predicament by presenting the option of obtaining a residential lease centered at their existing location that is reduced substantially in acreage from an agricultural lease. The residential lease relieves the tenant of the agricultural requirements, such as having to derive a minimum percentage of income from farming the leased property, yet allows sufficient area for backyard gardening.

The only negative impact on the community would be some loss of privacy. The improved access and the publicity of Waiahole Valley may attract visitors.

Affordable Housing

About 84,000 families statewide are eligible for programs requiring construction or delivery of affordable homes. Since present federal, state, and county housing programs reach less than 40,000 families in Hawaii annually, more than half of the maximum demand remains unsatisfied (HHA, 1981). The proposed action will only assist 33 additional households by providing a low-rent, long-term residential lot. HHA will also assist the household in seeking financial assistance for home construction.

Crime

There is a higher probability for increased vandalism of crops as a result of the improved access and street lighting. Community vigilance, fences, and dogs are the best deterrents to this potential problem.

DIRECT FISCAL IMPACTS

Public Perspective

The purpose of analyzing the economic impacts to the public sector is to determine whether the benefits from the proposed development will outweigh the cost of improvements and the cost of providing additional public services.

An exemption has been sought from the City and County's Parks Dedication Ordinance and exemptions will be sought for new residential lots under Sections 359G-4 and 359G-4.1. These exemptions will help minimize infrastructure improvement costs.

The Board of Water Supply's (BWS) pro rata share charges are not applicable since the state will develop and maintain the domestic/irrigation system for new services. Since onsite disposal systems will continue to be used, no sewer charges will be mandatorily incurred. Tenants with closed vault systems may contract private pumping services on a temporary or per call basis. Cesspool owners have the option of contracting a private company or the City and County of Honolulu.

The addition of 33 new single-family residential lots and 9 agricultural lots will have a relatively minimal impact on existing services and utilities.

Schools. The projected enrollment in public schools due to the proposed development can be accommodated with the existing and planned school facilities. According to Department of Education estimates, the project will generate an approximate increase of between 16 and 32 students from grades kindergarten to twelve.

Police Protection. The proposed development should have little effect on police operations, and the demand for police service is expected to be minimal. The Honolulu Police Department recommends that security measures be taken to enhance a safe lifestyle. Street lights will enhance safety.

Fire Protection. Waiahole Valley is presently served by Kahaluu Fire Station, with support services available from Kaneohe and Kaaawa fire stations. The current response time is eight minutes, which is inadequate by state standards. Fire protection will continue to be inadequate until beyond the fiscal year of 1986, when the proposed Kualoa Fire Station is completed. The completion or noncompletion of the project, however, will have little impact on existing residents. The improved roadways may have a positive, albeit minor, effect on improved emergency services access.

Bus Service. The bulk of the additional residences will go to Waiahole-Waikane residents. Thus, there will be only a very limited amount of population growth. The impact on bus ridership is expected to be minimal.

Electric Service. According to Hawaiian Electric Company, no impacts on its existing transmission and distribution facilities in the area are foreseen, and there should be no special problems in providing electric service to the area.

Telephone Service. Hawaiian Telephone Company may need to provide additional telephone lines into the valley to service new residential lots.

State Perspective

The total estimated cost to the state for the proposed Waiahole Valley Agricultural Park and Residential Lots Subdivision is \$18.6 - million. The cost will be primarily absorbed by the state, with little impact on the City and County of Honolulu.

Benefits will accrue to the state from the following sources:

1. Lease rents. An ultra-conservative approach was adopted for lease rent revenues--no escalation. At the end of each term, the renegotiated lease would charge the same fees. While the dollar amount would remain constant, its real worth would decline because of the projected long-term inflation rate of 5-7/8 percent. If the leases were renegotiated to account for inflation, base rent incomes would be significantly higher. The variable portion of the agricultural lease rent is based on gross revenues, which are projected to increase 12 percent per annum. The discounted present value (1984) of total projected lease rent revenue is \$20,760,683.
2. Incremental excise tax. This tax is derived from a fixed percentage of gross revenue from the sale of agricultural products. Like the variable portion of the agricultural lease rents, crop values were based on an agricultural feasibility study for Waiahole Valley (Scott, 1981). The tax rate is 0.5 percent of the incremental gross revenue (24 percent of gross revenues), or 0.12 percent of gross. A discount rate of 5-1/8 percent was used. Estimated revenues over the 55-year period of the lease are \$2,548,053.
3. Residual value of valley. The estimated value of this agricultural land is based on its discounted and capitalized net cash flow. A discount rate of 5-7/8 percent and a growth factor of 1.12 were utilized. The discounted and capitalized earnings (rent revenues and excise tax) and discounted and capitalized expenses (bond repayments and maintenance reserve) yield a residual value of \$11,116,526. The future value may be much larger if "higher" land use is allowed instead of agriculture.

According to this study, the implementation of the proposed Waiahole Valley Agricultural Park and Residential Lots Subdivision will result in a positive 1.85 to 1 direct cash inflow-outflow ratio. Figure IV-5 summarizes the direct fiscal impacts to the State of Hawaii. The following, if considered, would increase the cash inflow-outflow ratio of the proposed action:

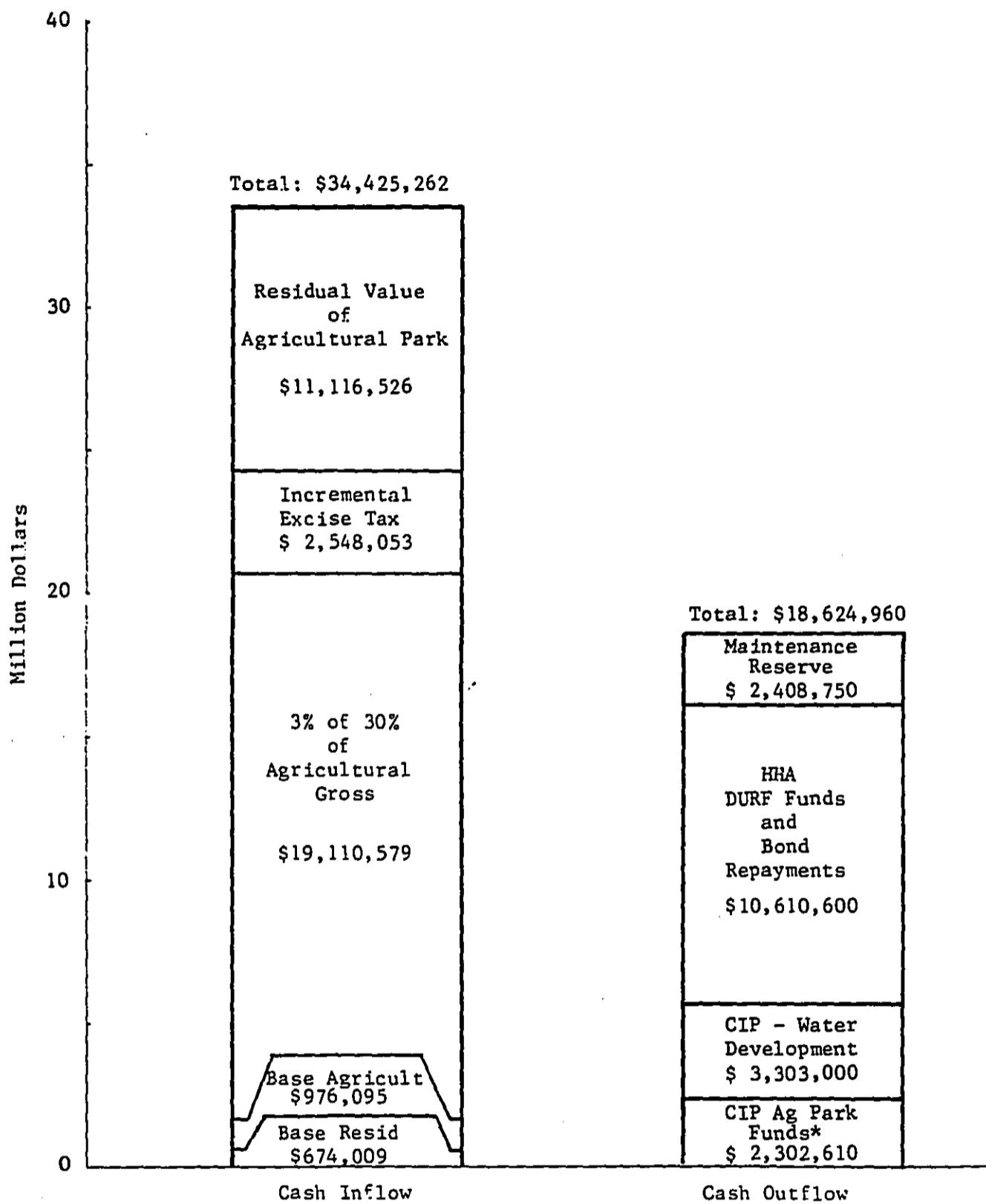
1. Indirect impacts to the state. Indirect benefits (general excise tax collection, individual income tax, state fuel tax collections, etc.) far outweigh indirect costs to the state.
2. Escalated rents. The study used a no-escalation clause to determine the discounted values of residential and agricultural base lease rents. Should an annual increase in base rents be used at the projected inflation rate, the discounted present value would exceed \$5 million.

Private Perspective

The impact to the residential lessees will differ from the agricultural lessees. The financial viability of the farmer is highly dependent on the lease rent formula and the water cost.

Residential Lessee. The residential lessee will incur the following costs:

1. Lease rents. The Hawaii Housing Authority has determined the terms of the residential leases to be as follows:
 - \$500/year first 15 years
 - \$650/year next 10 years
 - Negotiable next 15 year increments
 - Minimum lot size 7,500 sq ft
 - Additional charge of 3.5¢ per sq ft over 7,500 sq ft
2. Housing improvements. New homes may be built on the 33 new residential lots. At 1980 prices, it would cost approximately \$55 per square foot to build a house. To help defray this cost, qualifying valley residents can apply to various government programs administered by the Department of Housing and Urban Development, the City and County Housing and Community Development, or the Hawaii Housing Authority.



Cash Inflow-Outflow Ratio 1.85:1 * Projected
 Source: Environment Capital Managers, Inc., 1981,
 as amended in 1984 by M&E Pacific, Inc.

FIGURE IV-5
 DIRECT FISCAL IMPACT ANALYSIS - 1984 DOLLARS

Farmers. Farmers must deal with the following operating and fixed costs (Scott, 1980):

1. Operating costs
 - a. Labor
 - b. Water and other miscellaneous
 - c. Gross income tax (0.5 percent)
 - d. Lease rent (\$100 plus 0.9 percent of gross plus house site at \$500/yr.)
2. Fixed costs
 - a. Interest on operating capital
 - b. Depreciation and interest on buildings and equipment

Of these costs, the proposed agricultural park development has control on two of the cost items--the lease rent and the water cost. The lease rent has been agreed upon between HHA and the residents to be \$100 per acre per year plus 0.9 percent of the gross annual farm income; an additional \$500/year per 7,500 sf lot for the first 25 years will be assessed for the housing portion of the lot, if any. The water cost has not yet been determined. The present subsidized cost for water in agricultural parks is about \$0.08/1,000 gallons plus \$2.50 per month service charge. As a conservative assessment, a feasibility study of agricultural development in Waiahole Valley (Scott, 1981) based its analysis on a water rate of \$0.24/1,000 gallons.

In the feasibility study, viable crops were selected for analysis on the basis of (1) adaptability, (2) comparative costs of production in relation to competing areas, and (3) sales potential. Crop selection was also influenced by what crops are being successfully grown today and what crops the residents expressed interest in growing. Costs and returns for bananas, papayas, sweet potatoes, cucumbers, tomatoes, snap beans, taro, prawns, and dendrobiums were analyzed. Sweet corn, melon, chinese peas, and other miscellaneous vegetables could also be feasibly grown in the valley. In the future, citrus, avocado, mango, and other fruit trees may be grown, but probably not on a commercial scale.

A summary of costs and returns for each recommended crop is presented in Table IV-3. Most crops require about 5 acres in order to provide a viable operation for a farm family. With multicropping, 3 acres of land

TABLE IV-3

PROJECTED GROSS AND NET RETURNS PER FARM TO FACTORS OF PRODUCTION FOR SPECIFIED CROPS
 WAIHAOLE VALLEY AGRICULTURAL PARK

Crop	Acres ^{a/} Per Farm	Gross Returns	Net Returns to Mgt, Labor & Risk	Net Returns to Management & Risk	Net Returns to Risk
Bananas	5	\$44,000.00	\$30,943.05	\$22,753.05	\$19,673.05
Papayas	5	26,875.00	16,130.10	6,005.10	4,123.85
Tomatoes	5	84,000.00	58,773.00	39,715.50	33,835.50
Snap Beans	5	42,000.00	30,298.20	23,548.20	20,608.20
Cucumbers	5	45,000.00	31,118.30	12,893.30	9,743.30
Sweet Potatoes	5	49,500.00	37,042.15	28,379.65	24,585.35
Misc. Truck Crops	5	45,000.00	35,650.00	25,650.00	22,500.00
Flowers & Foliage	1½	125,000.00	65,260.67	42,010.67	33,260.67
Taro	5	25,000.00	16,121.50	6,652.15	4,812.15
Prawns	5	67,500.00	35,899.35	14,592.35	9,867.35

^{a/} Farm sizes may differ from those in the engineering report for Waiahole Valley Agricultural Park. Size adjustments have been made to better reflect the size of farm required to provide an adequate standard of living for a farm family.

Source: Frank Scott, 1981.

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

would perhaps be sufficient. A one-acre farm would be considered a part-time enterprise for any crop other than dendrobiums.

Excluding labor and management expenses, the five-acre papaya and taro farms would provide an annual income of slightly in excess of \$16,000. The feasibility analysis for taro was based on the assumption of no water costs since the water would be diverted from the stream. The proposed water system would allow this practice to continue, thus preserving the viability of taro farming.

SECONDARY AND CUMULATIVE IMPACTS

The impacts described in this section affect areas beyond the Waiahole Valley project area boundary.

One of the major secondary impacts of the proposed project is its potential growth-inducing effects. These effects involve land use changes in the surrounding areas and the project's impact on the regional population.

Cumulative impacts are also examined since individual effects may be limited but may synergistically create a significant impact when considered with other developments in the region. Of particular concern in the windward district are the cumulative impacts upon water supply, traffic, and Kaneohe Bay water quality.

Growth

A project can induce changes in the surrounding land uses if services provided by the project have an overcapacity that can accommodate growth in the surrounding areas. A project can alter the property values of surrounding areas because of improvements and other amenities created by the project. A project can also induce land use changes by providing employment opportunities or by generating adverse environmental impacts such as noise, odor, or other "undesirable" characteristics.

The proposed action in Waiahole Valley is not expected to create changes by any means. Services have been designed to accommodate only the needs of the planned development. The roads have been deliberately designed at agricultural standard width in recognition of the basic needs

of a rural community and to discourage high traffic. No sewage treatment plant will be provided; cesspools will be used.

Characteristics of surrounding lands are not expected to change due to the implementation of the project because existing land uses within the project area will not be significantly changed and infrastructure improvements will not accommodate growth in surrounding areas.

Employment opportunities will be generated for farmers in the long-run and for construction workers in the short-run. The temporary employment for construction will not require convenient employment housing. Most of the farm labor will be comprised primarily of Waiahole residents. The number of commuting labor is not expected to be significant.

Dust, noise, and odor are typical agricultural or rural environmental effects that are adverse to suburban development. These effects are confined to the valley and do not intrude upon surrounding areas.

The Koolaupoko region had a 1980 population of 109,373 (DPED, 1981). The addition of about 200 new residents to Waiahole Valley accounts for less than a one percent increase over the existing population. Most of the growth in the region, according to the Development Plan for Koolaupoko, will be concentrated in the existing population centers of Kaneohe and Kailua, with the other areas remaining relatively sparsely settled in a rural setting. The proposed action is consistent with the City and County's development policy since the rural nature of the Waiahole area will be preserved.

The socioeconomic composition of the region will not be affected by the proposed action because most of the new residents will come from the valley itself or the surrounding areas. Even if there are new residents from urban areas, the relatively small proportion of the population increase in Waiahole will not have a significant impact on the socioeconomic composition of the region.

The development trend established by the proposed action in the Koolaupoko region may initiate a regional development slowdown rather than encouraging it further. The agricultural park designation is a long-term commitment of the land to agricultural use and the preservation of its rural character. A regional nondevelopment trend would relieve some of the stress on Kaneohe Bay and its watersheds.

Traffic

No significant adverse traffic impacts will occur with the implementation of the action. Additional vehicular traffic volume generated from the proposed 33 additional residences should be relatively minor. Such an insignificant increase in traffic volume should not or cause any congestion or require any road widening.

Water Supply

The availability of excellent quality for domestic water supplies has not been a problem in the Windward Water District (Makapuu Point to Kahuku). The Waiahole Ditch-tunnel system has been exporting about 26 mgd to Oahu Sugar Company's fields in Leeward Oahu until recent increases in electrical costs have made pumping unfeasible. Since Oahu Sugar Company plans a corresponding reduction in planted acreage, the cessation of pumpage will not have any other impacts on Leeward Oahu water supplies. The proposed action will not affect the BWS's system.

Kaneohe Bay Water Quality

The proposed action will cause some increase in the sediment and nutrient loads transported to Kaneohe Bay via Waiahole Stream. Waiahole Stream is one of nine major streams that contribute sediment and nutrients to Kaneohe Bay. Kaneohe Bay has been classified as AA by the DOH in recognition of its high natural and recreational values (Chapter 54 of Title 11, Administrative Rules, Department of Health). Degradation of the water quality has been of concern primarily because of the rampant urbanization within the drainage basin and discharge of raw sewage. Although the sewage point sources of pollution have been eliminated, nonpoint source pollution via streams still impose a stress on Kaneohe Bay. This section evaluates the contribution of Waiahole Stream as a result of the proposed action relative to the contribution of other streams in the drainage basin.

Sediment. Sedimentation can directly impact corals through smothering and the reduction of light transmittance as a result of increased turbidity or indirectly impact corals through the reduction of exposed hard substrate for young coral planulae (see Figure IV-6). In addition,

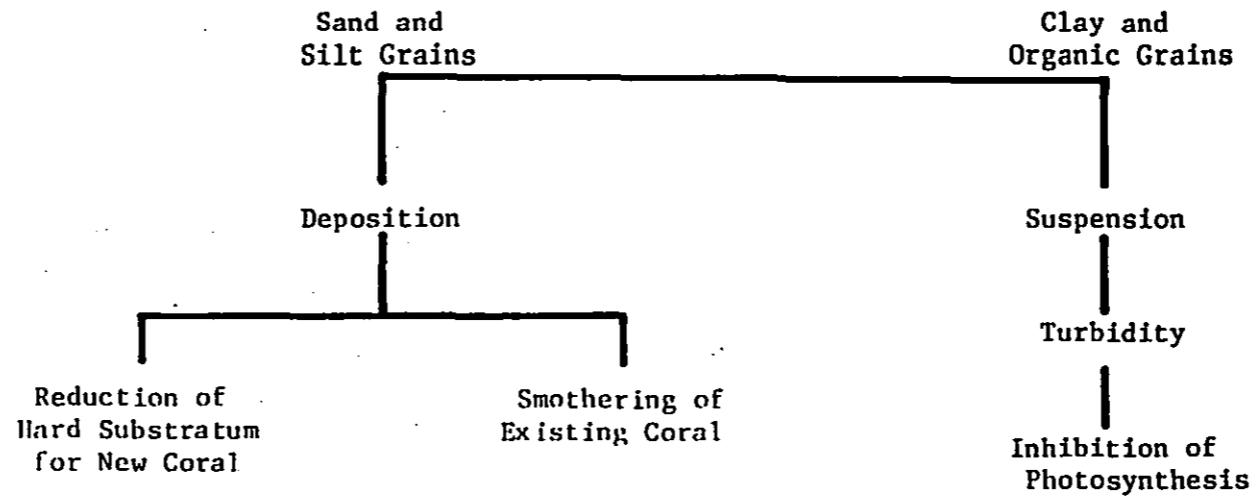


FIGURE IV-6

KANEOHE BAY SEDIMENT PROBLEM

Source: Kaneohe's Sediment Problem - Part II: Nature of Damage and Possibilities for Control, Paul Bartram, 1975.

nutrients, pesticides, and heavy metals attached to sediment particles are transported to the receiving waters via erosion.

Soil erosion is one of three major causes of sedimentation in Kaneohe Bay. The other two sources are dredged spoils and carbonate material from sand transport and reef erosion. The most significant source is carbonate material, which was estimated to comprise 63 percent of the infilling that occurred during a 49-year period, from 1927 to 1976 (Hollet, 1977). Land erosion contributed 27 percent and dredged spoils contributed 11 percent.

The area most affected by nonpoint source runoff has been the southern sector of the bay. Approximately seven times as much sediment has been deposited in the southern sector versus the middle and northern sectors. Nearshore sedimentation, however, has been evident in all sectors. Two previous studies (Hollet, 1977 and Smith and Kam, 1973) have delineated this zone of substantial nearshore nonpoint source sedimentation caused by land erosion (see Figure IV-7). The sedimentation in the vicinity of Waiahole Stream is typical of shoreline areas throughout Kaneohe Bay.

The rate of sedimentation caused by land erosion (expressed in tons per year) has been estimated by three methods:

1. Measurement of sediment accumulation in the receiving water over a known time interval;
2. Measurement of sediment concentrations in streams; and
3. Measurement of the erosion rates within the watershed and application of a "delivery ratio" factor to account for losses and gains in transit.

A variation of the second method adjusted the stream loading to account for the significant contributions from episodic storms. The various methods of estimation are compared in Table IV-4.

The highest sediment yield estimate for the entire Kaneohe Bay drainage basin of 131,000 tons per year (T/yr) was determined through the sediment accumulation method (Roy, 1970). A follow-up study that utilized the same method halved the previous estimate to 69,300 T/yr (Hollet, 1977). The difference could be attributed to the possibility that the

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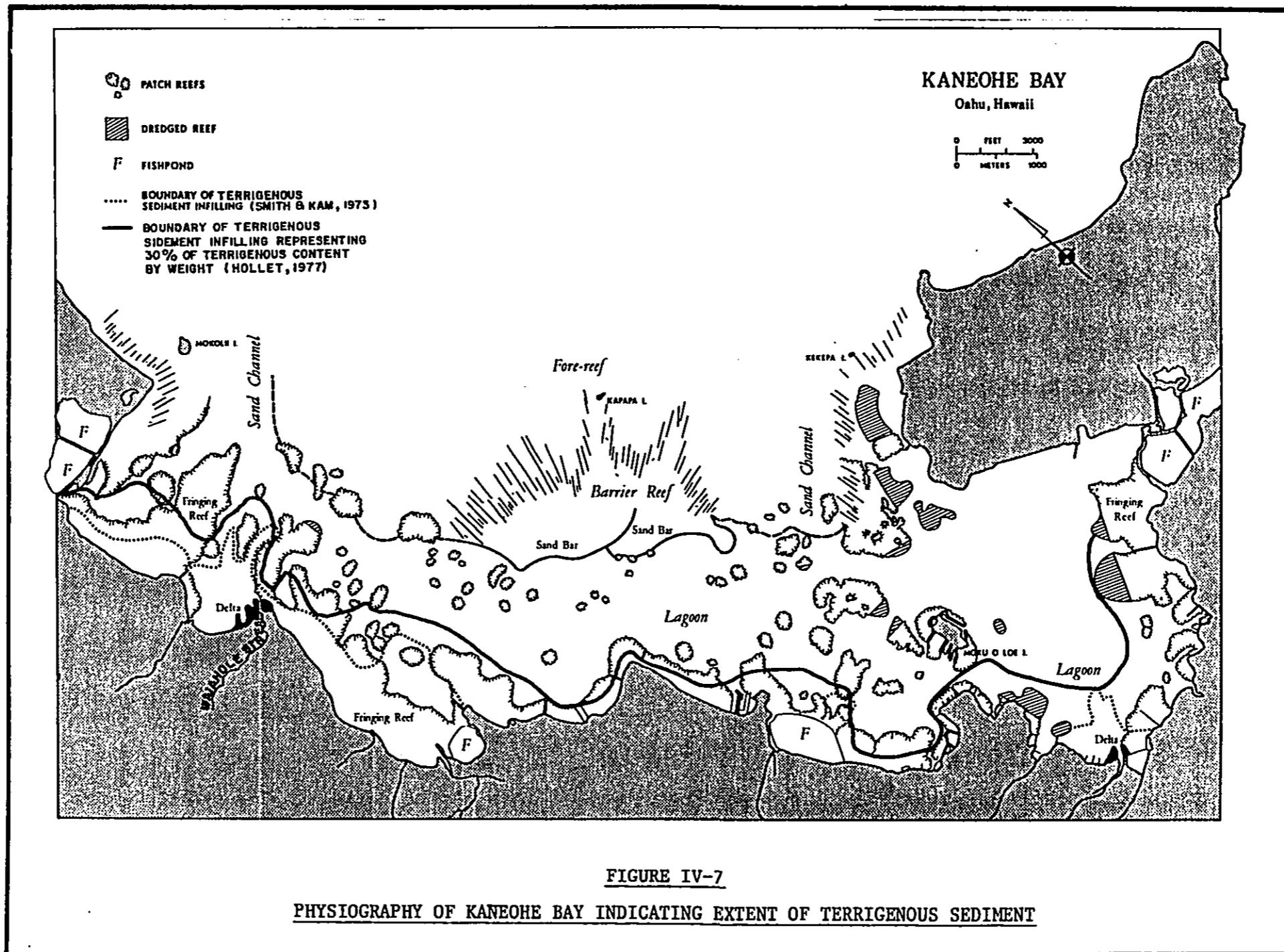


FIGURE IV-7

PHYSIOGRAPHY OF KANEOHE BAY INDICATING EXTENT OF TERRIGENOUS SEDIMENT

TABLE IV-4

PAST ESTIMATES OF ANNUAL LAND-DERIVED SEDIMENT LOADING INTO KANEOHE BAY
AND PERCENT CONTRIBUTION FROM WAIHAOLE STREAM

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Method	Investigator	Estimated Sediment Yield (T/yr)		Percent Contribution from Waiahole Stream to Kaneohe Bay
		Kaneohe Bay	Waiahole Stream	
Direct measurement of sediment accumulation	Roy (1970)	131,000	-	-
	Hollet (1977)	69,300	-	-
Stream loading	Jones et al. (1971)	37,000	4,800	13%
	Ocean Engineering Consultants (1973)	37,430	4,930	13%
	Fan (1973)	-	17	-
Stream loading from Jones et al. (1971) adjusted for average loads contributed by less frequent floods (Fan, 1973)	Bartram (1975)	92,500	-	-
Erosion rate (Universal Soil Loss Equation adjusted by delivery ratio)	Bartram (1975)	35,000	-	-
	Dolt (1978)	32,880	-	-
	Present study	-	4,900 (existing)	15% (of 32,880)
			5,375 (future, short-term)	16% (of 32,880)
			4,914 (future, long term)	15% (of 32,880)

previous study did not account for the lower shoaling rate of the northern sector and that representative samples were not taken. The other two methods produced comparable estimates--37,000 T/yr (Jones et al. 1971) and 33,000 to 35,000 T/yr (DOH, 1978; Bartram, 1975). Only one study accounted for the disproportionate contribution from episodic storm events. An estimate of 92,500 T/yr was derived through the integration of comprehensive stream data from Jones et al. (1971). This figure was considered the best estimate of sediment yield (SLTH, 1975) prior to the most recent study by Hollet.

The relative contribution of Waiahole Stream has been estimated through the second and third methods. Stream sediment loads have been measured by Fan (1973), Jones et al. (1971), and Ocean Engineering Consultants, Inc. (1973). The estimates by Jones and Ocean Engineering Consultants, Inc. are comparable--4,800 T/yr and 4,930 T/yr respectively. Fan estimated only the suspended portion; the bedload that contained the silt and sand size particles was not measured. The suspended sediment concentration was measured as 2 ppm, which converts to a sediment yield of 17 T/yr¹. Fan's study, however, also emphasized the variability of sediment concentration. One stream had a range of 2 to 787 ppm, with a normal level of 10 ppm. Fan's estimate should probably be considered as a lower limit.

Using the erosion method, sediment yield from Waiahole Valley was calculated to be 4,900 T/yr. This rate is comparable to the estimate by Jones et al. (1971) and Ocean Engineering Consultants, Inc. (1973). The largest source of sediment in Waiahole Valley is the erosion of the forest and idle farm lands (93 percent). Agricultural lands contribute the balance of the existing sediment yield (see Figure IV-8). The high sediment contribution from the forested areas is consistent with a previous study (Yim and Dugan, 1975) that compared runoff from wet forest areas with agricultural areas. The steep slopes and sparse undergrowth of the wet forest area accounts for the high sediment content of the runoff.

¹ According to Fan, 1973, the conversion is $D = QC \times 1.125 \times 10^{-4}$,
where: D = sediment yield (T/hr)
Q = discharge (cfs)
C = sediment concentration (ppm)

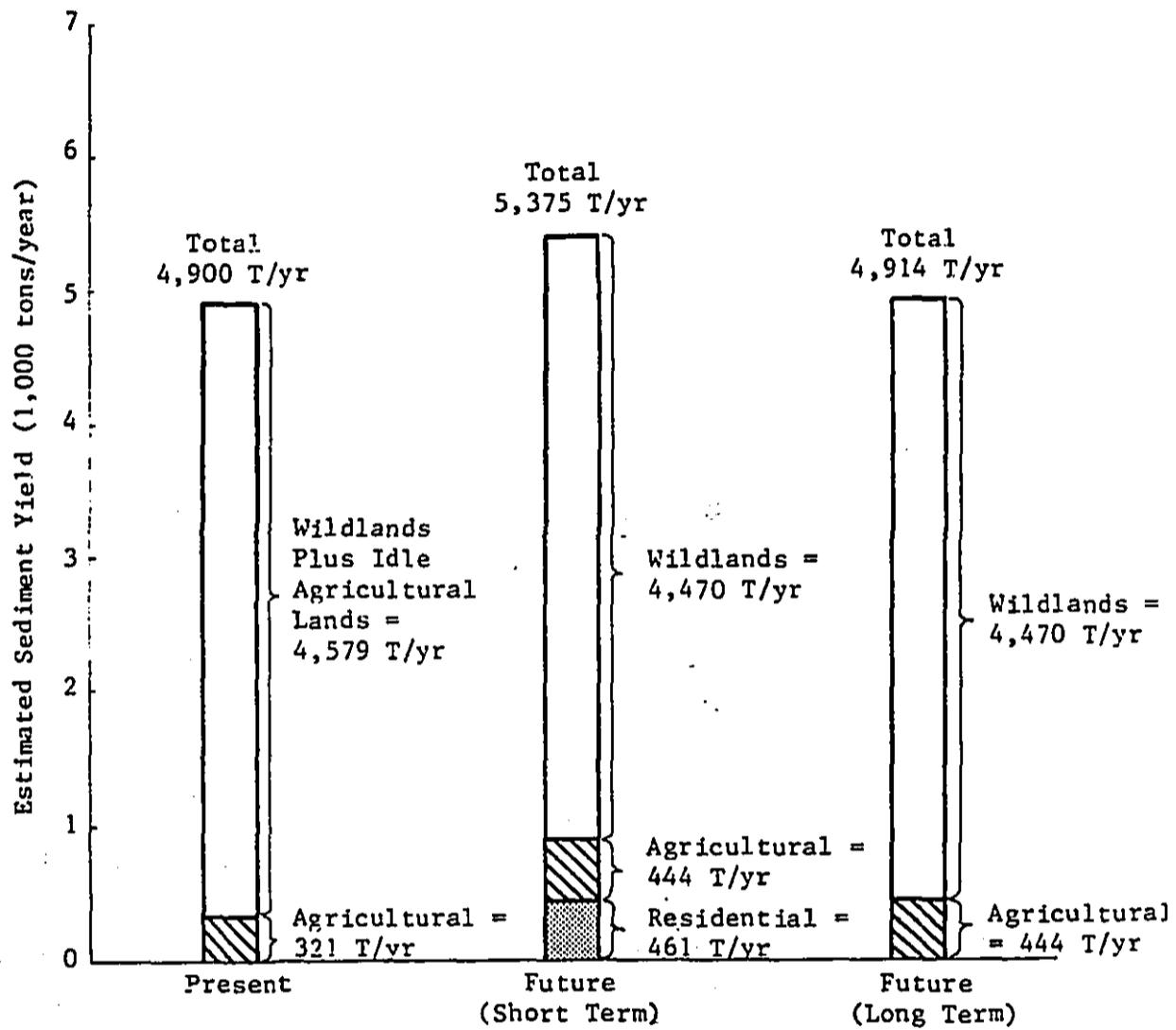


FIGURE IV-8

ESTIMATED SEDIMENT YIELD FROM WAIHOLE VALLEY

Because the third method considered land use characteristics in estimating sediment yield, it was the only method capable of predicting future sediment yield resulting from the proposed land use changes in the watershed. Using the guidelines developed by the U.S. Soil Conservation Service (1975), future sediment yield with the proposed land use changes in Waiahole Valley has been estimated to be 4,914 T/yr in the long run and 5,375 T/yr during the construction period.

During the construction period, grading operations will generate an additional estimated 461 T/yr of sediment into Kaneohe Bay, or about 9 percent of the total existing sedimentation rate of the Waiahole Valley drainage basin. This rate will be subject to extreme fluctuations and will remain high for only a limited duration. Sediment erosion caused by construction activities will be primarily generated from scarified land and unprotected road cuts. These short-term sediment emissions generated by construction activities are over and above the long-term agricultural and watershed sediment yields.

The long-term 123 T/yr increase of agricultural sediment yield will be offset by a reduction of 109 T/yr due to the conversion of wildlands to agricultural use. The largest source of sediment runoff still remains wildland areas.

The net long-term increase in sediment yield due to the development will be 14 T/yr, a one percent increase over existing conditions. During the construction period, there will be an estimated 475 T/yr more than existing conditions, a temporary 9.6 percent increase.

To assess the relative significance of these increases, the sediment yield from Waiahole Valley should be compared to the sediment yield for the entire Kaneohe Bay drainage basin. The present sediment yield from Waiahole Valley constitutes about 15 percent of the total sediment yield into Kaneohe Bay. A short-term future sediment yield of approximately 5,400 T/yr raises the relative contribution from Waiahole to 16 percent, assuming that the sediment contribution from all other streams draining into Kaneohe Bay will remain constant.

This incremental increase should be compared with the threshold limits of coral tolerance to sedimentation and turbidity. Unfortunately, marine biologists have not been able to quantify definitive limits.

Studies of natural reef systems in Guam have determined that corals can withstand relatively heavy continuous sedimentation (Randall and Birkland, 1978). Corals subject to sedimentation possess mechanisms such as polyp extension and mucous generation to shed sediment (Hubbard and Pocock, 1972).

Most damage to coral reefs in Kaneohe Bay has resulted from episodic storm events (Banner, 1968). Based on data from Kamoalii Stream, Bartram (1975) estimated that about 40 percent of long-term sediment movement occurs during floods that take place once every two years or more. The elevated competence of the storm flow flushes the stream bed of silt and sand size particles.

To mitigate the effects of storm events, erosion control practices specified in the grading permit should be strictly enforced, especially during the rainy winter months. Implementation of these practices should control erosion to an acceptable level during the construction period. Technical assistance to the farmers for erosion control on agricultural lands will be provided by the SCS. Among the practices recommended for erosion control and soil conservation on agricultural lands are the use of crop residues on the soil, minimum tillage on slopes, crop rotation, terracing, strip cropping, contouring, and diversions (Lochs, 1974).

Nutrient Loading. Eutrophication due to excessive nutrients has been a concern, especially in the southern sector of the bay because of its low flushing rate. Former sewage discharges into Kaneohe Bay had been creating an ecological imbalance that favored benthic encrusting algae at the expense of corals. The recovery of the bay since the termination of sewage discharge is presently being monitored.

Agricultural runoff is a continuous source of nutrients. The major constituents of fertilizer are nitrogen, phosphorus, and potassium. Approximate application rates for commonly grown crops in Waiahole Valley are shown in Table IV-5.

The plant uptake of potassium appears nearly equivalent to the amount applied; however, both nitrogen and phosphorus are considerably less efficiently absorbed and a good percentage remains in the soil (Green and Young, 1972). Phosphorus movement is negligible in nearly all

TABLE IV-5

APPROXIMATE MAXIMUM CROP FERTILIZER APPLICATIONS

Crop	Nitrogen Fertilizer (lbs/acre-yr)	Phosphorous Fertilizer (lbs/acre-yr)	Potassium Fertilizer (lbs/acre-yr)	Number of Applications Per year
Banana	800 urea	100 treble super phosphate	900 muriate of potash 200 potassium sulfate	6
Papaya	750 urea	750 treble super phosphate	900 muriate of potash	12
Taro ^{a)}	435 urea	900 super phosphate	385 muriate of potash	b)
Truck crops ^{c)}	670 urea	850 treble super phosphate	800 muriate of potash	d)
Estimated Total Application	2655	2600	3185	

Source: Scott, 1981

- a) 15 month cycle.
- b) One third of the fertilizer is applied before planting when the field is dry. Two to 3 months later, the patch is drained and another one third is broadcast. The last one third is applied 5 to 6 months after planting, using the same method as for the second.
- c) General guideline, requirements for specific crops will vary.
- d) Fertilizer applied before planting and in mid-growing cycle.

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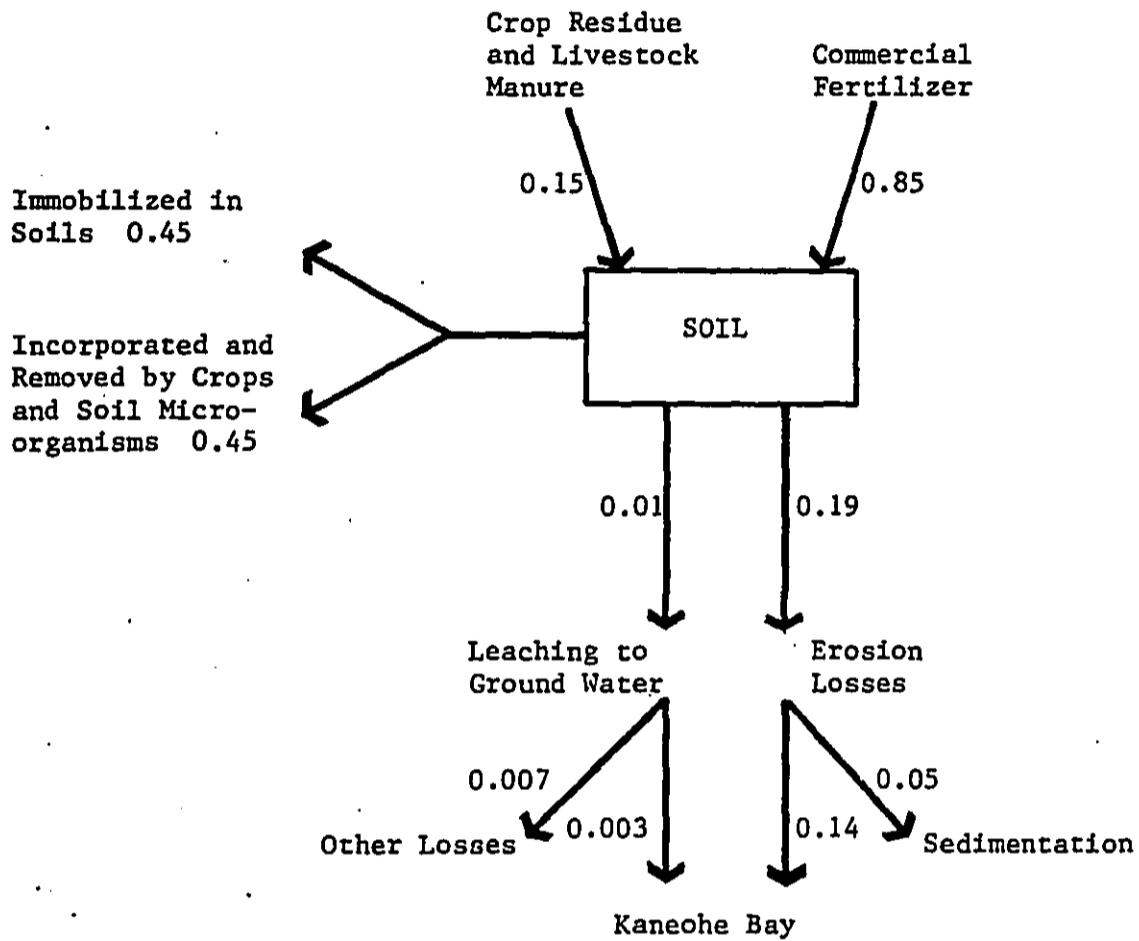
Hawaiian soils, but nitrogen moves relatively rapidly when it is in the nitrate form. Of the three major fertilizer constituents, therefore, nitrogen in the form of nitrate is the primary concern.

The possible pathways for phosphorus movement are diagrammed on Figure IV-9. The proportions are based on the best available knowledge and are not the result of field measurements. Because of the high adsorption of phosphorus, the primary pathway for phosphorus to affect surface water quality is through erosion.

The possible pathways of nitrate include leaching, adsorption, and interaction with "native" nitrogen. The Waikane and Alaeloa soils have relatively low cation exchange capacities; therefore, adsorption is low and nitrate moves almost with the moving water front. Permeability is moderately rapid in these soils, further contributing to nitrate movement. The depth to the water table, however, is greater than five feet, even in the wet weather season, allowing more time for adsorption to occur in the downward movement of the water (see Table IV-6). Wells in irrigated areas with soils similar to Waikane and Alaeloa had nitrate levels below 5 ppm (Tenorio et al. 1969). Although this level is greater than the 1.1 ppm of uncontaminated basal water, it is still considerably below the maximum contaminant level of 10 ppm in the drinking water regulations.

The Hanalei and Pearl Harbor soils have low permeability and high cation exchange capacity. Nitrate movement through these soils is therefore impeded. The shallow water table, however, may enable some nitrate to enter the groundwater.

Interaction with the "native" nitrogen may cause changes in the nitrate level independent of the time the fertilizer is applied. The native nitrogen may be replaced by the fertilizer nitrogen in the dynamic biological transformation of soil organic fractions. Thus, even though the applied fertilizer nitrogen may not be leaching in great amount, native nitrogen instead may be leaching in fairly large amounts after a crop is removed. Mineralization and nitrification may also contribute to nitrate increase in the percolate after crop removal (Green and Young, 1972). Improvements in nitrogen efficiency by applying fertilizer at optimum times and rates will keep the nitrate levels in the groundwater low, thus minimizing nitrate transport to Kaneohe Bay.



- SOURCES: 1) Brady, N.C., THE NATURE AND PROPERTIES OF SOILS, McMillan Pub. Co. N.Y., 1974.
- 2) Green, R.E., R.H.F. Young, HERBICIDE AND FERTILIZER MOVEMENT IN HAWAIIAN SOILS. Hawaii Ag., Exp. Station, #1269.

FIGURE IV-9
SCHEMATIC OF PHOSPHOROUS TRANSPORT PROCESSES IN WAIAHOLE VALLEY*

*Decimal fractions are approximate and vary with season, crop cover and weather conditions.

TABLE IV-6

SOIL CHARACTERISTICS PERTINENT
TO FERTILIZER AND PESTICIDE MOVEMENT

Soil Type	Depth to Water Table	Permeability	Cation Exchange Capacity ¹	K-factor Erodibility ²
Waikane Silty Clay	low - >5'	moderately rapid - 2.0 - 6.3	low	low - .10
Pearl Harbor Clay	high - 1 - 4'	very slow <.06	high	moderately low - .17
Hanalei Silty Clay	high - 0 - 5'	moderate .63 - 2.0	high	moderately low - .17
Alaeloa Silty Clay	low - >5'	moderately rapid - 2.0 - 6.3	low	moderately low - .15

¹ Estimation based on iron oxide, kaolinitic, or montmorillonite.

² Source: C&C Department of Public Works, Soil Erosion Standards and Guidelines, 1975.

Source for all other figures: USDA, Soil Conservation, Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii, 1972.

A summary of the nitrate movement is shown on Figure IV-10 for fertilizer inputs. The proportions indicated are not based on field measurement but are the best estimates based on the literature.

The present nitrogen loading contribution of Waiahole Stream to Kaneohe Bay is approximately 2 percent of the total loading (see Table IV-7). Proposed agricultural expansion in Waiahole Valley will increase the contribution relative to the total nitrogen loading by an additional 1 percent. For phosphorus, the present average load delivered by Waiahole Stream represents about 1 percent of the total load in Kaneohe Bay. Proposed agricultural expansion will increase the relative contribution by less than 1 percent. This incremental difference for nitrogen and phosphorus loading is not significant relative to the entire drainage basin.

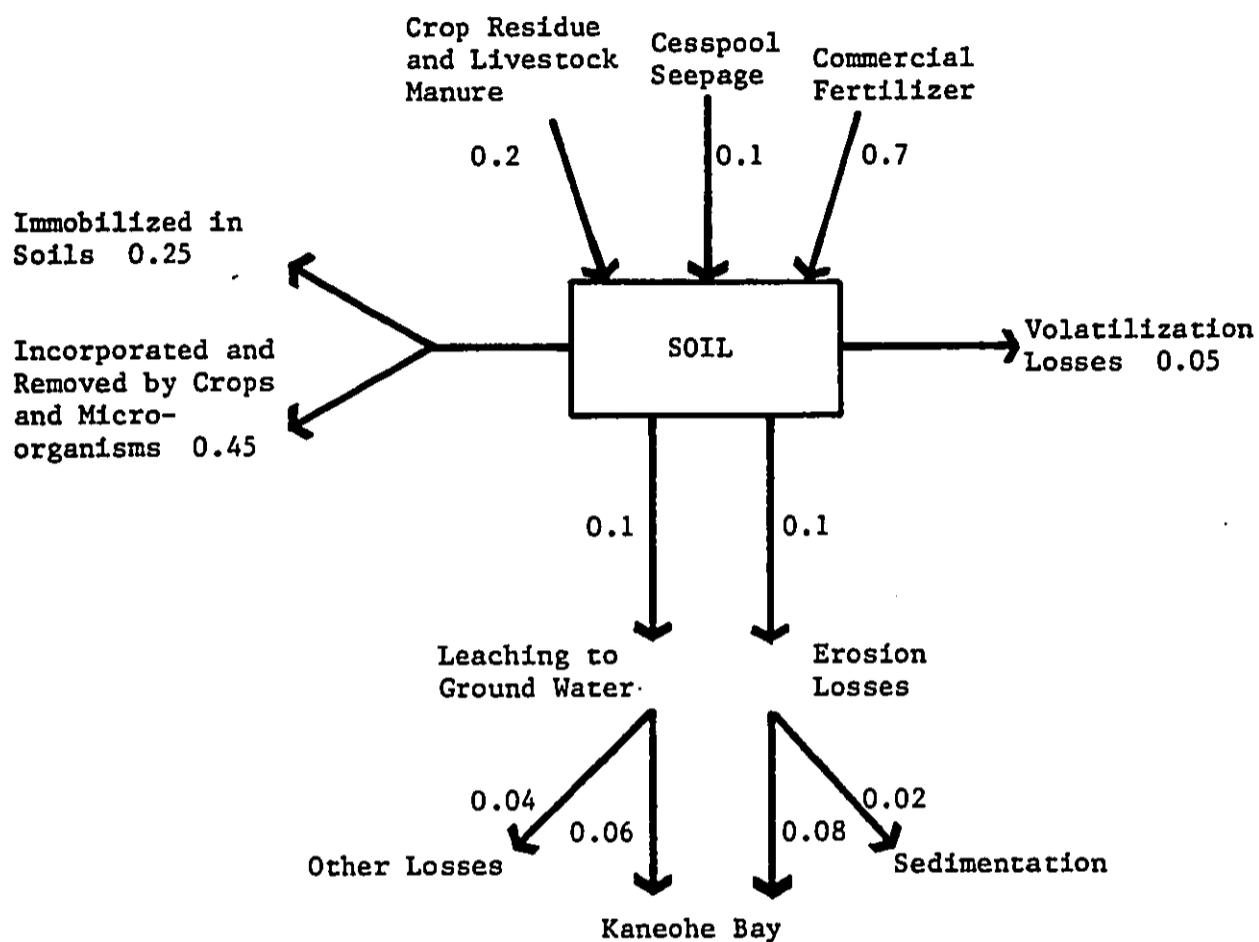
Because potassium, phosphorus, and nitrogen are adsorbed to some extent to soil particles, soil erosion management discussed previously would also mitigate nutrient impacts.

Pesticides. Possible herbicides and insecticides that may be used in Waiahole are listed in Table IV-8. This list is based on the crops recommended by Frank Scott. None of the pesticides are of the highly persistent chlorinated hydrocarbons type. Chlorinated hydrocarbons are used now primarily for urban use in treating ground termites and as a fungicide in the pineapple industry; its use has been virtually eliminated in agriculture through the substitution of less persistent pesticides, such as organophosphate insecticides and carbamate herbicides.

The downward movement of pesticides is affected by the following factors:

1. The solubility of the pesticides in water.
2. The amount of water passing downward through the soil.
3. The adsorptive relationship between the pesticide and the soil. Adsorption appears to be directly related to organic matter content.

Malathion and diazinon are the major insecticides recommended for agricultural crops in Hawaii. Both are organophosphate based; however, diazinon is approximately ten times more persistent in the soil than



- SOURCES: 1) Brady, N.C., THE NATURE AND PROPERTIES OF SOILS, McMillan Pub. Co. N.Y., 1974.
- 2) Green, R.E., R.H.F. Young, HERBICIDE AND FERTILIZER MOVEMENT IN HAWAIIAN SOILS, Hawaii Ag., Exp. Station, # 1269.

FIGURE IV-10
SCHEMATIC OF NITROGEN TRANSPORT PROCESSES IN WAIHOLE VALLEY*

*Decimal fractions are approximate and vary with season, crop cover and weather conditions.

TABLE IV-7

COMPARISON OF TOTAL STREAMS AND WAIAHOLE STREAM LOADINGS
OF NITROGEN AND PHOSPHORUS TO KANEOHE BAY^a

	<u>Total Streams</u>	<u>Waiahole Stream- Present</u>	<u>Waiahole Agricul- tural Park Stream^b</u>
Average Discharge (mgd)	68.9	9	9
Total Nitrogen			
Average Conc. (mg/l)	0.56	0.24	0.30
Mass Emission (lb/day)	319	18	23
Annual Loading (tons)	58.3	3.3	4.2
Total Phosphorous			
Average Conc. (mg/l)	0.12	0.06	0.07
Mass Emission (lb/day)	67.3	4.35	5.52
Annual Loading (tons)	12.3	0.79	1.01

^a Kaneohe Bay Water Resources Data Evaluation, U.S. Army Engineer District, Honolulu, 1976.

^b Estimated from increased Agricultural Land Utilization, i.e.

- i. present agriculture acreage = 251
- ii. proposed agriculture park acreage = 320
- iii. percent agriculture land increase = 27%
- iv. increased nutrient loss with normal farming activity is estimated to equal the increased land usage.

TABLE IV-8
COMMONLY USED PESTICIDES
FOR USE AT WAIHAOLE

Pesticide	Crop							Persistence* In the Soil, Weeks	Toxicity* Acute Oral LD ₅₀ for Rats, mg/kg	Threshold Limit for Toxicity Symptoms in Humans** in Air, mg/m ³
	Banana	Papaya	Tomato	Snap Bean	Cucumber	Sweet Potato	Taro			
<u>Herbicides</u>										
CDEC			X	X	X			3-5	850	N/A
Diuron	X							32	3400	N/A
Paraquat	X	X						1-2	157	0.5
<u>Insecticides</u>										
Diazinon	X						X	10-12	300-850	N/A
Malathion	X	X	X	X	X	X		1-2	2800	10.0
<u>Fungicide</u>										
Captan							X	1-2	9000	Not Air-Borne

N/A Not available.

* Data from State of Hawaii Department of Agriculture, 1969.

** Threshold limits from Durham, 1976.

malathion. Diazinon is used to control soil-borne insects and is strongly adsorbed by soil colloids, which prevent leaching to groundwater. Malathion is used to control plant-surface insects. Its high volatility and rapid decomposition by soil microorganisms lead to a short persistency and low probability of environmental pollution.

Diuron is the most persistent of the commonly used farm herbicides. It is part of the phenylurea herbicide group and is characteristically immobile and nonvolatile in the soil. Moist soil conditions and exposure to sunlight tend to speed the decomposition of diuron. Although this herbicide has a persistency of over half a year, its insolubility and immobility in the soil prevent it from being leached with percolating water. Paraquat and CDEC are two other commonly used pesticides for weed control on Hawaiian farms. Both are short-lived because of rapid microbial decomposition and are not prone to rapid leaching.

Fungicides are used as a seed or rootstock pretreatment and field treatment for the control of soil-borne fungi. The principal fungus disease in Waiahole Valley is the Pythium sp. (corm rot), which attacks taro corms and is ubiquitous in the valley soils. Captan (40 WP) has been found to provide effective control of this plant disease. Taro is grown in flooded field conditions with running water. Contamination of stream water by Captan, however, is minimal because it is applied during drained field conditions, has short persistence, and is rapidly fixed on soil aggregates.

In comparison to pesticide loss by leaching from agricultural fields, operator practices such as pesticide formulation, field application, and cleaning of application equipment have been shown to be the major sources of contamination by pesticides (Coutts, 1980). Accidental spills during pesticide formulation and loading of application equipment have resulted in localized groundwater contamination by chlorinated hydrocarbon pesticides on Oahu (Mink, 1981). Exceeding recommended application rates and direct application of pesticides to stream and drainage water also pose possible pollution hazards on the groundwater, Waiahole Stream, and Kaneohe Bay. An operator training and certification program developed by the Department of Agriculture should reduce the occurrence of misuse and

accidents from occurring. When used in the recommended dosages, insignificant impact to the groundwater, stream, or Kaneohe Bay should result from pesticide usage.

DETERMINATION OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Tradeoffs are inherent in many of the proposed actions; that is, beneficial impacts may accrue in exchange for adverse impacts. These tradeoffs are apparent in Table IV-9, which summarizes the impacts of the proposed action.

The significance of the adverse impacts depends on the risks being incurred in terms of the following:

1. The risks of irreversibly committing a sensitive resource;
2. The risks of jeopardizing public health or safety;
3. The risks of afflicting the public welfare; and
4. The risks of inducing secondary or cumulative impacts in the surrounding areas of the project.

Mitigation measures reduce the level of risk.

Besides a risk-benefit assessment, another significant tradeoff assessment is cost-benefit. From the public's standpoint, do the benefits of the project outweigh the costs? From the affected individual's standpoint, are the financial impacts fair?

Risk-Benefit Assessment

A summary of the risk-benefit tradeoffs is provided in Table IV-10 and is discussed below.

Irreversible Commitment of Resources. The resources of concern include conservation land archaeological, and possibly stream resources. The probability of adversely affecting these resources is low due to the limited disturbance proposed. Nevertheless, the following mitigation measures will further reduce the risks:

1. Conservation land. Erosion control during construction and restoration upon completion should be conditions of the Conservation District Use Permit. Because the impacts will be

TABLE IV-9

SUMMARY OF IMPACTS OF THE PROPOSED ACTIONS

Impacts	PROPOSED ACTIONS								
	Subdivision	Lease Agreements	Water System	Wastewater System	Road Improvements	Drainage	Electrical/ Telephone	Agricultural Activity	
								Fert/Pest.	Irrigation
Direct Impacts									
Sensitive Resources									
Groundwater									
Quantity	N	N	+	-	N	0	N	-	0
Quality	N	N	0	+	N	0	N	-	0
Stream									
Quality	N	N	0	-	0	0	N	-	0
Flow	N	N	+	0	0	0	N	N	0
Agricultural Lands	+	+	+	0	-	0	N	+	+
Conservation Lands	0	N	-	0	0	0	0	0	0
Endangered Species	0	N	0	0	0	0	0	0	0
Archaeological	0	N	0	0	-	0	0	N	0
Public Health & Safety									
Flood Hazards	0	N	0	0	0	+	N	N	N
Unstable Slopes & Soils	0	N	N	N	0	0	N	N	N
Drinking Water Quality	N	N	+	0	N	0	N	0	N
Sanitation	N	N	N	+	N	0	N	N	N
Air Quality	-	N	N	+	-	N	N	-	N
Noise	0	N	N	0	-	N	N	-	N
Public Welfare									
Rural Lifestyle	+	+	+	+	+	0	0	N	+
Sense of Community	+	+	N	N	N	N	N	N	N
Affordable Housing	+	+	N	N	N	N	N	N	N
Recreation	N	N	N	N	N	N	N	N	N
Crime	N	N	N	N	N	N	0	N	N
Fiscal									
Public Perspective (benefit-cost)	+	+	+	+	+	+	+	N	0
Private Perspective Residents	N	+	+	+	N	N	0	N	0
Farmers	N	+	+	+	N	N	0	0	+
Secondary and Cumulative Impacts									
Growth	0	N	0	0	0	N	0	N	N
Water Supply	0	N	+	0	N	N	N	N	0
Transportation	0	N	N	N	0	N	N	N	N
Kanchoe Bay Water Quality	0	N	0	0	0	0	N	0	0

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- + Beneficial Impact
- Adverse Impact
- 0 No Impact
- N No Applicable

TABLE IV-10

RISK-BENEFIT TRADEOFFS

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Proposed Action	Risks	Benefits
Subdivision	None	<ol style="list-style-type: none"> 1. <u>Resource Commitment.</u> Preservation of agricultural lands 2. <u>Public Welfare.</u> Preservation of rural lifestyle 3. <u>Public Welfare.</u> Minimal disruption to existing community by accommodating existing boundaries 4. <u>Secondary/Cumulative Impact.</u> As an agricultural park, growth will be controlled rather than stimulated; therefore, impacts on regional land use, water, and traffic patterns are minimal
Lease	None	<ol style="list-style-type: none"> 1. <u>Resource Commitment.</u> Long-term commitment to agricultural use of land 2. <u>Public Welfare.</u> Affordable lease terms 3. <u>Public Welfare.</u> Minimal disruption to existing community by giving priority to Waiahole-Waikane residents
Water System	<ol style="list-style-type: none"> 1. <u>Resource Commitment.</u> Low risk of disruption of conservation land due to waterline and reservoir construction in conservation zone; no endangered species affected (see mitigation measures, Table IV-11) 2. <u>Resource Commitment.</u> Very low risk of exceeding minimum streamflow requirements in Waiahole Stream below proposed intake 	<ol style="list-style-type: none"> 1. <u>Public Health.</u> Safe drinking water will be provided 2. <u>Public Welfare.</u> Sufficient water will be provided to support the projected domestic and irrigation needs 3. <u>Public Welfare.</u> Streamflow sources for taro farmers will be enhanced 4. <u>Secondary Impacts.</u> Existing regional water supply system (BWS and Waiahole Water Co.) will not be affected

Table IV-10, Cont.

Proposed Action	Risks	Benefits
Wastewater	<ol style="list-style-type: none"> 1. <u>Public Health.</u> Low risk of contaminating shallow groundwater; not a drinking water source 2. <u>Public Health.</u> Low risk of contaminating stream; will conform to DOH standards 	<ol style="list-style-type: none"> 1. <u>Public Health.</u> Cost-effective waste disposal that will alleviate defective cesspool problems
Roads	<ol style="list-style-type: none"> 1. <u>Resource Commitment.</u> Low risk of destroying subsurface archaeological site; reconnaissance surveys were undertaken to assess probability of significant sites being present 2. <u>Public Welfare.</u> Short-term inconveniences to residents during construction (see mitigation measures, Table IV-11) 	<ol style="list-style-type: none"> 1. <u>Public Welfare.</u> Roadways improved and realigned while maintaining rural conditions
Drainage	None	<ol style="list-style-type: none"> 1. <u>Public Safety.</u> Cost-effective method to minimize flooding of roads and properties
Utilities	None	<ol style="list-style-type: none"> 1. <u>Public Safety.</u> Improved service, including street lights
Recreation	<ol style="list-style-type: none"> 1. <u>Public Welfare.</u> Some loss of privacy 	<ol style="list-style-type: none"> 1. <u>Public Welfare.</u> Inland recreation area of regional value provided
Agricultural Activity	<ol style="list-style-type: none"> 1. <u>Resource Commitment/Public Health.</u> Low risk to groundwater, stream, and Kaneohe Bay water quality from fertilizer, pesticide, and sediment 2. <u>Public Health.</u> Risk to residents upwind and near agricultural activity from pesticide drift (see mitigation measures, Table IV-11) 	<ol style="list-style-type: none"> 1. <u>Resource Commitment.</u> Preservation of agricultural lands and open space 2. <u>Public Welfare.</u> Preservation of rural lifestyle

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confined to construction activities, these conditions can also be incorporated into the contract specifications.

2. Archaeological resources. An archaeological salvage plan for potentially impacted sites has been implemented prior to construction (Appendix B). Additionally, archaeological concerns during trenching for the water lines will be addressed in the construction documents.
3. Stream. Tenants utilizing stream withdrawal for irrigation needs will need to comply with all regulatory requirements. Under Chapter 176D, HRS, the DLNR is responsible for the establishment of minimum streamflow standards for Windward Oahu streams, as defined in Chapter 167 of Title 13, DLNR Administrative Rules. No stream alteration permit will be issued by the DLNR unless minimum streamflow standards are adhered to.

The long-term productivity of agricultural lands and groundwater sources is preserved.

Public Health and Safety. Risks to public health are primarily due to the use of pesticides. Risks can be reduced by working with farmers in seeking improved practices for pest and soil erosion control.

Public Welfare. Risks of disrupting the community have been mitigated through close communication with the residents. The subdivision plan and lease agreement reflect this "give and take" between the community and the state.

Secondary and Cumulative Impacts. Land use, population, and lifestyle will not change significantly from present conditions. No risks are involved with cumulative or secondary impacts due to the low density proposal.

Risk-Benefit. The risks to resources, public health/safety, and public welfare from direct, secondary, or cumulative impacts of the proposed project are very low. On the other hand, benefits to the residents and the public are substantial.

Cost-Benefit

The cost-benefit analysis discussed earlier in this chapter indicated a positive return to the public. The lease agreements are very affordable to the residents and farmers who will be affected.

Unavoidable Adverse Impacts

Most of the adverse impacts are mitigable to acceptable levels. Those adverse impacts that are unavoidable are either negligible or are deliberate policy tradeoffs. Mitigation measures and unavoidable impacts are summarized in Table IV-11.

TABLE IV-11

SUMMARY OF MITIGATION MEASURES-UNAVOIDABLE ADVERSE IMPACTS

ADVERSE IMPACTS	MITIGATION MEASURE	UNAVOIDABLE	IMPLEMENTATION
Limited Number of Affordable Housing		X	(Policy tradeoff)
Potential Streamflow Reduction- Impact on stream fauna	Applicants will be subject to DLNR regulatory control		Specify as a permit condition in minimum streamflow permit (DLNR).
Waterline Construction in Conservation District	Restoration of disturbed land areas; best management practice for erosion control		Specify as permit condition in Conservation District Use Permit (DLNR). Specify in construction contract (HHA).
Degradation of Stream, Groundwater & Kaneohe Bay Water Quality			Implementation of the following mandated through lease agreements:
1. Wastewater leachate		X	(Negligible)
2. Fertilizers	Select less mobile fertilizers; minimize application during rainy periods		Technical assistance (UH Cooperative Extension Service).
3. Pesticides	Application by certified operators and according to label instructions		Promote operator certification program (State Dept. of Agriculture, USDA Soil Conservation Service).
4. Drainage discharge		X	(Negligible)
5. Agricultural erosion	Information provided to farmers on best management practices		Technical assistance (USDA Soil Conservation Service).
Road Construction			
1. Loss of agricultural land from realignment		X	(Negligible)
2. Temporary inconvenience	Noise - compliance with noise regulations Dust - sprinkling as required Traffic - barriers, guards, detours, and other safeguards		Specify in construction contracts (HHA).
3. Potential archaeological resources	Qualified archaeologist hired to conduct pre-construction exploratory surveys and monitor construction		Excavation of impacted sites prior to construction and specify in construction contracts (HHA).
Street Lights - Rural Character		X	(Policy tradeoff for driver and pedestrian safety).

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CHAPTER V

ALTERNATIVES TO THE PROPOSED ACTION

The previous chapter identified the beneficial and adverse impacts that will result from the proposed action. Alternatives to the proposed action have been examined in this chapter to determine whether beneficial impacts can be enhanced even further and/or adverse impacts can be minimized. Each identified alternative meets the project objectives set forth in Chapter I, with the exception of the "no action" alternative. The "no action" alternative is a necessary reference point to assess whether any action at all is justified.

Planning for the Waiahole project proceeded in three steps. The first step identified the range of feasible alternatives in a study entitled, Alternative Programs for the Development of Waiahole Valley (Architects Hawaii, 1978). This range of alternatives was then narrowed to two alternatives for more detailed study in a report entitled, Preliminary Engineering Report on the Waiahole Valley Agricultural Park (Calvin Kim and Associates, 1980). These development scheme alternatives will be briefly described and compared in terms of their environmental impacts. Because of the number of options related to water development, a separate set of alternatives had been developed (Russ Smith Corp., 1980). After comments were received on the Draft EIS, the water system was modified to reflect additional constraints.

DEVELOPMENT SCHEME ALTERNATIVES

The range of alternatives developed in the Architects Hawaii report (1978) consisted of six alternatives. These alternatives ranged from minimal development to the maximum allowed by existing zoning. The development schemes are summarized in Table V-1 in terms of the land use (agriculture, residential, commercial, recreation), infrastructure development, land cost recovery rating and project costs. The proposed preferred alternative described in Chapter I has been subsequently modified, thus does not exactly correspond with any of the original six

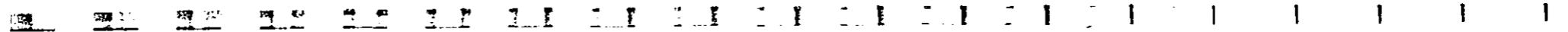
TABLE V-1

RANGE OF DEVELOPMENT SCHEME ALTERNATIVES

	DEVELOPMENT SCHEMES					
	Minimum SCHEME A	SCHEME B	Level of Development		SCHEME E	Maximum SCHEME F
			SCHEME C	SCHEME D		
Land Use						
Agriculture	Expanded (390 acres)	5 acres removed for residential (385)	25 acres removed (365)	20 acres removed (370)	→	
Residential	31 exist tenancies (10 acres)	56 new units + 31 existing (13 acres)	181 new units + 31 existing (44 acres)	Single family - 12 new + 31 exist. (43 acres) Multi-family - 70 new (7 acres)	→	
Commercial	Pol factory site (1 acre)	→			Expanded (2 acres)	→
Recreation	None	→				Public vacation cabins (20 acres)
Infrastructure						
Roads	Crushed coral	Paved/crushed coral →				
Wastewater	Cesspools/Vaults	→	Centralized	Centralized/cesspools/vaults →		
Drainage	Kam Hwy drainage channel; pump	→				
Electrical/telephone	Extension of service to all residents	→				
Land Recovery	35%	41%	53%	61%	65%	79%
Project Cost (1978, est.)	\$2,634,000	\$3,788,000	\$6,682,000	\$8,311,000	\$8,496,200	\$8,789,700

Source: Architects Hawaii, Ltd.

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planning alternatives. The land cost recovery rating compares the annual income from lease rents to the annual payment due on the \$6.6 million used to purchase Waiahole Valley. Income from the sale of water to BWS has not been included since this is not a viable alternative as discussed in the subsequent section on water development. The project cost estimates, which do not include the acquisition cost, are outdated but are included for comparative purposes.

The "low development" schemes of A and B are similar to the proposed action. However, the "full development" schemes of C through F propose to vastly increase the amount of residential units through cluster development. The increased housing units in cluster arrangement (schemes C to F) have the following advantages over the proposed action:

1. A greater supply of affordable housing is provided while still allowing for large acreages in agriculture;
2. The increased lease rents may improve the benefit-cost ratio; and
3. Recreation opportunity is optimized.

These benefits accrue to the general public at the expense of the following adverse impacts, which will be felt mostly by the existing residents:

1. The rural character will be degraded.
2. Some agricultural land will be lost.
3. The sense of community may deteriorate as a result of the large influx of unfamiliar people.
4. Secondary impacts may be significant as a result of the increased traffic.
5. Increased construction activity will create greater nuisances in terms of noise, dust, and traffic disruption.
6. Public hazards increase as a result of some residential units within the flood plain.

7. Probability increases for agricultural/residential incompatibilities, such as odors and pesticide drift.

The full development schemes of C through F increase rather than minimize the adverse impacts compared to the low development schemes similar to the proposed action. Opportunities being foreclosed, however, are more affordable housing and perhaps a higher cash inflow-outflow ratio.

Upon evaluation of the six alternatives, the HHA Commission eliminated schemes C through F and determined that a combination of schemes A and B should be examined in greater detail. Schemes A and B embrace a minimal concept of development and promote agriculture. Based on this concept, two more detailed alternatives were developed. One of these alternatives is the proposed action. The other alternative (Alternative I) differs by placing all residential lots within the existing urban district in the event LUC approval is unsuccessful (see Chapter II).

The "no action" alternative assumes that subdivision will be based on existing tenancies and long-term leases will be given to qualified tenants. However, no improvements will be provided.

Several beneficial aspects will result should there be no action. The existing lifestyle of the Waiahole residents and those neighboring the proposed project site will be preserved. There will be no inconveniences created by construction or the displacement of people. The rural atmosphere of the community will remain. Groundwater demands will not change since no additional withdrawals will occur. No extra costs will be incurred to the state government in this alternative.

Except for the project costs, the proposed action has about the same benefits as the "no action" alternative. By doing nothing, however, the following opportunities, which are offered by the proposed action, will be foreclosed:

1. No additional affordable residential lots will be provided.
2. Full agricultural potential may not be realized.
3. Drinking water quality, roads, and drainage will remain substandard.

4. Many residents will remain without electricity or telephone.
5. The cash inflow-outflow ratio will probably be negative because of the lower revenues from lease rents and agricultural production-related taxes.

The environmental impacts of all of the original planning alternatives are compared in Table V-2. The listing of the major concerns was derived from the adverse impacts identified in Chapter IV and the tradeoff analysis among alternatives presented earlier in this chapter. Although the "no action" alternative preserves certain desirable conditions, it does not correct other adverse conditions that exist. The proposed action has the least adverse impacts. The full development alternative maximizes benefits to the general public but has the most severe adverse impacts.

WATER RESOURCES ALTERNATIVES

Description of Alternatives

Five alternatives were examined in detail by the Russ Smith Corporation to find a suitable solution to the domestic and irrigation water problem.

1. Upper Waianu Valley Development. A tunnel would be constructed at the 400-foot elevation in Waianu Valley to provide sufficient water suitable for both domestic and irrigation use. Separate irrigation and domestic systems would not be necessary.
2. Lower Waiahole Valley Development. Construction of a pump station 300 feet mauka of Kamehameha Highway would withdraw 2.2 mgd of irrigation water from Waiahole Stream. Of the 0.5 mgd supplied by the McCandless system, 0.2 mgd would be filtered and chlorinated for domestic use and the remaining 0.3 mgd for irrigation use.
3. Upper Waiahole Valley Development. This alternative would provide 2.2 mgd of water for irrigation purposes by constructing an intake on Waiahole Stream. An additional 0.3 mgd of

TABLE V-2

COMPARISON OF ENVIRONMENTAL IMPACTS FOR
ALTERNATIVE DEVELOPMENT SCHEMES

	<u>No</u> <u>Action</u>	<u>Proposed</u>	<u>Alternative I</u>	<u>Full</u> <u>Development*</u>
<u>Concerns</u>				
<u>Resources</u>				
Agricultural lands	0	+	+	-
Groundwater supply	0	0	0	-
Stream & Groundwater Quality	-	-	-	-
<u>Public Health/Safety</u>				
Air quality	-	0	0	-
Drinking water quality	-	+	+	+
Flood hazards	0	0	0	-
<u>Public Welfare</u>				
Rural character	0	0	0	-
Sense of community	0	0	0	-
Relocation	0	0	-	0
Affordable housing	-	+	+	++
Recreation opportunity	0	+	+	++
Electrical/Telephone	-	+	+	+
<u>Cumulative Impact</u>				
Traffic	0	0	0	-
K-bay water quality	0	0	0	0
<u>Fiscal Impacts</u>				
Cost/benefit	-	+	+	++

+ beneficial impact

- adverse impact

0 no impact

* schemes C through F combined.

irrigation water and 0.2 mgd of domestic water would be supplied by the McCandless system.

4. Modified Upper Waiahole Valley Development. This alternative would provide 1.5 mgd for irrigation purposes through the construction of an intake at Waiahole Stream. Less irrigation water would be required because existing taro-auwai irrigation systems will not be augmented. Two groundwater wells will supply 0.2 mgd for drinking water.
5. Waiahole Dual-Use Groundwater Development. This alternative would provide 0.7 mgd for irrigation use and 0.1 mgd for domestic use, supplied by two 0.8 mgd wells (one standby) through a common distribution line. Cultivated acreage and irrigation frequencies proposed by an earlier agricultural study (Scott, 1981) were adjusted to be consistent with current subdivision lot boundaries and more realistic irrigation application frequencies. Tenants may individually opt for stream-source irrigation if they can demonstrate negligible environmental impact through compliance with pertinent regulatory requirements. This is the proposed water system.

The first three alternatives were proffered in the Draft EIS, with the Upper Waiahole Valley alternative as the preferred proposal (Table V-3). Legal difficulties regarding alterations of the existing McCandless water line and concerns regarding minimum stream flow modified the initial preferred proposed alternative (Modified Upper Waiahole Valley Development). Taro requirements would then be met by existing stream flow-through auwai irrigation systems. Since the McCandless water line will no longer be needed for Waiahole Valley domestic use, this additional amount of water would overflow into Waiaru Stream like the present excess, thus taro farm water supplies would actually be augmented.

Cost constraints required further modifications of the preferred design proposal, resulting in a single source and a common dual-use distribution system as described previously. Furthermore, irrigation

irrigation water and 0.2 mgd of domestic water would be supplied by the McCandless system.

4. Modified Upper Waiahole Valley Development. This alternative would provide 1.5 mgd for irrigation purposes through the construction of an intake at Waiahole Stream. Less irrigation water would be required because existing taro-auwai irrigation systems will not be augmented. Two groundwater wells will supply 0.2 mgd for drinking water.
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Cost constraints required further modifications of the preferred design proposal, resulting in a single source and a common dual-use distribution system as described previously. Furthermore, irrigation

TABLE V-3

COMPARATIVE DESCRIPTION OF WATER DEVELOPMENT ALTERNATIVES

V-8

	Alternatives									
	Upper Waianu Valley		Lower Waiahole Valley		Upper Waiahole Valley		Modified Upper Waiahole Valley		Waiahole Dual-Use	
	Domestic	Irrigation	Domestic	Irrigation	Domestic	Irrigation	Domestic	Irrigation	Domestic	Irrigation
<u>Water Source</u>										
McCandless System	0.2	0.1	0.2	0.1	0.2	0.1				
Stream Water and Springs				2.2		2.2		1.5		
Groundwater		2.2					0.2		0.1	0.7
<u>Capital Costs</u>										
Domestic System	\$1,030,000		\$1,030,000		\$1,030,000		\$2,260,000		\$2,900,000	(combined irrig/domes)
Irrigation System	\$5,038,000		\$2,058,000		\$2,921,000		\$2,387,000			
<u>Operational</u>										
(c/1,000 gal) (net)		49.9		36.5		30.4		42.2 (28.8)*		6.7 (2.4)*

* If divided by 2.2 MGD as the other three alternatives.

quantities were adjusted to reflect current agricultural conditions, lessening the impact on the existing ecosystem. The Waiahole Dual-Use Groundwater alternative will result in the lowest capital expenditure and the lowest net system operational cost.

Assessment of Environmental Impacts

In Chapter IV, the following concerns were identified relative to the proposed system: construction in conservation lands, reduced streamflow, and water cost. Other considerations for water development in Waiahole Valley include the dike groundwater source and impacts to the Waiahole Ditch system. The environmental impacts of the five systems are compared in Table V-4 in terms of these concerns. Each concern is discussed below.

Dike Groundwater Source. Tapping this source now would preclude it as a future drinking water source. Also, tunneling would probably affect the supply of water to both the Waiahole Ditch system and Waiahole Stream. Only the Upper Waianu Valley alternative would directly affect the dike groundwater source. The lower level wells of the Modified Upper Waiahole Valley and the Waiahole Dual-Use Groundwater alternatives would tap groundwater and have indirect impacts on dike groundwater. Through surface water/groundwater interflow, the net effect of the Waiahole Dual-Use Groundwater alternative would be beneficial, increasing the amount of water in the hydrologic system.

Streamflow Reduction. A reduction of streamflow could affect native diadromous stream fauna as well as the taro farmers. Both Upper and Lower Waiahole Valley alternatives would result in an overflow to Waianu Stream which would maintain or enhance the present streamflow. The Lower Valley alternative, however, would reduce the streamflow near the stream mouth. Both Upper Waiahole Valley alternatives would reduce flow in a sector of Waiahole Stream. The reductions would not be significant, particularly for the Modified Upper Waiahole Valley alternative. The Upper Waianu Valley alternative would reduce flow in Waianu Stream by diverting the McCandless source and some groundwater

TABLE V-4

COMPARISON OF ENVIRONMENTAL IMPACTS FOR WATER DEVELOPMENT ALTERNATIVES

Concerns	Alternatives				
	Upper Waianu Valley	Lower Waiahole Valley	Upper Waiahole Valley	Modified Upper Waiahole Valley	Waiahole Dual-Use Groundwater
Resource					
Groundwater	-	0	0	-	+ ^a
Streamflow Reduction					
Biological	-	-	0	0	+
Taro Farmers	-	-	+	0	+
Conservation Land	-	-	-	-	-
Waiahole Ditch Water	-	0	0	0	0
Fiscal ^b					
Capital Cost					
Operational Cost					

V-10

+ Beneficial impact

- Adverse impact

0 No impact

a Beneficial in terms of net hydrologic impact.

b Ranking of costs: 1 = lowest; 4 = highest.

that feed Waianu Stream. The Waiahole Dual-Use Groundwater alternative should likely result in net gains in both Waiahole and Waianu streams, depending on the number of agricultural lessees opting to tap the stream as a source of irrigation water.

Conservation Land. Construction activities will necessitate clearing the vulnerable conservation land for pipelines and other facilities. Except for the Lower Waiahole Valley alternative, the other alternatives would require further construction in the conservation district for tunneling, dam construction, and additional pipelines.

Waiahole Ditch. The Waianu Valley tunneling could penetrate the dikes that supply the Waiahole ditch system. Lowering the ditch flow would violate the legal rights of the Waiahole Water Company, unless they have agreed to a compensation.

Capital Cost. The Waianu Valley alternative has the highest cost and the Dual-Use Waiahole Groundwater alternative, the proposed alternative, has the lowest cost.

Operational Cost. Operational costs are based on estimated electrical and maintenance costs plus 40-year amortized capital costs. Operational costs have been used herein for a comparative evaluation of the relative feasibility of each of the proposed alternatives. Tenant water rates should not be expected to fully reflect these costs, particularly the amortized capital recovery costs.

The Waiahole Groundwater Dual-Use alternative has the lowest per gallon cost, followed by the Upper Waiahole Valley alternative, followed by the Lower Upper Waiahole Valley alternative, followed by the Modified Upper Waiahole Valley alternative. The operation and maintenance costs of the Waiahole Dual-Use Groundwater and Modified Upper Waiahole Valley alternatives are weighted differently. These alternatives appear higher in relative operational costs per water volume because their total costs are divided by a smaller water volume than the other alternatives. After adjustment for flow volume, the proposed alternative is even lower in comparative cost.

In summary, construction in the conservation district is unavoidable for any alternative. Streamflow in the critical Waianu tributary will not be impacted by the proposed system; the Waianu and Lower Waiahole Valley alternatives have the potential to reduce this flow. The proposed system has the lowest capital cost and the lowest operational cost. Therefore, the Waiahole Dual-Use Groundwater alternative has the least overall impact for the maximum amount of benefits.

CHAPTER VI
UNRESOLVED ISSUES

The letters and responses are included in Appendix C. In addition to correspondence, several meetings were held with the Waiahole residents and the Waiahole-Waikane Community Association to solicit further input.

Based on all the comments received, the major issues listed in Table VI-1 were identified and have been addressed in the EIS. Three issues remain unresolved at this time because the information is not available. These issues relate to the water system:

1. Official confirmation of Waiahole Water Company's lease reapportionment;
2. Determination of which agency or organization will operate and maintain the water system; and
3. Water rate costs for both domestic and irrigation usage.

It is premature at this time to set water rates for the Waiahole water system until the operating agency or organization is determined. Furthermore, estimated water rate costs estimated herein should not be utilized to determine water rates. Feasibility analyses attempted in Chapter IV were based on assumed water costs; comparative analyses in Chapter V included amortized capital recovery costs.

Should the DLNR accept responsibility for water system operation and maintenance, it should be noted that the DLNR presently has no mechanism for collecting domestic water fees to establish a revolving maintenance fund for the water system. Such an action would likely require legislative amendment of DLNR statutes.

TABLE VI-1

WAIHAOLE VALLEY AGRICULTURAL PARK EIS - MAJOR ISSUES

<u>Issue</u>	<u>Affected Party</u>	<u>Resolved</u>	<u>Unresolved</u>	<u>Comments</u>
<u>Socioeconomic</u>				
1. Lease Agreement - Long-Term - Rent - Lot Boundaries - Lease Priorities	Existing and future residents/ farmers	X		HHA has addressed these concerns in the lease agreements (see Chap 1).
2. Water System - Cost - Adequacy	Farmers, especially taro farmers		X	There will be sufficient water available to farmers (see Chap 1). Development and maintenance water cost to farmers and procurement of Waihaole Water Co. lease reapportionment remain unresolved. Rural lifestyle will be preserved (see Chap IV)
3. Rural/Agricultural Life-style - Population Density - Improvement Standards (road width, curb & gutter, etc.)	Residents/farmers; general public	X		Rural lifestyle will be preserved (see Chap IV)
4. Dislocation	Existing residents who are elderly or non-farming residents	X		Only one (voluntary) relocation has occurred.
5. Agricultural/Residential Compatibility - Noise - Odor - Pesticide Spraying	Neighboring farmers and resident	X		The land use plans minimize incompatibilities by clustering the residential area (see Chap IV).
6. Cost/Benefit of Public Funds	General public	X		Cost-benefit ratio is positive (see Chap IV).
<u>Physical/Biological</u>				
1. Water Quality (Streams & Kaneohe Bay) - Wastewater Disposal - Fertilizer/Pesticide - Erosion	General Public, residents/farmers	X		Cumulative impact to Kaneohe Bay is insignificant (see Chap IV).
2. Minimum Stream Flow - Native Stream Fauna - Taro farmers	General public, taro farmers, biota	X		Taro farmers will benefit from enhanced streamflows (See Chap IV). Minimum flow to support aquatic fauna will be maintained (see Chap IV).

VI-2

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A P P E N D I X A

EXISTING TENANCIES BY TAX MAP KEY

APPENDIX A

EXISTING TENANCIES BY TAX MAP KEY

Leases in Waiahole Valley generally were unrecorded and described in general terms or sketches. Boundaries were apparently established by mutual agreement between neighbors and Mrs. Marks. Two types of leases were granted. Areas averaging one-half acre or less were leased for residential use. Larger areas up to 41 acres were leased for farming activities. The leases were revocable, with the exception of the long term lease to Jean Charlot and his heirs. A tabulation of the known tenancies is listed in Table A-1, with the locations shown on Figure A-1. These same tenancies are cross-referenced as encumbrances on lots of the proposed subdivision (Table A-2).

Six noncontiguous parcels of land were acquired by the state from Elizabeth Marks. The total area of the land involved is approximately 590 acres. Parcel 1, which is the major parcel, totals 558.118 acres. The other parcels are located along Waiahole Homestead Road. Parcel 2 (0.247 acres) and Parcel 5 (0.838 acres) are nonconforming agricultural lots. Parcel 4 (0.682 acres) is in the Conservation District. Parcel 3 (18.799 acres) and Parcel 6 (12.028 acres) have portions that are classified "Conservation", with the remainder classified "Agriculture" (see Figure A-2).

TABLE A-1

EXISTING TENANCIES IN WAIHAOLE VALLEY (MAUKA)APRIL 1, 1984

<u>Existing Tenancy No. (s)</u>	<u>Existing Tenant</u>	<u>Existing Lot Size (acres)</u>	<u>Existing Use</u>
17	Roque Valparaiso	0.57	HS
18, 22	Labriano Garcia	40.66	A/HS
19	Wenceslao Batalona	4.00	A/HS
20	Filimon Cordero	1.96	A/HS
21, 27	Jacintha Etheredge	2.82	A/HS
23	Chula Clark	2.00	A/HS
24	Anthony Garcia	0.41	HS
25	James Salas	0.34	HS
26	Gaudencio Garibilez (J. Galut)*	3.75	A/HS
28, 29	Masuo Moriwaki	4.50	A/HS
30	Bernard Lam Ho	0.23	Store
31-33	Calvin and Charlene Hoe	0.37	Poi Factory
34	Benigno Dano	0.07	HS
35	Richard Miura	1.10	A/HS
36	Joseph Clarke	0.50	A/HS
37	Juan Paglinawan	0.23	HS
38	Marcus Recarte	0.23	HS
39, 39A	Jose Royos	1.07	A
40, 41, 42	Isaac Manalo	0.48	HS
43	Delmer Plunkett	0.11	HS
44	Daniel Kadowaki	0.35	HS
45	Frank Shiroma	0.23	HS
46	John Torres	0.23	HS
47	Richard Miura	0.34	HS
48	Douglas Taira	1.33	A/HS
49	Yoshiharu Oshima	0.65	HS
50	Seikichi Teruya	5.60	A/HS
51	Takeichi Tokunaga	0.14	HS
52	John Tolentino	0.20	HS
53	Henry Roxburgh (J. Panoncial)*	0.09	HS
55, 59, 60	Harold Tshako	8.33	A/HS
56	Patrick Dumadag	2.85	A/HS
57	Douglas Gernler	0.34	HS
58	Albert Badiyo (G. Nakamoto)*	1.42	A/HS
61	Clarence and Louise Kane	0.45	A/HS
63	Mary Macaheleg	2.25	A/HS
64, 92	Roy Kawelo (#92, G. Pires)*	9.30	A/HS
65	George Matayoshi	10.50	A
66	Elizabeth Kawaa	0.14	HS
67	Kathy Leleo (D. Lopes)*	0.14	HS
68, 69, 76	Valentin Baga	6.16	A/HS
70	Naomi Lopes	1.11	A/HS

Table A-1, Cont.

<u>Existing Tenancy No. (s)</u>	<u>Existing Tenant</u>	<u>Existing Lot Size (acres)</u>	<u>Existing Use</u>
71, 91	Francis Lau	11.81	A
72, 72A	Naomi Lopes	1.00	A/HS
74	David Chinen	5.86	A
75	Anki Sadoyama	1.33	A/HS
77	Simeon Apilando	3.00	A/HS
78	Benjamin Carvalho	1.00	A/HS
79	Lawrence Uyemura	0.45	HS
80	Marjorie Antone	5.00	A/HS
81	Walter Antone	0.43	HS
82	Max and Abbie Oneha	2.25	A/HS
83, 88	Tsutomu Oshima	9.00	A/HS
84, 150	Fraiola, Hoe, Reppun	8.00	A/HS
85	Herbert Denning	13.75	A/HS
86, 87	Anthony Fraiola (K. Kamiyama)*	1.42	A/HS
89	Dick Bates	3.16	A
90	Valentine Texeira	9.00	A
93	Erlindo Guillermo	2.00	A/HS
94, 96	Benny Lagapa	2.83	A
95, 127	Theodore Lagapa	1.16	A
97	Joseph Matsukawa	9.91	A
98	Gaudencio Garabitez (J. Galut)*	4.90	A/HS
99	Deogracias Garcia	3.59	A/HS
100	Erlindo Guillermo	0.63	HS
101	Ceprino Olegario	4.00	A/HS
102	Primataro Salaum (O. Aporan)*	0.85	A/HS
103	Jesus Cano	0.07	HS
104	Francisco Sausal	2.00	A/HS
108	Rey and Maureen Bolivar	2.40	A/HS
109	Lucio Cortuna	0.35	HS
110	Pearl Clark	1.00	A/HS
111	Leonard Picanco	0.28	HS
112	Bryson Fernandez (L. Pacheco)*	0.30	HS
114, 115	Kosuke Ige	3.79	A/HS
116	Guy Nakamoto	0.50	A/HS
152	Philemon Pilanca	0.45	HS
153, 161	Seisuki Serikaku	10.50	A
156A	Yoshiharu Oshima	1.82	A
157,158,159	Jean Charlot	8.35	A/HS
160	Edward Spencer	6.00	A/HS

HS = House site
A = Agriculture

* Former lessees of recent transfers are listed in parenthesis following existing lessee.

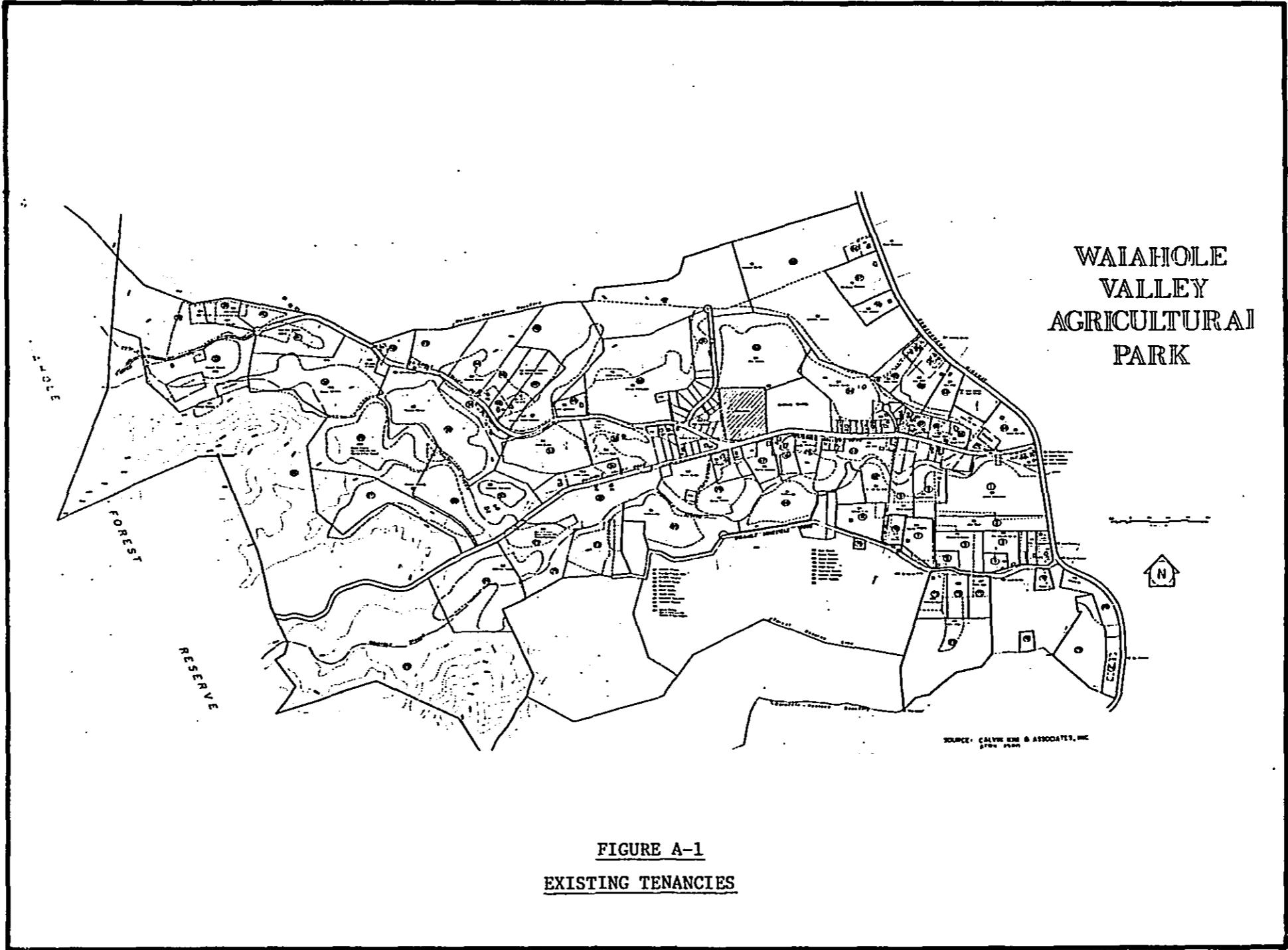


FIGURE A-1
EXISTING TENANCIES

A-4

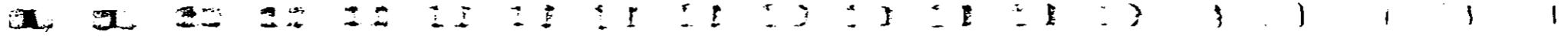


TABLE A-2

ENCUMBERED LOTS OF PROPOSED SUBDIVISION

<u>Lot No.*</u>	<u>Tenant</u>	<u>Lot Size (acres)</u>	<u>Proposed Use</u>
1	Labriano Garcia	43.256	A/HS
2	Roque Valparaiso	1.000	HS
3	Wenceslao Batalona	1.000	HS
5	Filimon Cordero	1.000	HS
6	Chula Clark	4.043	A/HS
7	Anthony Garcia	1.000	HS
8	James Salas	1.000	HS
9	Gaudencio Garibilez	1.000	A/HS
10	Jacintha Etheredge	3.358	A/HS
11	Masuo Moriwaki	4.559	A/HS
12	Benigno Dano	0.424	HS
13	Richard Miura	0.724	HS
14	Joseph Clarke	0.345	HS
17	Jose Royos	1.000	A/HS
18	Isaac Manalo	0.512	HS
19	Delmer Plunkett	0.537	HS
20	Daniel Kadowaki	0.795	HS
21	Frank Shiroma	0.273	HS
22	Frank Torres	0.425	HS
25	Seikichi Teruya	1.000	A/HS
31	Yoshiharu Oshima	0.721	HS
33	Roy Kawelo	12.778	A/HS
34	Walter Antone	0.520	HS
40	George Matayoshi	16.044	A
41	Anki Sadoyama	46.678	A/HS
42	Simeon Apilando	1.000	A/HS
44	Benjamin Carvalho	1.000	A/HS
45	Lawrence Uyemura	1.000	HS
46	Marjorie Antone	1.000	A/HS
47	Philemon Pilanca	1.000	HS
48	Jean Charlot	3.807	A/HS
49	Jean Charlet	2.000	A
52	Edward Spencer	5.558	A/HS
54	Yoshiharu Oshima	2.000	A
55	Seisuki Serikaku	14.950	A
56	Tsutomu Oshima	12.931	A/HS
57	Max Oneha	2.293	HS
58	David Chinen	10.015	A
59	Valentin Baga	6.211	A/HS
61	Kathy Leleo	0.307	HS
62	Elizabeth Kawaa	0.282	HS
63	Mary Macaheleg	0.718	HS
68	Clarence and Louise Kane	0.434	HS
72	Naomi Lopes	1.562	A
73	Anthony Fraiola	5.777	A/HS

Table A-2, Cont.

<u>Lot No.*</u>	<u>Tenant</u>	<u>Lot Size (acres)</u>	<u>Proposed Use</u>
74	Herbert Denning	15.030	A/HS
75	(Proposed reservoir site)	1.000	Reservoir
76	Gloria Fraiola et al.	25.936	A/HS
81	Dick Bates	5.870	A
83	Naomi Lopes	3.977	A/HS
84	Harold Tsuhako	3.779	A/HS
85	Albert Badiyo	10.470	A/HS
86	Douglas Gernler	0.450	HS
90	Patrick Dumadag	0.383	HS
92	Henry Roxburgh	0.655	HS
97	John Tolentino	0.239	HS
99	Takechi Tokunaga	0.269	HS
104	Douglas Taira	0.707	HS
105	Richard Miura	0.311	HS
106	Marcus Recarte	0.252	HS
107	Juan Paglinawan	0.298	HS
108	Joseph Matsukawa	15.305	A
109	Calvin and Charlene Hoe	0.468	Poi Factory
110	Bernard Lam Ho	0.282	Store
111	Leonard Picanco	1.000	HS
112	Bryson Fernandez	1.000	HS
113	Pearl Clark	1.000	HS
114	Ray and Maureen Bolivar	3.153	A/HS
115	Lucio Cortuna	1.000	HS
117	Deogracias Garcia	1.000	HS
118	Erlindo Guillermo	1.000	HS
119	Benny Lagapa	2.751	A
120	Ceprino Olegario	2.749	A/HS
121	Primataro Salaum	1.000	HS
122	Jesus Cano	1.000	HS
123	Theodore Lagapa	3.796	A
124	Erlindo Guillermo	2.697	A
125	Roy Kawelo	2.636	A
126	Francis Lau	16.108	A
127	Francisco Sausal	1.000	A/HS
130	Kosuke Ige	0.846	A/HS
131	Kosuke Ige	3.434	A
132	Guy Nakamoto	2.889	A/HS

* Lot numbers indicated on Figure I-3.

DELINEATION OF PROJECT AREA BY TAX MAP KEYS

AREAS INCLUDED IN PROJECT AREA

Parcel 1 (includes all tenancies except 69 to 78)

TMK:	4-8-01:6	11.261 acres	
	4-8-07:5	2.687 acres	
	4-8-08:10	0.820 acres	
	4-8-08:12	0.680 acres	
	4-8-08:16	0.462 acres	
	4-8-08:18	1.810 acres	
	4-8-09:1	37.984 acres	
	4-8-10:2	35.744 acres	
	4-8-10:3	26.430 acres	
	4-8-11:1	16.940 acres	
	4-8-11:2	23.250 acres	
	4-8-12:1	41.910 acres	
	4-8-12:2	35.200 acres	
	4-8-12:3	1.300 acres	
	4-8-12:5	204.650 acres	
	4-8-12:10	75.660 acres	
	4-8-12:19	2.860 acres	
	4-8-12:20	8.350 acres	
	4-8-12:21	0.580 acres	
	4-8-12:22	<u>0.250 acres</u>	558.118 acres

Parcel 2 (tenancy 78)

TMK:	4-8-07:4	0.247 acres	0.247 acres
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Parcel 3 (tenancies 71, 72, 73, and 77)

TMK:	4-8-07:1	18.799 acres	18.799 acres
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Parcel 4 (tenancy 76)

TMK:	4-8-01:3	0.682 acres	0.682 acres
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Parcel 5 (tenancy 70)

TMK:	4-8-01:4	0.838 acres	0.838 acres
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Parcel 6 (tenancies 69, 74, and 75)

TMK:	4-8-01:1	12.028 acres	<u>12.028 acres</u>
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Total 590.450 acres

AREAS EXCLUDED FROM PROJECT AREA

Parcel 1

Less Exclusion 1	TMK:	4-8-08:17	0.755 acres
Less Exclusion 2		4-8-08:15	0.555 acres
Less Exclusion 3		4-8-08:14	0.657 acres
Less Exclusion 4		4-8-08:13	0.770 acres
Less Exclusion 5		4-8-09:9	0.250 acres
Less Exclusion 6		4-8-09:10	5.830 acres
Less Exclusion 7		4-8-09:11	0.256 acres
Less Exclusion 8		4-8-11:3	0.256 acres
Less Exclusion 9		4-8-12:11	0.228 acres
Less Exclusion 10		4-8-12:17	0.250 acres
Less Exclusion 11		4-8-12:15	0.804 acres
Less Exclusion 12		4-8-12:14	1.540 acres
Less Exclusion 13		4-8-12:16	0.256 acres
Less Exclusion 14		North Branch	2.237 acres
		South Branch	4.890 acres
		"A" Parcel Fronting App. 1425	0.103 acres
		Parcel Fronting School	0.912 acres
		Parcel Fronting Gr 2703	0.247 acres
		Mountain Road	0.057 acres
		Planimetered Portion	0.700 acres
		Parcel Between Gr 4689 (1-2)	0.313 acres
Less Lots 6, 7, Ld. Ct. App. 72	TMK:	4-8-12	0.524 acres
Less Ld. Ct. App. 1425		4-8-10:1	4.883 acres
Less Lots 6, 8, 9, Ld. Ct. App. 69		4-8-09	0.294 acres
Less Lots 1, 2, Ld. Ct. App. 1803		4-8-09:3, 5	<u>0.660 acres</u>
		Total	28.227 acres

A P P E N D I X B

REPORT ON FIELDWORK
FOR
ARCHAEOLOGICAL STUDIES

EXECUTIVE SUMMARY

FLAKES AND FIELDS: ARCHAEOLOGY IN WAIAHOLE VALLEY
MAPPING AND EXCAVATION FOR THE WAIAHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION, OAHU, HAWAII

Six archaeological sites in Waiahole Valley, Oahu were mapped, tested, and/or excavated in anticipation of construction activities related to the development of the Waiahole Valley Agricultural Park. Grading and realignment of Waiahole Valley Road will adversely affect five archaeological sites in the area around Waianu Stream bridge. Placement of boulder riprap along the banks of lower Waiahole Stream for erosion control purposes will have minor impacts on one site located just mauka of Kamehameha Highway.

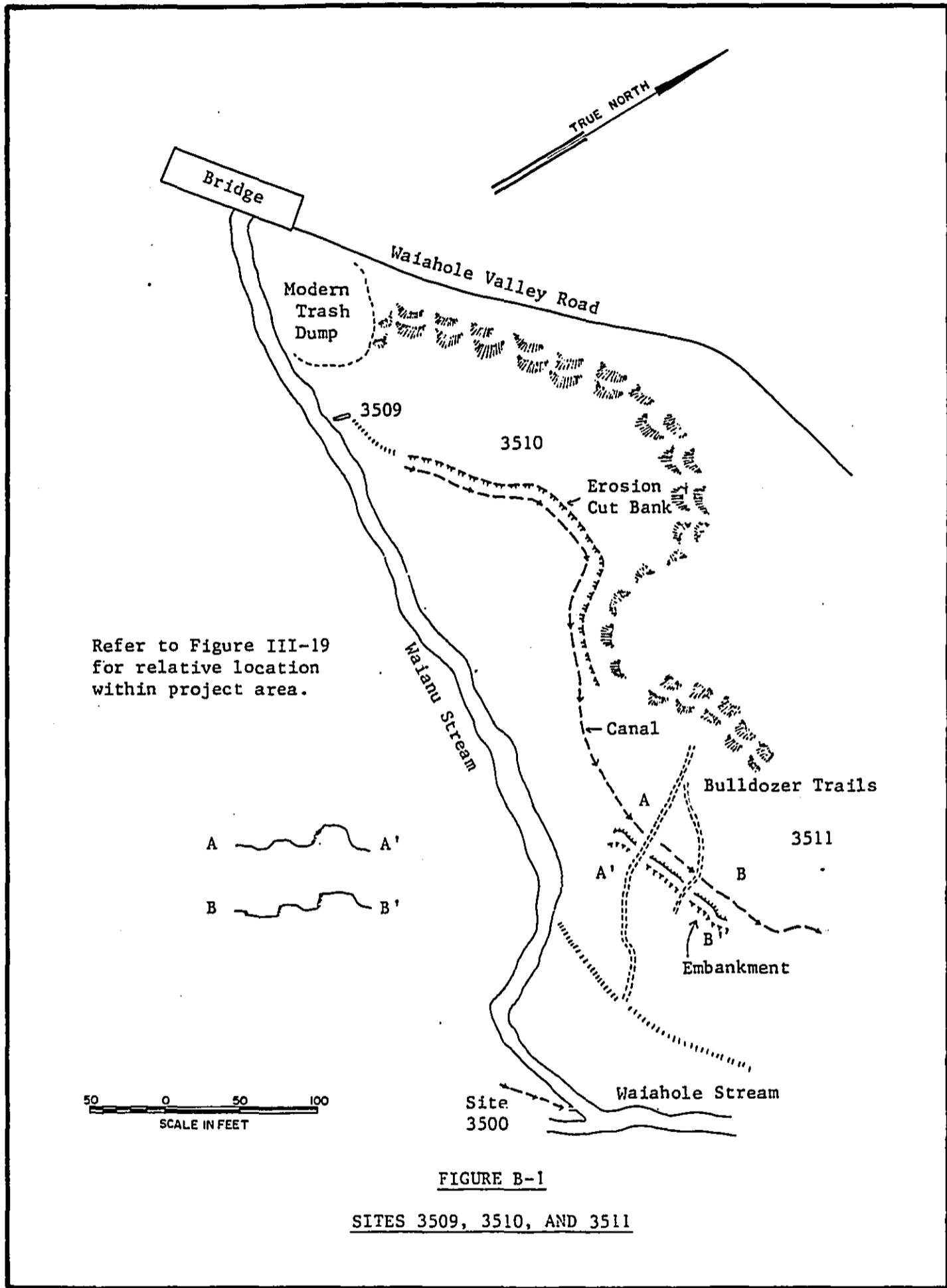
The present report is a preliminary statement of the results of the archaeological investigations, following completion of field work. Still to be completed are compilation of site maps, laboratory processing of collected material, and specialized laboratory analyses for age determinations, soils interpretation, and faunal identification.

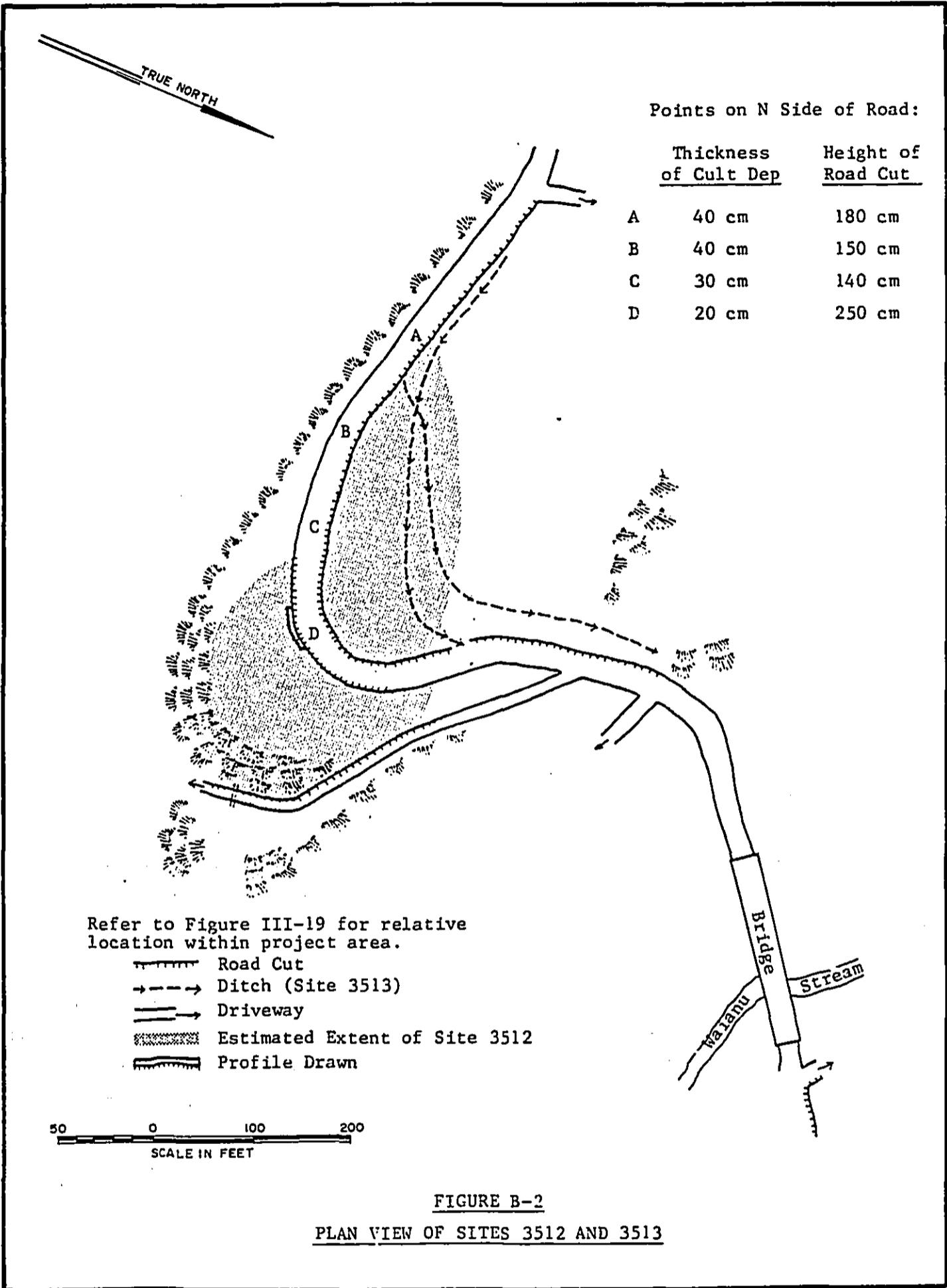
The focus of excavations in this project was Site 3512 for two reasons; (1) the site appeared to contain the most substantial cultural deposits of those which will be affected, and (2) engineering plans indicated that the site will be entirely destroyed. Mapping and test excavations were carried out in sites 3510, 3513, and 3526; mapping of sites 3509 and 3511 was also done (Figures III-19, B-2, and B-3).

Laboratory analysis is currently being conducted on collected material. Six charcoal and 17 volcanic glass samples have been submitted to specialized laboratories for age determinations. Faunal, artifact, and lithic analyses are also being done.

SUMMARY OF RESULTS

Archaeological work on the six impacted sites have clarified initial interpretations which were made following the 1982 reconnaissance survey. In almost all cases, the general interpretations continue to hold true, although specific aspects of site content, function, and nature have been understandably redefined.





Site 3512 appears to be an habitation-agricultural complex with at least two distinct occupational events. The earlier event is related to the agricultural use of the hill slope, with some possible intermittent habitation or specialized activities also taking place. The later event is an intensive habitation activity in which wood-working was certainly occurring; this event was probably associated with continuing agricultural use of the hill slope. Data for this site comes from four trenches, five test pits, 16 profiles of natural slope exposures, and clearing and profiling of the road cut.

It is our estimation that the sampling of the main site area of 3512 (about 20% of the core area) provides an adequate basis for stratigraphic interpretation, a sufficient sample of artifactual material, and substantial material for chronometric age determination. It is thus concluded that the data recovery from this site is sufficient for most standard archaeological inference based on present convention.

Site 3513, which cuts through site 3512, was interpreted to be a 19th century irrigation ditch carrying water to the rice fields at the front of the valley. Upon closer examination of the canal, a reexamination of historical maps, and conversations with local residents, it appears that the 3513 canal may actually be more recent and that the rice canal is located on the northwest side of the knoll. One test pit was dug across the canal.

Site 3510 is a possible agricultural area located on the makai side of the Waianu Stream bridge. Construction activities for this area are directed toward road development. Fill material from the site 3512 knoll will be dumped on top of this stream flat to raise it to same elevation as the existing road. It does not appear that any grading or excavation of the area will be done as part of construction.

Examination of soils in site 3510 suggest irrigation field deposits which may also have been impacted by lateral stream cutting and filling. Such a situation is not inconceivable considering the location of this site at the confluence of Waiahole and Waianu streams. There is no evidence of any habitational activities. Excavation consisted of one test pit and two profiles of the erosional cut along the stream-side of the site.

Site 3509 is a low concrete and cobble feature which probably served as a footing or apron for an earlier bridge across Waianu Stream. It will be buried by road fill from site 3512. Photographs were taken of the feature.

Site 3511 appears to be an irrigation-related structure, possibly used as a levee to protect fields from flooding, located on the stream flat at the confluence of Waiahole and Waianu streams. It is in poor condition, with only sections of the retaining wall facings still intact. This site actually falls outside of the immediate area of construction impact (approximately 240 feet from the center line of the proposed road). A Brunton compass and tape map was made of the site.

Site 3526 is a probable irrigation agricultural deposit exposed in the bank of lower Waiahole Stream. This site will be impacted by stream bank erosion protection measures; approximately 2,000 cubic yards of the southern bank of Waiahole Stream will be cut back to a stable, straight slope and covered with boulder riprap for erosion protection.

The uppermost stratum of the five profiles which were examined in site 3526 indicate disturbances of the agricultural soils by historical and/or modern farming activities. The impact of farming is also evident in the numerous artifacts which can be found by walking through the cultivated fields adjacent to the stream (basalt flakes and stone tools have been found in every farm field in Waiahole which has been archaeologically surveyed). Three detailed profiles, one facing of the stream bank, and one test pit were dug at this site. Surface artifacts were collected from along the stream bank.

Impact from construction activities on site 3526 are evaluated to be minimal for three reasons: (1) the deposits are agricultural and thus do not contain data which are unique to this particular locale; (2) being agricultural, the deposits probably extend considerably beyond the present impact area; and (3) the deposits have been presumably disturbed by plowing.

RECOMMENDATIONS BASED UPON FIELD WORK

The archaeological work carried out to mitigate the adverse effects of the agricultural park development has produced a quantity of data which can contribute to understanding the prehistory and archaeology of Waiahole Valley. While further excavation, particularly in site 3512, would be

ideal, it is felt that the extent of the present investigations is adequate to mitigate the impacts of planned construction.

Thus, based on the results of field work only, recommendation is made for no further work on any of the archaeological sites examined during this project. However, this is a preliminary evaluation which may be modified following completion of the laboratory analysis, particularly for age determinations.

A recommendation for monitoring during road construction and utilities installation was made as a result of the 1982 survey (see Tomonari-Tuggle 1983:51). This recommendation is still pertinent to the development of the agricultural park and residential lots subdivision. The primary job during construction will be the recording of stratigraphic data from exposed profiles in utility trenches and the recording of features uncovered by road grading. Recordation should include photographs, drawings, and notes.

The Department of Anthropology at the University of Hawaii will serve as the repository for the recovered artifacts. A copy of the completed final report will be made available to the public at the State Historic Sites Office.

POTENTIAL SITES

The bulk of the proposed water line will be laid within the existing roadway. Previously undiscovered archaeological resources outside of roadway and subsurface remains, if encountered during construction, will be brought to the attention of the state Historic Sites Office so the proper mitigation measures may be taken.

A P P E N D I X C

C O M M E N T S A N D R E P L I E S

Exhibit C

Declaration of Restrictive Covenants for Waiahole Valley Agricultural Park and Residential Lots Subdivision and Homestead Road Lands

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CERTIFIED TO BE A TRUE AND CORRECT COPY OF THE ORIGINAL RECORDED ON 09/28/95 IN THE OFFICE OF THE ASSISTANT REGISTRAR OF THE LAND COURT AS DOC# 2262857 /TCT# 380204

BY: JChang

ISLAND TITLE CORPORATION

LAND COURT SYSTEM

CERTIFIED TO BE A TRUE AND CORRECT COPY OF THE ORIGINAL RECORDED ON 09/28/95 IN THE BUREAU OF CONVEYANCES OF THE STATE OF HAWAII AS DOC# 95-124908

BY: JChang

ISLAND TITLE CORPORATION

REGULAR SYSTEM

Return by Mail (x) Pickup () To:

Housing Finance & Development Corporation
677 Queen Street, 3rd Floor
Honolulu, Hawaii 96813

Attention: Mike McElroy

27180

**DECLARATION OF RESTRICTIVE COVENANTS FOR
WAIAHOLE VALLEY AGRICULTURAL PARK AND
RESIDENTIAL LOTS SUBDIVISION
AND HOMESTEAD ROAD LANDS**

Recognizing that there is a growing scarcity of agricultural lands caused by urban encroachment which has made it difficult for agricultural enterprises to survive and that the acquisition of private property for agricultural purposes is a public purpose or use necessary to facilitate sound agricultural land-use planning, **HOUSING FINANCE AND DEVELOPMENT CORPORATION ("Declarant")** acquired or received in fee simple and this Declaration encumbers the following real property in Waiahole Valley, District of Koolaupoko, City and County of Honolulu, State of Hawaii:

(a) Certain lands from Elizabeth Loy Marks which are described and covered by the Quitclaim Deed dated November 30, 1977, and recorded in the Bureau of Conveyances of the State of Hawaii in Liber 12580, Page 644, a copy of which is attached as Exhibit 1-A and incorporated by reference which Declarant thereafter proceeded to cause to be subdivided into the "Waiahole Valley Agricultural Park and Residential Lots Subdivision" ("Subdivision"), which includes:

Exhibit "C"

(1) Lots 1 through 146, inclusive, as shown on File Plan No. 2052;

(2) Lots 10 to 37, inclusive, as shown in Map 3 of Land Court Application 69, being the lands described in Certificate of Title No. 380,204 issued to the Housing Finance and Development Corporation;

(3) Lots 9 to 15, inclusive, as shown in Map 3 of Land Court Application 70, being the lands described in Certificate of Title No. 195,898 issued to the Housing Finance and Development Corporation; and

(4) Lots 8 to 22, inclusive, as shown in Map 3 of Land Court Application 72, being the lands described in Certificate of Title No. 380,205 issued to the Housing Finance and Development Corporation, respectively, subject to all easements, rights of way, rights of ingress and egress, covenants, conditions, restrictions and reservations recorded in the Bureau of Conveyances and/or filed in the Office of the Assistant Registrar of the Land Court of the State of Hawaii. The Subdivision contains both agricultural lots, which were established pursuant to HRS Chapter 166, and residential lots, which will be leased in a manner that is consistent with the provisions of this Declaration; and

(b) Certain parcels of land (hereinafter referred to as the "Homestead Road Land"), which the Board of Land and Natural Resources of the State of Hawaii conveyed to Declarant pursuant to Act 330 Session Laws of Hawaii 1993 ("Act 330") and the following instruments,

(1) Land Patent No. S-15,795 executed December 31, 1993 a copy of which is attached as Exhibit 1-B and incorporated by reference;

(2) Land Patent No. S-15,793 executed September 30, 1994, a copy of which is attached as Exhibit 1-C and incorporated by reference; and

(3) Deed effective December 31, 1993 and recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 94-203197, a copy of which is attached as Exhibit 1-D and incorporated by reference.

Following subdivision of the Homestead Road Land, leases to the subdivided lots therein will be offered to those persons who hold revocable permits therein from DLNR and to others in a manner which is consistent with the provisions of this Declaration.

Through this "Declaration of Restrictive Covenants" ("Declaration"), Declarant desires to establish restrictions relative to preserving the public purposes for which the lands comprising the Subdivision were acquired and for which the Homestead Road Land was conveyed by the Board of Land and Natural Resources to the Housing Finance and Development Corporation, as more particularly set forth below.

1. **PURPOSE AND SCOPE OF THIS DECLARATION**

The purposes of this Declaration are to:

- A. Protect and preserve the use and character of the Agricultural Lots for Diversified Agriculture; and
- B. Protect and preserve the agricultural and rural nature of the Project as an agricultural park and rural residential subdivision.

Declarant declares that all of the Agricultural Lots and Residential Lots in the Project shall be held, owned, sold, conveyed, encumbered, leased, occupied and improved subject to the declarations, covenants, conditions, restrictions and reservations set forth below. This Declaration shall run with and bind the Agricultural Lots and Residential Lots, as applicable, comprising the Subdivision and the Homestead Road Land and shall be binding on and inure to the benefit of the respective Lessees thereof, including their heirs, personal representatives, devisees, successors and assigns.

2. **DEFINITIONS**

Unless the context specifies or requires otherwise, all capitalized words or terms used but not otherwise defined herein shall have the meanings given to them below.

- A. "Agricultural Lot" means and refers to each of the agricultural lots in the Subdivision which are listed and identified in the "Summary of Lots" attached as Exhibit "2" and incorporated by reference; and such subdivided lots within the Homestead Road Land which Declarant, including its successors and assigns, shall designate through a unilateral Supplemental Declaration as an "Agricultural Lot".
- B. "Agricultural Lot Lessee" means and refers to the lessee of record of an Agricultural Lot.
- C. "Common Area" means and refers to all real property in the Project owned in fee simple or leasehold by either (i) the Agricultural Lot Lessees and Residential Lot Lessees in common with each other or (ii) an association of Lessees for the common use and enjoyment of all Lessees, including streets, roads, community areas or facilities, easements, drainage and flowage areas and open space areas, together with all of the improvements constructed thereon which Declarant may convey from time to time. The Common Area shall not be considered an Agricultural Lot or a Residential Lot.

The right, title, interest and obligations with respect to ownership of the Common Area shall run with each Lessee's right, title and interest in and to an Agricultural Lot or a Residential Lot.

- D. "Declarant's Nominee" means and refers to any division, subsidiary or affiliate of Declarant or any other person or entity (whether or not related to Declarant) nominated by Declarant to hold and exercise any of Declarant's rights hereunder, which nomination shall be in writing but need not be recorded.
- E. "Diversified Agriculture" means the cultivation of crops, including flowers, vegetables, foliage, fruits, forage and aquaculture. "Diversified Agriculture" shall not mean or include using any Agricultural Lot or Residential Lot in the Project for public or private open area types of recreational uses, including day camps, picnic grounds, parks, riding stables, golf courses, golf driving ranges, country clubs and overnight camps.
- F. "DoA" means the U.S. Department of Agriculture, including the Farmers Home Administration.
- G. "Family" means one or more persons who are occupying a Residence and who constitute a "family" in the context of applicable ordinances of the City and County of Honolulu restricting the use of an Agricultural Lot or a Residential Lot to a single family dwelling.
- H. "FHA" means the Federal Housing Administration.
- I. "File Plan" means File Plan No. 2052 recorded in the Bureau of Conveyances of the State of Hawaii.
- J. "Governmental Agency" means any department, division or agency of any federal, state or municipal government and any public or private utility.
- K. "HRS" means and refers to the Hawaii Revised Statutes (or corresponding future embodiment of Hawaii laws).
- L. "HUD" means the U.S. Department of Housing and Urban Development.
- M. "Lessees" mean and refer to some or all, in the context that said word appears, Agricultural Lot Lessees and Residential Lot Lessees.
- N. "Lot" means and refers to an Agricultural Lot and/or a Residential Lot as the context shall require.

If the Lot that is covered by an Agricultural Lease or a Residential Lease is comprised of more than one subdivided lot, all of the subdivided lots shall be considered one (1) lot for purposes of this Declaration. A subdivided lot that is a portion of a Lot shall not be separately or individually transferable and shall not be sold, transferred or conveyed in any manner, whether by sublease, concession, license or otherwise, separate from all of the subdivided lots comprising the Lot so as to separate the benefits and burdens of such subdivided lot in any way under this Declaration. Any attempted sale, transfer or conveyance of a subdivided lot comprising a portion of a Lot shall be deemed to constitute a conveyance of all of the subdivided lots comprising the Lot.

- O. "Person" means and includes a natural person, a partnership, a joint venture, an agricultural cooperative or a corporation properly formed under law.
- P. "Project" means the Subdivision and Homestead Road Land.
- Q. "Residence" means and refers to a single-family dwelling building used for single-family residential purposes.
- R. "Residential Lot" means and refers to the residential lots in the Subdivisions which are listed and identified in the "Summary of Lots" attached as Exhibit "2" and incorporated by reference and such subdivided lots within the Homestead Road Land which Declarant, including its successors and assigns, shall designate through a unilateral Supplemental Declaration as a "Residential Lot".
- S. "Residential Lot Lessee" shall mean and refer to the lessee of record of a Residential Lot.
- T. "Subdivision" means the "Waiahole Valley Agricultural Park and Residential Lots Subdivision", which includes
 - (1) Lots 1 through 146, inclusive, as shown on File Plan No. 2052;
 - (2) Lots 10 to 37, inclusive, as shown in Map 3 of Land Court Application 69, being the lands described in Certificate of Title No. 380,204 issued to the Housing Finance and Development Corporation;
 - (3) Lots 9 to 15, inclusive, as shown in Map 3 of Land Court Application 70, being the lands described in Certificate of Title No. 195,898 issued to the Housing Finance and Development Corporation; and
 - (4) Lots 8 to 22, inclusive, as shown in Map 3 of Land Court Application 72, being the lands described in Certificate of Title No. 380,205 issued to the Housing Finance and Development Corporation,

U. "Waikane Mauka", "Waikane Makai", and "Waiahole Makai" mean the following parcels of land which are identified on the tax maps as of the date of this Declaration as follows:

4-8-01: 13	4-8-02: 8	4-8-03: 1
4-8-01: 14	4-8-03: 1	4-8-04: 4
4-8-02: 6	4-8-03: 16	4-8-06: 1

V. The Exhibits that are attached to this Declaration and incorporated by reference are listed as follows:

<u>Exhibit No.</u>	<u>Description</u>
1-A	Quitclaim Deed dated November 30, 1977, and recorded in the Bureau of Conveyances of the State of Hawaii in Liber 12580, Page 644
1-B	Land Patent No. S-15,795 executed December 31, 1993
1-C	Land Patent No. S-15,793 executed September 30, 1994
1-D	Deed effective December 31, 1993 and recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 94-203197
2	"Summary of Lots"
3	Resolution No. 1783
4	Initial Priorities for Lots

3. AGRICULTURAL LOT COVENANTS, CONDITIONS, RESTRICTIONS AND RESERVATIONS

All Agricultural Lots will be subject to the following covenants, conditions, restrictions and reservations.

A. Eligibility to Apply for an Agricultural Lot. Any person who:

- (1) is not in arrears in the payment of taxes, rents, or other obligations owing the United States of America, State of Hawaii or any of its political subdivisions; and
- (2) is a bona fide farmer and:

- (a) Who has not less than two years' experience as a full-time farmer; or
- (b) Who was an owner-operator of an established farm conducting a substantial farming operation and who for a substantial period of the person's life resided on a farm or depended on farm income for the person's livelihood; or
- (c) Who has been a farm tenant or farm laborer or other individual, who has for the two years last preceding the person's application for an Agricultural Lot obtained the major portion of the person's income from farming operations; or
- (d) Who has a college degree in agriculture; or
- (e) Who by reason of ability, experience, and training as a vocational trainee is likely to successfully operate a farm; or
- (f) Who has qualified for and received a commitment for a loan under the Bankhead-Jones Farm Tenant Act, as amended, or as may hereafter be amended, for the acquisition of a farm; or
- (g) Who is displaced from employment in an agricultural production enterprise; or
- (h) Who is a member of the Hawaii Young Farmer Association or a Future Farmer of America graduate with two years of training with farming projects; or
- (i) Who is a person who meets the eligibility requirements of Declarant's Resolution No. 1783, which is attached hereto, a part hereof and incorporated by reference as Exhibit "3"

shall be eligible to become the lessee of an Agricultural Lot.

- (3) Initial Priorities to Apply for an Agricultural Lot Lease. The initial priorities to apply for and obtain an Agricultural Lot Lease are set forth in Exhibit "4", attached hereto, a part hereof and incorporated by reference.

B. Use of Agricultural Lots For Diversified Agricultural Purposes. Each Agricultural Lot must be used only for Diversified Agricultural purposes.

C. Limit of One Single Family Dwelling: One Employee's Quarters; and Diversified Agricultural Improvements. The following structures shall be permitted to be situated on an Agricultural Lot:

- (1) Only one (1) single family dwelling designed and built for the use and occupancy by a single family;
- (2) Subject to and if permitted by applicable land use ordinances or other zoning ordinances of the City and County of Honolulu, one separate "employee's quarters" provided that the person living in the employee's quarters must be an employee of the Agricultural Lot Lessee and must be engaged in and earn substantially all of such person's income from labor in Diversified Agriculture on the Agricultural Lot on which such employee's quarters is situated. Such employee's quarters may contain a kitchen if permitted by applicable land use ordinances or other zoning ordinance of the City and County of Honolulu; and
- (3) Subject to and if permitted by applicable land use ordinances or other zoning ordinances of the City and County of Honolulu, such accessory structures that are used solely in furtherance of activities permitted by this Declaration.

The Lessee of an Agricultural Lot shall not use any building or structure thereon as a multifamily project or a tenement house, rooming house or apartment house. The Lessee's use of an Agricultural Lot for Diversified Agricultural activities shall be subject to applicable land use and zoning laws and ordinances that are in furtherance of the intent of this Declaration that the Agricultural Lots be used for Diversified Agricultural activities.

D. Agricultural Lot Lessee's Income From Diversified Agriculture. Each Agricultural Lot Lessee must:

- (1) Personally use and operate the Agricultural Lot for Diversified Agricultural purposes; and
- (2) Either:
 - (a) Devote at least one third (33-1/2%) of the Agricultural Lot Lessee's time and also derive at least one-third of the Agricultural Lot Lessee's net annual cash income as reported on the Agricultural Lot Lessee's federal and state tax returns from direct participation in Diversified Agriculture on the Agricultural Lot Lessee's Agricultural Lot; or

- (b) Use substantially all of the Agricultural Lot for Diversified Agricultural uses as a trade or business (and not as a hobby). The Agricultural Lot must remain in continuous cultivation except for the normal fallow period as required by standard agriculture practices.

E. Agricultural Cooperative Permitted. Agricultural Lot Lessees may organize an agricultural cooperative association pursuant to applicable Hawaii laws provided, however, that the use and operation of the Agricultural Lots through or as part of an agricultural cooperative association shall be subject to the covenants, conditions, restrictions and reservations in this Declaration.

The word "farmer" in the context of an Agricultural Lot Lessee shall include a small Hawaii corporation, partnership, cooperative or other business organization provided that the natural person who qualifies as the "farmer" in the conveyance document for an Agricultural Lot must:

- (1) Own at least 75% or more of the voting stock or outstanding interest in the corporation or other business organization;
- (2) Qualify individually and meet the eligibility requirements of a "farmer" under HRS Sec. 155-10 (or the corresponding section of any future Hawaii law).

F. No Subletting. Except as provided above by Paragraph 3.C. concerning "employee's quarters", an Agricultural Lot Lessee shall not lease or sublease the whole or any part of the Agricultural Lot Lessee's Agricultural Lot, including any Diversified Agricultural land, dwelling or structure thereon.

G. Floodway District. Any part of any Agricultural Lot, which is within the area designated by the Department of Land Utilization of the City and County of Honolulu as the "Floodway District of Waiahole Valley" must remain in open Diversified Agricultural use. Unless expressly authorized by Federal, State of Hawaii and City and/or County of Honolulu laws, regulations or ordinances, no structures shall be built or placed on any part of any Agricultural Lot which is within the Floodway District of Waiahole Valley or a flood hazard area.

4. COVENANTS, CONDITIONS, RESTRICTIONS AND RESERVATIONS COVERING THE RESIDENTIAL LOTS

Each Residential Lot shall be for the exclusive use and benefit of the Residential Lot Lessee subject, however, to the following covenants, conditions and restrictions:

- A. Initial Priorities to Apply for a Residential Lot Lease. The initial priorities to apply for and obtain a Residential Lot Lease are set forth in Exhibit "4", attached hereto, a part hereof and incorporated by reference.
- B. Use of Residential Lots Only for Single Family Dwelling Purpose. Only one Family shall occupy each Residential Lot, and only one single-family dwelling which contains no more than one kitchen in the entire dwelling may be constructed or placed on any Residential Lot designated. A Residential Lot Lessee must use the Residential Lot as the Residential Lot Lessee's principal dwelling. A Residential Lot Lessee can only have one principal dwelling. A Residential Lot Lessee shall not rent or sublet all or any part of a Residential Lot, including any dwelling on the Residential Lot.

The Residential Lot Lessee shall not use any building or structure thereon as a multifamily project or a tenement house, rooming house or apartment house. The Lessee's use of a Residential Lot for single family use shall be subject to applicable land use and zoning laws and ordinances that are consistent with the intent of the provisions of this Declaration to limit the use of a Residential Lot for single family residential use.

5. RESTRICTIONS COVERING BOTH THE AGRICULTURAL LOTS AND/OR RESIDENTIAL LOTS

All Lots will be subject to the following covenants, conditions, restrictions and reservations.

- A. Animals. The raising of any animals in connection with a feedlot operation is absolutely prohibited. The raising of animals shall be permitted or allowed subject to the following:
- (1) Each Lessee shall observe all applicable Federal, State of Hawaii or City and County of Honolulu laws, ordinances, codes or regulations;
 - (2) Each Lessee shall be fully responsible for any personal injury, including death, damage to property or nuisance caused by such Lessee's animals; and
 - (3) A Lessee's animals shall not present a threat or threaten the Diversified Agricultural activities that are being conducted in the Project or surrounding areas.
- B. Environmental Laws. Each Lessee must comply with all Federal and State of Hawaii laws regarding environmental quality control with respect to the use of a Lot.

- C. Excavation and Altering the Natural Flow of Water. No part, including swales and drainage ditches, of any Lot or any land adjacent to any Lot shall be filled, excavated or otherwise changed as to grade in such manner as to alter the natural flow of water or to increase runoff and drainage of water except as allowed by law and provided all required permits have been obtained.
- D. Nuisances: Illegal Activities. No noxious, illegal or offensive activity shall be carried on upon any Lot, nor shall anything be done thereon which may be an annoyance or nuisance to the Waiahole Agricultural Park, the Homestead Road Land and surrounding neighborhood. No part of any Lot shall be used as a junk yard or automobile junk yard. The cultivation, farming and/or growth of any noxious weed or any illegal plant or foliage or any controlled substance are expressly prohibited on all Lots. The term "noxious weed" shall mean any plant species which is illegal or injurious, harmful or deleterious or which may be likely to become so to the agricultural, horticultural and livestock industries of the State, as determined and so designated by the laws of the State of Hawaii.
- E. Portable Structures. All improvements, structures, buildings, whatsoever shall be portable, mobile or transportable or readily removable or demolishable.
- F. Maintenance. Each Lessee shall maintain all improvements erected on such Lessee's Lot and all landscaping and vegetation planted on such Lot from time to time in good and clean condition and repair and in such manner as not to create a fire, safety, or health hazard at such Lessee's sole cost and expense.
- G. No Dumping. A Lessee shall not use or allow such Lessee's Lot to be used for the dumping or storage of garbage, trash or waste materials provided that an established compost pile may be maintained in connection with the conduct of Diversified Agricultural activities.
- H. No Further Subdivision or Condominium Property Regime. No Lot shall be further subdivided or consolidated and resubdivided or subjected to a condominium property regime or "ohana" zoning without the written consent of the Declarant, which consent may be withheld in Declarant's sole discretion.
- I. Conservation: Fire Prevention. A Lessee shall not permit any exterior fires on such Lessee's Lot without a valid permit duly issued by all applicable State of Hawaii and City and County of Honolulu governmental agencies and shall not permit any condition on such Lessee's Lot which creates a fire hazard.
- J. Allocation of Subsequent Capital Improvements Costs. If Declarant, including Declarant's successors and assigns, shall undertake and pay for any capital improvements, including the construction of utility lines, road improvements, reservoirs, water distribution systems or flood control measures, after the date of this Declaration, the amount expended based on Declarant's books shall be

allocated and charged to some or all of the leases for the Lots in accordance with good accounting practices. The amount that has been as of the date of this Declaration and shall hereafter be allocated and charged to a Lot shall be collected upon the sale of each Lot, including the sale of the lease to a Lot or any lease-to-fee conversion of such Lot.

The following transfers shall be permitted and payment for such capital improvements shall not become due and payable provided that there is no consideration paid for the transfer:

- (a) A transfer by devise, descent, or operation of law on the death of a joint tenant or tenant by the entirety;
- (b) A transfer to the spouse or children of the Lessee;
- (c) A transfer whereby Lessees are married and one Lessee conveys his/her leasehold right, title and interest to the other as a result of a decree of dissolution of marriage, legal separation or incident to a property settlement agreement; or
- (d) A transfer to an *intervivos* trust in which Lessee is and remains the primary beneficiary and continues to use the Lot and which does not relate to a transfer of rights of occupancy in the Lot.

6. TERM

The term of this Declaration shall be fifty-five (55) years beginning with the date this Declaration is recorded in the Bureau of Conveyances of the State of Hawaii and the first conveyance for either an Agricultural Lot or Residential Lot; provided, however, that this Declaration shall be automatically extended by Declarant, or Declarant's successors or assigns, commensurate with the extended terms of any leases covering the Lots. For as long as this Declaration is in effect, the covenants, conditions, restrictions and reservations in this Declaration shall run with and bind the Agricultural Lots and Residential Lots, as applicable.

7. LESSEES' EASEMENTS OF ENJOYMENT

- A. Conveyance and Acceptance of Common Area. Declarant may hereafter convey to the Lessees or to an association of Lessees and the Lessees or the association of Lessees shall accept and hold all real property which is designated by Declarant as a Common Area. If Declarant shall convey the Common Area to the Lessees, such Lessees' right, title and interest in the Common Area shall be in common with all Lessees and shall be appurtenant to and pass with title to every Lot.

- B. **Right and Easement of Enjoyment.** Every Lessee shall have a right and non-exclusive easement of enjoyment in and to the Common Area which shall be appurtenant to and shall pass with the title to every Lot, subject to the following provisions affording the Lessees or an association of Lessees the right:
- (1) to charge reasonable admission and other fees for the use of any community facility situated upon the Common Area;
 - (2) to suspend the voting rights and right to use of the community facilities by a Lessee for any period during which any assessment against such Lessee's Lot remains unpaid; and for a period not to exceed 60 days for any infraction of the Association's published rules and regulations, if any; or
 - (3) to dedicate or transfer all or any part of the Common Area to any public agency, authority, or utility for such purposes and subject to such conditions as may be agreed to by a majority of the Lessees or members of an association of Lessees.
- C. Any Lessee may delegate such Lessee's right of enjoyment to the Common Area and facilities to the members of such Lessee's family who reside on such Lessee's Lot.

8. **REMEDIES**

- A. **Enforcement.** The restrictions, conditions, covenants, reservations, and provisions now or hereafter imposed by this Declaration may be enforced by:
- (1) Declarant;
 - (2) Any association of Lessees of the Lots;
 - (3) Any one or more of the Lessees of the Lots
- by any proceeding at law or in equity. Failure by any of the foregoing persons to enforce any restriction, condition, covenant, reservation or provision herein contained shall in no event be deemed a waiver of the right to do so thereafter.
- B. **Remedies.** If a Lessee shall breach any of the above covenants, conditions, restrictions and reservations, any one or more of the following remedies shall be available:
- (1) Damages;

- (2) Injunctive relief to restrain or abate any such violation or breach or any threatened violation or breach constituting a violation of any covenants, conditions, restrictions and reservations contained in this Declaration;
- (3) Termination or cancellation of such Lessee's right, title or interest in a Lot and requiring a reconveyance of such Lessee's Lot to Declarant; and/or
- (4) Any other legal or equitable rights, which may be available under law;

without prejudice to the right to pursue the same or any other remedy thereafter for the same breach or for any subsequent breach.

Each remedy provided for in this Declaration shall be cumulative and non-exclusive.

- C. Fees and Costs. The costs of enforcement, including court costs and attorneys' fees, shall be paid by any Lessee who has violated any such restriction, covenant, condition, or restriction or has failed to pay or perform any obligation hereunder.
- D. No Waiver. The failure in any case to enforce the provisions of any covenant, condition, restriction, or obligation shall not constitute a waiver of any right to enforce any such provision in any other case with respect to any Lessee or any Lot. No right of action shall accrue in favor of any Lessee or any association of Lessees against Declarant for or on account of any failure by Declarant to bring any action on account of any violation or breach, by any Lessee of the provisions of this Declaration.

Notwithstanding any failure or delay in enforcing the above covenants, restrictions and reservations, neither Declarant nor any one or more Lessees or an association of Lessees shall be barred by the doctrines of waiver or estoppel from enforcing the above covenants, conditions, restrictions and reservations at any time.

9. ASSIGNMENT OF DECLARANT'S RIGHTS AND OBLIGATIONS

Declarant may delegate, transfer, assign or release to Declarant's Nominee, any Governmental Agency or any association of Lessees any of Declarant's rights, powers and obligations. Such nominee, agency or association of Lessees shall accept the same upon the recording by Declarant of a notice of such delegation, transfer, or assignment or release.

10. GENERAL PROVISIONS

- A. Disclaimer. This Declaration does not represent or warrant that Declarant will bring about or preserve the present interest of the Lessees or any association of

Lessees to maintain the agricultural and rural atmosphere of the Project contemplated herein. Such interests will be primarily accomplished by the Lessees and any association of Lessees and not by Declarant.

All actions by Declarant pursuant to this Declaration are discretionary. The taking by Declarant of any discretionary action pursuant to this Declaration or the refraining from such action shall not create or result in any liability to the Lessees or any association of Lessees.

- B. Notices, Documents, Delivery. Whenever notice is required, reasonable notice shall be deemed to be five business days. All notices, demands or documents which are required or permitted to be given or served hereunder shall be in writing and sent by first class, registered or certified mail, prepaid postage, or by hand delivery, or by facsimile telecopier with a copy sent by first class mail, addressed as follows:

To Declarant at:

677 Queen Street - 3rd Floor
Honolulu, Hawaii 96813

with copy to:

Department of the Attorney General - State of Hawaii
425 Queen Street
Honolulu, Hawaii 96813

To a Lessee:

The Lessee's address as maintained in Declarant's records

To an officer of an association of Lessees:

The principal address of the association of Lessees, if any, as maintained in Declarant's records.

Any such address may be changed from time to time by serving notice to all other parties as above provided. Service of such notice or demand shall be deemed complete on the date of actual delivery or at the expiration of the second day after the date of mailing, whichever is earlier.

- C. Governing Law. This Declaration shall be governed by and construed in accordance with the laws of the State of Hawaii.

D. Incorporation in other documents. No conveyance document, including lease, mortgage, or other document, affecting any Lot shall be made or delivered unless such mortgage, conveyance document or other document shall expressly incorporate by reference this Declaration.

E. Amendment or Repeal. The covenants and restrictions of this Declaration shall run with each Lessee's right, title and interest in such Lessee's Lot, including any lease for the same for the full term or extended term of such lease.

This Declaration may be amended by an instrument signed by not less than seventy-five percent (75%) of the Lessees and the Declarant's written consent. Any amendment must be recorded.

Notwithstanding the foregoing, Declarant may by written amendment at any time unilaterally amend or supplement this Declaration for the purpose of designating lots within the Homestead Land as an "Agricultural Lot" or a "Residential Lot", consolidating and resubdividing lots or Lots, deannexing Lots, curing or correcting any ambiguity or defective or inconsistent provision or omission or mistake or manifest error contained in this Declaration, or to supplement the provisions of this Declaration with respect to special use areas or Common Areas described in a Supplemental Declaration.

F. Construction. Compliance with Laws. Severability. Singular and Plural. Titles.

- (1) All of the covenants, conditions and restrictions in this Declaration shall be liberally construed to promote and effectuate the purposes of the Project as set forth in the recitals to this Declaration.
- (2) No provision of this Declaration shall excuse any person from observing any law or regulation of any Governmental Agency having jurisdiction over such person or over the Project.
- (3) Invalidation of any one or more of the provisions of this Declaration by judgment or court order shall in no way affect any other provisions which shall remain in full force and effect.
- (4) The singular shall include the plural and the plural shall include the singular unless the context requires the contrary, and the masculine, feminine and neuter shall each include the masculine, feminine or neuter as the context requires.
- (5) The titles of sections and paragraphs herein are inserted only for convenience and reference and shall in no way define, limit or described the scope or intent of any provision of this Declaration.

G. Voting. Lessees shall be entitled to one vote for each Lot owned. When more than one person holds an interest in any Lot, the vote for such Lot shall be exercised as they determine, but in no event shall more than one vote be cast with respect to any Lot.

H. Declarant's Successors and Assigns. This Declaration will inure to the benefit of Declarant, and Declarant's successors and assigns including the Board of Land and Natural Resources and/or Department of Agriculture of the State of Hawaii.

DATED: Honolulu, Hawaii SEP 15 1995

DECLARANT:

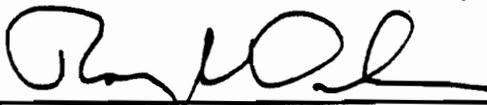
HOUSING FINANCE AND DEVELOPMENT CORPORATION

Approved as to Form:



Dickson C.H. Lee
Special Counsel to the Housing Finance and Development Corporation

By:



ROY S. OSHIRO
Its: Acting Executive Director

STATE OF HAWAII)
) ss.
CITY AND COUNTY OF HONOLULU)

On this ____ day of SEP 15 1995, 1995, before me appeared ROY S. OSHIRO, to me personally known, who, being by me duly sworn, did say that he is the Acting Executive Director of HOUSING FINANCE AND DEVELOPMENT CORPORATION, a public body and a body corporate and politic of the State of Hawaii; that the seal affixed to the foregoing instrument is the corporate seal of said corporation; that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors; and said ROY S. OSHIRO acknowledged said instrument to be the free act and deed of said corporation.

6.5.

C. O. Crowder
Notary Public, State of Hawaii

My commission expires 8.12.97

NS (3)
RECORDATION REQUESTED BY:
DEPARTMENT OF TRANSPORTATION
ABSTRACTING SERVICE
AFTER RECORDATION, RETURN TO:

77-110275

STATE OF HAWAII
BUREAU OF CONDEMNANCES
RECORDED
NO. 12580 K 644
77 NOV 30 P 1: 16

DEPARTMENT OF TRANSPORTATION
ABSTRACTING SERVICE

RETURN BY: MAIL () PICKUP ()

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS:

That ELIZABETH LOY MARKS, also known as ELIZABETH LOY MCCANDLESS MARKS, widow of A. Lester Marks, whose post office address is P.O. Box 27006, Honolulu, Hawaii, Grantor, in consideration of TEN DOLLARS (\$10.00) and other good and valuable consideration to her paid by the HAWAII HOUSING AUTHORITY, a public body and body corporate and politic, whose principal place of business and post office address is 1002 North School Street, Honolulu, Hawaii, Grantee, the receipt of which is hereby acknowledged, and pursuant to the unrecorded Purchase Agreement Under Threat of Condemnation dated May 6, 1977, by and between Grantor and Grantee, does hereby quitclaim all of the Grantor's right, title and interest in and to the following described lands unto the Grantee, its successors and assigns:

Those certain lands situate within the district of Waiahole mauka of Kanehameha Highway, Island of Oahu, State of Hawaii, which lands are described in Exhibit "A" attached hereto and made a part hereof, and more particularly described in the Preliminary Title Report of Security Title Corporation, consisting of four (4) volumes dated March 31, 1977 and updated to the date hereof, which is on file with the Grantee and which is incorporated herein by reference, subject, however, to the encumbrances and exceptions set forth therein, and excepting and reserving unto the Grantor all of her lands situate on the seaward side of Kanehameha Highway.

EXHIBIT "LA"

WMI 12580 K 645

Together with an undivided one-fourth interest in and to Grantor's right, title and interest in the Water Agreement dated December 12, 1912 by and between L. L. McCandless and Waiahole Water Company recorded in the Bureau of Conveyances of the State of Hawaii in Liber 386 at Page 355, as modified by Agreement dated December 15, 1971, recorded as aforesaid in Liber 8038 at Page 421, including without limitation an undivided one-fourth interest in that certain pipeline and water system from Waianu into Waiahole Valley, including the pipelines for taking off water from said system.

AND the reversions, remainders, rents, issues and profits thereof, all the estate, right, title and interest of the Grantor therein and thereto, and all the improvements thereon, the easements, privileges and appurtenances thereunto belonging or appertaining.

TO HAVE AND TO HOLD the same unto the Grantee, its legal successors and assigns, forever.

AND THE GRANTOR does hereby covenant and warrant to and with the Grantee that she has not alienated here interests in the aforesaid lands described in Exhibit "A" since December 31, 1974 when the Grantor acquired the interests of her children in said lands, except for executing that certain unrecorded Land Exchange and Purchase Agreement dated May 21, 1975 by and between herself and Pao Investment Corporation, as amended, and except as set forth in said Preliminary Title Report, and that she shall warrant the same unto the Grantee, its successors and assigns against the lawful claims and demands of all persons claiming an interest in and to said lands through her, except as aforesaid.

IN WITNESS WHEREOF, the Grantor has caused this instrument to be duly executed this 30th day of

UNI 12580 n 646

November, 1977.

ELIZABETH LOY MARKS, also known as
ELIZABETH LOY MCCANDLESS MARKS

HAWAII HOUSING AUTHORITY

By [Signature]
Its Assistant Executive Director

Grantee

Approved as to Form:

[Signature]
Special Deputy Attorney General

STATE OF HAWAII)
: SS.
CITY AND COUNTY OF HONOLULU)

On this 29 day of November, 1977,
before me personally appeared ELIZABETH LOY MARKS, also
known as ELIZABETH LOY MCCANDLESS MARKS, to me known to
be the person described in and who executed the fore-
going instrument and acknowledged to me that she exe-
cuted the same as her free act and deed.

[Signature]
Notary Public, First Judicial
Circuit, State of Hawaii

My commission expires: 1/19/80

WH 12580 R 647

STATE OF HAWAII)
 : SS.
 CITY AND COUNTY OF HONOLULU)

On this 27th day of November, 1977,
before me appeared William Andrew Hall, to me
personally known, who, being by me duly sworn, did
say that he is the Assistant Executive Director of
HAWAII HOUSING AUTHORITY, a public body and a body
corporate and politic, and that the seal affixed to
the foregoing instrument is the seal of said HAWAII
HOUSING AUTHORITY; and that said instrument was
signed and sealed in behalf of said HAWAII HOUSING
AUTHORITY by authority of its Commissioners, and
said William Andrew Hall, acknowledged said instru-
ment to be the free act and deed of said HAWAII
HOUSING AUTHORITY.

Gerald A. Smith
Notary Public, First Judicial
Circuit, State of Hawaii

My commission expires: 1/25/78

UNI 12550 r 618

EXHIBIT A

<u>Tax Map Key</u>		<u>Per Parcel Acreage</u>	<u>Total Acreage Per Tax Key</u>
<u>4-8-01-1</u>			
8603:1	R.P. 3601	9.88	
10440	R.P. 2938	0.120	
10227	R.P. 2445	0.35	
9959:2	R.P. 1582, 2444	0.61	
7570:2	R.P. 1581	0.60	11.560
<u>4-8-01-3</u>			
3218:2	Parcel (Apana) 3	0.682	0.682
<u>4-8-01-4</u>			
7662:2	R.P. 1586, 2537	0.92	0.920
<u>4-8-01-6</u>			
10229:1	R.P. 1091	Less 1,060 square feet to T.H.	0.50
10229:2			0.48
7654:1	R.P. 1096		0.43
7654:2			0.75
7570:1	R.P. 1581, 2536		1.45
3218:2			0.485
GR10648	Lot H	Waiahole Gov't remnant	0.171
GR 4689	Lot 5	(TMK Fig. 0.54)	
		Abstract Fig.	0.48
GR 4689	Lot 6	(TMK and TK Fig. 6.94)	6.47
			11.216
<u>4-8-07-1</u>			
3218:2	R.P. 5703	Parcel (Apana) 1 Por.	19.20
			19.200
<u>4-8-07-4</u>			
7648:2	R.P. 1428		0.25
			0.250

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<u>Tax Map Key</u>			<u>Per Parcel Acreage</u>	<u>Total Acreage Per Tax Key</u>
<u>4-8-07-5</u>				
GR10648	Lot A	Waiahole Gov't remnant Por. Lot 4 K.H.	2.687	2.687
<u>4-8-08-1</u>				
GR 4689	Lot 8		0.32	
7648:1	R.P. 1428		2.00	
GR10648	Lot 12		0.28	
GR10648	Lot 13		0.44	
7566:1	R.P. 3053		1.30	
GR 4689	Lot 7		4.54	
7558:1	R.P. 4842		3.05	
7558:2	R.P. 4842		0.25	
8177:2	R.P. 2934		0.40	
7665:3	R.P. 7869	Unlocated.	0.60	
7665:4	R.P. 7869	Unlocated	1.00	
9959:1	R.P. 1582, 2444		2.10	
3218:2	R.P. 5703	Parcel (Apana) 1 Por.	14.15	
Remnant of Kaanui			.75 (more or less) 31.180	
<u>4-8-08-10</u>				
GR10648	Lot 12A	Waiahole Gov't Lot	0.82	0.820
<u>4-8-08-12</u>				
105	R.P. 53		0.68	0.680
<u>4-8-08-16</u>				
105	R.P. 53		0.462	0.462
<u>4-8-08-18</u>				
GR 4689	Lot 18		0.53	
GR 4689	Lot 2		1.28	1.810
<u>4-8-09-1</u>				
GR 4584	Parcel No. 2		7.070	
GR2703:2			11.000	
105	R.P. 53		3.40	
7657 Par. 1	R.P. 1095		0.13	
7657 Par. 2			0.40	

LH: 12550 n. 650

<u>Tax Map Key</u>		<u>Per Parcel Acreage</u>	<u>Total Acreage Per Tax Key</u>
7657 Par. 3		0.548	
7657 Par. 4		0.560	
GR 4689	Lot 1	2.492	
GR 4689	Lot 18 (Por.)	0.15	
7566:2	R.P. 3053	0.25	
10973:1	R.P. 3056	0.076	26.076
<u>4-8-11-1</u>			
GR 4689	Lot J	6.22	
GR10648	Lot D	0.75	
7664:1	R.P. 2936	3.05	
GR10648	Lot C	0.92	
8235:1	R.P. 6600	0.53	
7166:1	R.P. 2935	1.80	
7655:1	R.P. 1585, 2457	1.00	
GR10648	Lot B	0.51	
	Waiahole Gov't Lot		
	remnant. Por. Lot		
	JA W.H.		
GR 4584	Por. Parcel No. 1	0.05	
8830	P.P. 7592	1.40	
Portion of Lot 3-A	(Registered Map No. 2196)	.71	16.940
<u>4-8-11-2</u>			
GR 4584	Por. Parcel No. 1	20.77	
7664:1	R.P. 2936	0.07	
GR 2703:2		1.00	
10973:1	R.P. 3056	0.18	22.020
<u>4-8-11-4</u>			
7649:2	R.P. 2403, 1587	0.25	0.250
<u>4-8-11-9</u>			
7660:1	R.P. 2939	1.20	1.200

<u>Tax Map Key</u>		<u>Per Parcel Acreage</u>	<u>Total Acreage Per Tax Key</u>
<u>4-8-11-10</u>			
10230:1	R.P. 2933	0.90	0.900
<u>4-8-11-11</u>			
7649:1	R.P. 2403, 1587	3.00	3.000
<u>4-8-12-1</u>			
GR 7886	Lot 5		
10231:1	R.P. 2133	39.34	
8187-B:1	R.P. 3057	0.92	
8235:2	R.P. 6600	1.498	
		0.16	41.918
<u>4-8-12-2</u>			
10231:2	R.P. 2133		
5806:1	R.P. 3015	0.25	
10456	R.P. 3016, 3633	0.60	
7572:1	R.P. 2422	2.15	
GR 2703:3		4.85	
10228:1	R.P. 2817	0.99	
GR 4111		0.82	
		25.54	35.200
<u>4-8-12-3</u>			
7568:1	R.P. 2036	1.30	1.300
<u>4-8-12-5</u>			
GR 4111			
7669:1	R.P. 7157	102.083	
7669:2	R.P. 7157	0.70	
8176:1	R.P. 7460	0.65	
10435:1	R.P. 7349	0.25	
8176:2	R.P. 7460	0.187	
GR 2874:1		0.50	
8236:1	R.P. 1094	87.53	
8236:2	R.P. 1094	2.80	
7666:3	R.P. 3054	0.25	
7666:1	R.P. 3054	0.25	
11016:1	R.P. 1093	0.58	
GR 2703:3		0.61	
7572:2	R.P. 2422	8.51	
10228:1	R.P. 2817	0.25	
		0.33	205.480

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<u>Tax Map Key</u>		<u>Per Parcel Acreage</u>	<u>Total Acreage Per Tax Key</u>
<u>4-8-12-10</u>			
11016:2	R.P. 1093	0.462	
GR 4111		16.50	
8235:3	R.P. 6600	0.50	
7166:2	R.P. 2935	0.25	
7664:2	R.P. 2936	0.25	17.962
<u>4-8-12-20</u>			
GR 2874	Lot 1 of Lot A	4.32	
GR 2874	Lot 2 of Lot A	4.03	8.350
<u>4-8-13-2</u>			
7656:3	R.P. 6841	0.76	0.760
<u>4-8-13-3</u>			
7656:1	R.P. 6841	2.44	
10625:1	R.P. 6549	0.73	
7656:2	R.P. 6841	0.06	3.230
<u>4-8-13-4</u>			
10625:3	R.P. 6549	0.38	0.380
<u>4-8-13-5</u>			
8187-B:2	R.P. 3057	0.89	0.890
<u>4-8-13-8</u>			
7659:1	R.P. 3055	3.10	3.100

12580 r 653

<u>Tax Map Key</u>		<u>Per Parcel Acreage</u>	<u>Total Acreage Per Tax Key</u>
<u>4-8-13-9</u>			
10230:2	R.P. 2933	0.25	0.250
<u>4-8-13-10</u>			
10435:3	R.P. 7349	0.22	0.220
<u>4-8-13-13</u>			
Portion of Waianu 1st State Multiple claim		144.50	144.500
<u>4-8-13-19</u>			
Portion of Waianu 1st State Multiple Claim		41.68	41.680
<u>4-8-14-1</u>			
7560:2	R.P. 1090	.820	.820

12550 12654

LAND COURT PARCELS

1. All of Lot 5, as shown on Map 2 of Land Court Application 69 covered by Owner's Certificate of Title No. ~~50,840~~.
Area: 11.890 acres. 173,850
2. All of Lot 8, as shown on Map 2 of Land Court Application 70 covered by Owner's Certificate of Title No. 173849.
Area: 34.472 acres. NF

Being portions of the following Tax Map Key Nos.

TMK 4-8-09-1	0.298 acres
4-8-10-2	31.504 "
4-8-10-3	<u>2.67</u> "

34.472 acres

3. All of Lot 5, as shown on Map 2 of Land Court Application 72 covered by Owner's Certificate of Title No. 172,735.
Area: 89.205 acres.
Being portions of the following Tax Map Key Nos.

TMK 4-8-10-2	4.657 acres
4-8-10-3	23.76 "
4-8-12-10	57.698 "
4-8-12-18	0.23 "
4-8-12-19	<u>2.86</u> "

89.205 acres

4. All of Lot 7, as shown on Map 2, Land Court Application 69 covered by Owner's Certificate of Title No. 173,850.
Area: 1.230

STATE OF HAWAII

Land Patent No. S-15,795

(Grant)

Issued On

SALE PURSUANT TO ACT 330, SESSION LAWS
OF HAWAII 1993, AND SECTION 171-95,
HAWAII REVISED STATUTES

By THIS PATENT The State of Hawaii, in conformity with the laws of the
State of Hawaii relating to public lands and pursuant to the approval by the Board of
Land and Natural Resources on August 27, 1993,

makes known to all men that it does this day grant and confirm unto

HOUSING FINANCE AND DEVELOPMENT CORPORATION, a public
body and a body corporate and politic, whose address is
677 Queen Street, Suite 300, Honolulu, Hawaii 96813

hereinafter referred to as the "Patentee,"

for the consideration of FOR GOOD AND VALUABLE CONSIDERATION, the
receipt is hereby acknowledged,

all of the land situate at Waiahole, Koolaupoko, Oahu, Hawaii, being
designated as "Waiahole Valley Agricultural Park and
Residential Lots Subdivision, Lot A, Part 2" described as:

LOT A, PART 2 being a portion of the Government Land of
Waiahole, being also a portion of Lot A of Waiahole Valley
Agricultural Park and Residential Lots Subdivision,
containing an area of 1.942 acres, more particularly
described in Exhibit "A" and delineated on Exhibit "B,"
both of which are attached hereto and made parts hereof,
said exhibits being respectively, a survey description and
survey map designated C.S.F. No. 22,181 and dated
September 22, 1994, prepared by the Survey Division,
Department of Accounting and General Services, State of
Hawaii.

EXHIBIT "I-B"

RESERVING TO THE STATE OF HAWAII, ITS SUCCESSORS AND ASSIGNS, THE FOLLOWING:

(1) All minerals as hereinafter defined, in, on or under the land and the right, on its own behalf or through persons authorized by it, to prospect for, mine, and remove these minerals and to occupy and use so much of the surface of the ground as may be required for all purposes reasonably extending to the mining and removal of these minerals by any means whatsoever, including strip mining. "Minerals," as used herein, shall mean any or all oil, gas, coal, phosphate, sodium, sulphur, iron, titanium, gold, silver, bauxite, bauxitic clay, diaspore, boehmite, laterite, gibbsite, alumina, all ores of aluminum and, without limitation thereon, all other mineral substances and ore deposits, whether solid, gaseous, or liquid, including all geothermal resources, in, on, or under the land, fast or submerged; provided, that "minerals" shall not include sand, gravel, rock, or other material suitable for use and used in general construction in furtherance of the Patentee's permitted activities on the land and not for sale to others.

(2) All surface and ground waters appurtenant to the land and the right on its own behalf or through persons authorized by it, to capture, divert, or impound the same and to occupy and use so much of the land as may be required in the exercise of this right reserved.

(3) All prehistoric and historic remains found in, on, or under the land.

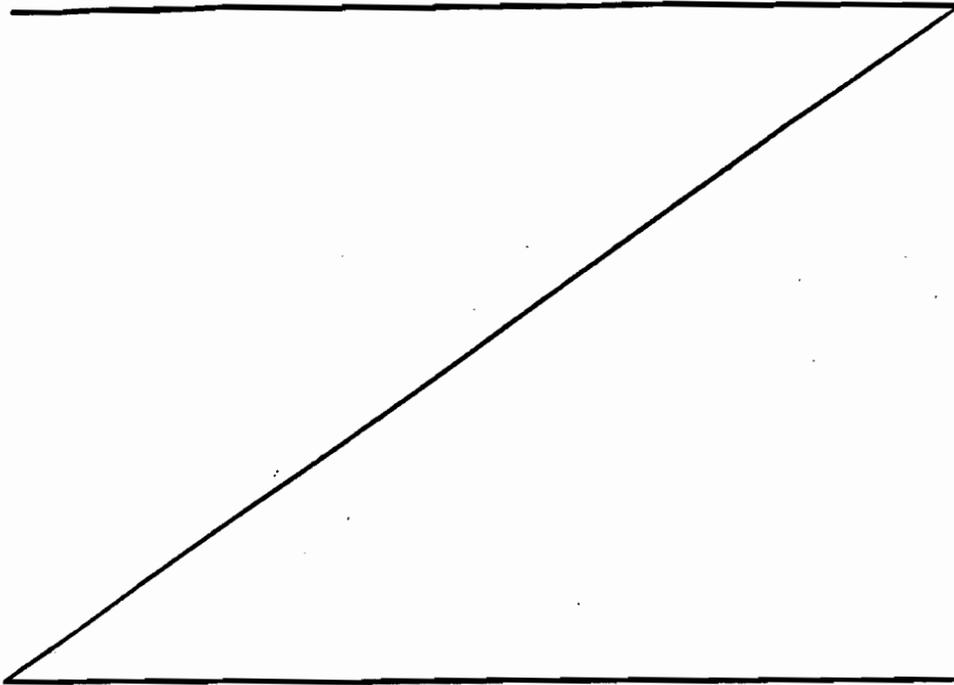
Provided, however, that as a condition precedent to the exercise of the rights reserved in Paragraphs 1 and 2, just compensation shall be paid to the Patentee for any of Patentee's improvements taken.

AND THE PATENTEE, for itself, its successors and assigns, covenants with the State of Hawaii, and its successors as follows:

A) The use and enjoyment of the land herein granted shall not be in support of any policy which discriminates against anyone based upon race, creed, sex, color, national origin, religion, marital status, familial status, ancestry, physical handicap, disability, age or HIV (human immunodeficiency virus) infection.

B) The use of the land shall be in combination, consolidation, or otherwise with other abutting lands owned by the Patentee and shall be used in accordance with the appropriate zoning and subdivision ordinances of the City and of Honolulu.

C) Pursuant of Act 130, Session Laws of Hawaii 1993, the purpose of this conveyance to the Grantee is for consolidation into the Waiahole Agricultural Park.



TO HAVE AND TO HOLD said granted land unto the said

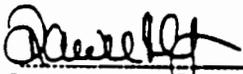
HOUSING FINANCE AND DEVELOPMENT CORPORATION,
a public body and a body corporate and politic,

its successors and assigns forever, subject, however, to the reservations, conditions and covenants herein set forth.

IN WITNESS WHEREOF, the State of Hawaii, by its Board of Land and Natural Resources, has caused the Seal of the Department of Land and Natural Resources to be hereunto affixed and this Patent to be duly executed this 31st day of December, 19 13.

STATE OF HAWAII
Board of Land and Natural Resources

APPROVED AS TO FORM:



Deputy Attorney General

Dated: 11/7/94

By Keikū Ahe

Chairperson and Member
Board of Land and
Natural Resources



STATE OF HAWAII

SURVEY DIVISION

**DEPT. OF ACCOUNTING AND GENERAL SERVICES
HONOLULU**

September 22, 1994

C.S.F. No. 22,181

**WAIAHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION**

LOT A, PART 2

Waiahole, Koolaupoko, Oahu, Hawaii

Being a portion of the Government Land of Waiahole.

Being also a portion of Lot A of Waiahole Valley Agricultural Park and Residential Lots Subdivision.

Beginning at the northeast corner of this parcel of land and on the south side of Waiahole Homestead Road, the coordinates of said point of beginning referred to Government Survey Triangulation Station "PUU KAUI" being 1718.15 feet North and 539.14 feet West, thence running by azimuths measured clockwise from True South:-

- 1. 4° 50' 29.87 feet along R.P. 2934, L.C.Aw. 8177, Ap. 2 to Hoopio;
- 2. 275° 00' 66.00 feet along R.P. 2934, L.C.Aw. 8177, Ap. 2 to Hoopio;
- 3. 4° 50' 105.60 feet along R.P. 1428, L.C.Aw. 7648, Ap. 2 to Kapule;
- 4. 13° 24' 111.92 feet along Lot B of Waiahole Valley Agricultural Park and Residential Lots Subdivision;
- 5. 105° 00' 538.02 feet along the remainder of the Government Land of Waiahole;
- 6. 205° 53' 100.09 feet along Lot 123 of Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052;

EXHIBIT "A"

7. 277° 35' 233.89 feet along R.P. 1584 and 2459, L.C.Aw. 10437 to Naaweawe;
8. 254° 00' 89.08 feet along R.P. 4985, L.C.Aw. 7576, Ap. 1 to Kalaloa;
9. 183° 00' 47.66 feet along R.P. 4985, L.C.Aw. 7576, Ap. 1 to Kalaloa;
10. 275° 00' 92.09 feet along R.P. 4842, L.C.Aw. 7558, Ap. 2 to Kaakau;
11. 289° 50' 34.14 feet along the south side of Waiahole Homestead Road to the point of beginning and containing an AREA OF 1.942 ACRES.

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

By: 
Joseph M. Matsuno
Land Surveyor gm

Compiled from F.P. 2052,
CSF's 8429, 21916 and other
Govt. Survey Records.

TRUE NORTH

Scale: 1 inch = 100 feet

WAI AHOLE VALLEY AND RESIDENTIAL

File Plan

Lot 123

AGRICULTURAL PARK LOTS SUBDIVISION

2052

Lot 72

203°50' -
106.00

87°52' -
56.12

R.P. 1584
L.C.A.W. 10497

2nd 2492.
to Naawawe

HOMESTEADS

ROAD

HOMESTEAD

6995. L.C.A.W. 7876.
to Kaitiob

105°00' -
598.00

1942 ACRES

R.P. 6842, L.C.A.W. 7588,
Ap. 2 to Kakaou

LOTA, PART 1
(CSP 22180)

178.15 N
529.16 W
"PUU KALUAI" A Lot 122

282°50' -
58.16
6°50' -
29.87

R.P. 2034, L.C.A.W. 8177,
Ap. 2 to Moopio

WAI AHOLE

WAI AHOLE

13°24' - 111.92

4°50' - 109.60
R.P. 1428,
L.C.A.W. 7648,
Ap. 2 to Moopio

Lot B
(CSP 21977)

Lot 121

Lot 120

Lot 119

WAI AHOLE VALLEY AGRICULTURAL PARK AND RESIDENTIAL LOTS SUBDIVISION

LOT A, PART 2

Waiahole, Koolau-poko, Oahu, Hawaii

Scale: 1 inch = 100 feet

0-284(24)

AP 4-8-07:FOR 2

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

EXHIBIT "B"

NO. 22181

JMM Sept. 22, 1954

Land Patent No. 8-18,793

(Grant)
Issued On

SALE PURSUANT TO SECTION 171-95(a)(1),
HAWAII REVISED STATUTES AND
ACT 330, SESSION LAWS OF HAWAII 1993

By **THIS PATENT** *The State of Hawaii, in conformity with the laws of the State of Hawaii relating to public lands and pursuant to the approval by the Board of Land and Natural Resources on* December 31, 1993

makes known to all men that it does this day grant and confirm unto

HOUSING FINANCE AND DEVELOPMENT CORPORATION,
a public body and a body corporate and politic
with perpetual existence

hereinafter referred to as the "Patentee,"

for the consideration of **FOR GOOD AND VALUABLE CONSIDERATION,**
the receipt whereof is hereby acknowledged,

all of the land situate at Waiahole, Koolaupoko, Oahu, Hawaii, being designated "Waiahole Valley Agricultural Park and Residential Lots Subdivision" consisting of the following:

LOT E, containing an area of 3.058 acres, Subject, however, to a portion of Easement 23 (10 feet wide) for Waterline Purposes as designated on Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052, containing an area of 1,153 square feet, more particularly described in Exhibit "A" and delineated on Exhibit "B," both of which are attached hereto and made parts hereof, said exhibits being respectively, a survey description and survey map prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, both being designated C.S.F. No. 21,920 and dated May 6, 1993.

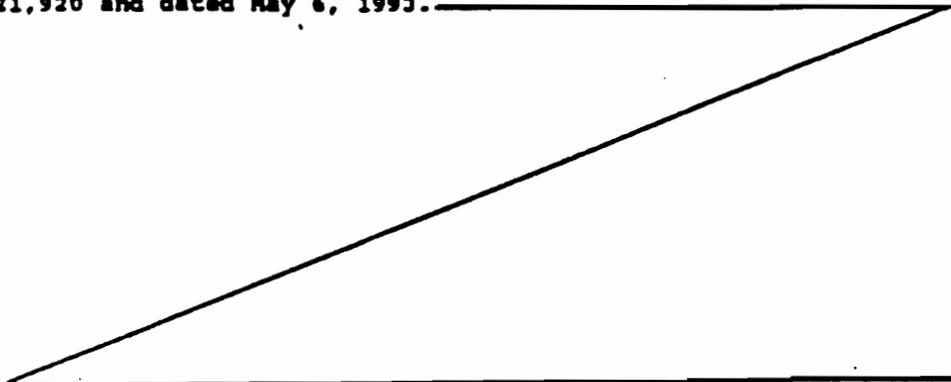


EXHIBIT "LC"

LOT 122, containing an area of 2.543 acres, Subject, however, to Easement 37 for drainage purposes as shown on Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052, more particularly described in Exhibit "C" and delineated on File Plan 2052 filed in the Office of the Bureau of Conveyances of the State of Hawaii. Exhibit "C" is attached hereto and made a part hereof, said exhibit being a survey description prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, being designated C.S.F. No. 21,867 and dated March 17, 1993.

LOT D, containing an area of 1.698 acres, Subject, however, to portion of Easement 35 and all of Easement 36 for drainage purposes as shown on Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052, more particularly described in Exhibit "D" and delineated on Exhibit "G," both of which are attached hereto and made parts hereof, said exhibits being respectively, a survey description and survey map prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, both being designated C.S.F. No. 21,919 and dated May 6, 1993.

LOT C, containing an area of 0.597 acres, Subject, however, to portion of Easement 35 for drainage purposes as designated on Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052, more particularly described in Exhibit "E" and delineated on Exhibit "G," both of which are attached hereto and made parts hereof, said exhibits being respectively, a survey description and survey map prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, both being designated C.S.F. No. 21,918 and dated May 6, 1993.

LOT E, containing an area of 1.425 acres, more particularly described in Exhibit "F" and delineated on Exhibit "G," both of which are attached hereto and made parts hereof, said exhibits being respectively, a survey description and survey map prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, both being designated C.S.F. No. 21,917 and dated May 6, 1993.

LOT 121, containing an area of 3.500 acres, more particularly described in Exhibit "H" and delineated on File Plan 2052 filed in the Office of the Bureau of Conveyances of the State of Hawaii. Exhibit "H" is attached hereto and made a part hereof, said exhibit being a survey description prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, being designated C.S.F. No. 21,859 and dated March 4, 1993.

PORTION OF THE GOVERNMENT LAND OF WAIAHOLE, containing an area of 53.557 acres, more particularly described in Exhibit "I" and delineated on Exhibit "J," both of which are attached hereto and made parts hereof, said exhibits being respectively, a survey description and survey map prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, both being designated C.S.F. No. 21,946 and dated May 25, 1993.

PORTION OF THE GOVERNMENT LAND OF WAIAHOLE, containing an area of 36.035 acres, more or less, more particularly described in Exhibit "K" and delineated on Exhibit "L," both of which are attached hereto and made parts hereof, said exhibits being respectively, a survey description and survey map prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, both being designated C.S.F. No. 22,065 and dated February 10, 1994.

RESERVING TO THE STATE OF HAWAII, ITS SUCCESSORS AND ASSIGNS, THE FOLLOWING:

(1) All minerals as hereinafter defined, in, on or under the land and the right, on its own behalf or through persons authorized by it, to prospect for, mine, and remove these minerals and to occupy and use so much of the surface of the ground as may be required for all purposes reasonably extending to the mining and removal of these minerals by any means whatsoever, including strip mining. "Minerals," as used herein, shall mean any or all oil, gas, coal, phosphate, sodium, sulphur, iron, titanium, gold, silver, bauxite, bauxitic clay, diaspore, boehmite, laterite, gibbsite, alumina, all ores of aluminum and, without limitation thereon, all other mineral substances and ore deposits, whether solid, gaseous, or liquid, including all geothermal resources, in, on, or under the land, fast or submerged; provided, that "minerals" shall not include sand, gravel, rock, or other material suitable for use and used in general construction in furtherance of the Patentee's permitted activities on the land and not for sale to others. 4

(2) All surface and ground waters appurtenant to the land and the right on its own behalf or through persons authorized by it, to capture, divert, or impound the same and to occupy and use so much of the land as may be required in the exercise of this right reserved.

(3) All prehistoric and historic remains found in, on, or under the land.

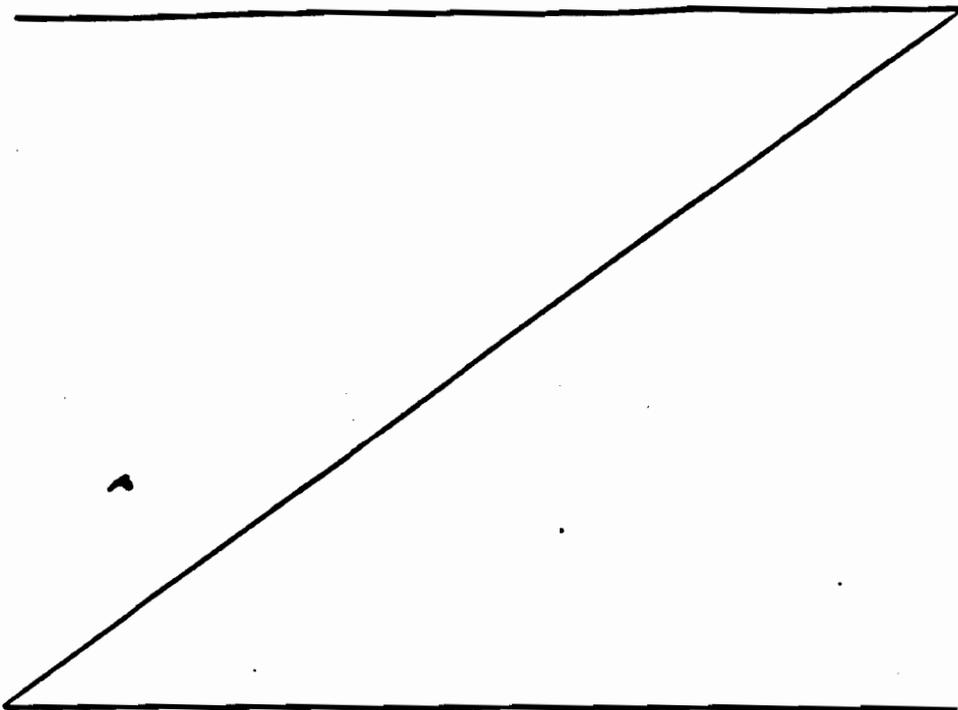
Provided, however, that as a condition precedent to the exercise of the rights reserved in Paragraphs 1 and 2, just compensation shall be paid to the Patentee for any of Patentee's improvements taken.

AND THE PATENTEE, for itself, its successors and assigns, covenants with the State of Hawaii, and its successors as follows:

A) The use and enjoyment of the land herein granted shall not be in support of any policy which discriminates against anyone based upon race, creed, sex, color, national origin, religion, marital status, familial status, ancestry, disability, age or HIV (human immunodeficiency virus) infection.

B) The use of the land shall be in combination, consolidation, or otherwise with other abutting lands owned by the Patentee and shall be used in accordance with the appropriate zoning and subdivision ordinances of the City and County of Honolulu.

C) Under Act 130, Session Laws of Hawaii 1993, the purpose of this act is to transfer title of the above-referenced parcels of land to the Patentee so that the lands may be consolidated into the Waiahole Agricultural Park.



TO HAVE AND TO HOLD said granted land unto the said

**HOUSING FINANCE AND DEVELOPMENT CORPORATION,
a public body and a body corporate and politic
with perpetual existence**

its successors and assigns forever, subject, however, to the reservations, conditions and covenants herein set forth.

IN WITNESS WHEREOF, the State of Hawaii, by its Board of Land and Natural Resources, has caused the Seal of the Department of Land and Natural Resources to be hereunto affixed and this Patent to be duly executed this 30th day of September, 19 94.

**STATE OF HAWAII
Board of Land and Natural Resources**

APPROVED AS TO FORM:

[Signature]
Deputy Attorney General
Done September 26, 1994

By *[Signature]*
Chairperson and Member
Board of Land and
Natural Resources
JL



STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES
HONOLULU

21,970

May 6, 1993

WAIHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION

LOT E

Waiahole, Koolaupoko, Oahu, Hawaii

Being a portion of the Government Land of Waiahole.

Being also a portion of Lot 130 of Waiahole Valley Agricultural
Park and Residential Lots Subdivision, File Plan 2052.

Beginning at a PK nail on CRM Wall at the northwest corner of this
parcel of land, at the northeast corner of Lot 129 of Waiahole Valley Agricultural
Park and Residential Lots Subdivision, File Plan 2052 and on the south side of
Waiahole Homestead Road, the coordinates of said point of beginning referred to
Government Survey Triangulation Station "PUU KAUAJ" being 1373.74 feet North
and 1174.97 feet East, thence running by azimuths measured clockwise from True
South:-

1. Along the south side of Waiahole Homestead Road on a curve to the right with a
radius of 244.00 feet, the chord azimuth
and distance being:
261° 29' 110.74 feet
to a 1/2-inch pipe;
2. 277° 41' 50" 49.56 feet along the south side of Waiahole
Homestead Road to a 1/2-inch pipe;
3. 3° 10" 252.83 feet along Lot 131 of Waiahole Valley
Agricultural Park and Residential Lots
Subdivision, File Plan 2052 to a 1/2-inch
pipe;

4. 266° 20' 224.10 feet along Lot 131 of Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052 to a 1/2-inch pipe;
5. 162° 40' 251.55 feet along Lot 131 of Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052 to a 1/2-inch pipe;
6. Thence along the south side of Waiahole Homestead Road on a curve to the left with a radius of 172.00 feet, the chord azimuth and distance being:
243° 29' 29" 36.50 feet
to a 1/2-inch pipe;
7. 237° 24' 40.17 feet along the south side of Waiahole Homestead Road to a PK nail;
8. Thence along the south side of the intersection of Waiahole Homestead Road and Kamehameha Highway on a curve to the right with a radius of 30.00 feet, the chord azimuth and distance being:
277° 46' 56" 38.87 feet
to a 1/2-inch pipe;
9. Thence along the south side of Kamehameha Highway on a curve to the left with a radius of 294.00 feet, the chord azimuth and distance being:
311° 20' 18" 69.89 feet
to a 1/2-inch pipe;
10. 12° 30' 182.94 feet along R.P.s 1582 and 2444, L.C.Aw. 9959, Ap. 2 to Lumai to a 1/2-inch pipe;
11. 282° 00' 339.20 feet along R.P.s 1582 and 2444, L.C.Aw. 9959, Ap. 2 to Lumai and R.P. 2445, L.C.Aw. 10227 to Moo 1 to a 3/4-inch pipe;
12. 79° 30' 178.20 feet along R.P.s 1581 and 2536, L.C.Aw. 7570, Ap. 2 to Kauhupaka to a 1/2-inch pipe;
13. 82° 42' 140.39 feet along the remainder of the Government Land of Waiahole to a 1/2-inch pipe;

14. 72° 28' 304.00 feet along the remainder of the Government Land of Waiahole to a 1/2-inch pipe;
15. 113° 30' 143.00 feet along the remainder of the Government Land of Waiahole to a 1/2-inch pipe;
16. 178° 42' 30" 335.80 feet along Lot 129 of Waiahole Valley Agricultural Park and Residential Subdivision, File Plan 2052 to the point of beginning and containing an AREA OF 3.058 ACRES.

Subject, however, to a portion of Easement 23 (10 feet wide) for Waterline Purposes as designated on Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052 and more particularly described as follows:-

Beginning at the west corner of this easement and on the south side of Waiahole Homestead Road, the true azimuth and distance from the end of Course 6 of the above-described Lot E being 237° 24' 36.72 feet, thence running by azimuths measured clockwise from True South:-

1. 237° 24' 3.45 feet along the south side of Waiahole Homestead Road;
2. Thence along the south side of the intersection of Waiahole Homestead Road and Kamehameha Highway on a curve to the right with a radius of 30.00 feet, the chord azimuth and distance being:
243° 46' 43" 6.67 feet;
3. Thence on a curve to the left with a radius of 314.00 feet, the chord azimuth and distance being:
313° 08' 44" 110.14 feet;
4. 12° 30' 10.66 feet along R.P.s 1582 and 2444, L.C.Aw. 9959, Apana 2 to Lumai;

5. Thence on a curve to the right with a radius of 324.00 feet, the chord azimuth and distance being:
137° 56' 42" 118.77 feet
to the point of beginning and containing an
AREA OF 1153 SQUARE FEET.

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

By: Lawrence T. Murakami
Lawrence T. Murakami
Land Surveyor gmm

Compiled from survey and
data provided by ESH, Inc.,
File Plan 2052 and Govt.
Survey Records.



STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES
HONOLULU

C.S.F. No. 21,867

March 17, 1993

WAIAHOLE VALLEY AGRICULTURAL
PARK AND RESIDENTIAL LOTS SUBDIVISION
LOT 129

Waiahole, Koolau, Oahu, Hawaii

Being a portion of the Government Land of Waiahole.

A

Being also all of Lot 129 of Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052 filed in the Office of the Bureau of Conveyances of the State of Hawaii and containing an AREA OF 2.543 ACRES.

Lot 129 is subject, however, to Easement 37 for drainage purposes as shown on Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052.

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

By Lawrence T. Murakami
Lawrence T. Murakami
Land Surveyor

gms

Compiled from File Plan 2052
and Govt. Survey Records.
TMK: 4-8-07:19

EXHIBIT "C"



STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES

MEMORANDUM

S.S.P. 71,919

May 6, 1993

WAIHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION

LOT D

Waiahole, Koolimpoko, Oahu, Hawaii

Being a portion of the Government Land of Waiahole.

Being also portions of Lots 125 and 126 of Waiahole Valley
Agricultural Park and Residential Lots Subdivision, File Plan 2052.

Beginning at the northwest corner of this parcel of land, at the
northeast corner of Lot C of Waiahole Valley Agricultural Park and Residential Lots
Subdivision, and on the south side of Waiahole Homestead Road, the coordinates of
said point of beginning referred to Government Survey Triangulation Station
"PUU KAUIA" being 1509.24 feet North and 46.06 feet West, thence running by
azimuths measured clockwise from True South:-

1. 287° 01' 50.07 feet along the south side of Waiahole
Homestead Road;
2. Thence along the south side of Waiahole Homestead Road on a curve to the right
with a radius of 234.00 feet, the chord
azimuth and distance being:
295° 00' 65.00 feet;
3. 302° 59' 133.00 feet along the south side of Waiahole
Homestead Road;
4. Thence along the south side of Waiahole Homestead Road on a curve to the left
with a radius of 266.00 feet, the chord
azimuth and distance being:
290° 18' 05" 116.79 feet;
5. 18° 05' 198.53 feet along Lot 127 of Waiahole Valley
Agricultural Park and Residential Lots
Subdivision, File Plan 2052;

- 6. 114° 46' 384.76 feet along the remainder of the Government Land of Waiahole;
- 7. 185° 10' 6.42 feet along Lot C of Waiahole Valley Agricultural Park and Residential Lots Subdivision;
- 8. 191° 51' 39.80 feet along Lot C of Waiahole Valley Agricultural Park and Residential Lots Subdivision;
- 9. 215° 25' 98.00 feet along Lot C of Waiahole Valley Agricultural Park and Residential Lots Subdivision;
- 10. 197° 01' 60.00 feet along Lot C of Waiahole Valley Agricultural Park and Residential Lots Subdivision to the point of beginning and containing an AREA OF 1.698 ACRES..

Subject, however, to portion of Easement 35 and all of Easement 36 for Drainage Purposes as designated on Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052.

SURVEY DIVISION
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
 STATE OF HAWAII

By Lawrence T. Murakami
 Lawrence T. Murakami
 Land Surveyor

Compiled from survey and data provided by ESE, Inc., File Plan 2052 and Govt. Survey Records.



STATE OF HAWAII

SURVEY DIVISION

**DEPT. OF ACCOUNTING AND GENERAL SERVICES
HONOLULU**

21.918

May 6, 1993

**WAIAHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION**

LOT C

Waiahole, Koolaupele, Oahu, Hawaii

Being a portion of the Government Land of Waiahole.

**Being also portions of Lots 125 and 126 of Waiahole Valley
Agricultural Park and Residential Lots Subdivision, File Plan 2052.**

**Beginning at the northeast corner of this parcel of land, at the
northwest corner of Lot D of Waiahole Valley Agricultural Park and Residential Lots
Subdivision, and on the south side of Waiahole Homestead Road, the coordinates of
said point of beginning referred to Government Survey Triangulation Station
"PUU KAUIA" being 1509.24 feet North and 46.06 feet West, thence running by
azimuths measured clockwise from True South:-**

- | | | |
|----|----------|---|
| 1. | 17° 01' | 60.00 feet along Lot D of Waiahole Valley
Agricultural Park and Residential Lots
Subdivision; |
| 2. | 35° 25' | 98.00 feet along Lot D of Waiahole Valley
Agricultural Park and Residential Lots
Subdivision; |
| 3. | 11° 51' | 39.80 feet along Lot D of Waiahole Valley
Agricultural Park and Residential Lots
Subdivision; |
| 4. | 3° 10' | 6.42 feet along Lot D of Waiahole Valley
Agricultural Park and Residential Lots
Subdivision; |
| 5. | 114° 46' | 169.74 feet along the remainder of the Government
Land of Waiahole; |

- 6. 225° 19' 217.07 feet along Lot B of Waiahole Valley
Agricultural Park and Residential Lots
Subdivision;
- 7. Thence along the south side of Waiahole Homestead Road on a curve to the left
with a radius of 166.00 feet, the chord
azimuth and distance being:
299° 19' 47" 70.80 feet;
- 8. 287° 01' 22.14 feet along the south side of Waiahole
Homestead Road to the point of beginning
and containing an AREA OF 0.597
ACRES.

Subject, however, to portion of Easement 35 for Drainage Purposes as
designated on Waiahole Valley Agricultural Park and Residential Lots Subdivision,
File Plan 2052.

**SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII**

By Lawrence T. Murakami
Lawrence T. Murakami
Land Surveyor gm

Compiled from survey and
data provided by ESH, Inc.,
File Plan 2052 and Govt.
Survey Records.



STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES
HONOLULU

21,917

May 6, 1993

WAIAHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION

LOT B

Waiahole, Koolaupele, Oahu, Hawaii

Being a portion of the Government Land of Waiahole.

Being also a portion of Lot 125 of Waiahole Valley Agricultural
Park and Residential Lots Subdivision, File Plan 2052.

Beginning at the north corner of this parcel of land and on the south
side of Waiahole Homestead Road, the coordinates of said point of beginning referred
to Government Survey Triangulation Station "PUU KAUA" being 1681.24 feet
North and 370.05 feet West, thence running by azimuths measured clockwise from
True South:-

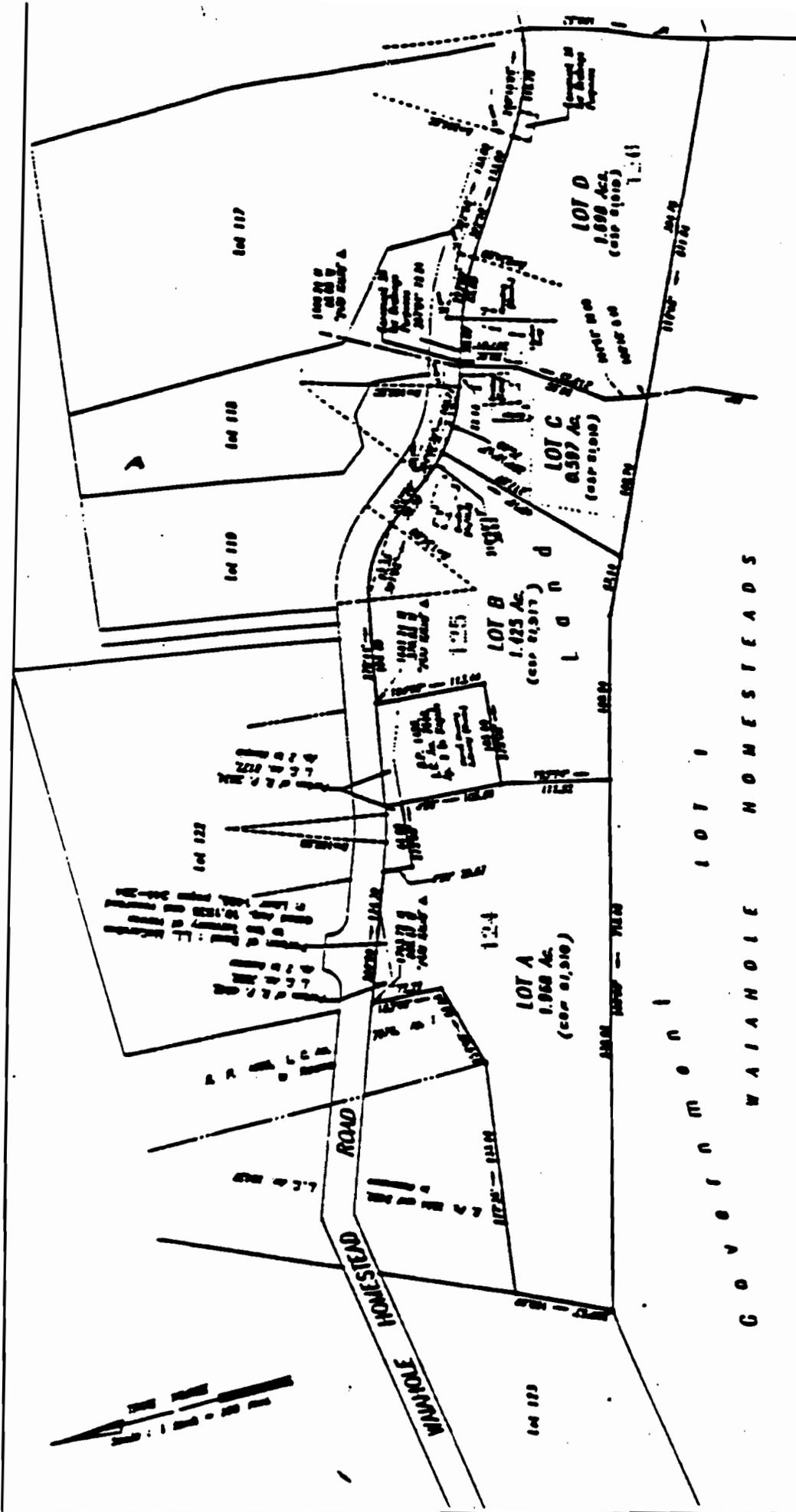
1. 279° 44' 106.40 feet along the south side of Waiahole
Homestead Road;
2. Thence along the south side of Waiahole Homestead Road on a curve to the right
with a radius of 134.00 feet, the chord
azimuth and distance being:
301° 02' 97.35 feet;
3. 322° 20' 50.59 feet along the south side of Waiahole
Homestead Road;
4. Thence along the south side of Waiahole Homestead Road on a curve to the left
with a radius of 166.00 feet, the chord
azimuth and distance being:
316° 59' 17" 30.93 feet;
5. 45° 19' 217.07 feet along Lot C of Waiahole Valley
Agricultural Park and Residential Lots
Subdivision;

6. 116° 46' 57.14 feet along the remainder of the Government Land of Waiahole;
7. 105° 00' 180.94 feet along the remainder of the Government Land of Waiahole;
8. 193° 24' 111.92 feet along Lot A of Waiahole Valley Agricultural Park and Residential Lots Subdivision;
9. 275° 00' 105.60 feet along R.P. 1428, L.C.Aw. 7648, Ap. 2 to Kapule;
10. 184° 50' 113.44 feet along R.P. 1428, L.C.Aw. 7648, Ap. 2 to Kapule and R.P. 2934, L.C.Aw. 8177, Ap. 2 to Hoopio to the point of beginning and containing an AREA OF 1.425 ACRES.

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

By Lawrence T. Murakami
Lawrence T. Murakami
Land Surveyor gm

Compiled from survey and
data provided by ESH, Inc.,
File Plan 2052 and Govt.
Survey Records.



REDUCED
NOT TO SCALE

EXHIBIT "G"

WAIHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION
LOTS A, B, C AND D

MAHOLE, KOOLOAPOKA, OAHU, HAWAII
1246' 1" x 24" = 110' 0"

JOB NO. 0-0-0-0-0-0
S. M. 1944 CP 4-E-000-0

SURVEY DIVISION
COUNTY OF HAWAII
STATE OF HAWAII

PLAT MAP 0-0-0-0-0-0
CITY OF HONOLULU

DEPARTMENT OF PUBLIC WORKS AND GENERAL SERVICES

124



STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES

HONOLULU

21.859

March 4, 1993

**WAIAHOLE VALLEY AGRICULTURAL
PARK AND RESIDENTIAL LOTS SUBDIVISION
LOT 123**

Waiahole, Koolaha, Oahu, Hawaii

Being a portion of the Government Land of Waiahole.

Being also all of Lot 123 of Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052 filed in the Office of the Bureau of Conveyances of the State of Hawaii and containing an AREA OF 3.500 ACRES.

**SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII**

By *Lawrence T. Murakami*
Lawrence T. Murakami
Land Surveyor gm

**Compiled from File Plan 2052
and Govt. Survey Records.
TMK: 4-8-07:10**

EXHIBIT "H"



STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES

HONOLULU

C.S.P. 71,946

May 25, 1993

PORTION OF THE GOVERNMENT LAND
OF WAIAHOLE

Waiahole, Koolapoko, Oahu, Hawaii

Being portions of Lots 1 and 2 of Waiahole Homesteads.

Beginning at the north corner of this parcel of land, at the northwest corner of Lot 123 of Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052 and on the south side of Waiahole Homestead Road, the coordinates of said point of beginning referred to Government Survey Triangulation Station "PUU KAUIA" being 1698.69 feet North and 1747.89 feet West, thence running by azimuths measured clockwise from True South:-

1. 351° 10' 200.00 feet along Lot 123 of Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052;
2. 261° 10' 695.00 feet along Lot 123 of Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052;
3. 285° 00' 718.96 feet along Lots 124 and 125 of Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052;
4. 294° 46' 611.64 feet along Lots 125 and 126 of Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052;
5. 18° 05' 662.50 feet along Lots 128 and 133 of Waiahole Valley Agricultural Park and Residential Lots Subdivision, File Plan 2052 to a 2-inch pipe;
6. 99° 30' 798.00 feet along Waiahole Forest Reserve, Governor's Proclamation dated December 23, 1932 to a 2-inch pipe;

- | | | |
|----|-------------|--|
| 7. | 111° 28' | 643.00 feet along Waiahole Forest Reserve,
Governor's Proclamation dated
December 23, 1932 as a 3/4-inch pipe; |
| 8. | 63° 31' 30" | 797.50 feet along Waiahole Forest Reserve,
Governor's Proclamation dated
December 23, 1932 as a 2-inch pipe; |
| 9. | 36° 48' 30" | 349.15 feet along Waiahole Forest Reserve,
Governor's Proclamation dated
December 23, 1932; |

Thence along the top of ridge along Lot 3 of Waiahole Homesteads for the next twenty-three (23) courses, the direct azimuth and distances between points on said top of ridge being:

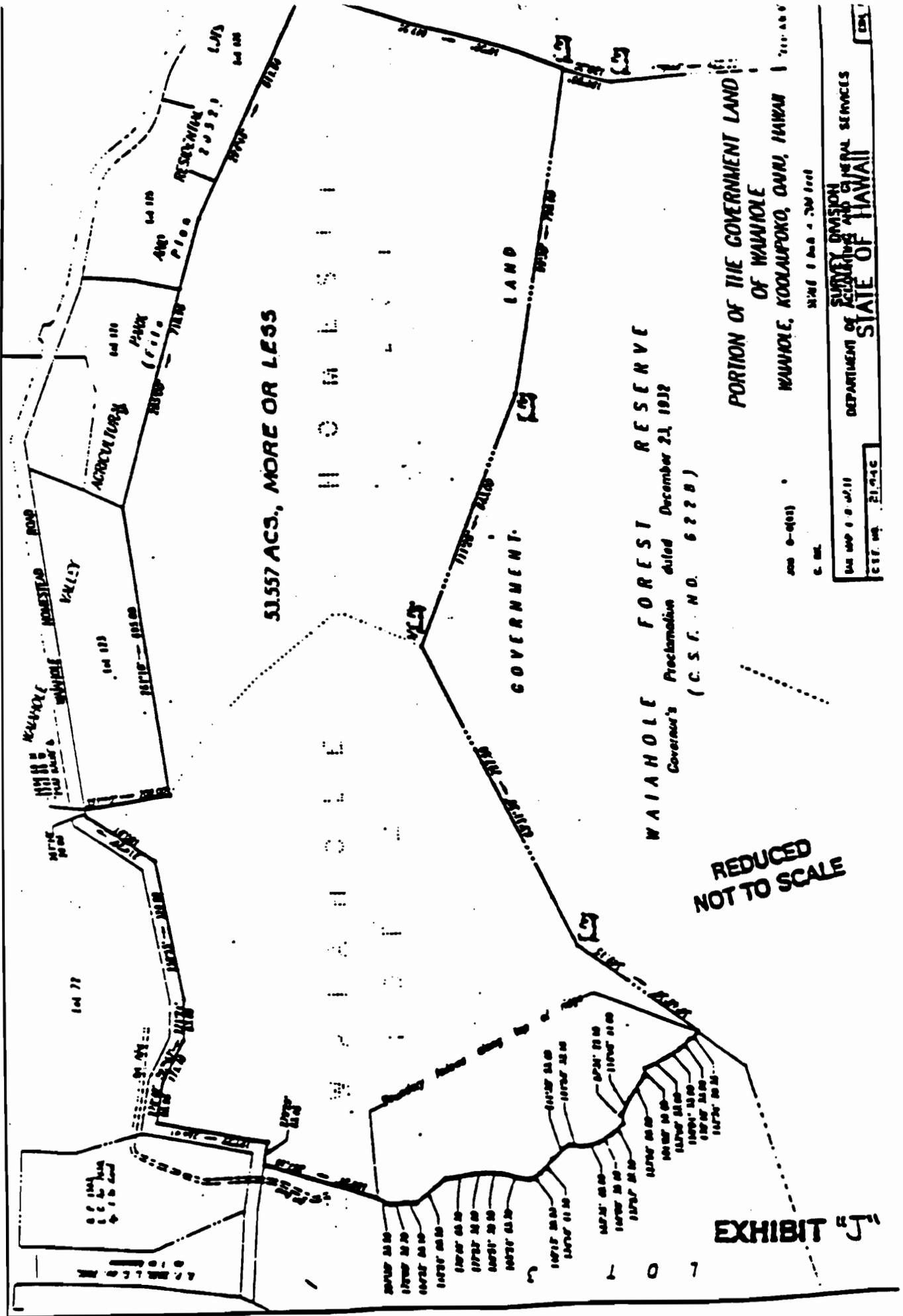
- | | | |
|-----|----------|-------------|
| 10. | 142° 34' | 29.35 feet; |
| 11. | 138° 48' | 33.90 feet; |
| 12. | 150° 01' | 33.90 feet; |
| 13. | 153° 40' | 57.90 feet; |
| 14. | 101° 08' | 19.40 feet; |
| 15. | 123° 58' | 60.60 feet; |
| 16. | 116° 06' | 41.00 feet; |
| 17. | 87° 31' | 22.10 feet; |
| 18. | 137° 57' | 37.50 feet; |
| 19. | 149° 00' | 35.40 feet; |
| 20. | 165° 36' | 40.80 feet; |
| 21. | 191° 58' | 32.10 feet; |
| 22. | 141° 30' | 53.40 feet; |
| 23. | 134° 19' | 41.50 feet; |
| 24. | 149° 13' | 30.90 feet; |
| 25. | 195° 24' | 63.30 feet; |
| 26. | 186° 51' | 39.50 feet; |
| 27. | 177° 23' | 32.80 feet; |

28.	170°	49'	65.30 feet;
29.	142°	24'	90.50 feet;
30.	184°	22'	28.10 feet;
31.	172°	00'	32.70 feet;
32.	207°	30'	33.50 feet;
33.	198°	26'	267.10 feet along Lot 3 of Waiahole Homesteads;
34.	279°	29'	43.46 feet along the south side of Waiahole Homestead Road;
35.	191°	29'	264.41 feet along the west side of Waiahole Homestead Road;
36.	278°	40'	95.95 feet along the south side of Waiahole Homestead Road;
37.	297°	43'	111.48 feet along the south side of Waiahole Homestead Road;
38.	271°	24'	93.09 feet along the south side of Waiahole Homestead Road;
39.	258°	55'	328.08 feet along the south side of Waiahole Homestead Road;
40.	214°	20'	190.91 feet along the southeast side of Waiahole Homestead Road;
41.	261°	10'	20.00 feet along the south side of Waiahole Homestead Road to the point of beginning and containing an AREA OF 53.557 ACRES, MORE OR LESS.

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

By: Lawrence T. Murakami
Lawrence T. Murakami
Land Surveyor gm

Compiled from survey and data provided by ESH, Inc., File Plan 2052, CSFs 6228 and 6212 and Govt. Survey Records.



51,557 ACS., MORE OR LESS

H O W A I E A L E

WAIHAOLE FOREST RESERVE

GOVERNOR'S PROCLAMATION DATED DECEMBER 21, 1932
(C.S.F. N.O. 6228)

REDUCED NOT TO SCALE

EXHIBIT J

PORTION OF THE GOVERNMENT LAND OF WAIHAOLE

WAIHAOLE, KOOLAUPOKO, OAHU, HAWAII

SURVEY DIVISION
DEPARTMENT OF LAND AND NATURAL SERVICES
STATE OF HAWAII
OFFICE NO. 21,946

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- 1080 20.00
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- 1199 20.00
- 1200 20.00



STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES

February 10, 1994

C.S.P. No. 22.065

MEMORANDUM

PORTION OF THE GOVERNMENT LAND OF WAIAHOLE

Waiahole, Koolaupeka, Oahu, Hawaii

Being portions of Lots 3 and 4 of Waiahole Homesteads.

Beginning at the northeast corner of this parcel of land and on the south side of Waiahole Homestead Road, the coordinates of said point of beginning referred to Government Survey Triangulation Station "PUU KAUAI" being 1291.53 feet North and 2579.40 feet West, thence running by azimuths measured clockwise from True South:-

- 1. 18° 26' 267.10 feet along the remainder of the Government Land of Waiahole to the top of ridge;

Thence along the top of ridge, along the remainder of the Government Land of Waiahole for the next twenty three (23) courses, the direct azimuths and distances between points on said top of ridge being:

Table with 2 columns: Course number and Azimuth, and 2 columns: Course number and Distance in feet.

12.	321° 30'	53.40 feet;
13.	11° 58'	32.10 feet;
14.	345° 36'	40.80 feet;
15.	329° 00'	35.40 feet;
16.	317° 57'	37.90 feet;
17.	267° 31'	22.10 feet;
18.	296° 06'	41.00 feet;
19.	303° 58'	60.60 feet;
20.	281° 08'	19.40 feet;
21.	333° 40'	57.90 feet;
22.	330° 01'	33.90 feet;
23.	318° 48'	33.90 feet;
24.	322° 34'	29.35 feet;
25.	36° 48' 30"	138.25 feet along Waiahole Forest Reserve, Governor's Proclamation dated December 23, 1932;
26.	73° 55'	928.60 feet along Waiahole Forest Reserve, Governor's Proclamation dated December 23, 1932;
27.	118° 20' 30"	524.50 feet along Waiahole Forest Reserve, Governor's Proclamation dated December 23, 1932;
28.	199° 21'	214.00 feet along Grant 7886 to L. L. McCandless;
29.	154° 55'	717.10 feet along Grant 7886 to L. L. McCandless;
30.	244° 40'	252.10 feet along R.P. 2133, L.C.Aw. 10,231, Ap. 1 to Mahina;
31.	241° 00'	423.30 feet along Grant 10,648 to L. L. McCandless;
32.	266° 44'	379.50 feet along R.P. 7592, L.C.Aw. 8830 to Makakohau;
33.	279° 26'	103.40 feet along R.P. 2933, L.C.Aw. 10,230, Ap. 1 to Maikaloa;

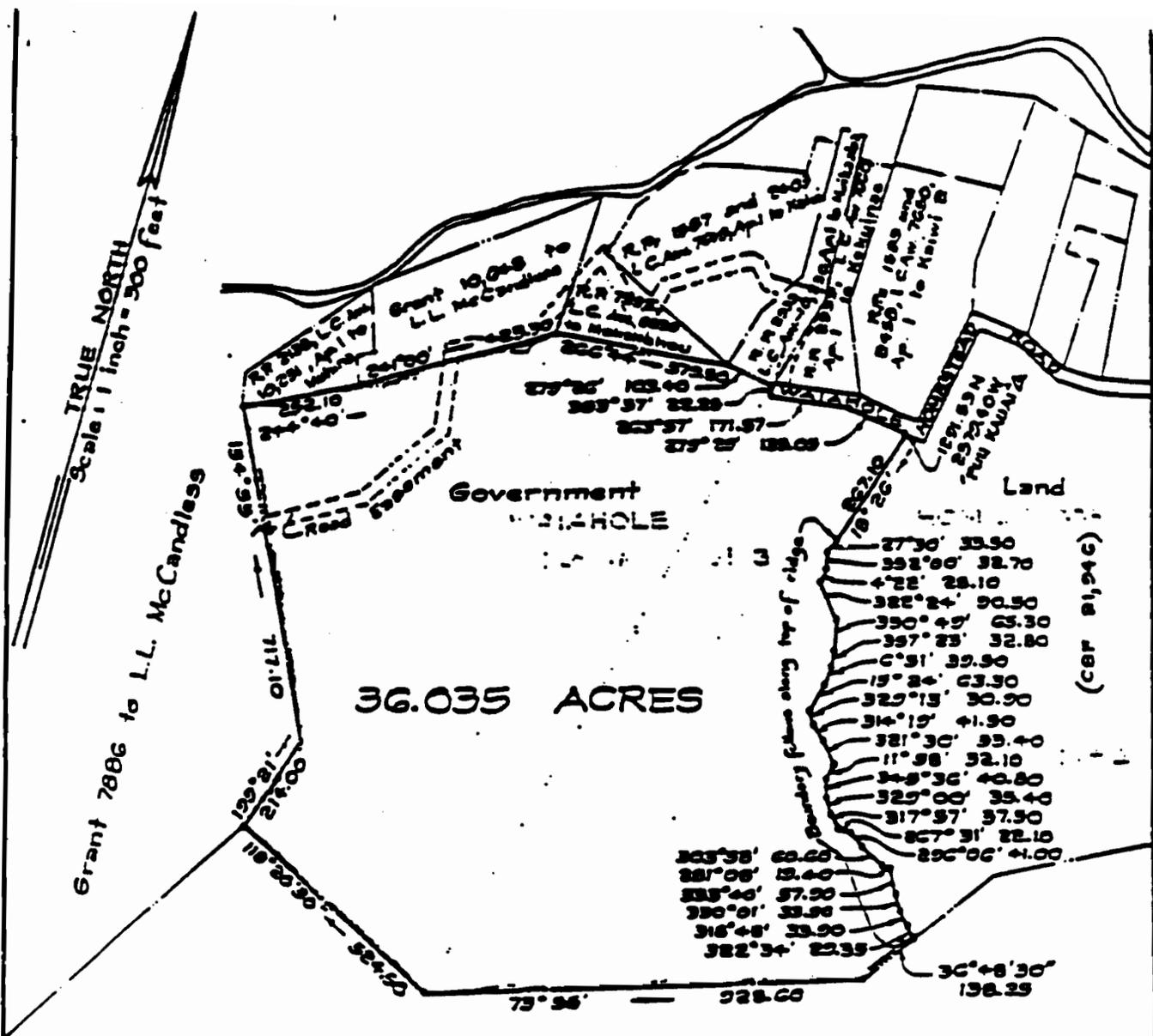
34. 153° 57' 22.28 feet along the west end of Waiahole Homestead Road;
35. 263° 57' 171.57 feet along the south side of Waiahole Homestead Road;
36. 279° 29' 135.05 feet along the south side of Waiahole Homestead Road to the point of beginning and containing an AREA OF 36.035 ACRES, MORE OR LESS.

Reserving, however, to the State of Hawaii its successors and assigns a Road Easement over and across the above-described Portion of the Government Land of Waiahole as shown on plan attached hereto and made a part hereof.

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

By: Joseph M. Mazzoni
Joseph M. Mazzoni
Land Surveyor gm

Compiled from CSF 21,946,
R. M. 4081 and other Govt.
Survey Records.



WAIKOLE FOREST RESERVE
 Governor's Proclamation dated December 23, 1932
 (CSF 6228)

**PORTION OF THE GOVERNMENT LAND
 OF WAIKOLE**

Waiahole, Koolaupeke, Oahu, Hawaii

Scale : 1 inch = 300 feet

22,065 (99)
 C. W.

TAX MAP -- 6-07:03

SURVEY DIVISION
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
 STATE OF HAWAII

EXHIBIT "L"

CSF. No. 22,065

JFA Feb. 10, 1934

RECORDED AS FOLLOWS
STATE OF HAWAII

BUREAU OF CONVEYANCES

DATE DEC 13 1994 TIME 10:30 AM

DOCUMENT NO. 94-203797

LAND COURT SYSTEM

REGULAR SYSTEM

Return by Mail () Pickup (X) To:

DEPT. OF LAND AND NATURAL RESOURCES
LAND MANAGEMENT DIVISION

DEED

KNOW ALL MEN BY THESE PRESENTS:

THAT, effective as of the 31st day of December,
19 93, the STATE OF HAWAII, hereinafter referred to as the
"Grantor," by its Board of Land and Natural Resources, acting
pursuant to Act 330, Session Laws of Hawaii 1993 and Section
171-95, Hawaii Revised Statutes, for good and valuable
consideration, paid to and at the Department of Land and
Natural Resources by the HOUSING FINANCE AND DEVELOPMENT
CORPORATION, a public body and a body corporate and politic,
whose address is 677 Queen Street, Suite 300, Honolulu, Hawaii
96813, hereinafter referred to as the "Grantee," the receipt
whereof is hereby acknowledged, does hereby grant, bargain,
sell and convey unto the Grantee, its successors and assigns,
that certain parcel of land situate at Waiahole, Koolaupeko,
Oahu, Hawaii, described as "Waiahole Valley Agricultural Park
and Residential Lots Subdivision Lot A, Part 1," being a
portion of Royal Patent 4842, Land Commission Award 7558, Apana
2 to Kaakau conveyed to the Territory of Hawaii by L. L.
McCandless by deed dated August 19, 1938 and recorded in Liber
1455, Pages 246-284 (Land Office Deed 9990), being also a
portion of Lot A of Waiahole Agricultural Park and Residential
Lots Subdivision, containing an area of 0.026 acre, more
particularly described in Exhibit "A" and delineated on Exhibit
"B," both of which are attached hereto and made parts hereof,

DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF LAND MANAGEMENT

EXHIBIT "I-D"

said exhibits being respectively, a survey description and survey map designated C.S.F. No. 22,180 and dated September 22, 1994, prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii.

RESERVING TO THE STATE OF HAWAII, ITS SUCCESSORS AND ASSIGNS, THE FOLLOWING:

1. All minerals as hereinafter defined, in, on or under the land and the right, on its own behalf or through persons authorized by it, to prospect for, mine, and remove these minerals and to occupy and use so much of the surface of the ground as may be required for all purposes reasonably extending to the mining and removal of these minerals by any means whatsoever, including strip mining. "Minerals," as used herein, shall mean any or all oil, gas, coal, phosphate, sodium, sulphur, iron, titanium, gold, silver, bauxite, bauxitic clay, diaspore, boehmite, laterite, gibbsite, alumina, all ores of aluminum and, without limitation thereon, all other mineral substances and ore deposits, whether solid, gaseous, or liquid, including all geothermal resources, in, on, or under the land, fast or submerged; provided, that "minerals" shall not include sand, gravel, rock, or other material suitable for use and used in general construction in furtherance of the Grantee's permitted activities on the land and not for sale to others.

2. All surface and ground waters appurtenant to the land and the right on its own behalf or through persons authorized by it, to capture, divert, or impound the same and to occupy and use so much of the land as may be required in the exercise of this right reserved.

3. All prehistoric and historic remains found in, on, or under the land.

Provided, however, that as a condition precedent to the exercise of the rights reserved in Paragraphs 1 and 2, just compensation shall be paid to the Grantee for any of Grantee's improvements taken.

AND the Grantee, for itself, its successors and assigns, covenants with the Grantor and its successors as follows:

1. The use and enjoyment of the land conveyed shall not be in support of any policy which discriminates against anyone based upon race, creed, sex, color, national origin, religion, marital status, familial status, ancestry, physical handicap, disability, age or HIV (human immunodeficiency virus) infection.

2. The use of the land shall be in combination, consolidation, or otherwise with other abutting lands owned by the Grantee and shall be used in accordance with the appropriate zoning and subdivision ordinances of the City and County of Honolulu.

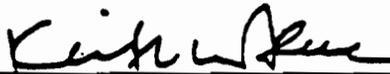
3. Pursuant to Act 330, Session Laws of Hawaii 1993, the purpose of this conveyance to the Grantee is for consolidation into the Waiahole Agricultural Park.

TO HAVE AND TO HOLD the same together with all of the rights, easements, privileges and appurtenances thereunto belonging or in anywise appertaining or held and enjoyed therewith in fee simple unto said HOUSING FINANCE AND DEVELOPMENT CORPORATION, its successors and assigns, forever, except as aforesaid.

IN WITNESS WHEREOF, the STATE OF HAWAII, the Grantor herein, has caused the seal of the Department of Land and Natural Resources to be hereunto affixed and these presents to be duly executed this 9th day of December, 1994, and HOUSING FINANCE AND DEVELOPMENT CORPORATION, the Grantee herein, has caused these presents to be executed this 1st day of December, 1994, both effective as of the day, month, and year first above written.

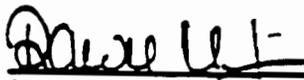
STATE OF HAWAII

Approved by the Board of Land and Natural Resources at its meeting held on August 27, 1993.

By 
Chairperson and Member
Board of Land and
Natural Resources
54
GRANTOR

HOUSING FINANCE AND DEVELOPMENT CORPORATION

APPROVED AS TO FORM:


Deputy Attorney General

By 
EXECUTIVE DIRECTOR
GRANTEE

Dated: 11/7/94

13315

ACKNOWLEDGEMENT

STATE OF HAWAII)
) SS.
CITY AND COUNTY OF HONOLULU)

On this 1st day of December, 1994, before me appeared Joseph K. Conant, personally known to me, who, being by me duly sworn, did say that he is the Executive Director of HOUSING FINANCE AND DEVELOPMENT CORPORATION, a public body and a body corporate and politic of the State of Hawaii, and that the seal affixed to the foregoing instrument is the corporate seal of said HOUSING FINANCE AND DEVELOPMENT CORPORATION, and that the instrument was signed and sealed on behalf of said HOUSING FINANCE AND DEVELOPMENT CORPORATION by authority of its Directors, and the said Joseph K. Conant acknowledged said instrument to be the free act and deed of said HOUSING FINANCE AND DEVELOPMENT CORPORATION.

LS

Elaine Melnik

Notary Public, State of Hawaii

My commission expires: 9-29-97



STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES
HONOLULU

September 22, 1994

22,180

WAIAHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION

LOT A, PART 1

Waiahole, Koolau, Oahu, Hawaii

Being a portion of Royal Patent 4842, Land Commission Award
A 7558, Apna 2 to Kakaia conveyed to the Territory of Hawaii by
L. L. McCandless by deed dated August 19, 1938 and recorded in
Liber 1455, Pages 246-284 (Land Office Deed 5990).

Being also a portion of Lot A of Waiahole Agricultural Park and
Residential Lots Subdivision.

Beginning at the northwest corner of this parcel of land and on the
south side of Waiahole Homestead Road, the coordinates of said point of beginning
referred to Government Survey Triangulation Station "TUU KAUAI" being 1763.72
feet North and 665.47 feet West, thence running by azimuths measured clockwise
from True South:-

- 1. 289° 50' 96.16 feet along the south side of Waiahole
Homestead Road;
- 2. 95° 00' 92.09 feet along Lot A, Part 2 of Waiahole
Agricultural Park and Residential Lots
Subdivision;
- 3. 183° 00' 24.63 feet along R.P. 4985, L.C. Aw. 7576, Ap. 1 to
Kakaloa to the point of beginning and
containing an AREA OF 0.026 ACRE.

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

By: *Joseph M. Matsumoto*
Joseph M. Matsumoto
Land Surveyor

Compiled from F.P. 2052,
CSP's 8429, 21916 and other
Govt. Survey Records.

5TH
EXHIBIT "A"

WAIAHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION

File Plan 2082

Lot 122

R.P. 4985.
to

Scale: 1 inch = 20 feet
TRUE NORTH

WAIAHOLE

HOMESTEAD

ROAD

1783.72 N.
682.67 W.
"PUU KAUA" Δ

289°50' — 96.12

R.P. 4862, L.C. AW. 7556, AP. 2
to KAKAU

92.09

95°00'

0.026 ACRE

Deed: L.L. McCandless to the Territory
of Hawaii dated August 15, 1879 and
recorded in Liber 1433, Pages 246-284
(L.C.D. 5790) (C.S.F. 8429)

18300' - 2463
L.C. AW. 7576, AP. 1
KAIKAI

LOT A, PART 2
(C.S.F. 22181)

Government

Land

WAIAHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION

LOT A, PART 1

Waiahole, Koolaupeko, Oahu, Hawaii

Scale: 1 inch = 20 feet

DB 0-264(94)

C. M.

TRM 100 6-9-07

SURVEY DIVISION
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII

EXHIBIT "B"

C.S.F. NO. 22180

Jan 1 Sept 22, 1994

Exhibit 2

**WAIHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION**

SUMMARY OF LOTS

Lot No.	Gross Area	File Plan		Land Court			Type of Lot		
		Lot No.	Area	Lot No.	Area	L.C. App.			
1	45.275 Ac	1	7.773 Ac				Agricultural		
				9	22.736 Ac	72			
				13	14.766 Ac	70			
2	1.000 Ac			8	29,841 sf	72	Residential		
				9	13,720 sf	70			
3	1.000 Ac			10	1.000 Ac	70	Residential		
4	4.806 Ac			11	4.806 Ac	70	Agricultural		
5	1.000 Ac			12	1.000 Ac	70	Residential		
6	4.032 Ac	2	1.924 Ac				Agricultural		
				20	2.108 Ac	69			
7	1.000 Ac	3	12,611 sf				Residential		
				10	30,951 sf	69			
8	1.000 Ac			11	1.000 Ac	69	Residential		
9	1.000 Ac			12	1.000 Ac	69	Residential		
10	2.953 Ac			12	2.953 Ac	69	Agricultural		
11	4.564 Ac	102	4.564 Ac				Agricultural		
12	18,424 sf	103	18,424 sf				Residential		
13	32,585 sf	101	32,548 sf				Residential		
				15	37 sf	69			
14	15,034 sf	99	15,034 sf				Residential		
15	7.864 sf	97	7,162 sf				Residential		
				16	702 sf	69			
16	9.963 sf	96	636 sf				Residential		
				98	357 sf				
						100		321 sf	
		14	8,649 sf	69					
17	1.438 Ac	95	159 sf				Residential		
				17	1.434 Ac	69			
18	22,283 sf			18	22,283 sf	69	Residential		
19	23,434 sf			19	23,434 sf	69	Residential		
20	33.689 sf	4	3.288 sf				Residential		
				140	68 sf				
				22	30,333 sf	69			

Lot No.	Gross Area	File Plan		Land Court			Type of Lot
		Lot No.	Area	Lot No.	Area	L.C. App.	
21	12,513 sf	141	9,311				Residential
				23	277 sf	69	
				24	3,026 sf	69	
22	18,775 sf	5	3,592 sf				Residential
		142	344 sf				
				26	14,839 sf	69	
23	7,501 sf	6	6,876 sf				Residential
				25	625 sf	69	
24	7,500	7	7,500 sf				Residential
25	1.003 Ac	8	43,646 sf				Residential
				21	41 sf	69	
26	7,573 sf	9	7,573 sf				Residential
27	7,500 sf	10	7,500 sf				Residential
28	7,500 sf	11	7,500 sf				Residential
29	7,500 sf	12	7,500 sf				Residential
30	7,500 sf	13	7,500 sf				Residential
31	31,094 sf	14	31,094 sf				Residential
32	3.407 Ac	15	2.85 Ac				Agricultural
				14	0.557 Ac	69	
33	12.796 Ac	16	11.274 Ac				Agricultural
				10	19,681 sf	72	
				15	12,085 Ac	70	
34	22,629 sf	17	22,629 sf				Residential
35	9,471 sf	18	9,471 sf				Residential
36	9,037 sf	19	9,037 sf				Residential
37	12,697 sf	20	12,697 sf				Residential
38	7,800 sf	21	7,800 sf				Residential
39	8,575 sf	22	8,575 sf				Residential
40	15.650 Ac	23	6.603 Ac				Agricultural
				11	9.047 Ac	72	
41	47.504 Ac	24	32,413 sf				Agricultural
		29	3,990 sf				
		30	9,600 sf				
				12	46.448 Ac	72	
42	1.000 Ac	25	9,554 sf				Residential
				13	34,006 sf	72	
43	5.916 Ac	26	39 sf				Agricultural
		27	2,622 sf				
				15	5.855 Ac	72	

Lot No.	Gross Area	File Plan		Land Court			Type of Lot
		Lot No.	Area	Lot No.	Area	L.C. App.	
44	1.000 Ac	145	6,726 sf				Residential
				18	38,833 sf	72	
45	1.010 Ac	146	13,382 sf				Residential
				19	30,635 sf	72	
46	1.162 Ac	28	1,445 sf				Residential
				20	49,160 sf	72	
47	1.000 Ac	31	17,914 sf				Residential
				22	25,647 sf	72	
48	3.780 Ac	32	3,780 Ac				Existing
49	4.193 Ac	33	4.193 Ac				Existing
50	5.544 Ac	34	5.544 Ac				Reservoir
51	0.840 Ac	35	0.840 Ac				Road
52	80.296 Ac	36	80.296 Ac				Open Space
53	5.558 Ac	37	5.558 Ac				Agricultural
54	6.476 Ac	38	6.476 Ac				Agricultural
55	2.000 Ac	39	2.000 Ac				Agricultural
56	14.978 Ac	40	14.977 Ac				Agricultural
57	12.962 Ac	41	12.962 Ac				Agricultural
58	2.383 Ac	42	2.380 Ac				Agricultural
				17	137 sf	72	
59	2.384 sf	43	2,384 sf				Pump Station
60	9.870 Ac	44	9.870 Ac				Agricultural
61	6.211 Ac	45	6.211 Ac				Agricultural
62	20.633 sf	46	20.633 sf				Residential
63	12.619 sf	47	12,619 sf				Residential
64	16.651 sf	48	16,651 sf				Residential
65	26.879 sf	49	26,879 sf				Residential
66	8,010 sf	50	8,010 sf				Residential
67	7,937 sf	51	7,937 sf				Residential
68	11,514 sf	52	11,514 sf				Residential
69	10,513 sf	53	10,513 sf				Residential
70	22,157 sf	54	22,157 sf				Residential
71	9,263 sf	55	9,263 sf				Residential
72	11,788 sf	56	11,788 sf				Residential
73	12,158 sf	57	12,158 sf				Residential
74	1.562 Ac	58	1.562 Ac				Agricultural
75	5.731 Ac	59	5.731 Ac				Agricultural
76	14.214 Ac	61	14.214 Ac				Agricultural
77	3.561 Ac	62	3.561 Ac				Reservoir

Lot No.	Gross Area	File Plan		Land Court			Type of Lot
		Lot No.	Area	Lot No.	Area	L.C. App.	
78	28.311 Ac	63	28.311 Ac				Agricultural
79	51.546 Ac	64	51.546 Ac				Open Space
80	3.800 Ac	65	3.800 Ac				Agricultural
81	8.928 Ac	66	8.928 Ac				Agricultural
82	5.867 Ac	67	5.867 Ac				Agricultural
83	5.850 Ac	69	5.850 Ac				Open Space
84	3.977 Ac	70	3.977 Ac				Agricultural
85	3.779 Ac	71	3.779 Ac				Agricultural
86	10.465 Ac	73	10.465 Ac				Agricultural
87	19,603 sf	74	19,603 sf				Residential
88	9,314 sf	75	9,314 sf				Residential
89	9,610 sf	76	9,610 sf				Residential
90	24,013 sf	77	24,013 sf				Residential
91	12,447 sf	78	12,447 sf				Residential
92	29,838 sf	79	29,838 sf				Residential
93	8,450 sf	80	8,450 sf				Residential
94	9,100 sf	81	9,100 sf				Residential
95	9,100 sf	82	9,100 sf				Residential
96	8,450 sf	83	8,450 sf				Residential
97	11,050 sf	84	11,050 sf				Residential
98	5.123 Ac	85	4.892 Ac				Agricultural
				29	10,071 sf	69	
99	11,700 sf	86	11,700 sf				Residential
100	7,775 sf	87	7,775 sf				Residential
101	7,724 sf	88	7,724 sf				Residential
102	8,137 sf	89	6,652 sf				Residential
				27	1,485 sf	69	
103	10,033 sf	90	6 sf				Residential
				28	10,027 sf	69	
104	43.077 sf	144	7,367 sf				Residential
		91	14,749 sf				
				31	20,961 sf	69	
105	13,274 sf	92	12,914 sf				Residential
				32	360 sf	69	
106	10,974 sf	93	10,974 sf				Residential
107	12,959 sf	94	12,959 sf				Residential
108	2.860 Ac	106	2.860 Ac				Stream
109	18.686 sf	104	18,686 sf				Commercial

Lot No.	Gross Area	File Plan		Land Court			Type of Lot
		Lot No.	Area	Lot No.	Area	L.C. App.	
110	12,280 sf	105	12,280 sf				Commercial
111	12.483 Ac	107	12.483 Ac				Agricultural
112	1.000 Ac	108	1.000 Ac				Residential
113	1.000 Ac	109	1.000 Ac				Residential
114	1.000 Ac	110	1.000 Ac				Residential
115	3.153 Ac	111	3.153 Ac				Agricultural
116	1.000 Ac	112	1.000 Ac				Residential
117	2.390 Ac	113	2.390 Ac				Agricultural
118	1.000 Ac	114	1.000 Ac				Residential
119	1.000 Ac	115	1.000 Ac				Residential
120	2.773 Ac	116	2.773 Ac				Agricultural
121	2.749 Ac	117	2.749 Ac				Agricultural
122	1.000 Ac	118	1.000 Ac				Residential
123	1.000 Ac	119	1.000 Ac				Residential
124	3.367 Ac	120	3.367 Ac				Agricultural
125	3.097 Ac	121	3.027 Ac				Agricultural
				30	3,070 sf	69	
126	2.636 Ac	122	2.636 Ac				Agricultural
127	16.110 Ac	72	16.110 Ac				Agricultural
128	3.500 Ac	123	3.500 Ac				Agricultural
129	2.001 Ac	124	2.001 Ac				Agricultural
130	2.002 Ac	125	2.002 Ac				Agricultural
131	2.004 Ac	126	2.004 Ac				Agricultural
132	1.000 Ac	127	1.000 Ac				Residential
133	3.927 Ac	128	3.927 Ac				Agricultural
134	2.543 Ac	129	2.543 Ac				Agricultural
135	6.421 Ac	130	6.421 Ac				Agricultural
136	1.000 Ac	131	1.000 Ac				Residential
137	27.722 Ac	133	27.722 Ac				Open Space
138	2.961 Ac	132	2.961 Ac				Agricultural
139	1.831 Ac	134	1.831 Ac				Road

Lot No.	Gross Area	File Plan		Land Court			Type of Lot		
		Lot No.	Area	Lot No.	Area	L.C. App.			
140	8.749 Ac	135	1.112 Ac				Road		
		136	77 sf						
		137	4.138 Ac						
		139	2.329 Ac						
		143	5,312 sf						
						33		717 sf	69
						34		190 sf	69
						35		17,548 sf	69
						37		7,433 sf	69
						36		4 sf	69
						14		77 sf	72
				16	14,658 sf	72			
				21	5,850 sf	72			
141	5.002 Ac	138	5.002 Ac				Road		
142	13,449 sf	60	13,449 sf				Stream Channel		
143	6,970 sf	68	6,970 sf				Stream Channel		

RESOLUTION NO. 1783

Whereas, on November 30, 1977, the Hawaii Housing Authority, hereinafter referred to as HHA, purchased approximately 600 acres of land from Elizabeth Loy Marks, hereinafter referred to as Marks, in Waiahole Valley, Oahu, hereinafter referred to as the Valley; and

Whereas, at the time of acquisition, approximately 80 families were either legally residing in the Valley, had rental agreements, or were successors in interest to rental agreements by means of a transfer or rental agreement between parties or other traceable method; and

Whereas, the HHA's primary concept regarding the future of the Valley deals with the efficient use and expansion of agricultural lands within the Valley, which will, in turn, contribute to the availability for improved economic returns and diversification.

Now, therefore, in consideration of the above, be it resolved that the Commission of the HHA hereby declares its intent to adopt by rule the first priority qualifications for long term agricultural and residential lot leases and for rental agreements as follows:

1. All persons and their successors in interest having a valid rental agreement or lease in Waiahole Valley (mauka) on or before March 1, 1977 who have shown financial capabilities by paying all accrued rents as of the effective date of the new leases.
2. All persons must be at least 18 years of age.
3. All persons must be citizens or legal resident aliens of the United States and bona fide residents of the State of Hawaii.

EXHIBIT "3"

EXHIBIT "4"

INITIAL PRIORITIES FOR LOT LEASES

1. Initial Priorities for Agricultural Leases.

A. Priorities for Agricultural Leases for Agricultural Lots That Are Not Within the Homestead Road Land.

(1) First Priority. For the one year period following the earlier of (i) the date of recordation of the foregoing Declaration and the first lease for an Agricultural Lot that is not within the Homestead Road Land has been issued or (ii) Agricultural Lot Leases for all of the Agricultural Lots that are not within the Homestead Road Land have initially been issued, those persons who meet the eligibility requirements under Resolution No. 1783, which is attached to the foregoing Declaration as Exhibit "3" shall have the first priority for an Agricultural Lot Lease to an Agricultural Lot that is not within the Homestead Road Land and which, subject to the boundary lines that have been established by subdivision, such persons have been occupying as of March 1, 1977.

(2) Second Priority. For the one year period following the expiration of the one year period of time described above in Section 1.A.(1), persons (or their respective survivors if any such persons shall be deceased) who:

(a) were tenants of record as of March 1, 1977 of Elizabeth Loy Marks (also known as Elizabeth Loy McCandless) or Windward Partners in Waikane Mauka, Waikane Makai and Waiahole Makai; and

(b) were threatened with eviction in the 1970's by Elizabeth Loy Marks (also known as Elizabeth Loy McCandless) or Windward Partners

shall have the next priority, subject to availability, for an Agricultural Lot Lease to any remaining Agricultural Lot that is not within the Homestead Road Land.

B. First Priority for Agricultural Leases for Agricultural Lots Within the Homestead Road Land. For the one year period following subdivision of the Homestead Road Land by Declarant and the issuance of the first Agricultural Lot Lease to an Agricultural Lot within the Homestead Road Land, those persons who meet the eligibility requirements under Act 330, shall have the first priority for an Agricultural Lot Lease to an Agricultural Lot that is within the Homestead Road Land.

If a person who is eligible for an Agricultural Lot Lease is already using an area of land within the Homestead Road Land for diversified agriculture and if as a result of subdivision of the Homestead Road Land by Declarant an Agricultural Lot is created which includes such area of land, more or less, such person will be offered an Agricultural Lot Lease for such Agricultural Lot subject to availability.

2. Initial Priorities for a Residential Lot.

A. Priorities for Residential Leases for Residential Lots That Are Not Within the Homestead Road Land.

(1) First Priority. For the one year period following the earlier of (i) the date of recordation of the foregoing Declaration and the first Residential Lot Lease for a Residential Lot that is not within the Homestead Road Land has been issued or (ii) Residential Lot Leases for all of the Residential Lots that are not within the Homestead Road Land have initially been issued, the persons who are initially eligible to apply for a Residential Lot Lease for a Residential Lot that is not within the Homestead Road Land shall be persons who:

- (a) are not in arrears in the payment of taxes, rents, or other obligations owing the United States of America, State of Hawaii or any of its political subdivisions; and
- (b) meet the eligibility requirements of Declarant's Resolution No. 1783, which is attached to the foregoing Declaration as Exhibit "3" and incorporated by reference.

(2) Second Priority. For the one year period following the expiration of the one year period of time described above in Section 2.A.(1), persons who:

- (a) were tenants of record as of March 1, 1977 of Elizabeth Loy Marks (also known as Elizabeth Loy McCandless) or Windward Partners in Waikane Mauka, Waikane Makai and Waiahole Makai; and
- (b) were threatened with eviction in the 1970's by Elizabeth Loy Marks (also known as Elizabeth Loy McCandless) or Windward Partners

shall have the next priority subject to availability for a Residential Lot Lease to the remaining Residential Lots not within the Homestead Road Land, if any.

- B. First Priority for Residential Leases for Residential Lots Within the Homestead Road Land if the Homestead Road Land Shall Include any Residential Lots. For the one year period following subdivision of the Homestead Road Land by Declarant and if the Homestead Road Land shall include Residential Lots, those persons who meet the eligibility requirements under Act 330, shall have the first priority for a Residential Lot Lease to a Residential Lot that is within the Homestead Road Land.

If a person who is eligible for a Residential Lot Lease within the Homestead Road Land is already living on an area of land within the Homestead Road Land and if as a result of subdivision of the Homestead Road Land by Declarant a Residential Lot is created which includes such area of land, more or less, such person will be offered a Residential Lot Lease for such Residential Lot subject to availability.

3. Limitations on the Issuance of Leases

Agricultural Lot Leases and Residential Lot Leases will be issued subject to the following additional limitations:

- A. Limited Number of Lots. If there are more eligible persons than Residential Lots or Agricultural Lots, Declarant shall issue leases for such lots pursuant to a drawing conducted by Declarant.

Declarant is not making any representation, warranty or agreement that everyone who applies for an Agricultural Lot Lease will receive one.

- B. Limit of One Lot Per Family or Household. A person who is eligible for an Agricultural Lot Lease or a Residential Lot Lease can only apply for and receive either an Agricultural Lot Lease or a Residential Lot Lease but not both.

Only one Agricultural Lot Lease or Residential Lot Lease will be issued per family or household of the person who is eligible for the lease. If more than one person is applying for a lease as the survivors or successors of a person who is eligible for a lease, only one lease will be issued and such persons will be responsible for determining who, as among them, the lease will be issued.

- C. Termination of this Exhibit "4". Sections 1.A., 1.B., 2.A. and 2.B., respectively, shall automatically terminate in their entirety immediately after the respective one year periods described therein shall have expired. Thereafter, leases for Residential Lots and Agricultural Lots shall be issued or assigned according to a plan that shall be determined by Declarant.

Exhibit D

Sample Agricultural Lot Ground Lease

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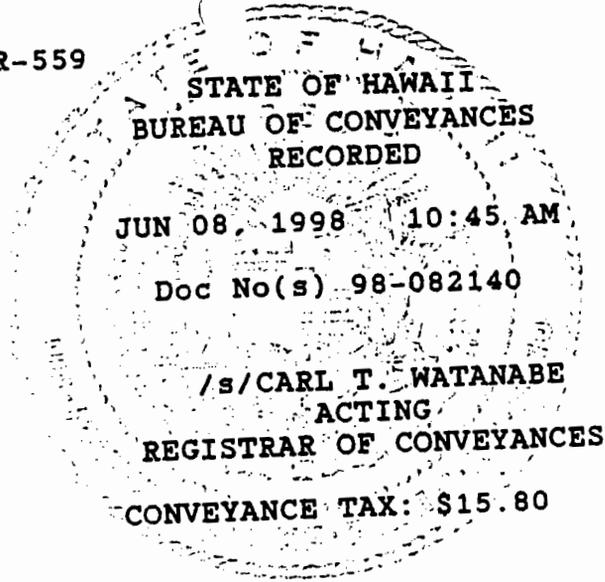
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I hereby certify that this is a true copy from the records of the Bureau of Conveyances.

W. Warren Young

Registrar of Conveyances
Assistant Registrar, Land Court
State of Hawaii



LAND COURT SYSTEM

Return by Mail () Pickup () To:

Housing Finance and Development Corporation
677 Queen Street - 3rd Floor
Honolulu, Hawaii 96813
Attention: Roy S. Oshiro, Executive Director

AGRICULTURAL LOT GROUND LEASE

PROPERTY DESCRIPTION	DOCUMENT NO.
	DOCUMENT NO. TRANSFER CERTIFICATE OF TITLE NO:
	Land Court () Regular (x) Double ()

**STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
HOUSING FINANCE AND DEVELOPMENT CORPORATION**

**WAIAHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION AND HOMESTEAD ROAD LAND**

AGRICULTURAL LOT GROUND LEASE

THIS INDENTURE made this 20th day of May 1998, by and between

HOUSING FINANCE AND DEVELOPMENT CORPORATION
a public body and a body corporate and politic of the State of Hawaii
677 Queen Street - 3rd Floor
Honolulu, Hawaii 96813

hereinafter called "Lessor", and

WITNESSETH:

That Lessor, in consideration of the rent hereinafter reserved and the covenants herein contained and on the part of Lessee to be observed and performed, does hereby demise and lease unto Lessee and Lessee does hereby accept and rent: All that certain land described in Exhibit "A" attached hereto and incorporated herein by reference and made a part of this Lease, "AS IS" and without any express or implied warranties of habitability or fitness for any particular purpose and subject to all risks incidental to its use.

SUBJECT to all easements shown on the map (if any) hereto attached or above referred to, and reserving unto Lessor within said easements rights-of-way and the right to grant to any public utility or governmental authority such rights-of-way over, across and under said easements for lines and other transmission facilities and appurtenances for electricity, gas, telephone, water, sewer, drainage and similar public services and utilities, and the right to enter for such purposes and to repair such facilities and to trim any trees in the way of such lines.

SUBJECT FURTHER to the following: 1) the Declaration of Restrictive Covenants for Waiahole Valley Agricultural Park and Residential Lots And Homestead Road Lands, dated September 15, 1995 and recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 95-124908 and/or in the Office of the Registrar of the Land Court of the State of Hawaii as Document No. 2262857 and noted on Certificate of Title Nos. 380,204, 380,205 and 195,898, incorporated by reference; 2) the First Supplemental Declaration of Restrictive Covenants of Waiahole Valley Agricultural Park and Residential Lots Subdivision and Homestead Road Lands, dated January 22, 1996, and recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 96-012417 and filed in the Office of the Assistant Registrar of the Land Court of the State of Hawaii as Document No. 2287002, incorporated by reference and made part of this Lease, collectively referred to as the "Master DCC&Rs"; and 3) the Memorandum of Declaration of Covenants, Conditions and Restrictions of Waiahole Valley Agricultural Park and Residential Lots Subdivision and Homestead Road Lands, which will be recorded with the lease, attached hereto as Exhibit "B" and incorporated by reference and made part of this Lease.

RESERVING UNTO THE LESSOR, ITS SUCCESSORS AND ASSIGNS, THE FOLLOWING:

(1) All minerals as hereinafter defined, in, on or under the demised premises and the right, on its own behalf or through persons authorized by it, to prospect for, mine and remove such minerals and to occupy and use so much of the surface of the ground as may be required for all purposes reasonably extending to the mining and removal of such minerals by any means whatsoever, including strip mining. "Minerals", as used herein, shall mean any or all oil, gas coal, phosphate, sodium, sulphur, iron, titanium, gold, silver, bauxite, bauxitic clay, diaspore, boehmite, laterite, gibbsite, alumina, all ores of aluminum and, without limitation thereon, all other mineral substances and ore deposits, whether solid, gaseous or liquid, including all geothermal resources in, on, or under the land, fast or submerged; provided, that "minerals" shall not include sand, gravel, rock or other material suitable for use and when used in general construction in furtherance of the Lessee's permitted activities on the demised premises and not for sale to others. Provided, however, that as a condition precedent to the exercise by the Lessor of the rights reserved in this paragraph just compensation shall be paid to the Lessee for any of Lessee's improvements taken during the term of this Lease; (2) All archaeological and historic sites and remains found on the demised premises shall belong to Lessor under the laws of the State of Hawaii. Lessee shall preserve and protect and shall not disturb any archaeological and historic sites and remains on the demised premises; and (3) Pursuant to Section 171-36(a) (8), Hawaii Revised Statutes, mineral and metallic rights and surface and ground water shall be reserved to the State.

TO HAVE AND TO HOLD the demised premises together with the rights, easements, privileges and appurtenances thereunto belonging and appertaining, unto the Lessee for a term:

Commencing on: June 30, 1998
Ending on: June 29, 2053

unless sooner terminated as hereinafter provided, the Lessor reserving certain rights and interests and the Lessee yielding and paying to the Lessor at the principal office of Lessor, an annual lease rent in the amount computed and payable on the dates specified below, without notice or demand by the Lessor.

ANNUAL LEASE RENT

Lease Period	Lease Years	Annual Base Lease Rent Formula	Base Lease Rent Amount	Annual Percentage Lease Rent (of Lessee's gross agricultural income derived from the demised premises for the preceding calendar year ending on December 31) **
1	1 - 2	\$100 per acre (or portion thereof) (Provided that if there is any residential dwelling, including employee's quarters, on the demised premises, the annual base lease rent for the first 7,500 square feet shall be \$500.00)	Annually: <u>\$987.00</u> Monthly: <u>\$82.25</u>	0%
2	3 - 25	\$100 per acres (or portion thereof) (Provided that if there is any residential dwelling, including employee's quarters, on the demised premises, the annual base lease rent for the first 7,500 square feet shall be \$500.00)	Annually: <u>\$987.00</u> Monthly: <u>\$82.25</u>	9/10th of 1%
3	26 - 40	*	*	*
4	41 - 55	*	*	*

* To be negotiated.

** Lessee's signed State of Hawaii and Federal tax returns shall be submitted with such payment and the Lessee shall inform the Lessor of any governmental audits of Lessee's tax returns.

LEASE RENT PAYMENTS

The Annual Base Lease Rent shall be paid in equal monthly installments in advance on the first working day of each month. The Annual Percentage Lease Rent shall be paid in arrears no later than April 15 for the previous calendar year. If the lease rent payable for any period or time is less than a full calendar year or other period of time, as the case may be, the lease rent for such period of time shall be prorated.

C. Renegotiation of Annual Base Lease Rent and Annual Percentage Lease Rent.

One year prior to the expiration of respective Lease Periods 2 and 3, Lessor and Lessee shall begin renegotiations regarding the new annual lease rent for respective Lease Periods 3 and 4. In determining the annual lease rent for respective Lease Periods 3 and 4, the following factors may be considered:

(1) The fair rental value of the demised premises based on the use of the demised premises for residential and agricultural uses exclusive of crops thereon and improvements that Lessee has installed, erected, constructed, or otherwise placed on the demised premises or crops and improvements that were installed, erected, constructed or otherwise placed on the demised premises by a prior occupant of the demised premises.

- (2) The historical productivity and profitability of Lessee's farming operations.
- (3) Other factors may also be considered.

The Annual Base Lease Rent and Annual Percentage Lease Rent established by renegotiation for Lease Periods 3 and 4, respectively, shall not be less than the rental amount established for Lease Periods 2 and 3, respectively.

In the event Lessor and Lessee are unable to agree on the fair rental value of the demised premises for Lease Periods 3 and/or 4, respectively, sixty (60) days prior to the expiration of Lease Periods 2 and/or 3, respectively, Lessor and Lessee shall submit the issue of the fair rental value of the demised premises to mediation in accordance with applicable rules of mediation of the American Arbitration Association.

If Lessor and Lessee are not able to determine the issue of the fair rental value of the demised premises by mediation, either Lessor or Lessee may give to the other written notice of a desire to have the issue of the fair rental value of the demised premises settled by arbitration in accordance with the applicable rules of the American Arbitration Association. Judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

In all cases of mediation or arbitration, Lessor and Lessee shall each pay the expense of their own attorneys', appraiser's and witness fees. All other expenses of such mediation and arbitration shall be divided equally between Lessor and Lessee.

If and whenever the fixing of such rental value is under mediation or arbitration, Lessee, pending the determination thereof, shall continue to pay the same lease rent which Lessee had been paying during the immediately preceding lease rent period and shall pay the deficiency, if any, within thirty (30) days of the successful conclusion of the mediation or arbitration proceedings, as the case may be.

AND LESSOR hereby covenants with Lessee that upon payment of the rent as aforesaid and upon observance and performance of the covenants by Lessee hereinafter contained, Lessee shall peaceably hold and enjoy said premises for the term hereby demised without hindrance or interruption by Lessor or any other person or persons lawfully claiming by, through or under it except as herein expressly provided.

AND LESSEE hereby covenants with Lessor as follows:

1. PAYMENT OF RENT. Lessee will pay or cause to be paid said rent in lawful money of the United States of America at the times and in the manner aforesaid, without any deduction and without any notice or demand, at the office of Lessor or Lessor's duly designated agent.

2. TAXES AND ASSESSMENTS. Lessee shall pay or cause to be paid at least ten days before the same become delinquent all real property taxes and assessments of every description to which said premises or any part thereof or any improvements thereon, or the Lessor or Lessee in respect thereof, are now or may be assessed or become liable, whether assessed to or payable by Lessor or Lessee, except that such taxes shall be prorated between Lessor and Lessee as of the dates of commencement and expiration respectively of said term; provided, however, that with respect to any assessment made under any betterment or improvement law which may be payable in installments, Lessee shall be required to pay only such installments together with interest as shall become due and payable during said term.

3. PAYMENT OF RATES AND OTHER CHARGES. Lessee will pay before the same become delinquent all charges, duties, rates and other outgoings of every description to which said premises or any part thereof or any improvement thereon, or Lessor or Lessee in respect thereof, may during said term be assessed or become liable for electricity, gas, refuse collection, telephone, sewage disposal, water or any other utilities or services, whether made by governmental authority or public or community service company and whether assessed to or payable by Lessor or Lessee.

4. **IMPROVEMENTS REQUIRED BY LAW.** Lessee will at Lessee's own expense during the whole of said term make, build, maintain and repair all fences, sewers, drains, roads, curbs, sidewalks and other areas which may be required by law to be made, built, maintained and repaired upon or adjoining or in connection with or for the use of the demised premises or any part thereof.

5. **OBSERVANCE OF LAWS.** Lessee will at all times during said term keep said premises in a strictly clean and sanitary condition and observe and perform all laws, ordinances, rules and regulations now or hereafter made by any governmental authority for the time being applicable to said premises or any improvement thereon or use thereof, and affecting said premises, and will indemnify Lessor against all actions, suits, damages and claims by whomsoever brought or made by reason of the nonobservance or nonperformance of said laws, ordinances, rules and regulations or of this covenant.

6. **REPAIRS TO IMPROVEMENTS.** Lessee will, at Lessee's own expense, keep, repair and maintain all buildings and improvements now existing or hereafter constructed or installed on the demised premises in good order, condition and repair, reasonable wear and tear excepted.

7. **INSPECTION.** Lessee will permit Lessor and Lessor's agents at all reasonable times during said term to enter the demised premises and examine the state of repair and condition thereof, and will repair and make good all defects required by the provisions of this Lease to be repaired by Lessee, within 90 days after the giving of notice by Lessor or Lessor's agents.

Lessor, the County, or any agents or representatives thereof shall have the right to enter and cross any portion of the demised land for the purpose of performing any public or official duties; provided, however, in the exercise of such rights, Lessor or the County shall not interfere unreasonably with Lessee's use and enjoyment of the demised premises, and shall not cause injury or damage to the Lessee's interest.

8. **DIVERSIFIED AGRICULTURAL USE.** Lessee understands and agrees that the requirements of this paragraph shall be strictly observed.

(a) Beginning no later than two (2) years from the date of this Lease and for the then remaining term of this Lease, Lessee, including Lessee's permitted successors and assigns, must be a "farmer" and personally use and operate the demised premises for diversified agricultural purposes.

The demised premises must remain in continuous cultivation except for the normal fallow period as required by standard agriculture practices. If Lessee is prevented from maintaining the demised premises in continuous cultivation because of the occurrence of an "act of God", such as a hurricane, drought or other catastrophe, which is beyond Lessee's control, Lessee may request Lessor to grant Lessee a reasonable extension which shall not exceed 6 months to comply with such requirement.

(b) During the term of this Lease, Lessee may use a contiguous area of up to 7,500 square feet for residential purposes as an accessory use to the primary diversified agricultural use of the demised premises subject to the following conditions:

(1) Lessee may place, maintain or allow on the demised premises only one single-family dwelling (exclusive of outbuildings) within such residential area;

(2) Lessee must use such single-family dwelling only as Lessee's principal dwelling. For purposes of determining whether Lessee is in compliance with this requirement, Lessee can only have one principal dwelling; and

(3) The remaining area of the demised premises must be used for diversified agricultural purposes, which may include employee quarters and accessory structures, in accordance with the Lease, the Master DCC&Rs, and the Memorandum of Declaration of Covenants, Conditions and Restrictions.

Lessee agrees that Lessee will be in default of this Lease and this Lease shall be terminated in accordance with the terms hereof if Lessee does not strictly comply with the above conditions.

(c) The raising of any animals in connection with feedlot operation is absolutely prohibited. The raising of animals shall be permitted or allowed subject to the following:

(1) Lessee shall observe all applicable Federal, State of Hawaii or City and County of Honolulu laws, ordinances, codes or regulations;

(2) Lessee shall be fully responsible for such animals; and

(3) Such animals shall not present a threat or threaten the diversified agricultural activities that are being conducted in the lands covered by and described in the Declaration attached hereto as Exhibit "B" and incorporated by reference.

(d) If there is any conflict between the terms of the Declaration and this Lease, the terms of the Declaration shall control.

9. BOND. Lessee will before commencing construction of any improvement on the demised premises deposit with Lessor a bond or certificate thereof naming Lessor as an obligee, in a penal sum not less than 100% of the cost of such construction and with a responsible corporate surety (or with Lessor's written approval, a responsible material house) authorized to do business in Hawaii, guaranteeing the completion of such construction free and clear of all mechanics' and materialmen's liens. In the case of an owner-builder, Lessee may request Lessor's consent to waive all or a part of the bond required hereby provided that Lessee shall furnish to Lessor adequate assurance that Lessee can complete the improvements lien free.

10. SETBACK LINES. Lessee will observe any setback lines affecting the demised premises, and will not erect, place or maintain any building or structure whatsoever except approved fences or walls between any street boundary of the demised premises and the set back line along such boundary.

11. INSURANCE. Lessee will at Lessee's own expense at all times during said term keep all buildings now or hereafter erected on the demised land insured against loss or damage by fire with extended coverage in a responsible insurance company authorized to do business in Hawaii, in an amount as near as practicable to the replacement cost thereof, in the joint names of Lessor, Lessee and mortgagee (if any) as their interests may appear, payable in case of loss to the mortgagee (if any) or in the absence of any mortgage to Lessor and Lessee as their interests may appear, and will pay all premiums thereon when due and from time to time on request therefor deposit with Lessor a true copy or certificate of such current insurance policy, and any money derived therefrom in case of loss shall be held in trust in Hawaii and be immediately available to and used as soon as reasonably possible by Lessee for rebuilding, repairing or otherwise reinstating the same buildings in a good and substantial manner according to the plan and elevation of the buildings so destroyed or damaged or such modified plan as shall be previously approved in writing by Lessor; provided, however, that in case the main dwelling on said premises shall be destroyed by any casualty during the last ten years of the term hereof, Lessee may at his option cancel this Lease by giving written notice thereof to Lessor within 30 days after such casualty on condition that before such cancellation becomes effective Lessee shall remove all remains of the damaged buildings and pay to Lessor all rent then accrued hereunder and taxes for the full current year and in case said

dwelling shall be destroyed by any casualty at any time during said term, if such restoration thereof shall be prevented by law, Lessee may at his option cancel this Lease by giving written notice thereof to Lessor at any time thereafter on condition that Lessee shall before such cancellation becomes effective remove all remains of the damaged buildings and pay to Lessor all rent then accrued hereunder and taxes for the full current year, and upon either such cancellation all insurance proceeds shall be payable to and be the property of Lessee and mortgagee (if any) as their interests may appear; provided, further, that during such period as the Department of Housing and Urban Development or Veterans Administration shall own this Lease all provisions of this Lease requiring insurance and restoration of buildings which are substantially destroyed shall be inoperative, but such administration shall promptly remove all remains of any damaged buildings not restored in accordance with said provisions.

Additionally, Lessee will, at Lessee's own expense at all times during the term of this Lease, obtain reasonable liability insurance from any insurance company or companies which is licensed and authorized to engage in the business of insurance in Hawaii naming Lessee as the named insured and Lessor as an additional insured and insuring both against and from any and all claims, demands or suits for property damage, personal injury or death arising out of, relating to or proximately caused by the use, maintenance, operation and control by Lessee of the demised premises. A current policy or certificate of such insurance shall be submitted to Lessor. By endorsement or otherwise, the insurance policy must provide that the insurance company cannot cancel or amend the insurance policy without giving Lessor at least 30 days prior written notice.

12. COST OF LITIGATION. In case the Lessor shall, without any fault on Lessor's part, be made a party to any litigation commenced by or against the Lessee (other than condemnation proceedings) Lessee shall and will pay all costs and expenses incurred and imposed on the Lessor that are awarded to Lessor by the court. Furthermore, the Lessee shall and will pay all costs and expenses which may be incurred by or on behalf of the Lessor in enforcing the covenants and agreements of this Lease, in recovering possession of the demised premises or in the collection of delinquent rental, taxes and any and all other charges unless Lessee is the prevailing party in any such litigation, proceeding or controversy.

13. INDEMNITY. Lessee will indemnify and hold Lessor harmless against all claims and demands for loss or damage, including property damage, personal injury and wrongful death, arising out of or in connection with the use or occupancy of said premises by Lessee or any other person claiming by, through or under Lessee, or any accident or fire on said premises, or any nuisance made or suffered thereon, or any failure by Lessee to keep said premises in a safe condition, and will reimburse Lessor for all of Lessor's costs and expenses including reasonable attorneys' fees incurred in connection with the defense of any such claims, and will hold all goods, materials, furniture fixtures, equipment, machinery and other property whatsoever on said premises at the sole risk of Lessee and hold Lessor harmless for any loss or damage thereto by any cause whatsoever. Provided, however, that this indemnity provision shall not apply to or cover the negligence of the Lessor or Lessor's successors.

14. CONSTRUCTION OF IMPROVEMENTS. Lessee shall not at any time construct, place, locate, maintain and install on said premises any new house, building, structure or improvement without the prior review of Lessor and upon such site location conditions as Lessor may impose. Provided, however, that upon application to Lessor and subject to Lessor's approval, Lessee may construct a permanent foundation upon which a house, building or other structure is to be placed or constructed upon the express condition that the foundation shall be demolished and removed in the event that a new lessee does not accept such permanent foundation. It is understood by the parties that in the event of Lessee's default or the sale or transfer of the demised premises, Lessee shall be solely liable for removal of any and all improvements constructed on the premises.

15. WASTE AND UNLAWFUL USE. Lessee will not make or suffer any strip or waste or unlawful, improper or offensive use of the demised premises or use the demised premises for or in connection with the cultivation, manufacture, sale, storage or keeping for sale or barter of any plants or plant products, which the cultivation of which is prohibited by any County, State, or Federal laws, narcotics or alcoholic beverages or

liquors.

16. LIENS. Lessee will indemnify and hold Lessor harmless against all liens, charges and encumbrances and all expenses in connection therewith including attorneys' fees, with respect to said premises or any improvements thereon, initiated and built by the Lessee, which may result from any act or neglect of Lessee.

17. SURRENDER. At the end of said term or other sooner termination of this Lease, Lessee will peaceably deliver up to Lessor possession of the demised land and shall, within 90 days after such termination, remove all improvements from the demised premises which Lessee has installed, erected, constructed, or otherwise placed on the demised premises or which were installed, erected, constructed or otherwise placed on the demised premises by a prior occupant of the demised premises.

18. EXTENSION. After 50 years from the date the first lease is issued by Lessor to a lessee in the Project of which the demised premises is a part, the lease term may be extended for a term of 20 years (or such other period of time that the parties shall then agree upon) subject to the following conditions:

(1) 51% of all of the then lessees of lots in the Project affirmatively vote to extend the leases therein. Only one vote may be cast with respect to any of the lots therein.

(2) The extended lease term shall be uniform for all leases in the Project. All of the terms and conditions of this Lease shall remain in full force and effect, except that (i) there shall be no further extension of the lease term and (ii) the lease rents and lease rent periods during the extended term shall be based upon the fair rental value of the demised premises. If an agreement as to the fair rental value of the demised premises is not reached, then the fair rental value shall be determined by arbitration in accordance with the rules of the American Arbitration Association.

(3) The lessees shall be responsible for lessees' costs and expenses incurred by the lessees. Lessee shall be responsible for Lessee's prorata share of such costs and expenses.

(4) Subject to the completion of such negotiations, the lease term of this Lease will be extended provided that Lessee shall not then be in default in any respect hereunder.

19. CONDEMNATION. In case at any time or times during the term hereof the demised premises or any part thereof shall be taken or condemned by any authority having the power of eminent domain, then and in every such case the estate and interest of Lessee in the demised land so taken or condemned shall at once cease and determine upon acquisition by such authority of title thereto or right to possession thereof, and Lessee shall not by reason of such taking or condemnation be entitled to any claim against Lessor or others for compensation or indemnity for leasehold interest, and all compensation and damages for or on account of any land shall be payable to and be the sole property of Lessor, and all compensation and damages for or on account of (a) the value of growing crops, if any, which Lessee is not permitted to harvest and (b) the value of Lessee's improvements shall be payable to and be the sole property of Lessee; provided, however, that in case only part of the demised premises shall be so taken or condemned, including for street widening, the rent thereafter payable for the remainder of said term shall be reduced pro rata in the proportion that the area so taken bears to the area hereby demised, and if the remaining premises shall thereby become unsuitable for the agricultural uses for which the land was demised, Lessee shall have the option to surrender this Lease within 60 days thereafter and be relieved of further performance hereunder. Lessee may remove any of the improvements constructed, erected, installed or placed on the land so taken by the authority having the power of eminent domain. Provided, further, that whenever required so to do Lessee shall peaceably deliver up to Lessor possession of such portion or portions of the demised premises as may hereafter be required, taken or condemned for any street widening.

20. ASSIGNMENT.

A. **Assignment.** Lessee may assign this Lease and the assignee shall have the same rights

and obligations hereunder, including those set forth above in paragraph 8, as the original Lessee subject to the following conditions:

(1) **Notice and Certifications.** Lessee shall notify Lessor of any proposed assignment of this Lease. Lessee and the proposed assignee shall (i) provide Lessor with full information about the proposed assignment and (ii) sign and deliver to Lessor all documents which Lessor shall require to assure full compliance with this Lease and the Declaration, including a certification that the proposed assignee meets the qualifications of a "farmer" who is eligible to be a lessee under this Lease.

(2) **Lessee's Limited Equity.** Lessee understands and unconditionally agrees that Lessee's equity in this Lease and/or the improvements and crops on the demised premises shall not exceed the "Lessee's Equity", which is defined as the fair market value of Lessee's improvements and crops on the demised premises.

If Lessee shall sell or assign this Lease for a consideration (whether in cash or in kind) in excess of Lessee's Equity, the excess shall belong to and be paid in cash immediately to Lessor. Lessee and Lessee's assignee shall be jointly and severally liable for the payment of such excess consideration to Lessor.

(3) **Successors in Interest.** Every successor or assignee must meet the eligibility requirements to be a lessee under this Lease and shall pay and perform all of the obligations under this Lease, including those set forth above in paragraph 8. If a successor or assignee shall not meet the eligibility requirements or shall not pay and perform all of the obligations under this Lease, including those set forth above in paragraph 8, this Lease shall be canceled and such successor or assignee shall not be entitled to any consideration or compensation whatsoever upon such cancellation. Provided, if the successor or assignee shall succeed to Lessee's interest as the result of the death of Lessee and if such successor or assignee shall not meet the eligibility requirements to be a lessee of this Lease, such successor or assignee shall have one year to assign the Lease to a person who shall meet the eligibility requirements of being a "farmer" herein subject to the provisions of this paragraph 20; and,

(4) **Sale and Assignment; Lessor's First Option.** If Lessee wishes to sell, assign or otherwise transfer title to the demised premises or this Lease for any reason and for a consideration, Lessor shall have the first option to purchase the same free and clear of all encumbrances which Lessee shall permitted to attach to the Lease, and outstanding mortgages, for a price which shall not exceed the Lessee's Equity. In all events, Lessee shall not be entitled to any compensation whatsoever for the leasehold value of the demised premises or this Lease.

If Lessor exercises this first option, the demised premises shall be free and clear of all mortgage liens and encumbrances placed on the demised premises or this Lease by Lessee, including Lessee's predecessors in interest; and,

(5) **Sale, Assignment or Transfer of Corporate Stock or Other Interest in Business Organization.** If Lessee shall be a corporation, partnership, cooperative or other business organization, any transfer, sale, pledge or other disposition of the corporate stock, voting rights or other interest in such business organization shall be deemed a sale, assignment or transfer of this Lease and therefore prohibited without the express written consent of Lessor. At all times during the term of this Lease, and any extension thereof, Lessee agrees that the person, including such person's permitted successors and assigns, named above as the "farmer" must qualify as a "farmer" as that term is defined in this Lease, Master DCC&Rs, and in the Memorandum of Declaration of Covenants, Conditions and Restrictions, in order for Lessee to hold this Lease and that such person must own at least 75% or more of the stock, voting interest or other interest of the Lessee at the time of execution of this Lease and during the term thereof. Lessee shall inform Lessor of any changes in the composition of ownership of Lessee and obtain Lessor's consent with respect to any of their successors. If Lessee shall breach the terms of this covenant, this Lease shall be terminated and Lessee shall have 30 consecutive calendar days to vacate the demised premises.

In all events, Lessee, including Lessee's successors or assigns, shall not rent or sublet the whole or any portion of the demised premises under any circumstances.

If the demised premises described in Exhibit "A" attached hereto and incorporated by reference is comprised of more than one subdivided lot, all of the subdivided lots shall be considered one (1) lot for purposes of this Lease, the Master DCC&Rs, and the Memorandum of Declaration of Covenants, Conditions and Restrictions. A subdivided lot that is a portion of the demised premises shall not be separately or individually transferable and shall not be sold, transferred or conveyed in any manner, whether by sublease, concession, license or otherwise, separate from all of the subdivided lots comprising the demised premises so as to separate the benefits and burdens of such subdivided lot in any way under this Lease, the Master DCC&Rs, and the Memorandum of Declaration of Covenants, Conditions and Restrictions. Any attempted sale, transfer or conveyance of a subdivided lot comprising a portion of a demised premises shall be deemed to constitute a conveyance of all of the entire demised premises; and

(6) **Permitted Transfers.** The following transfers shall be permitted provided that there is no consideration for the transfer and the Lessee notifies Lessor and obtains Lessor's written consent prior to such making any such transfer:

- (a) A transfer by devise, descent, or operation of law on the death of a joint tenant or tenant by the entirety;
- (b) A transfer to the spouse or children of the Lessee;
- (c) A transfer whereby Lessees are married and one Lessee conveys his/her leasehold right, title and interest to the other as a result of a decree of dissolution of marriage, legal separation or incident to a property settlement agreement; or
- (d) A transfer to an intervivos trust in which Lessee is and remains the primary beneficiary and continues to use the demised premises and which does not relate to a transfer of rights of occupancy in the demised premises.

B. Mortgage. Except as provided herein, Lessee shall not mortgage, hypothecate or pledge all or any portion of the demised premises or this Lease without first notifying Lessor and obtaining Lessor's written consent. Any such mortgage, hypothecation or pledge without such written approval shall be null and void.

Upon due notice to and with the written consent of Lessor, Lessee may mortgage this Lease or any interest therein or create a security interest in the demised premises under the following conditions:

(1) **Mortgage Loan Amount.** The aggregate amount of all mortgages that Lessee can place on this Lease shall not exceed 80% of Lessee's Equity or such lesser amount which a prudent institutional mortgage lender will lend to Lessee.

(2) **Purposes.** The purpose of the mortgage shall be limited to:

- (a) New construction or repair, replacement or improvement of Lessee's principal residence on the demised premises;
- (b) New construction or repair, replacement or improvement of one employee's quarters on the demised premises;
- (c) Diversified agricultural activities on the demised premises.

(3) **Mortgage Lender.** The mortgage loan is made by a recognized mortgage lending institution.

If the mortgage or security interest is held by a recognized financial lending institution, as mortgagee, such consent may extend to initiating foreclosure on the improvements and leasehold thereby secured. Such mortgagee or secured party may remove the existing improvement secured by the mortgage or security agreement or sell the improvement to another person subject to all of the terms of this Lease, including the use restrictions set forth above in paragraph 8. The interest of the mortgagee or secured party shall be freely assignable provided that the mortgagee, secured party or any other creditor shall not for any reason sell, transfer or assign this Lease for any greater consideration than the Lessee's Equity. The terms "mortgagee" or "secured party" shall include any institutional or governmental mortgage insurer or guarantor of the mortgage or security agreement, including the Department of Housing and Urban Development, United States or State of Hawaii Department of Agriculture, Veterans Administration, Farmers Home Administration, Small Business Administration or other Federal or State of Hawaii governmental agency or department and their respective successors and assigns, or any recognized financial lending institution authorized to do business in the State of Hawaii or elsewhere in the United States. The consent to a mortgage or security agreement held by a non-governmental secured party shall not confer any greater rights or powers in such secured party than those which any of the aforementioned governmental agencies or departments would have.

21. DEFEASANCE. This demise is upon this condition, that if Lessee shall fail to pay said rent or any part thereof within 60 days after the same becomes due, whether the same shall or shall not have been legally demanded, or shall fail to observe or perform faithfully any of the other covenants or agreements herein contained and on the part of Lessee to be observed and performed and such default shall continue for 60 days after written notice thereof given to Lessee or mailed to Lessee's last known address, or if Lessee then owning this Lease shall become bankrupt and fail to perform any of the covenants of Lessee hereunder or shall abandon said premises, Lessor may at once re-enter said premises or any part thereof in the name of the whole, and upon or without such entry, at Lessor's option terminate this Lease, without service of notice or legal process and without prejudice to any other remedy or right of action for arrears of rent or for any preceding or other breach of contract, and in case of such termination all buildings and improvements on the demised land shall become and remain the property of Lessor. If this Lease is recorded in the Bureau of Conveyances or filed in the Office of the Assistant Registrar of the Land Court of the State of Hawaii, such termination may but need not necessarily be made effective by recording or filing in such place an affidavit thereof by Lessor or a judgment thereof by a court of competent jurisdiction.

22. PROTECTION OF MORTGAGEE. During the existence of any mortgage of this Lease, Lessor will not terminate this Lease because of any default by Lessee hereunder or other cause whatsoever if, within a period of 60 days after Lessor has mailed written notice of intention to terminate this lease for such cause to the mortgagee at its last known address and also, if such mortgage is insured by the Department of Housing and Urban Development or Department of Agriculture - Farmers Home Administration or guaranteed by the Veterans Administration, to such Department or Administration, the mortgagee or such Department or Administration shall either cure such default or other cause or, if the same cannot be cured by the payment of money, shall undertake in writing to perform all the covenants of this Lease capable of performance by it until such time as this Lease shall be sold upon foreclosure pursuant to such mortgage, and in case of such undertaking Lessor will not terminate this Lease within such further time as may be required by the mortgagee or such Administration to complete foreclosure of such mortgage or other remedy thereunder provided (a) that such remedy is pursued promptly and completed with due diligence, and (b) that Lessor is paid all rent and other charges accruing hereunder as the same become due, and upon foreclosure sale of this Lease the time for performance of any obligation of Lessee then in default hereunder other than payment of money shall be extended by the time reasonably necessary to complete such performance with due diligence. Ownership by or for the same person of both the fee and leasehold estates in said premises shall not effect the merger thereof without the prior written consent of any mortgagee to such merger.

23. EXTENSION OF TIME. That notwithstanding any provision contained herein to the contrary, wherever applicable, the Lessor may for good cause shown, allow additional time beyond the time or times specified herein to the Lessee, in which to comply, observe and perform any of the terms, conditions and covenants contained herein. Any extension of time shall not be effective unless it is in writing and signed by Lessor.

24. ACCEPTANCE OF RENT NOT A WAIVER. That the acceptance of rent by the Lessor shall not be deemed a waiver of any breach by the Lessee of any term, covenant or condition of this Lease, nor of the Lessor's right to re-entry for breach of covenant, nor of the Lessor's right to declare and enforce a forfeiture for any such breach, and the failure of the Lessor to insist upon strict performance of any such term, covenant or condition, or to exercise any option herein conferred, in any one or more instances, shall not be construed as a waiver or relinquishment of any such term, covenant, condition or option.

25. BOUNDARY FENCES. If there are any livestock on the demised premises, the Lessee shall be solely responsible for securing such livestock for the health, safety and welfare of all persons and property. If required by Lessor or any governmental agency or department or any court order or any public safety official, the Lessee shall keep such livestock penned or corralled within a stockproof fenced area within the demised premises, provided that if required by any law, the Lessee shall install stockproof fences along the entire outside perimeter of the land encompassed under this Lease where such fencing does not exist, regardless of whether the Lessee has an interest or ownership in adjoining lands, and shall maintain in good order and condition throughout the term of this Lease the fences so constructed and those now existing on the demised premises. The Lessee shall, wholly at Lessee's own cost and expense, stake out the boundaries wherever necessary in conformance with the legal descriptions provided herein. The cost of installing and maintaining such boundary fences shall be in accordance with Part II of Chapter 664, Hawaii Revised Statutes, which provides generally for the sharing of such costs by adjacent land owners or lessee for the purpose of confining animals of each adjacent owner or lessee unless the adjacent land is owned and not leased by the government.

26. PROTECTION OF FOREST, WATERSHED AREAS, ETC. Lessee shall protect forests, watershed areas, game management areas, wildlife sanctuaries, reservation of rights-of-way and access to other public lands and prevent nuisances and waste in connection with Lessee's possession, occupancy and use of the demised premises. Lessee shall take all reasonable precautions to prevent forest fires thereon, and in the event such fires shall occur, Lessee shall use all reasonable means at Lessee's command or under Lessee's control to have such fires speedily extinguished.

27. HAZARDOUS MATERIALS. Except for Hazardous Material lawfully permitted on the demised premises in connection with the direct participation of diversified agricultural activities on the demised premises, Lessee shall not cause or permit any Hazardous Material, as hereinafter defined, to be brought upon, kept, or used in or about the demised premises by Lessee, its agents, employees, contractors, or invitees, or any persons holding under Lessee. Any Hazardous Material lawfully permitted on the demised premises in connection with the direct participation in diversified agricultural activities on the demised premises, and all containers therefor, shall be used, kept, stored and disposed of in a manner that complies with all federal, state, and local guidelines, laws or regulations applicable to the Hazardous Material. Lessee shall not discharge, leak, or emit or permit to be discharged, leaked, or emitted, any material into the atmosphere, ground, sewer system, or any body of water, if that material (as is reasonably determined by Lessor, or any governmental authority) does or may pollute or contaminate the same, or may adversely affect (a) the health, welfare, or safety of persons, whether located in the demised premises or elsewhere, or (b) the condition, use, or enjoyment of any buildings or any other real or personal property.

If Lessee breaches the obligations stated in this paragraph 27, entitled Hazardous Material, or if the presence of Hazardous Material on the demised premises caused or permitted by Lessee results in contamination of the demised premises or other premises, or if contamination of said demised premises or other premises by Hazardous Material otherwise occurs for which Lessee is legally liable to Lessor for damage resulting therefrom, then Lessee shall indemnify, defend and hold Lessor harmless from any and all claims, judgments,

damages, penalties, fines, costs, liabilities or losses (including, without limitation, diminution in value of, damages for the loss or restriction on use of, and damages arising from any adverse impact on marketing of said demised premises or other premises, and sums paid in settlement of claims, attorneys' fees, consultant fees and expert fees) which arise during or after the lease term as a result of such contamination. This indemnification of Lessor by Lessee includes all reasonable costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal, or restoration work required by any federal, state, or local governmental agency or political subdivision because of Hazardous Material present in the soil or ground water on or under said demised premises or other premises. Without limiting the foregoing, if the presence of any Hazardous Material on said demised premises or other premises caused or permitted by Lessee results in any contamination of said demised premises or other premises, Lessee shall promptly take all actions at its sole expense as are necessary to return the demised premises or other premises to the condition existing prior to the introduction of any such Hazardous Material to the demised premises or other premises; provided that Lessor's approval of such actions shall first be obtained, which approval shall not be unreasonably withheld so long as such actions would not potentially have any adverse effect on the demised premises or other premises. Lessee's representations, warranties and covenants contained in this paragraph shall survive the term of this Lease. However, Lessor will indemnify and hold Lessee harmless for any damages suffered by Lessee resulting from hazardous materials exposure caused by Lessor.

As used in this Lease, the term "Hazardous Material" means any hazardous or toxic substance, material or waste which is or becomes regulated by any local governmental authority, the State of Hawaii or the United States Government. The term "Hazardous Material" includes, without limitation, any material or substance that is (i) petroleum, (ii) asbestos, (iii) designated as a "hazardous substance" pursuant to Section 311 of the Federal Water Pollution Control Act (33 U.S.C. §1321), (iv) defined as a "hazardous waste" pursuant to Section 1004 of the Federal Resource Conservation and Recovery Act, 42 U.S.C. §6901 et seq. (42 U.S.C. §6903), (v) defined as a "hazardous substance" pursuant to Section 101 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §9601 et seq. (42 U.S.C. §9601), (vi) defined as a "regulated substance" pursuant to Subchapter IX, Solid Waste Disposal Act (Regulation of Underground Storage Tanks), 42 U.S.C. §6991 et seq. or (vii) any similar state or local laws, ordinances or regulations now or hereafter adopted, published and/or promulgated pursuant thereto.

28. COVENANT AGAINST DISCRIMINATION. The use and enjoyment of the premises shall not be in support of any policy which discriminates against anyone based upon race, creed, sex, color, national origin or physical handicap.

29. MAINTENANCE OF EXISTING INFRASTRUCTURE IMPROVEMENTS. Notwithstanding any provision to the contrary, Lessor shall be responsible to pay for the repair and maintenance of the existing paved roads, water tanks and main waterlines, catch basins and bridge and stream lining below the bridge, which Lessor caused to be constructed in the Waiahole Valley Agricultural Park and Residential Lots Subdivision until such time that any of such improvements are dedicated to a governmental agency or department. Provided that if any improvements to the same are required as part of any improvement district, Lessee shall be responsible for the payment of the improvement district assessment allocated to the demised premises.

30. MISCELLANEOUS. The term "Lessor" and "Lessee" herein, or any pronouns used in place thereof, shall mean and include the masculine or feminine, the singular or plural number, and jointly and severally individuals, firms or corporations, and their and each of their respective successors, executors, administrators and assigns, according to the context hereof.

31. LESSEE'S WAIVER OF RIGHT TO PURCHASE FEE SIMPLE INTEREST IN THE DEMISED PREMISES (if applicable). Lessor acquired the land which comprises the Project, including the demised premises, and caused certain capital improvements to be made to such land in furtherance of the public policies set forth in Hawaii Revised Statutes Sec. 166-1 and the public purpose of providing housing opportunities. Recognizing the contributions of the State of Hawaii to carry out such public policies and purpose in order to establish the Project, Lessee, for Lessee and Lessee's successors and assigns, hereby relinquishes, renounces and waives any right to purchase the fee simple interest in the demised premises which Lessee,

including any successor and assign, now has or may hereafter have or claim under any law to purchase the fee simple interest in such property.

Notwithstanding the foregoing, if any law or court of competent jurisdiction shall determine that the waiver set forth above in this paragraph 31 shall not be enforceable and shall allow the Lessee, or the Lessee's successors or assigns, to purchase the fee simple interest in the real property constituting the demised premises, the purchase price shall be not less than the sum of the following:

(a) An amount of the total general improvement costs (roads, drainage and electrical improvements) and water system improvements which the Lessee expended to develop the Project and which should be charged to the premises by good accounting practice as determined by the Lessor whose books shall be prima facie evidence of the correctness of such costs x 7.00% x number of years from the date of this Lease to the date of closing of the sale of the fee simple interest in the demised premises; plus

(b) The fair market value of the fee simple interest unencumbered by this Lease; plus

(c) All of Lessor's attorneys' fees and costs, including appraisal and other consultant fees arising out of the lease-to-fee simple conversion.

32. EXCEPTIONS TO LEASEHOLD TITLE AND RIGHT OF QUIET

ENJOYMENT. Lessor is not making any express or implied representation or warranty to Lessee with respect to Lessee's leasehold right, title or interest in the demised premises and right to quiet enjoyment of the demised premises arising out of or in connection with the following exceptions:

(a) Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land of which the demised premises is a part or by making inquiry of persons in possession thereof.

(b) Any easements, claim of easement or encumbrances, whether claimed by prescription, adverse possession or otherwise, which are not shown by the public records.

(c) Any discrepancies, conflicts in boundary lines, shortage on area, encroachments or any other facts which a complete and correct boundary and improvement survey or archeological study would disclose, including without limitation trails, rights of way, historic property or sites and burial sites, and which are not shown by the public records.

(d) Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

(e) Claims arising out of native Hawaiian rights customarily or traditionally exercised for subsistence, cultural, religious, access or gathering purposes as provided by law, including without limitation the Constitution of the State of Hawaii, Section 1-1 or 7-1 Hawaii Revised Statutes or other statutory or case law of a similar nature.

33. AGREEMENT ABOUT PAYMENTS FOR "MASTER" OR "BLANKET"

LIABILITY INSURANCE. If the liability insurance, which is required pursuant to Section 11 above, shall be available through a "master" or "blanket" policy and if Lessee requests in writing to be covered by such "master" or "blanket" policy, Lessee agrees as follows:

(a) Lessee shall pay to Lessor a prorata share, as determined by Lessor, of the annual premium for such liability insurance upon the issuance of this Lease to Lessee.

(b) Lessee shall pay to Lessor an additional sum on or before the first day of each and every

month equal to 1/12th of Lessee's prorata share, as determined by Lessor, of the estimated annual premium for liability insurance. Lessee shall not be entitled to any interest on account of any funds which Lessee shall pay to Lessor as liability insurance premiums.

(c) Lessor shall not have any obligation, responsibility or liability to pay all or any part of the premiums for such "master" or "blanket" liability insurance policy. If any lessee of an agricultural lot or residential lot in the Waiahole Agricultural Park and Residential Lots Subdivision shall fail, refuse or neglect to pay such lessee's prorata share of the annual liability insurance premium, such lessee's prorata share shall be prorated among all lessees. Lessor may increase or decrease the estimated sum which Lessee has agreed to pay for liability insurance.

(d) Lessor shall not have any obligation, responsibility or liability to find any new or replacement "master" or "blanket" liability insurance policy if any then existing "master" or "blanket" liability insurance shall be terminated, canceled or not renewed. If any "master" or "blanket" liability insurance policy shall be terminated, canceled or not renewed, Lessee shall be responsible for providing Lessee's own liability insurance coverage pursuant to the requirements under this Lease.

(e) Lessor shall not have any duty, responsibility or liability for damages or any other relief to a lessee or any third party with respect to the amount, coverage or policy limits of any "master" or "blanket" liability insurance policy. Lessee may obtain any additional, excess or umbrella liability insurance for Lessee's benefit and protection.

(f) Lessor is not and shall not be deemed to be an insurer, co-insurer or indemnitor with respect to any claim, liability, damages of any kind or nature, including any damages. Lessor shall not be liable to Lessee or any third party if the coverage or policy limits of such "master" or "blanket" liability insurance policy shall not cover in whole or in part any particular loss or claim, including the defense of any claim.

(g) If Lessee shall fail, refuse or neglect to pay Lessee's prorata share of the estimated annual premium for liability insurance or any additional assessments for liability insurance premiums, including any additional assessments to pay the premiums of other lessees who shall have failed, refused or neglected to pay all or part of their prorata share of premiums for liability insurance, Lessee shall be in default under this Lease. Any amount which Lessee shall fail, refuse or neglect to pay shall bear interest at the simple annual rate of 12% until fully paid. The interest collected shall be applied to reduce the premium for such "master" or "blanket" liability insurance policy.

LESSEE:

David Yoshiyasu Chinen
David Yoshiyasu Chinen

STATE OF HAWAII)
CITY AND COUNTY OF HONOLULU) ss.

On this 18th day of January, 19 98, before me personally appeared David Yoshiyasu Chinen to me known to be the persons described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

Deani Akene-Opedya d.s.
Notary Public, State of Hawaii

My commission expires 2/8/2000

EXHIBIT "A"

The following lot(s) as shown in File Plan No. 2052 recorded in the Bureau of Conveyances of the State of Hawaii situated on the westerly side of Kamehameha Highway between Land Court Application 70 and Land Court Application 1341 at Waiahole, Koolaupoko, Oahu, Hawaii:

Lot No.	Area (more or less)
44	9.869 acres

SUBJECT TO all easements, rights of way, rights of ingress and egress, covenants, conditions, restrictions and reservations recorded in the Bureau of Conveyances and/or filed in the Office of the Assistant Registrar of the Land Court of the State of Hawaii of record.

Office of the Registrar of the Land Court of the State of Hawaii with Land Court Application No. _____, being more particularly described in Exhibit "A" attached hereto, incorporated herein and made a part hereof by reference ("Property"); and,

WHEREAS, the Property is encumbered by the recorded Declaration Of Restrictive Covenants For Waiahole Valley Agricultural Park And Residential Lots Subdivision And Homestead Road Lands, dated September 15, 1995, and recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 95-124908 and filed in the Office of the Assistant Registrar of the Land Court of the State of Hawaii as Document No. 2262857 and noted on Certificate of Title No. 380,204, Certificate of Title No. 195,898 and Certificate of Title No. 380,205 and the First Supplemental Declaration of Restrictive Covenants for Waiahole Valley Agricultural Park and Residential Lots Subdivision And Homestead Road Lands, dated January 22, 1996, and recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 96-012417 and filed in the Office of the Assistant Registrar of the Land Court of the State of Hawaii as Document No. 2287002 (collectively "Master DCC&Rs "), and the Master DCC&Rs contain all the covenants, conditions, and restrictions that affect the Property; and,

WHEREAS, Grantor and Grantee have agreed to record this Memorandum to provide notice to all persons and entities that the Property is encumbered by the Master DCC&Rs;

NOW, THEREFORE, Grantor and Grantee hereby confirm and agree that this Memorandum shall evidence the existence of the Master DCC&Rs and that Grantor and Grantee have certain responsibilities and obligations under the Master DCC&Rs to comply with and conform to the covenants, conditions, and restrictions of the Property;

AND, Grantor and Grantee further acknowledge and agree that the use of this Memorandum is for convenience and notice purposes only. Grantor and Grantee each understand, acknowledge and agree that the Master DCC&Rs shall be and hereby is fully incorporated herein by this reference. If there is any conflict between this Memorandum and the Master DCC&Rs, the terms of the Master DCC&Rs shall control.

(The remainder of this page is intentionally left blank.)

IN WITNESS WHEREOF, the parties hereto have executed these presents this 24th day of May, 1998.

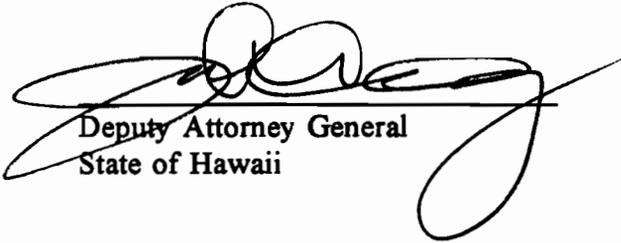
HOUSING FINANCE AND DEVELOPMENT CORPORATION
a Hawaii corporation



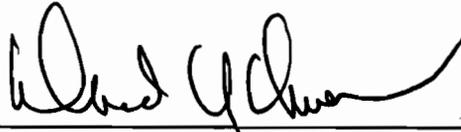
By Roy Oshiro
Its Executive Director

"Grantor"

APPROVED AS TO FORM:



Deputy Attorney General
State of Hawaii



By David Yoshiyasu Chinen

"Grantee"

STATE OF HAWAII)
) SS.
CITY AND COUNTY OF HONOLULU)

On this ____ day of MAY 29 1996, 19____, before me personally appeared ROY S. OSHIRO, to me personally known, who, being by me duly sworn, did say that he is the EXECUTIVE DIRECTOR of HOUSING FINANCE AND DEVELOPMENT CORPORATION, a public body and a body corporate and politic of the State of Hawaii; that said instrument was signed in behalf of said corporation by authority of its Board of Directors; and said ROY S. OSHIRO acknowledged said instrument to be the free act and deed of said corporation.

1.5

C. C. Crowder
Notary Public, State of Hawaii

My commission expires: 5.12.2001

STATE OF HAWAII)
) SS.
CITY AND COUNTY OF HONOLULU)

On this ___ day of FEB 14 1998, 19___, before me personally appeared David Yoshiyasu Chinen, to me known to be the person described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

Elaine Madrid LS
Notary Public, State of Hawaii

My commission expires: 9-29-2001

Exhibit E

Sample Residential Lot Ground Lease

[This page has been intentionally left blank.]

42
cc

R-551

Waihole Leases

I hereby certify that this is a true copy from the records of the Bureau of Conveyances.

W. Warren Young
Registrar of Conveyances
Assistant Registrar, Land Court
State of Hawaii

STATE OF HAWAII
BUREAU OF CONVEYANCES
RECORDED

JUN 08 1998 10:45 AM

Doc No(s) 98-082132

/s/ CARL T. WATANABE
ACTING
REGISTRAR OF CONVEYANCES

CONVEYANCE TAX: \$8.60

LAND COURT SYSTEM

Return by Mail () Pickup () To:

Housing Finance and Development Corporation
677 Queen Street - 3rd Floor
Honolulu, Hawaii 96813
Attention: Roy S. Oshiro, Executive Director

Residential Lot Ground Lease

Waihole Val

PROPERTY DESCRIPTION	DOCUMENT NO. DOCUMENT NO. TRANSFER CERTIFICATE OF TITLE NO: Land Court () Regular (X) Double ()
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STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
HOUSING FINANCE AND DEVELOPMENT CORPORATION
WAIHOLE VALLEY AGRICULTURAL PARK
AND RESIDENTIAL LOTS SUBDIVISION AND HOMESTEAD ROAD LAND

RESIDENTIAL LOT GROUND LEASE

THIS INDENTURE made this 29th day of May 1998, by and between

HOUSING FINANCE AND DEVELOPMENT CORPORATION
a public body and a body corporate and politic of the State of Hawaii
677 Queen Street - 3rd Floor
Honolulu, Hawaii 96813

hereinafter called "Lessor", and



Edward Dela Cruz and Priscilla Dela Cruz, husband and wife, all of whose residence and post office address is 48-332 Kamehameha Hwy., Kaneohe, Hawaii 96744,

as (check applicable box)

- | | | | |
|-------------------------------------|---|--------------------------|------------------------|
| <input checked="" type="checkbox"/> | tenants by the entirety | <input type="checkbox"/> | tenants in common |
| <input type="checkbox"/> | as joint tenants with full rights of survivorship | <input type="checkbox"/> | as tenant in severalty |

hereinafter called "Lessee".

WITNESSETH:

That Lessor, in consideration of the rent hereinafter reserved and the covenants herein contained and on the part of Lessee to be observed and performed, does hereby demise and lease unto Lessee and Lessee does hereby accept and rent: All that certain land described in Exhibit "A" attached hereto and incorporated herein by reference and made a part of this Lease, "AS IS" and without any express or implied warranties of habitability or fitness for any particular purpose and subject to all risks incidental to its use.

SUBJECT to all easements shown on the map (if any) hereto attached or above referred to, and reserving unto Lessor within said easements rights-of-way and the right to grant to any public utility or governmental authority such rights-of-way over, across and under said easements for lines and other transmission facilities and appurtenances for electricity, gas, telephone, water, sewer, drainage and similar public services and utilities, and the right to enter for such purposes and to repair such facilities and to trim any trees in the way of such lines.

SUBJECT FURTHER to the following: 1) the Declaration of Restrictive Covenants for Waiahole Valley Agricultural Park and Residential Lots And Homestead Road Lands, dated September 15, 1995 and recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 95-124908 and/or in the Office of the Registrar of the Land Court of the State of Hawaii as Document No. 2262857 and noted on Certificate of Title Nos. 380,204, 380,205 and 195,898, incorporated by reference; 2) the First Supplemental Declaration of Restrictive Covenants of Waiahole Valley Agricultural Park and Residential Lots Subdivision and Homestead Road Lands, dated January 22, 1996, and recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 96-012417 and filed in the Office of the Assistant Registrar of the Land Court of the State of Hawaii as Document No. 2287002, incorporated by reference and made part of this Lease, collectively referred to as the "Master DCC&Rs"; and 3) the Memorandum of Declaration of Covenants, Conditions and Restrictions of Waiahole Valley Agricultural Park and Residential Lots Subdivision and Homestead Road Lands, which will be recorded with the lease, attached hereto as Exhibit "B" and incorporated by reference and made part of this Lease.

RESERVING UNTO THE LESSOR, ITS SUCCESSORS AND ASSIGNS, THE FOLLOWING:

(1) All minerals as hereinafter defined, in, on or under the demised premises and the right, on its own behalf or through persons authorized by it, to prospect for, mine and remove such minerals and to occupy and use so much of the surface of the ground as may be required for all purposes reasonably extending to the mining and removal of such minerals by any means whatsoever, including strip mining. "Minerals", as used herein, shall mean any or all oil, gas coal, phosphate, sodium, sulphur, iron, titanium, gold, silver, bauxite, bauxitic clay, diaspore, boehmite, laterite, gibbsite, alumina, all ores of aluminum and, without limitation thereon, all other mineral substances and ore deposits, whether solid, gaseous or liquid, including all geothermal resources in, on, or under the land, fast or submerged; provided, that "minerals" shall not include sand, gravel, rock or other material suitable for use and when used in general construction in furtherance of the Lessee's permitted activities on the demised premises and not for sale to others. Provided, however, that as a condition precedent to the exercise by the Lessor of the rights reserved in this paragraph just compensation shall be paid to the Lessee for any of Lessee's improvements taken during the term of this Lease; (2) All archaeological and historic sites and remains found on the demised premises shall belong to Lessor under the laws of the State of Hawaii. Lessee shall preserve and protect and shall not disturb any archucological and historic sites and remains on the demised premises; and (3) Pursuant to Section 171-36(a) (8), Hawaii Revised Statutes, mineral and metallic rights and surface and ground water shall be reserved to the State.

TO HAVE AND TO HOLD the demised premises together with the rights, easements, privileges and appurtenances thereunto belonging and appertaining, unto the Lessee for a term:

Commencing on: June 30, 1998
Ending on: June 29, 2053

unless sooner terminated as hereinafter provided, the Lessor reserving certain rights and interests and the Lessee yielding and paying to the Lessor at the principal office of Lessor, an annual lease rent in the amount computed and payable on the dates specified below, without notice or demand by the Lessor.

Schedule of Rents

A	B	C	D	E	F
Lease Period	Lease Years	Lease Rent Each Year for up to 7,500 Square Feet	Additional Lease Rent Each Year for Each Square Foot Over 7,500 Square Feet	Annual Lease Rent	Monthly Lease Rent (E/12)
1	1-15	\$500.00	\$0.035	\$500.00	\$41.67
2	16-25	\$600.00	\$0.035	\$600.00	\$50.00
3	26-40	*	*	*	*
4	41-55	*	*	*	*

* means to be determined in the manner described below

The annual lease rent shall be paid in equal monthly installments in advance on or before the first working day of each month.

One year prior to the expiration of Lease Periods 2 and 3, respectively, Lessor and Lessee shall begin renegotiation of the new annual lease rent and new additional lease rent to be paid for Lease Periods 3 and 4, respectively. If ninety days prior to the expiration of Lease Periods 2 and 3, respectively, Lessor and Lessee are unable to agree upon a new annual lease rent and new additional lease rent, if applicable, then the annual lease rent payable during Lease Period 3 or Lease Period 4, as the case may be, shall be determined in accordance with HRS Section 519-2.

Whenever the fixing of rent is under arbitration, Lessee, pending the determination thereof, shall continue to pay the same rent which Lessee had been paying during the last preceding Lease Period and shall promptly pay the deficiency, if any, plus simple annual interest at the legal rate upon the conclusion of the arbitration proceedings.

If the lease rent payable for any period or time is less than a full calendar year or other period of time, as the case may be, the lease rent for such period of time shall be prorated.

AND LESSOR hereby covenants with Lessee that upon payment of the rent as aforesaid and upon observance and performance of the covenants by Lessee hereinafter contained, Lessee shall peaceably hold and enjoy said premises for the term hereby demised without hindrance or interruption by Lessor or any other person or persons lawfully claiming by, through or under it except as herein expressly provided.

AND LESSEE hereby covenants with Lessor as follows:

1. **PAYMENT OF RENT.** Lessee will pay or cause to be paid said rent in lawful money of the United States of America at the times and in the manner aforesaid, without any deduction and without any notice or demand, at the office of Lessor or Lessor's duly designated agent.

2. **TAXES AND ASSESSMENTS.** Lessee shall pay or cause to be paid at least ten days before the same become delinquent all real property taxes and assessments of every description to which said premises or any part thereof or any improvements thereon, or the Lessor or Lessee in respect thereof, are now or may be assessed or become liable, whether assessed to or payable by Lessor or Lessee, except that such taxes shall be prorated between Lessor and Lessee as of the dates of commencement and expiration, respectively, of said term; provided, however, that with respect to any assessment made under any betterment or improvement law which may be payable in installments, Lessee shall be required to pay only such installments together with interest as shall become due and payable during said term.

3. **PAYMENT OF RATES AND OTHER CHARGES.** Lessee will pay before the same become delinquent all charges, duties, rates and other outgoings of every description to which said premises or any part thereof or any improvement thereon, or Lessor or Lessee in respect thereof, may during said term be assessed or become liable for electricity, gas, refuse collection, telephone, sewage disposal, water or any other utilities or services, whether made by governmental authority or public or community service company and whether assessed to or payable by Lessor or Lessee.

4. **IMPROVEMENTS REQUIRED BY LAW.** Lessee will at Lessee's own expense during the whole of said term make, build, maintain and repair all fences, sewers, drains, roads, curbs, sidewalks and other areas which may be required by law to be made, built, maintained and repaired upon or adjoining or in connection with or for the use of the demised premises or any part thereof.

5. **OBSERVANCE OF LAWS.** Lessee will at all times during said term keep said premises in a strictly clean and sanitary condition and observe and perform all laws, ordinances, rules and regulations now or hereafter made by any governmental authority for the time being applicable to said premises or any improvement thereon or use thereof, and affecting said premises, and will indemnify Lessor against all actions, suits, damages and claims by whomsoever brought or made by reason of the nonobservance or nonperformance of said laws, ordinances, rules and regulations or of this covenant.

6. **REPAIRS TO IMPROVEMENTS.** Lessee will, at Lessee's own expense, keep, repair and maintain all buildings and improvements now existing or hereafter constructed or installed on the demised premises in good order, condition and repair, reasonable wear and tear excepted.

7. **INSPECTION.** Lessee will permit Lessor and Lessor's agents at all reasonable times during said term to enter the demised premises and examine the state of repair and condition thereof, and will repair and make good all defects required by the provisions of this Lease to be repaired by Lessee, within 90 days after the giving of notice by Lessor or Lessor's agents.

Lessor, the County, or any agents or representatives thereof shall have the right to enter and cross any portion of the demised land for the purpose of performing any public or official duties; provided, however, in the exercise of such rights, Lessor or the County shall not interfere unreasonably with Lessee's use and enjoyment of the demised premises, and shall not cause injury or damage to the Lessee's interest.

8. **RESIDENTIAL USE.** Lessee will use and allow the use of said premises primarily for residential purposes and will not at any time during said term, erect, place, maintain or allow on said premises more than one single family dwelling (exclusive of outbuildings) nor allow the use of any building or structure on said premises as a tenement house, rooming house or apartment house. Lessee must use such single-family dwelling only as Lessee's principal dwelling. For purposes of determining whether Lessee is in compliance with this requirement, Lessee can only have one principal dwelling.

Lessee may engage in diversified agricultural activities on the demised premises to the extent permitted by State of Hawaii or City and County of Honolulu laws, ordinances and regulations.

Lessee agrees that Lessee will be in default of this Lease and this Lease shall be terminated in accordance with the terms hereof if Lessee does not strictly comply with the foregoing use provisions.

The raising of any animals in connection with a feedlot operation is absolutely prohibited. The raising of animals shall be permitted or allowed subject to the following:

- (1) Lessee shall observe all applicable Federal, State of Hawaii or City and County of Honolulu laws, ordinances, codes or regulations;
- (2) Lessee shall be fully responsible for such animals; and

- (3) Such animals shall not present a threat or threaten the diversified agricultural activities that are being conducted in the lands covered by and described in the Declaration attached hereto as Exhibit "B" and incorporated by reference.

If there is any conflict between the terms of the Declaration and this Lease, the terms of the Declaration shall control.

9. **BOND.** Lessee will before commencing construction of any improvement on the demised premises deposit with Lessor a bond or certificate thereof naming Lessor as an obligee, in a penal sum not less than 100% of the cost of such construction and with a responsible corporate surety (or with Lessor's written approval, a responsible material house) authorized to do business in Hawaii, guaranteeing the completion of such construction free and clear of all mechanics' and materialmen's liens. In the case of an owner-builder, Lessee may request Lessor's consent to waive all or a part of the bond required hereby provided that Lessee shall furnish to Lessor adequate assurance that Lessee can complete the improvements lien free.

10. **SETBACK LINES.** Lessee will observe any setback lines affecting the demised premises, and will not erect, place or maintain any building or structure whatsoever except approved fences or walls between any street boundary of the demised premises and the set back line along such boundary.

11. **INSURANCE.** Lessee will at Lessee's own expense at all times during said term keep all buildings now or hereafter erected on the demised land insured against loss or damage by fire with extended coverage in a responsible insurance company authorized to do business in Hawaii, in an amount as near as practicable to the replacement cost thereof, in the joint names of Lessor, Lessee and mortgagee (if any) as their interests may appear, payable in case of loss to the mortgagee (if any) or in the absence of any mortgage to Lessor and Lessee as their interests may appear, and will pay all premiums thereon when due and from time to time on request therefor deposit with Lessor a true copy or certificate of such current insurance policy, and any money derived therefrom in case of loss shall be held in trust in Hawaii and be immediately available to and used as soon as reasonably possible by Lessee for rebuilding, repairing or otherwise reinstating the same buildings in a good and substantial manner according to the plan and elevation of the buildings so destroyed or damaged or such modified plan as shall be previously approved in writing by Lessor; provided, however, that in case the main dwelling on said premises shall be destroyed by any casualty during the last ten years of the term hereof, Lessee may at his option cancel this Lease by giving written notice thereof to Lessor within 30 days after such casualty on condition that before such cancellation becomes effective Lessee shall remove all remains of the damaged buildings and pay to Lessor all rent then accrued hereunder and taxes for the full current year and in case said dwelling shall be destroyed by any casualty at any time during said term, if such restoration thereof shall be prevented by law, Lessee may at his option cancel this Lease by giving written notice thereof to Lessor at any time thereafter on condition that Lessee shall before such cancellation becomes effective remove all remains of the damaged buildings and pay to Lessor all rent then accrued hereunder and taxes for the full current year, and upon either such cancellation all insurance proceeds shall be payable to and be the property of Lessee and mortgagee (if any) as their interests may appear; provided, further, that during such period as the Department of Housing and Urban Development or Veterans Administration shall own this Lease all provisions of this Lease requiring insurance and restoration of buildings which are substantially destroyed shall be inoperative, but such administration shall promptly remove all remains of any damaged buildings not restored in accordance with said provisions.

Additionally, Lessee will, at Lessee's own expense at all times during the term of this Lease, obtain reasonable liability insurance from any insurance company or companies which is/are licensed and authorized to engage in the business of insurance in Hawaii naming Lessee as the named insured and Lessor as an additional insured and insuring both against and from any and all claims, demands or suits for property damage, personal injury or death arising out of, relating to or proximately caused by the use, maintenance, operation and control by Lessee of the demised premises. A current policy or certificate of such insurance shall be submitted to Lessor. By endorsement or otherwise, the insurance policy must provide that the insurance company cannot cancel or amend the insurance policy without giving Lessor at least 30 days prior written notice.

12. **COST OF LITIGATION.** In case the Lessor shall, without any fault on Lessor's part, be made a party to any litigation commenced by or against the Lessee (other than condemnation proceedings), the Lessee shall and will pay all costs and expenses incurred and imposed on the Lessor that are awarded to Lessor by the court. Furthermore, the Lessee shall and will pay all costs and expenses which may be incurred by or paid by the Lessor in enforcing the covenants and agreements of this Lease, in recovering possession of the demised premises or in the collection of delinquent rental, taxes and any and all other charges unless Lessee is the prevailing party in any such litigation, proceeding or controversy.

13. **INDEMNITY.** Lessee will indemnify and hold Lessor harmless against all claims and demands for loss or damage, including property damage, personal injury and wrongful death, arising out of or in connection with the use or occupancy of said premises by Lessee or any other person claiming by, through or under Lessee, or any accident or fire on said premises, or any nuisance made or suffered thereon, or any failure by Lessee to keep said premises in a safe condition, and will reimburse Lessor for all of Lessor's costs and expenses including reasonable attorneys' fees incurred in connection with the defense of any such claims, and will hold all goods, materials, furniture fixtures, equipment, machinery and other property whatsoever on said premises at the sole risk of Lessee and hold Lessor harmless for any loss or damage thereto by any cause whatsoever. Provided, however, that this indemnity provision shall not apply to or cover the negligence of the Lessor or Lessor's successors.

14. **CONSTRUCTION OF IMPROVEMENTS.** Lessee shall not at any time construct, place, locate, maintain and install on said premises any new house, building, structure or improvement without the prior review of Lessor and upon such site location conditions as Lessor may impose. Provided, however, that upon application to Lessor and subject to Lessor's approval, Lessee may construct a permanent foundation upon which a house, building or other structure is to be placed or constructed upon the express condition that the foundation shall be demolished and removed in the event that a new lessee does not accept such permanent foundation. It is understood by the parties that in the event of Lessee's default or the sale or transfer of the demised premises, Lessee shall be solely liable for removal of any and all improvements constructed on the premises.

15. **WASTE AND UNLAWFUL USE.** Lessee will not make or suffer any strip or waste or unlawful, improper or offensive use of the demised premises or use the demised premises for or in connection with the cultivation, manufacture, sale, storage or keeping for sale or barter of any plants or plant products, which the cultivation of which is prohibited by any County, State, or Federal laws, narcotics or alcoholic beverages or liquors.

16. **LIENS.** Lessee will indemnify and hold Lessor harmless against all liens, charges and encumbrances and all expenses in connection therewith including attorneys' fees, with respect to said premises or any improvements thereon, initiated and built by the Lessee, which may result from any act or neglect of Lessee.

17. **SURRENDER.** At the end of said term or other sooner termination of this Lease, Lessee will peaceably deliver up to Lessor possession of the demised land and shall, within 90 days after such termination, remove all improvements from the demised premises which Lessee has installed, erected, constructed, or otherwise placed on the demised premises or which were installed, erected, constructed or otherwise placed on the demised premises by a prior occupant of the demised premises.

18. **EXTENSION.** After 50 years from the date the first lease is issued by Lessor to a lessee in the Project of which the demised premises is a part, the lease term may be extended for a term of 20 years (or such other period of time that the parties shall then agree upon) subject to the following conditions:

(1) 51% of all of the then lessees of lots in the Project affirmatively vote to extend the leases therein. Only one vote may be cast with respect to any lot in the Project.

(2) The extended lease term shall be uniform for all leases in the Project. All of the terms and conditions of this Lease shall remain in full force and effect, except that (i) there shall be no

further extension of the lease term and (ii) the lease rents and lease rent periods during the extended term shall be based upon the fair rental value of the demised premises. If an agreement as to the fair rental value of the demised premises is not reached, then the fair rental value shall be determined by arbitration in accordance with the rules of the American Arbitration Association.

(3) The lessees shall be responsible for lessees' costs and expenses incurred by the lessees. Lessee shall be responsible for Lessee's prorata share of such costs and expenses.

(4) Subject to the completion of such negotiations, the lease term of this Lease will be extended provided that Lessee shall not then be in default in any respect hereunder.

19. **CONDEMNATION.** In case at any time or times during the term hereof the demised premises or any part thereof shall be taken or condemned by any authority having the power of eminent domain, then and in every such case the estate and interest of Lessee in the demised land so taken or condemned shall at once cease and determine upon acquisition by such authority of title thereto or right to possession thereof, and Lessee shall not by reason of such taking or condemnation be entitled to any claim against Lessor or others for compensation or indemnity for leasehold interest, and all compensation and damages for or on account of any land shall be payable to and be the sole property of Lessor, and all compensation and damages for or on account of (a) the value of growing crops, if any, which Lessee is not permitted to harvest and (b) the value of Lessee's improvements shall be payable to and be the sole property of Lessee; provided, however, that in case only part of the demised premises shall be so taken or condemned, including for street widening, the rent thereafter payable for the remainder of said term shall be reduced pro rata in the proportion that the area so taken bears to the area hereby demised, and if the remaining premises shall thereby become unsuitable for the agricultural uses for which the land was demised, Lessee shall have the option to surrender this Lease within 60 days thereafter and be relieved of further performance hereunder. Lessee may remove any of the improvements constructed, erected, installed or placed on the land so taken by the authority having the power of eminent domain. Provided, further, that whenever required so to do Lessee shall peaceably deliver up to Lessor possession of such portion or portions of the demised premises as may hereafter be required, taken or condemned for any street widening.

20. **ASSIGNMENT.**

A. **Assignment.** Lessee may assign this Lease and the assignee shall have the same rights and obligations hereunder, including those set forth above in paragraph 8, as the original Lessee subject to the following conditions:

(1) **Notice and Certifications.** Lessee shall notify Lessor of any proposed assignment of this Lease. Lessee and the proposed assignee shall (i) provide Lessor with full information about the proposed assignment and (ii) sign and deliver to Lessor all documents which Lessor shall require to assure full compliance with this Lease and the Declaration, including a certification that the proposed assignee will comply with the provisions set forth above in paragraph 8.

(2) **Lessee's Limited Equity.** Lessee understands and unconditionally agrees that Lessee's equity in this Lease and/or the improvements and crops on the demised premises shall not exceed the "Lessee's Equity", which is defined as the fair market value of Lessee's improvements and crops on the demised premises.

If Lessee shall sell or assign this Lease for a consideration (whether in cash or in kind) in excess of Lessee's Equity, the excess shall belong to and be paid in cash immediately to Lessor. Lessee and Lessee's assignee shall be jointly and severally liable for the payment of such excess consideration to Lessor.

(3) **Successors in Interest.** Every successor or assignee must meet the eligibility requirements to be a lessee under this Lease and shall pay and perform all of the obligations under this Lease, including those set forth above in paragraph 8.

(4) **Sale and Assignment; Lessor's First Option.** If Lessee wishes to sell, assign or otherwise transfer true to the demised premises or this Lease for any reason and for a consideration, Lessor shall have the first option to purchase the same free and clear of all encumbrances, which Lessee has permitted to attach to the Lease, and outstanding mortgages, for a price which shall not exceed the Lessee's Equity. In all events, Lessee shall not be entitled to any compensation whatsoever for the leasehold value of the demised premises or this Lease.

If Lessor exercises this first option, the demised premises shall be free and clear of all mortgage liens and encumbrances placed on the demised premises or this Lease by Lessee, including Lessee's predecessors in interest.

(5) **Permitted Transfers.** The following transfers shall be permitted provided that there is no consideration for the transfer, the transferee uses the demised premises as the transferee's principal residence and the Lessee notifies Lessor and obtains Lessor's written consent prior to such making any such transfer:

(a) A transfer by devise, descent, or operation of law on the death of a joint tenant or tenant by the entirety;

(b) A transfer to the spouse or children of the Lessee;

(c) A transfer whereby Lessees are married and one Lessee conveys his/her leasehold right, title and interest to the other as a result of a decree of dissolution of marriage, legal separation agreement, or from a property settlement agreement; or

(d) A transfer to an inter vivos trust in which Lessee is and remains the primary beneficiary and continues to use the demised premises and which does not relate to a transfer of rights of occupancy in the demised premises.

In all events, Lessee, including Lessee's successors or assigns, cannot rent or sublet the whole or any portion of the demised premises under any circumstances.

If the demised premises described in Exhibit "A" attached hereto and incorporated by reference is comprised of more than one subdivided lot, all of the subdivided lots shall be considered one (1) lot for purposes of this Lease, the Master DCC&Rs, and the Memorandum of Declaration of Covenants, Conditions and Restrictions. A subdivided lot that is a portion of the demised premises shall not be separately or individually transferable and shall not be sold, transferred or conveyed in any manner, whether by sublease, concession, license or otherwise, separate from all of the subdivided lots comprising the demised premises so as to separate the benefits and burdens of such subdivided lot in any way under this Lease, the Master DCC&Rs, and the Memorandum of Declaration of Covenants, Conditions and Restrictions. Any attempted sale, transfer or conveyance of a subdivided lot comprising a portion of a demised premises shall be deemed to constitute a conveyance of all of the entire demised premises.

B. Mortgage. Except as provided herein, Lessee shall not mortgage, hypothecate or pledge all or any portion of the demised premises or this Lease without first notifying Lessor and obtaining Lessor's written consent. Any such mortgage, hypothecation or pledge without such written approval shall be null and void.

Upon due notice to and with the written consent of Lessor, Lessee may mortgage this Lease or any interest therein or create a security interest in the demised premises under the following conditions:

(1) **Mortgage Loan Amount.** The aggregate amount of all mortgages that Lessee can place on this Lease shall not exceed 80% of Lessee's Equity or such lesser amount which a prudent institutional mortgage lender will lend to Lessee.

- (2) **Purposes.** The purpose of the mortgage shall be limited to:
- (a) New construction or repair, replacement or improvement of Lessee's principal residence on the demised premises;
 - (b) Diversified agricultural activities on the demised premises.
- (3) **Mortgage Lender.** The mortgage loan is made by a recognized mortgage lending institution.

If the mortgage or security interest is held by a recognized financial lending institution, as mortgagee, such consent may extend to initiating foreclosure on the improvements and leasehold thereby secured. Such mortgagee or secured party may remove the existing improvement secured by the mortgage or security agreement or sell the improvement to another person subject to all of the terms of this Lease, including the use restrictions set forth above in paragraph 8. The interest of the mortgagee or secured party shall be freely assignable provided that the mortgagee, secured party or any other creditor shall not for any reason sell, transfer or assign this Lease for any greater consideration than the Lessee's Equity. The terms "mortgagee" or "secured party" shall include any institutional or governmental mortgage insurer or guarantor of the mortgage or security agreement, including the Department of Housing and Urban Development, United States or State of Hawaii Department of Agriculture, Veterans Administration, Farmers Home Administration, Small Business Administration or other Federal or State of Hawaii governmental agency or department and their respective successors and assigns, or any recognized financial lending institution authorized to do business in the State of Hawaii or elsewhere in the United States. The consent to a mortgage or security agreement held by a non-governmental secured party shall not confer any greater rights or powers in such secured party than those which any of the aforementioned governmental agencies or departments would have.

21. **DEFEASANCE.** This demise is upon this condition, that if Lessee shall fail to pay said rent or any part thereof within 60 days after the same becomes due, whether the same shall or shall not have been legally demanded, or shall fail to observe or perform faithfully any of the other covenants or agreements herein contained and on the part of Lessee to be observed and performed and such default shall continue for 60 days after written notice thereof given to Lessee or mailed to Lessee's last known address, or if Lessee then owning this lease shall become bankrupt and fail to perform any of the covenants of Lessee hereunder or shall abandon said premises, Lessor may at once re-enter said premises or any part thereof in the name of the whole, and upon or without such entry, at Lessor's option terminate this Lease, without service of notice or legal process and without prejudice to any other remedy or right of action for arrears of rent or for any preceding or other breach of contract, and in case of such termination all buildings and improvements on the demised land shall become and remain the property of Lessor. If this Lease is recorded in the Bureau of Conveyances or filed in the Office of the Assistant Registrar of the Land Court of the State of Hawaii, such termination may but need not necessarily be made effective by recording or filing in such place an affidavit thereof by Lessor or a judgment thereof by a court of competent jurisdiction.

22. **PROTECTION OF MORTGAGEE.** During the existence of any mortgage of this Lease, Lessor will not terminate this Lease because of any default by Lessee hereunder or other cause whatsoever if, within a period of 60 days after Lessor has mailed written notice of intention to terminate this lease for such cause to the mortgagee at its last known address and also, if such mortgage is insured by the Department of Housing and Urban Development or Department of Agriculture - Farmers Home Administration or guaranteed by the Veterans Administration, to such Department or Administration, the mortgagee or such Department or Administration shall either cure such default or other cause or, if the same cannot be cured by the payment of money, shall undertake in writing to perform all the covenants of this Lease capable of performance by it until such time as this Lease shall be sold upon foreclosure pursuant to such mortgage, and in case of such undertaking Lessor will not terminate this Lease within such further time as may be required by the mortgagee or such Administration to complete foreclosure of such mortgage or other remedy thereunder provided (a) that such remedy is pursued promptly and completed with due diligence, and (b) that Lessor is paid all rent and other charges accruing hereunder as the same become due, and upon foreclosure sale of this Lease the time for X

performance of any obligation of Lessee then in default hereunder other than payment of money shall be extended by the time reasonably necessary to complete such performance with due diligence. Ownership by or for the same person of both the fee and leasehold estates in said premises shall not effect the merger thereof without the prior written consent of any mortgagee to such merger.

23. EXTENSION OF TIME. That notwithstanding any provision contained herein to the contrary, wherever applicable, the Lessor may for good cause shown, allow additional time beyond the time or times specified herein to the Lessee, in which to comply, observe and perform any of the terms, conditions and covenants contained herein. Any extension of time shall not be effective unless it is in writing and signed by Lessor.

24. ACCEPTANCE OF RENT NOT A WAIVER. That the acceptance of rent by the Lessor shall not be deemed a waiver of any breach by the Lessee of any term, covenant or condition of this Lease, nor of the Lessor's right to re-entry for breach of covenant, nor of the Lessor's right to declare and enforce a forfeiture for any such breach, and the failure of the Lessor to insist upon strict performance of any such term, covenant or condition, or to exercise any option herein conferred, in any one or more instances, shall not be construed as a waiver or relinquishment of any such term, covenant, condition or option.

25. BOUNDARY FENCES. If there are any livestock on the demised premises, the Lessee shall be solely responsible for securing such livestock for the health, safety and welfare of all persons and property. If required by Lessor or any governmental agency or department or any court order or any public safety official, the Lessee shall keep such livestock penned or corralled within a stockproof fenced area within the demised premises, provided that if required by any law, the Lessee shall install stockproof fences along the entire outside perimeter of the land encompassed under this Lease where such fencing does not exist, regardless of whether the Lessee has an interest or ownership in adjoining lands, and shall maintain in good order and condition throughout the term of this Lease the fences so constructed and those now existing on the demised premises. The Lessee shall, wholly at Lessee's own cost and expense, stake out the boundaries wherever necessary in conformance with the legal descriptions provided herein. The cost of installing and maintaining such boundary fences shall be in accordance with Part II of Chapter 664, Hawaii Revised Statutes, which provides generally for the sharing of such costs by adjacent land owners or lessee for the purpose of confining animals of each adjacent owner or lessee unless the adjacent land is owned and not leased by the government.

26. PROTECTION OF FOREST, WATERSHED AREAS, ETC. Lessee shall protect forests, watershed areas, game management areas, wildlife sanctuaries, reservation of rights-of-way and access to other public lands and prevent nuisances and waste in connection with Lessee's possession, occupancy and use of the demised premises. Lessee shall take all reasonable precautions to prevent forest fires thereon, and in the event such fires shall occur, Lessee shall use all reasonable means at Lessee's command or under Lessee's control to have such fires speedily extinguished.

27. HAZARDOUS MATERIALS. Except for Hazardous Material lawfully permitted on the demised premises in connection with the direct participation of diversified agricultural activities on the demised premises. Lessee shall not cause or permit any Hazardous Material, as hereinafter defined, to be brought upon, kept, or used in or about the demised premises by Lessee, its agents, employees, contractors, or invitees, or any persons holding under Lessee. Any Hazardous Material lawfully permitted on the demised premises in connection with the direct participation in diversified agricultural activities on the demised premises, and all containers therefor, shall be used, kept, stored and disposed of in a manner that complies with all federal, state, and local guidelines, laws or regulations applicable to the Hazardous Material. Lessee shall not discharge, leak, or emit or permit to be discharged, leaked, or emitted, any material into the atmosphere, ground, sewer system, or any body of water, if that material (as is reasonably determined by Lessor, or any governmental authority) does or may pollute or contaminate the same, or may adversely affect (a) the health, welfare, or safety of persons, whether located in the demised premises or elsewhere, or (b) the condition, use, or enjoyment of any buildings or any other real or personal property.

If Lessee breaches the obligations stated in this paragraph 27, entitled Hazardous Material, or if the presence of Hazardous Material on the demised premises caused or permitted by Lessee results in contamination of the demised premises or other premises, or if contamination of said demised premises or other premises by Hazardous Material otherwise occurs for which Lessee is legally liable to Lessor for damage resulting therefrom, then Lessee shall indemnify, defend and hold Lessor harmless from any and all claims, judgments, damages, penalties, fines, costs, liabilities or losses (including, without limitation, diminution in value of, damages for the loss or restriction on use of, and damages arising from any adverse impact on marketing of said demised premises or other premises, and sums paid in settlement of claims, attorneys' fees, consultant fees and expert fees) which arise during or after the lease term as a result of such contamination. This indemnification of Lessor by Lessee includes all reasonable costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal, or restoration work required by any federal, state, or local governmental agency or political subdivision because of Hazardous Material present in the soil or ground water on or under said demised premises or other premises. Without limiting the foregoing, if the presence of any Hazardous Material on said demised premises or other premises caused or permitted by Lessee results in any contamination of said demised premises or other premises, Lessee shall promptly take all actions at its sole expense as are necessary to return the demised premises or other premises to the condition existing prior to the introduction of any such Hazardous Material to the demised premises or other premises; provided that Lessor's approval of such actions shall first be obtained, which approval shall not be unreasonably withheld so long as such actions would not potentially have any adverse effect on the demised premises or other premises. Lessee's representations, warranties and covenants contained in this paragraph shall survive the term of this Lease. However, Lessor will indemnify and hold Lessee harmless for any damages suffered by Lessee resulting from hazardous materials exposure caused by Lessor.

As used in this Lease, the term "Hazardous Material" means any hazardous or toxic substance, material or waste which is or becomes regulated by any local governmental authority, the State of Hawaii or the United States Government. The term "Hazardous Material" includes, without limitation, any material or substance that is (i) petroleum, (ii) asbestos, (iii) designated as a "hazardous substance" pursuant to Section 311 of the Federal Water Pollution Control Act (33 U.S.C. §1321), (iv) defined as a "hazardous waste" pursuant to Section 1004 of the Federal Resource Conservation and Recovery Act, 42 U.S.C. §6901 et seq. (42 U.S.C. §6903), (v) defined as a "hazardous substance" pursuant to Section 101 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §9601 et seq. (42 U.S.C. §9601), (vi) defined as a "regulated substance" pursuant to Subchapter IX, Solid Waste Disposal Act (Regulation of Underground Storage Tanks), 42 U.S.C. §6991 et seq. or (vii) any similar state or local laws, ordinances or regulations now or hereafter adopted, published and/or promulgated pursuant thereto.

28. COVENANT AGAINST DISCRIMINATION. The use and enjoyment of the premises shall not be in support of any policy which discriminates against anyone based upon race, creed, sex, color, national origin or physical handicap.

29. INFRASTRUCTURE IMPROVEMENTS. Notwithstanding any provision to the contrary, Lessor shall be responsible to pay for the repair and maintenance of the existing paved roads, water tanks and main waterlines, catch basins and bridge and stream lining below the bridge, which Lessor caused to be constructed in the Waiahole Valley Agricultural Park and Residential Lots Subdivision until such time that any of such improvements are dedicated to a governmental agency or department. Provided that if any improvements to the same are required as part of any improvement district, Lessee shall be responsible for the payment of the improvement district assessment allocated to the demised premises.

30. MISCELLANEOUS. The term "Lessor" and "Lessee" herein, or any pronouns used in place thereof, shall mean and include the masculine or feminine, the singular or plural number, and jointly and severally individuals, firms or corporations, and their and each of their respective successors, executors, administrators and assigns, according to the context hereof.

31. LESSEE'S WAIVER OF RIGHT TO PURCHASE FEE SIMPLE INTEREST IN THE DEMISED PREMISES. Lessor acquired the land which comprises the Project, including the demised premises, and caused certain capital improvements to be made to such land in furtherance of the public policies set forth in Hawaii Revised Statutes Sec. 166-1 and the public purpose of providing housing opportunities. Recognizing the contributions of the State of Hawaii to carry out such public policies and purpose in order to establish the Project, Lessee, for Lessee and Lessee's successors and assigns, hereby relinquishes, renounces and waives any right to purchase the fee simple interest in the demised premises which Lessee, including any successor and assign, now has or may hereafter have or claim under any law, including the provisions of Chapter 516 Hawaii Revised Statutes (or the corresponding section of any future or similar law), granting to a lessee holding a long term lease on residential, commercial or agricultural property the right to purchase the fee simple interest in such property.

Notwithstanding the foregoing, if any law or court of competent jurisdiction shall determine that the waiver set forth above in this paragraph 31 shall not be enforceable and shall allow the Lessee, or the Lessee's successors or assigns, to purchase the fee simple interest in the real property constituting the demised premises, the purchase price shall be not less than the sum of the following:

- (a) \$19,391 x 7.00% x number of years from the date of this Lease to the date of closing of the sale of the fee simple interest in the demised premises; plus
- (b) The fair market value of the fee simple interest unencumbered by this Lease; plus
- (c) All of Lessor's attorneys' fees and costs, including appraisal and other consultant fees arising out of the lease-to-fee simple conversion.

32. EXCEPTIONS TO LEASEHOLD TITLE AND RIGHT OF QUIET ENJOYMENT. Lessor is not making any express or implied representation or warranty to Lessee with respect to Lessee's leasehold right, title or interest in the demised premises and right to quiet enjoyment of the demised premises arising out of or in connection with the following exceptions:

- (a) Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land of which the demised premises is a part or by making inquiry of persons in possession thereof.
- (b) Any easements, claim of easement or encumbrances, whether claimed by prescription, adverse possession or otherwise, which are not shown by the public records.
- (c) Any discrepancies, conflicts in boundary lines, shortage on area, encroachments or any other facts which a complete and correct boundary and improvement survey or archeological study would disclose, including without limitation trails, rights of way, historic property or sites and burial sites, and which are not shown by the public records.
- (d) Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.
- (e) Claims arising out of native Hawaiian rights customarily or traditionally exercised for subsistence, cultural, religious, access or gathering purposes as provided by law, including without limitation the Constitution of the State of Hawaii, Section 1-1 or 7-1 Hawaii Revised Statutes or other statutory or case law of a similar nature.

33. AGREEMENT ABOUT PAYMENTS FOR "MASTER" OR "BLANKET" LIABILITY INSURANCE. If the liability insurance, which is required pursuant to Section 11 above, shall be available through a "master" or "blanket" policy and if Lessee requests in writing to be covered by such "master" or "blanket" policy, Lessee agrees as follows:

(a) Lessee shall pay to Lessor a prorata share, as determined by Lessor, of the annual premium for such liability insurance upon the issuance of this Lease to Lessee.

(b) Lessee shall pay to Lessor an additional sum on or before the first day of each and every month equal to 1/12th of Lessee's prorata share, as determined by Lessor, of the estimated annual premium for liability insurance. Lessee shall not be entitled to any interest on account of any funds which Lessee shall pay to Lessor as liability insurance premiums.

(c) Lessor shall not have any obligation, responsibility or liability to pay all or any part of the premiums for such "master" or "blanket" liability insurance policy. If any lessee of an agricultural lot or residential lot in the Waiahole Agricultural Park and Residential Lots Subdivision shall fail, refuse or neglect to pay such lessee's prorata share of the annual liability insurance premium, such lessee's prorata share shall be prorated among all lessees. Lessor may increase or decrease the estimated sum which Lessee has agreed to pay for liability insurance.

(d) Lessor shall not have any obligation, responsibility or liability to find any new or replacement "master" or "blanket" liability insurance policy if any then existing "master" or "blanket" liability insurance shall be terminated, canceled or not renewed. If any "master" or "blanket" liability insurance policy shall be terminated, canceled or not renewed, Lessee shall be responsible for providing Lessee's own liability insurance coverage pursuant to the requirements under this Lease.

(e) Lessor shall not have any duty, responsibility or liability for damages or any other relief to a lessee or any third party with respect to the amount, coverage or policy limits of any "master" or "blanket" liability insurance policy. Lessee may obtain any additional, excess or umbrella liability insurance for Lessee's benefit and protection.

(f) Lessor is not and shall not be deemed to be an insurer, co-insurer or indemnitor with respect to any claim, liability, damages of any kind or nature, including any damages. Lessor shall not be liable to Lessee or any third party if the coverage or policy limits of such "master" or "blanket" liability insurance policy shall not cover in whole or in part any particular loss or claim, including the defense of any claim.

(g) If Lessee shall fail, refuse or neglect to pay Lessee's prorata share of the estimated annual premium for liability insurance or any additional assessments for liability insurance premiums, including any additional assessments to pay the premiums of other lessees who shall have failed, refused or neglected to pay all or part of their prorata share of premiums for liability insurance, Lessee shall be in default under this Lease. Any amount which Lessee shall fail, refuse or neglect to pay shall bear interest at the simple annual rate of 12% until fully paid. The interest collected shall be applied to reduce the premium for such "master" or "blanket" liability insurance policy.

Waiahole Agricultural Park and Residential Lots Subdivision
Residential Lot Ground Lease

LESSEE:

Edward Dela Cruz Jr.
Edward Dela Cruz, Jr.

Priscilla J. Dela Cruz
Priscilla Dela Cruz

STATE OF HAWAII)

) ss.

CITY AND COUNTY OF HONOLULU)

On this 24th day of January, 1998, before me personally appeared Edward Dela Cruz, Jr. and Priscilla Dela Cruz, to me known to be the persons described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

Maui Ahrens-O'Keefe, L.S.
Notary Public, State of Hawaii

My commission expires 2/8/2000

EXHIBIT "A"

The following lot(s) as shown in File Plan No. 2052 record in the Bureau of Conveyances of the State of Hawaii situated on the westerly side of Kamehameha Highway between Land Court Application 70 and Land Court Application 1341 at Waiahole, Koolaupoko, Oahu, Hawaii:

Lot No.	Area(more or less)
13	7,500 square feet

SUBJECT TO all easements, rights of way, rights of ingress and egress, covenants, conditions, restrictions and reservations recorded in the Bureau of Conveyances and/or filed in the Office of the Assistant Registrar of the Land Court of the State of Hawaii of record.

Office of the Registrar of the Land Court of the State of Hawaii with Land Court Application No. _____, being more particularly described in Exhibit "A" attached hereto, incorporated herein and made a part hereof by reference ("Property"); and,

WHEREAS, the Property is encumbered by the recorded Declaration Of Restrictive Covenants For Waiahole Valley Agricultural Park And Residential Lots Subdivision And Homestead Road Lands, dated September 15, 1995, and recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 95-124908 and filed in the Office of the Assistant Registrar of the Land Court of the State of Hawaii as Document No. 2262857 and noted on Certificate of Title No. 380,204, Certificate of Title No. 195,898 and Certificate of Title No. 380,205 and the First Supplemental Declaration of Restrictive Covenants for Waiahole Valley Agricultural Park and Residential Lots Subdivision And Homestead Road Lands, dated January 22, 1996, and recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 96-012417 and filed in the Office of the Assistant Registrar of the Land Court of the State of Hawaii as Document No. 2287002 (collectively "Master DCC&Rs "), and the Master DCC&Rs contain all the covenants, conditions, and restrictions that affect the Property; and,

WHEREAS, Grantor and Grantee have agreed to record this Memorandum to provide notice to all persons and entities that the Property is encumbered by the Master DCC&Rs;

NOW, THEREFORE, Grantor and Grantee hereby confirm and agree that this Memorandum shall evidence the existence of the Master DCC&Rs and that Grantor and Grantee have certain responsibilities and obligations under the Master DCC&Rs to comply with and conform to the covenants, conditions, and restrictions of the Property;

AND, Grantor and Grantee further acknowledge and agree that the use of this Memorandum is for convenience and notice purposes only. Grantor and Grantee each understand, acknowledge and agree that the Master DCC&Rs shall be and hereby is fully incorporated herein by this reference. If there is any conflict between this Memorandum and the Master DCC&Rs, the terms of the Master DCC&Rs shall control.

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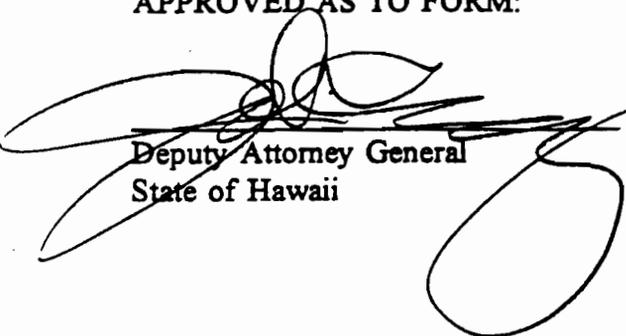
IN WITNESS WHEREOF, the parties hereto have executed these presents this 29th day
of May, 1998.

HOUSING FINANCE AND DEVELOPMENT
CORPORATION
a Hawaii corporation



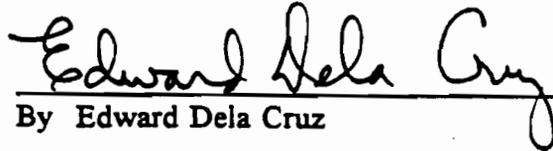
By Roy Oshiro
Its Executive Director

APPROVED AS TO FORM:



Deputy Attorney General
State of Hawaii

"Grantor"



By Edward Dela Cruz



By Priscilla Jafe Dela Cruz

"Grantee".

STATE OF HAWAII

)

) SS.

CITY AND COUNTY OF HONOLULU

)

On this ____ day of MAY 29 1998 19__, before me personally appeared ROY S. OSHIRO, to me personally known, who, being by me duly sworn, did say that he is the EXECUTIVE DIRECTOR of HOUSING FINANCE AND DEVELOPMENT CORPORATION, a public body and a body corporate and politic of the State of Hawaii; that said instrument was signed in behalf of said corporation by authority of its Board of Directors; and said ROY S. OSHIRO acknowledged said instrument to be the free act and deed of said corporation.

1.5

CB Crowder
Notary Public, State of Hawaii

My commission expires: 8.12.2001

STATE OF HAWAII

)

) SS.

CITY AND COUNTY OF HONOLULU

)

On this 13th day of February, 1998, before me personally appeared Edward Dela Cruz and Priscilla Jane Dela Cruz, to me known to be the persons described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

Maani Ahrens-O'Keefe N.S.
Notary Public, State of Hawaii

My commission expires: 2/8/2000

Exhibit F

Subdivision Map

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**HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION
WAIAHOLE VALLEY AGRICULTURAL PARK AND RESIDENTIAL LOTS SUBDIVISION**

W N A J K A N E

LEGEND

-  Exclusion (Private Property)
-  Exclusion from Agricultural Park (Sections 171, 6126) Developed Under 359 G
-  Residential Lots
-  Agricultural Lots - Leased
-  Agricultural Lots - Vacant
-  Residential Lots - Leased
-  Residential Lots - Vacant
-  Market-Rate Lease
-  Outside Subdivision
-  DHHL

LH = SAE/DSP Leasehold Purchase
RP = Former DLNR Revocable Permit

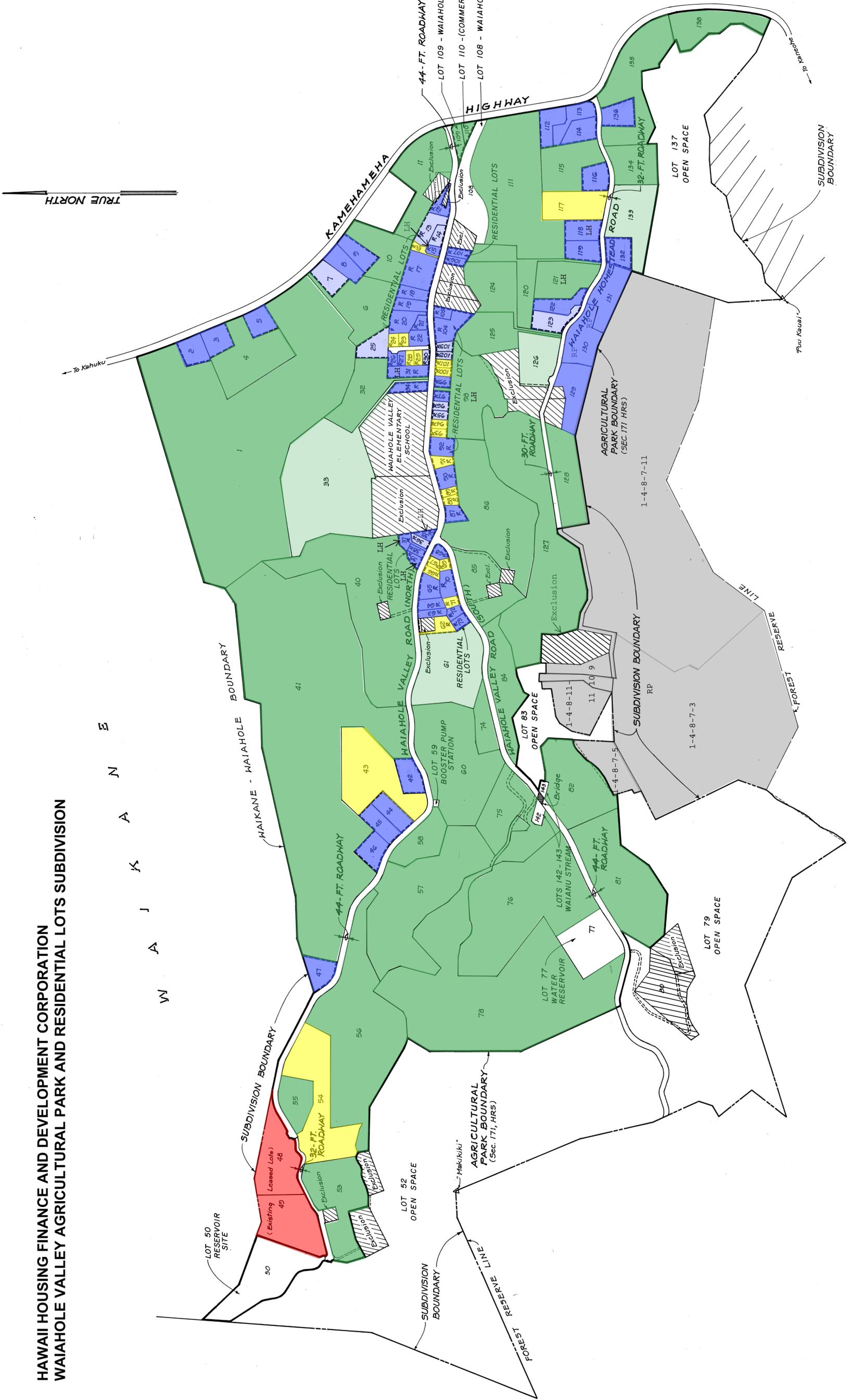


Exhibit G

Lot Summary

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<u>Type</u> ¹	<u>No.</u>	<u>Acres</u>	<u>Occ.</u>
Residential	62	38.18	83.9%
Agricultural	42	354.14	90.5%
Open Space/Infrastructure ²	11	192.25	N/A
Existing ³	2	7.97	100.0%
Commercial ⁴	<u>2</u>	<u>0.71</u>	<u>100.0%</u>
Total ⁵	119	593.26	N/A

¹ Per the Declaration of Restrictive Covenants for Waiahole Valley Agricultural Park and Residential Lots Subdivision and Homestead Road Lands.

² Includes open spaces, roads, water system infrastructure, Waiahole Stream floodway, and Waianu Stream Bridge.

³ HHFDC is the successor lessor under a 55-year lease executed by the Marks family in 1963 for a combined two adjacent lots (Lots 48 and 49). The subject “existing” lease is HHFDC’s only market-rate lease in Waiahole Valley.

⁴ Waiahole Poi Factory and adjacent farm stand.

⁵ HHFDC owns an additional 17 non-rentable lots totaling 291.83 acres located outside the subdivision; these parcels are either located within the Waiahole Forest Reserve or act as buffers to the reserve. The Department of Hawaiian Home Lands (DHHL) owns 20 lots totaling 18.47 acres located within the subdivision. There are 27 exclusions to the subdivision totaling 34.10 acres, including three lots totaling 6.34 acres that comprise the site of Waiahole Elementary School.

Exhibit H

Overview of HHFDC's Strategic Planning Goals, Objectives, and Possible Actions

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Increase Agricultural Lot Productivity

- Increased farm revenues
- Higher land utilization

Improve Dwelling Conditions

- Home renovations
- New construction

Develop/Dispose of Three (3) Vacant Agricultural Lots

- Possible rezoning and/or subdivision
- Consider alternative uses (multifamily, agricultural cooperative, etc.)

Develop/Dispose of Nine (9) Vacant Residential Lots

- Possible self-help housing
- Consider lot consolidations
- Consider alternative uses

Waiahole Water System (Potable)

- Evaluate possible disposition strategies

Kam Highway and Open Space Lots Review

- Possible alternative uses of underutilized lots

McCandless System (Non-Potable)

- Research ownership and consider development of management plan

Waiahole Homestead Road Auwai System

- Outside Scope of Work (third party preparing management plan)

Eliminate Dwelling Unit Revolving Fund Subsidies

- \$200,000 to \$400,000 per year

Determine Long-Term Ownership and Management of Water Systems

