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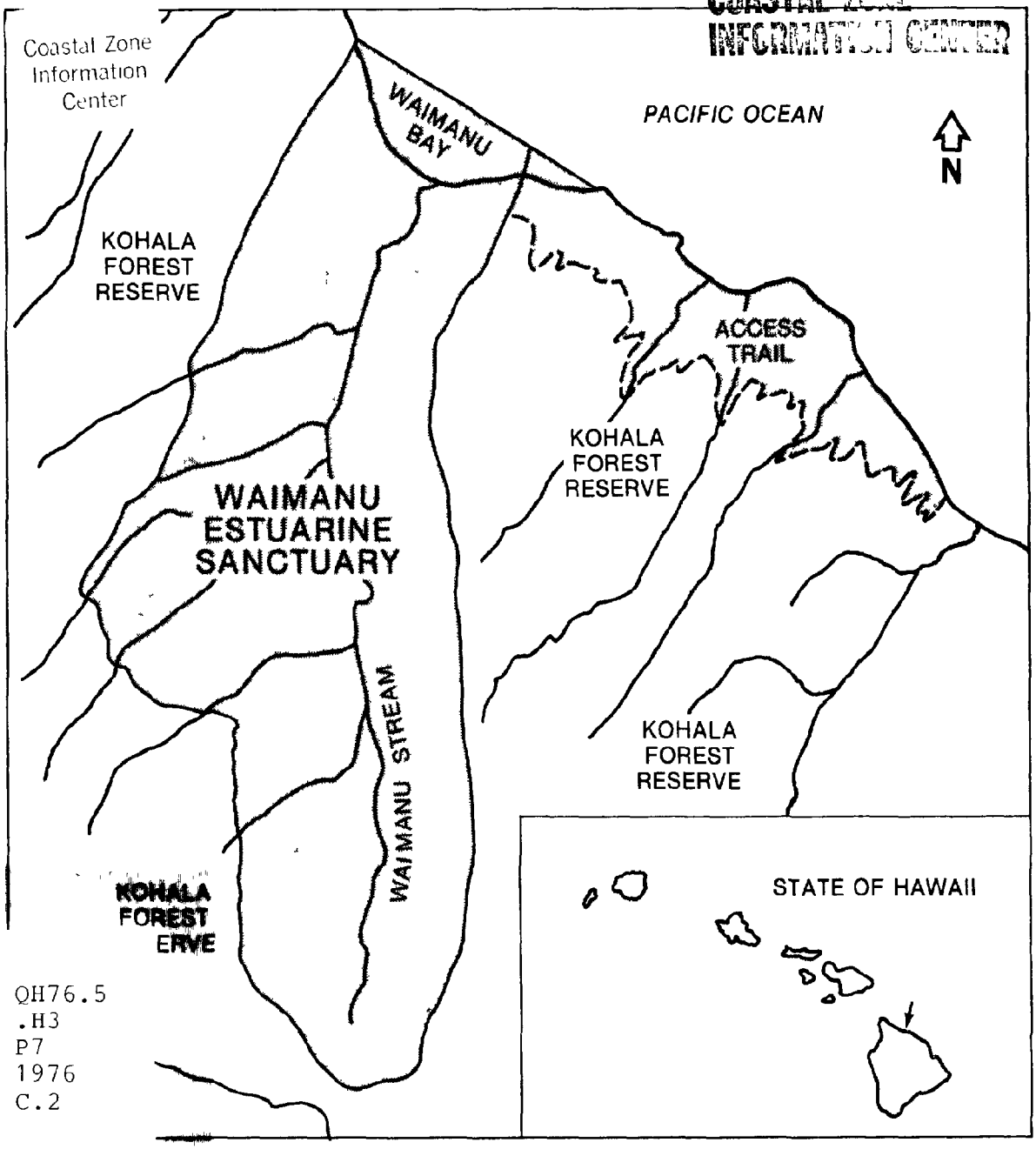
State of Hawaii Estuarine Sanctuary

Proposed Grant Award

Final Environmental Impact Statement

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of Coastal Zone Management

COASTAL ZONE INFORMATION CENTER



Proposed Estuarine Sanctuary

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UNITED STATES

DEPARTMENT OF COMMERCE

FINAL ENVIRONMENTAL IMPACT STATEMENT

PROPOSED ESTUARINE SANCTUARY GRANT AWARD FOR WAIMANU VALLEY, HAWAII COUNTY, HAWAII

MAY 28, 1976

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Prepared by:

Office of Coastal Zone Management
National Oceanic and
Atmospheric Administration
Department of Commerce
Washington, D. C. 20235

Summary

( ) Draft EIS (x) Final EIS

Proposed by:

Department of Commerce
National Oceanic and Atmospheric Administration
Office of Coastal Zone Management

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1. Proposed Estuarine Sanctuary Grant Award, Waimanu Valley, County of Hawaii, State of Hawaii.

(x) Administrative ( ) Legislative

2. The Office of Coastal Zone Management proposes to award a grant to the State of Hawaii to acquire, develop, and operate an estuarine sanctuary in Waimanu Valley, in accordance with Section 312 of P.L. 92-583 (the Coastal Zone Management Act of 1972). 347 acres of valley bottom land will be acquired to complete state ownership of the approximately 5900 acre area. If implemented, this proposed grant would be awarded in June, 1976.

3. The acquisition and operation of the estuarine sanctuary would primarily serve to preserve the area and further research interests. Negative impacts are primarily economic, including loss of water, mineral, and timber development rights. The taxes lost by acquiring the private lands amount to $34.08.

4. Alternatives considered:

A. Alternative estuarine sites within Hawaii.
B. Alternative boundaries for the proposed site.
C. Alternative management programs.
D. Alternative methods of acquisition and protection.
E. Alternative actions by the Office of Coastal Zone Management:
(1) Delay awarding the grant;
(2) Refuse awarding the grant.

5. List of all Federal, state, and local agencies, and other affected parties, from which comments have been requested.

Federal Agencies

Advisory Council on Historic Preservation

Department of Agriculture
- Forest Service
- Soil Conservation
- Agricultural Stabilization and Conservation

Department of Commerce
- Environmental Data Service
- Environmental Monitoring and Prediction
- Environmental Research Laboratories
- Marine Resources
- National Marine Fisheries Service
- National Ocean Survey

Department of Defense
- Army Corps of Engineers

Department of Health, Education and Welfare

Department of Housing and Urban Development
- Regional Administrator IX

Department of the Interior
- Bureau of Land Management
- Bureau of Outdoor Recreation
- Bureau of Reclamation
- Bureau of Sport Fisheries and Wildlife
- Fish and Wildlife Service
- Geological Survey
- National Park Service

Department of Justice

Department of Transportation
- Coast Guard

Energy Research and Development Agency

Environmental Protection Agency
- Regional Administrator IX

Federal Energy Administration

Federal Power Commission

General Services Administration

National Aeronautics and Space Administration

Nuclear Regulatory Commission

Water Resources Council

United States Congress
- Honorable Hiram L. Fong
- Honorable Daniel K. Inouye
- Honorable Spark M. Matsunaga
- Honorable Patsy T. Mink

State

- Department of Agriculture
- Department of Education
- Department of Health
- Department of Land and Natural Resources
- Department of Planning and Economic Development
- Department of Transportation

County

Hawaii
- Department of Parks and Recreation
- Department of Public Works
- Department of Research and Development
- Department of Water Supply
- Planning Department

Honolulu
- Department of General Planning

Other Governmental Agencies

American Samoa
- Environmental Quality Commission

Guam
- Bureau of Budget and Management

News Media
- Coastal Zone Management Newsletter
- Dr. John Chan
- Hawaii Tribune Herald, Ltd.
- Honolulu Advertiser
- Honolulu Star Bulletin
- West Hawaii Today

Research Institutions

University of Hawaii
- Environmental Center
- Marine Programs
- Water Resources Research Center
- Mr. Fred Ball

Mr. Kelvin K. Y. Char
Mr. John Ford
Dr. E. Allison Kay
Dr. Steven Lau
Mr. John Maciolak
Dr. Leighton Taylor

Hawaii Institute of Marine Biology
Dr. John E. Bardach
Dr. Richard W. Grigg
Dr. James E. Maragos
Dr. John M. Miller

Hawaii Institute of Geophysics
Mr. J. Frisbee Campbell

Libraries

Hawaii Document Center

Interest Groups

National
American Institute of Planners
Conservation Foundation
Environmental Defense Fund
Environmental Policy Center
Izaak Walton League of America
League of Women Voters
National Audubon Society
National Coalition for Marine Conservation
National Resources Defense Council, Inc.
National Wildlife Federation
Sierra Club
The Nature Conservancy

Hawaii

Hawaii Audubon Society
Hawaii Botanical Society
Hawaii Island Chamber of Commerce
Hawaii Isle Fish and Game Association
Ka Leo O Na Pua O Hawaii
Kona Chapter, The Hawaiian
Kona Citizens Planning Council
Kona Civic Club
Kona Conservation Group
Life of the Land
Life of the Land, Big Island Chapter
Shoreline Protection Alliance

Individuals

Shinso Asato
Alfred Alatan
Richard Baker
Helen Baldwin
Ben Cabatu
Ernest Camero
Wallis L. Coleman
Alexander Cooper
Daniel Cordoza
Harold Fisher
Steven G. Gendel
Edward E. Henry, Jr.
Matsuichi Heya
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Koyto Nekoba
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Kenneth Ogata
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Joren Quirit
Domi Rances
Herominia L. Ross
Akira Sakoda
Frank Salmoiraghi
Clifford Tam
Mitsuo Tanaka
Lane Thompson
Lois Tyler
Wallace Udo
Terresa P. Wells
Richard Yamada
Takeshi Yugawa

List of all Federal, State, and local agencies, and other affected parties commenting on the proposal:

Honorable Patsy T. Mink
Advisory Council on Historic Preservation
National Oceanic and Atmospheric Administration
Violet Hansen/H. David Tuggle
Department of the Army
General Services Administration
Environmental Center, University of Hawaii
Genesis Lee Loy
Hawaii Department of Planning and Economic Development
Environmental Research Laboratories
Department of Transportation
Hawaii Department of Agriculture
Environmental Protection Agency
Southwest Fisheries Center, Honolulu Laboratory
Department of the Interior

6. The Draft Environmental Impact Statement was transmitted to the Council on Environmental Quality on March 19, 1976, and made available to the public on April 1, 1976. The Final Environmental Impact Statement was transmitted to the Council and made available to the public on May 28, 1976.

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4. Estuarine Sanctuary Site Evaluation Matrix
5. Comparative Analysis of Three Candidate Estuary Sites
6. Comments Upon the Draft Environmental Impact Statement
7. Comments Received at Public Hearing

I. INTRODUCTION

In response to intense pressures and conflicts within the coastal zone of the United States, Congress enacted the Coastal Zone Management Act of 1972 (P.L. 92-583)(Appendix 1). The Act authorized a new Federal program to be administered by the National Oceanic and Atmospheric Administration (NOAA), in the Department of Commerce, to assist and encourage states to develop and administer comprehensive management programs for the resources of the coastal zone. The Act affirms a national interest in the effective management, beneficial use, protection and development of the coastal zone, and provides three grant programs toward these ends.

Two of these grant programs assist the coastal states (defined in the Act to include the Great Lakes States and the territories of Guam, American Samoa, Puerto Rico, and the Virgin Islands, as well as the salt water coastal states) in developing (Section 305) and administering (Section 306) comprehensive coastal zone land and water use management programs. As of March 1, 1976, all 30 states and three territories have received Section 305 grants.

A third section of the Coastal Zone Management Act establishes an estuarine sanctuary program (Section 312) to provide grants to states on a matching basis in order to acquire, develop and operate estuarine areas for use as sanctuaries in order that scientists and students may be provided the opportunity to examine over a period of time the ecological relationships within the area. Proposed rules for the implementation of the estuarine sanctuary program were published on March 7, 1974. After public review and comment, the rules were revised and published in final form on June 4, 1974 (15 CFR Part 921, Federal Register 39(108): 19922-19927)(Appendix 2).

Sanctuaries established under this program have the dual purpose of providing selected undisturbed areas so that examples of a variety of natural coastal ecological types will always remain available for ecological research, and so that natural areas will be available for use as a control against which the impacts of man's activities in other areas can be assessed. These sanctuaries are to be used primarily for long-term scientific and educational purposes, especially to provide some of the information essential to coastal zone management decision-making. Such research purposes may include:

- To gain a thorough understanding of the natural ecological relationships within the estuarine environments of the United States;
- To make baseline ecological measurements;
- To serve as a natural control against which changes in other estuaries can be measured, and to facilitate evaluation of the impacts of human activities on estuarine ecosystems; and
- To provide a vehicle for increasing public knowledge and an awareness of the complex nature of estuarine systems, their values, and benefits to man and nature, and the problems which confront them.

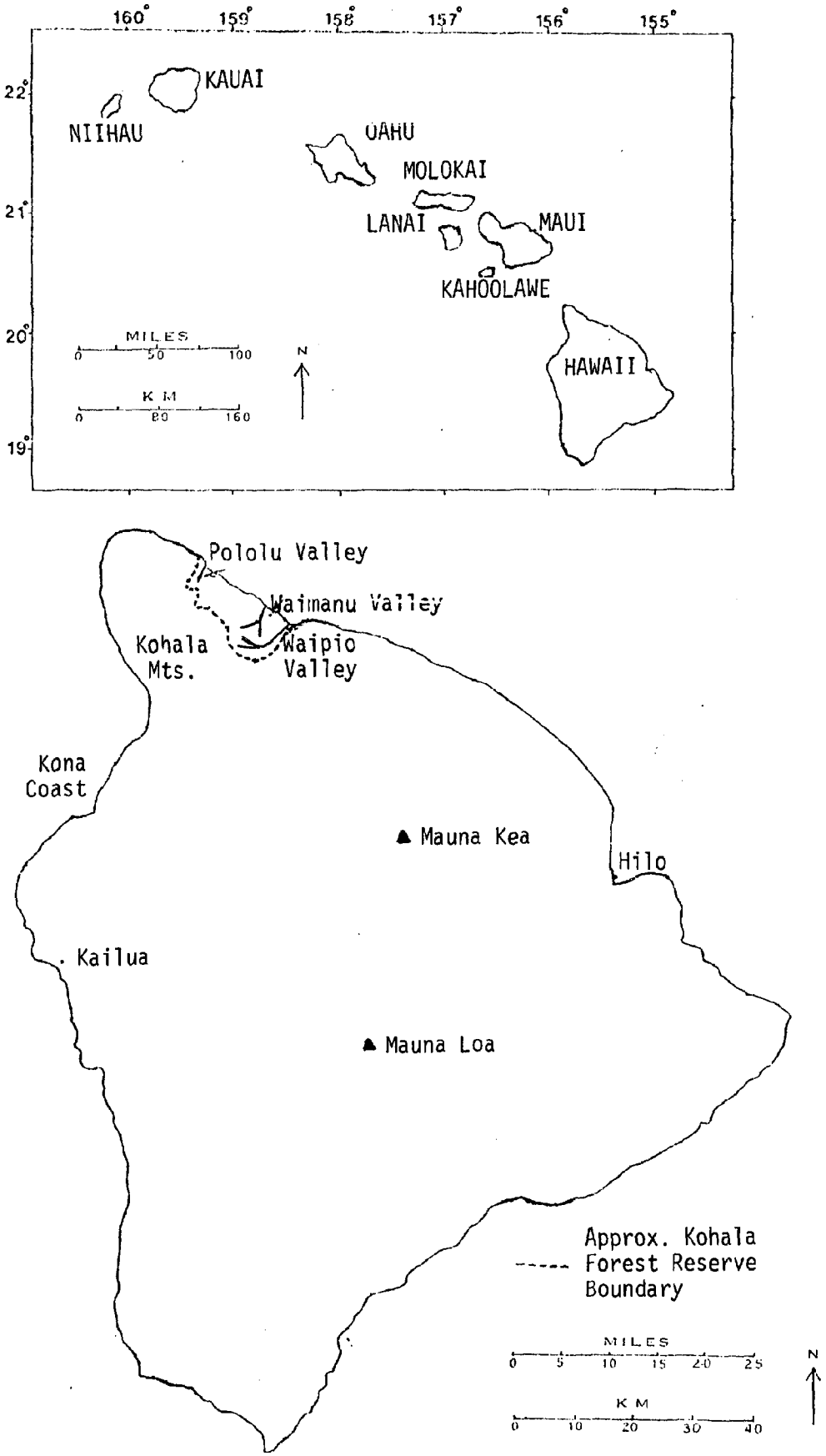


Figure 1. Location of Waimanu Valley and Kohala Forest Reserve

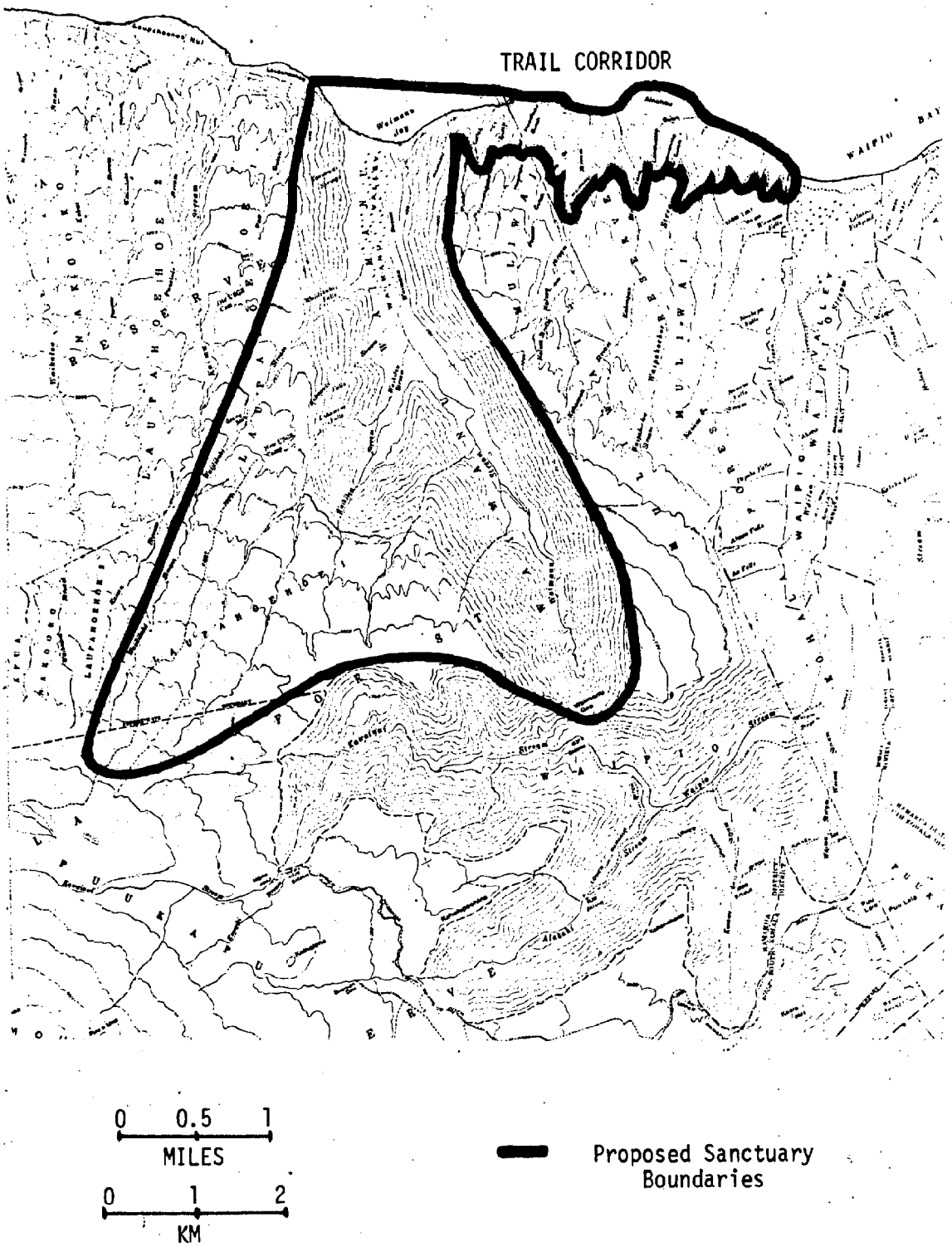


Figure 2. Boundaries of the Proposed Estuarine Sanctuary

The guidelines for the estuarine sanctuary program express in the program objectives section (921.3(a)) the national interest in fully representing regional and ecological differences. "The purpose of the estuarine sanctuary program...shall be accomplished by the establishment of a series of estuarine sanctuaries which will be designated so that at least one representative of each type of estuarine ecosystem will endure into the future for scientific and educational purposes."

Eleven different biogeographic categories are established, based on geographic, hydrographic, and biologic characteristics, and defined in the guidelines; sub-categories of this basic system will be utilized as appropriate to distinguish major sub-classes of the system. It is anticipated that a minimum of about 18 sanctuaries will be necessary to provide adequate representation of the range of ecological systems.

By revised budget appropriation in November, 1973, $4,000,000 was provided to begin implementation of the estuarine sanctuary program. The first estuarine sanctuary grant, for $1,123,965, was awarded to the State of Oregon in June, 1974, to establish a sanctuary in the South Slough portion of Coos Bay. Although no new funds were appropriated for fiscal year 1975, the original funds remain available until expended. A second estuarine sanctuary grant was awarded in June, 1975, to establish a sanctuary in the Duplin River-Sapelo Island region of Georgia. This award was in the amount of $1,500,000.

In July of 1975, the State of Hawaii submitted to the Office of Coastal Zone Management, NOAA, an application for an estuarine sanctuary to be located in the Waimanu Valley on the Island of Hawaii, Hawaii. In keeping with the spirit of the National Environmental Policy Act (NEPA) and the guidelines promulgated by the Council on Environmental Quality (CEQ)(40 CFR Chapter V, Part 1500), which require that Federal agencies assess in detail the potential environmental impact of their actions beginning at the earliest possible point and in all cases prior to agency decision, the Department of Commerce, Office of Coastal Zone Management (OCZM), has prepared this Draft Environmental Impact Statement (DEIS) for review and comment by all interested public, private, state and Federal individuals and agencies.

II. DESCRIPTION OF THE PROPOSED ACTION

The Hawaiian application requests a grant in the amount of $191,250 from the Office of Coastal Zone Management to be matched by an equal or greater amount from the State of Hawaii for the establishment of an estuarine sanctuary in the Waimanu Valley on the Island of Hawaii. Waimanu Valley is the second largest of a series of similar valleys on the northeast coast of the Island of Hawaii. They are all part of the Kohala Forest Reserve administered by the Division of Forestry, Department of Land and Natural Resources (DLNR) (Figure 1). The proposed sanctuary would include approximately 5,900 acres (about 9.2 square miles), consisting of the trail corridor from Waipio Valley, the embayment, submerged lands, wetlands and the upland watershed of Waimanu Stream and its tributaries (Figure 2). Approximately 720 acres are valley bottom lands and are primarily fresh water wetlands. The remaining acres are heavily vegetated talus slopes, uplands and valley wall. The estuarine portion consists of less than five acres. These lands include the major components of a total ecological unit.

The purpose of the proposed Hawaiian sanctuary would be to ensure the long-term protection of a virtually natural area. The acquisition and designation as an estuarine sanctuary of the last perennial, undiverted stream on the Island of Hawaii, its tributaries, and essentially its entire watershed, would protect the integrity of this ecological unit indefinitely. The primary uses of the sanctuary would be to conduct ecological investigations and to serve as a long-term control for assessment of man-introduced stresses in other, similar, areas, particularly the adjacent Waipio Valley. The latter valley is the first of this series of similar valleys on northeast coast of the Island of Hawaii to undergo development; thus the information gained from ecological studies in Waimanu Valley should be of value to the decision-making processes which occur in Waipio, as well as other similar coastal mountain streams.

The Governor of Hawaii has vested the authority to carry out the requirements of Section 312 of the Coastal Zone Management Act in the Department of Planning and Economic Development (DPED). The DPED, in accordance with this authority, has established the policy and procedures for the nomination, selection and management of the proposed sanctuary site. In compliance with Hawaii's Administrative Procedures Act, the Department of Land and Natural Resources (DLNR) would have the responsibility for acquiring the non-public landholdings and administering a management program. Approximately 347 acres of the proposed sanctuary lands are privately owned while the remainder of the lands are under state ownership, managed by the Division of Forestry under the Department of Land and Natural Resources. The privately owned lands are all in the valley floor near the mouth of the stream; presently, however, there are no residential, agricultural or commercial activities within the proposed sanctuary boundaries. The application provides that the lands not already owned by the state may be acquired in fee simple, through direct negotiation with the landowner, or, in the case of Hawaiian Home Lands, through land exchanges. Although it is not anticipated that eminent domain would be used, the state has agreed to employ this method of acquisition if no other alternative exists. The lands within the proposed boundary which are presently under the jurisdiction of the Division of Forestry, DLNR, would be declared an area for special use by a Governor's Executive Order and would then be managed under sanctuary guidelines.

The management policies outlined below were proposed by the state DPED and have been agreed to in principle by the State Board of Land and Natural Resources. It is the function of the State Board of Land and Natural Resources to oversee the actions of the DLNR and to establish the guidelines by which these actions may be carried out. The proposed management program, based on the Estuarine Sanctuary Guidelines, would be administered by the various divisions of the DLNR: Land Management; Conveyances; Forestry; Fish and Game; State Parks, Outdoor Recreation and Historic Sites; and Water and Land Development. The Division of Land Management would be responsible for acquiring the private lands. It is anticipated that the primary responsibility for managing the sanctuary would lie with the Division of Forestry as they have the greatest familiarity with the area. This Division would be responsible for producing the annual review required by the OCZM of the sanctuary and its value to the Coastal Zone Management Program in Hawaii. The Division of Fish and Game would provide additional expertise in research and management of the valley's natural resources, while the Division of Water and Land Management would coordinate the collection of data regarding water quality

and flow characteristics. The latter investigations would be accomplished in cooperation with the Water Division of the U.S. Geological Survey Office.

A Management Advisory Committee would be established to guide in the development and implementation of plans concerning the sanctuary. The Committee would also act as a liaison with the public to develop greater understanding of the CZM program in general and the estuarine sanctuary program in particular. There are two existing bodies which could possibly act as the Management Advisory Committee. One is the Natural Area Reserves Commission which was established by law to advise the governor and DLNR on areas suitable for inclusion in the state's Natural Area Reserves System and to recommend permitted uses of the areas established as reserves. The Commission is, however, administered by the DLNR. The state would prefer the Management Advisory Committee to be administratively and politically independent of DLNR policies. As a Commission with statewide interests, it was also felt the Commission may not adequately represent the local interests of the Island of Hawaii.

An alternative Management Advisory Committee to the Reserves Commission could be the Hawaii Outdoor Center Board. This Board was established several years ago by the Hawaii 2000 Commission. Four years ago Hawaii 2000, Inc. was established to discuss and explore the goals of the State of Hawaii for the year 2000. This endeavor led to the establishment of the Hawaii 2000 Commission. This Commission on the Island of Hawaii became very effective in matters concerning environmental education for increasing scientific understanding. Local support and interest is very strong and the Commission has continued to thrive after the completion of the original Hawaii 2000, Inc. program. Since that time, their interests and local support have broadened. The Hawaii Outdoor Center Board, established by the Commission several years ago, is composed of specialists from a variety of fields, including a marine biologist and local citizens. Their objectives revolve around preservation and environmental education. The Board is on good working terms with the Division of Forestry, local scientists and the general public. Because of their knowledge and interest in the Island of Hawaii, their scientific and educational objectives, and their close ties with the community, the state feels this Board would be the ideal choice for the Management Advisory Committee. The Hawaii 2000 Commission and the Hawaii Outdoor Center Board have taken this proposal under consideration.

Since the area is presently uninhabited and relatively inaccessible, the monitoring of scientific experiments, protection of the investment of scientific equipment, and the enforcement of regulations could best be handled by a resident manager. This person would not necessarily be a scientist but would be trained to monitor any equipment left in the valley. Whoever was chosen would also have to establish and maintain a good rapport with visitors and residents of the area who use the valley. This person would be on the staff of the DLNR, probably within the Forestry Division.

The presence of a resident manager and occasional scientists would necessitate the construction of two shelters. They would be built on the east side of the valley, 460 meters (1500 feet) from the beach on an elevated shelf above the old trail. These shelters would house the resident manager's quarters and provide space for scientists or visitors. The site would provide protection from flooding and tidal waters; no channelization or other flood preventative measures would be taken since temporary flooding from heavy rains is a natural occurrence here. Water supplies would be provided by catchments or a well. Sewage disposal facilities would be constructed to have minimal impact on the environment.

The proposed rules and regulations are based on existing regulations for other Natural Area Reserves. A Hawaiian state law requires the DLNR to hold a public review of any proposed set of regulations before they can be officially adopted. The DLNR and DPED have distributed draft regulations for the proposed sanctuary (Appendix 3). Hearings on these regulations will occur in June. A summary of the proposed rules and regulations follows. They represent very little change from the existing practices in the valley and should, in fact, provide safer and easier access for the public. They would also ensure the long-term protection of the valley.

As proposed, prohibited uses would include: mining, clearing, logging, construction of buildings or campsites (other than the scientific shelters), introduction of exotic flora or fauna, removal of native species of flora or fauna (except for hand clearing about certain archeological and historical sites), anchoring of vessels within the bay or stream, and alteration or destruction of any archeological or historical sites. In addition, no improvements to accommodate helicopters or boats would be allowed, nor would water diversion from the proposed sanctuary be permitted. Restricted uses, those which would be permitted but under control, would include: camping, hunting and possibly swimming. Permitted uses would include: angling for marine fish, removal of the Tahitian prawn from the stream (removal of this exotic introduced species is considered desirable), access to the valley trails and interpretive trails, and research (most manipulative research, however, would not be permitted). In addition, trails would be improved to allow safer and easier access to the valley.

Although boats or helicopters may be used to bring in major supplies and scientific instruments, and for emergency rescue service, no improvements would be made to accommodate them.

Camping by visitors not housed in the manager's quarters or scientific personnel shelter would be permitted in designated locations just outside the sanctuary boundaries. The two sites on either side of the valley would minimize the impact of man on the valley and would be located high enough to protect the campers from flooding or tsunami and wild pigs. No effort would be made to protect the valley from floods, since floods are a natural occurrence here.

The valley has been used by local hunters for many years and the hunting of wild pigs would be permitted and initially encouraged. Since the wild pig population (an introduced species) is presently causing considerable destruction in the valley and is a threat to anyone within the valley, the long-term objective would be to phase out the feral population at Waimanu and encourage the use of other areas for hunting. Specific regulations concerning hunting would include designated hunting areas, required permits, and check-in and check-out with the resident manager. In addition, no cleaning would be permitted within 15 meters (fifty feet) of any stream, and any carcasses must be buried. The permit system and the check-in, check-out system with the resident manager should provide adequate control and monitoring over hunting activities.

Swimming could be allowed in the bay; however, it would be strongly discouraged because of the persistent strong undertows and the frequent occurrence of sharks in the bay.

The trail corridor from Waipio Valley would be part of the sanctuary and would remain the usual access route. It would be improved and maintained to allow safe access for scientists and visitors alike. Improvements would consist of clearing some of the existing slides which make the trail hazardous, clearing some of the overgrown vegetation, and creating drainage paths in areas presently subject to washout. The trails on either side of the valley would be cleared of overgrown vegetation (but nowhere paved). In the lower part of the valley where extensive marshes occur, a wooden walkway would be constructed to facilitate access to the stream while minimizing the damage to the environment. These trails would be necessary for the various types of monitoring experiments and for allowing controlled visitor access to the valley. The trails would be kept to a minimum and their location would be decided during the initial survey and reconnaissance investigations of the valley.

Signs would be posted at the Waipio trail head stating the regulations concerning the sanctuary. In addition, a permit or sign-in system similar to that used in other controlled access forestry areas would be employed. These measures are necessary to monitor visitor and scientist use of the area. Enforcement of the rules and regulations will be by the resident manager or any other forester or fish and game warden. As in other similar areas in Hawaii, state parks or reserves for instance, violators are subject to fines and imprisonment.

The research carried out in Waimanu Valley would be under the jurisdiction of DLNR and coordinated through the University of Hawaii. Research facilities are located at the University of Hawaii Campus, Hilo. Sea Grant, National Marine Fisheries Service and the U.S. Geological Survey (USGS) Water Resources Division have all expressed interest in participating in research within the valley. It is a recognized fact that any research carried out in the valley will be more difficult to accomplish than in other areas because of the comparative inaccessibility of Waimanu. However, the quality of data from an undisturbed ecosystem of this type should well balance the difficult accessibility. No manipulative, destructive, or consumptive research would be permitted.

The state has identified the following general areas of research as appropriate:

- Inventory and baseline studies on flora and fauna, valley water system dynamics, climate and geology;
- Native forest ground water acquifer recharge mechanisms;
- Control studies on native shrimp disease; life history studies on the mullet;
- Integrated studies of the ecosystems present in the valley, and
- Archaeological and historical site survey.

Since no data exist on this valley, the first priority would be an inventory of the valley's flora and fauna. A study of the biology, chemistry, and physics of the stream would be initiated. The Office of Water Data Coordination of the Water Resources Division in USGS will assist the Division of Water and Land Development in DLNR in initiating the latter studies. Both groups are interested in having the data for comparison with streams which have been modified by man. The mechanisms and efficiency by which native forests recharge ground aquifers is not well understood. It is hoped this valley in its undisturbed state will aid studies concerning this subject.

Waimanu Valley is characteristic of the valley/tidal stream environments occurring on the windward slopes of volcanic islands. As a virtually undisturbed natural ecological unit which includes native forests, streams, springs, ponds, marshes, and bay, it is expected that studies of natural populations within the valley will provide needed baseline data to compare with disturbed populations elsewhere. Studies of shrimp and mullet in the unpolluted streams, and studies of the relationshps between forest and marsh ecosystems, should provide information useful to scientists and agencies working in other areas. The information derived from research carried out here could be of considerable interest to a coastal zone management program which must consider the management of fresh water supplies and of stream valleys as part of its program.

Public education within the sanctuary would include the establishment of interpretative trails and the development of an identification guide of the flora and fauna species specific to Waimanu. In addition, if the Hawaii Outdoor Center Board were to become the Management Advisory Committee, it is anticipated that information from the sanctuary studies would be useful to other educational activities of this group.

The proposed state budget for land acquisition and first year operating costs is $207,500. Of this, the majority of the costs would be for land acquisition. The land acquisition costs are presented in Table I. The Federal share of these costs are estimated at $175,000. State owned lands would be used as equity in lieu of cash for the state's share of land acquisition costs. The $500 per acre acquisition cost is an estimated average cost per acre made by a state appraiser. The figure was based in part on sales of land in similar undeveloped areas. If an estuarine sanctuary grant were awarded in Waimanu, Federal regulations concerning estuarine sanctuaries require that two independent appraisals be made by qualified firms. Thus the final budget for land acquisition is in doubt at this time. This figure merely represents the proposed grant award. The actual land acquisition costs depend upon the results of the appraisals; the grant award would be amended accordingly.

The assessed valuations of the private lands, averaging $30. per acre proved to be of little use in estimating the purchase cost of these lands. The assessments are old, and in the opinion of a state appraiser, invalid. In Hawaii, assessed value is approximately 70 percent of market value; thus the average market value per acre of these lands would be $43. The total tax collected on the 347 acres of nonstate owned land is $34.08. If the Hawaiian Home Lands were required to pay taxes (they are a tax exempt public agency) the total tax collected would be about $70.

The Hawaiian Homes Commission meeting on January 31, 1975, unanimously voted to accept the state's proposal to acquire their Waimanu holdings. By law, the Department of Hawaiian Home Lands may not sell their land, it may only exchange the lands for others of equal value. To comply with this Federal law, the DLNR has expressed its willingness to negotiate the land exchange; a variety of methods are being explored. The state also has received a letter from the Bishop Estates accepting intent to negotiate purchase of their lands.

The proposed operating budget for the first year includes costs for baseline inventories, trail improvement, and various other costs associated with the initial operation and management of the sanctuary. These proposed costs amount to $32,500 of which the Federal share is $16,250. The state would match its share with cash and in-kind. Future requests by the state for matching funds for maintenance and operating costs would be considered appropriate.

Table I. Proposed Land Acquisition Costs. From State of Hawaii's Grant Application for a National Estuarine Sanctuary (p. 51)

Landowner	Area in Acres	Assessed Value per acre	Total value	Special conditions
Bishop Estate's 'lil'aina of Kekelani, Waimanu	90	$500	$ 45,000	Letter in hand accepting intent to negotiate purchase
Department of Hawaiian Home Lands	200	500	100,000	Must be exchanges for land of equal value, for which state must be recompensed.*
Individual owners Kuleana grants	57	500	28,500	State can acquire by negotiation or condemnation
Subtotal	347	$500	$173,500	
Land appraisal (Reimbursed to DPED)	-	-	$ 1,500	
Total			$175,000	
State owned lands (Valley floor only)	633	$500	$316,500	Equity to be used as state's matching share

III. DESCRIPTION OF THE ENVIRONMENT AFFECTED

Smith (1974) reports that very little information is known about the estuarine systems of Hawaii, particularly the biological aspects. He reports that only Kaneohe Bay and Pearl Harbor have been studied in any detail from a biological standpoint, although numerous published and unpublished accounts of various other bays do exist. Circulation patterns have been studied for some of the larger estuarine systems, but here again the published information is sketchy. The valleys of the northeast coast of Hawaii are generally inaccessible and have small estuarine areas; thus it is not surprising that formal studies in the area are lacking. Not only have these estuarine systems not been studied, but also relatively little is known about their upland areas. Because of the paucity of detailed information, the following description of the environment is somewhat general.

The proposed estuarine sanctuary at Waimanu lies on the northeastern windward coast of the Island of Hawaii (the Big Island) and would include almost an entire valley-stream system plus the trail corridor from Waipio Valley. The area could best be described as a drowned river valley with some tidal influence at the mouth of the stream. It would fit the category of the Insular biogeographic province as proposed in the Federal Guidelines for estuarine sanctuaries. These include larger mountainous islands with considerable wave action, frequently with endemic species and primarily tropical. Geologically, the chain is very young, with the age decreasing from the northern islands to the Southeast. Well developed estuaries, in the classical sense, have not yet developed, except at Pearl Harbor and Kaneohe Bay. In general, however,the estuaries are larger and better formed on the northwestern islands (especially Kauai), and smaller and less developed on the southeastern islands.

Although never surveyed, the sanctuary would contain about 5900 acres (Figure 2), containing three general areas: the ahupuaa, an ancient term for a type of land division running from the mountains to the sea, following the ridge of the eastern valley wall to the head of Waimanu Valley (elevation 915 meters; or 3000 feet), then turning north toward the sea, approximately following the ridge of the western valley wall, and finally descending to the 366 meter (1200 feet) cliff at the sea's edge; the trail corridor from Waimanu Valley, that area from the trail to the sea; and finally, the southwest portion of the watershed, including the upper watersheds of the major tributaries to Waimanu Stream. Thus the boundaries are based primarily upon a natural ecological unit recognized by Hawaiians for centuries. On the valley floor, the Department of Hawaiian Home Lands owns 200 acres, the Bishop Estates owns 90 acres, private owners control 57 acres, and the rest is state owned (Figure 3). These nonstate owned lands occur close to the valley mouth and are essentially wetlands.

The Hawaiian Islands were probably settled by people from southeastern Polynesia, perhaps as early as the seventh century. The islanders used the land for agriculture, establishing extensive field systems; thus there is virtually no valley floor where the flora has not been altered

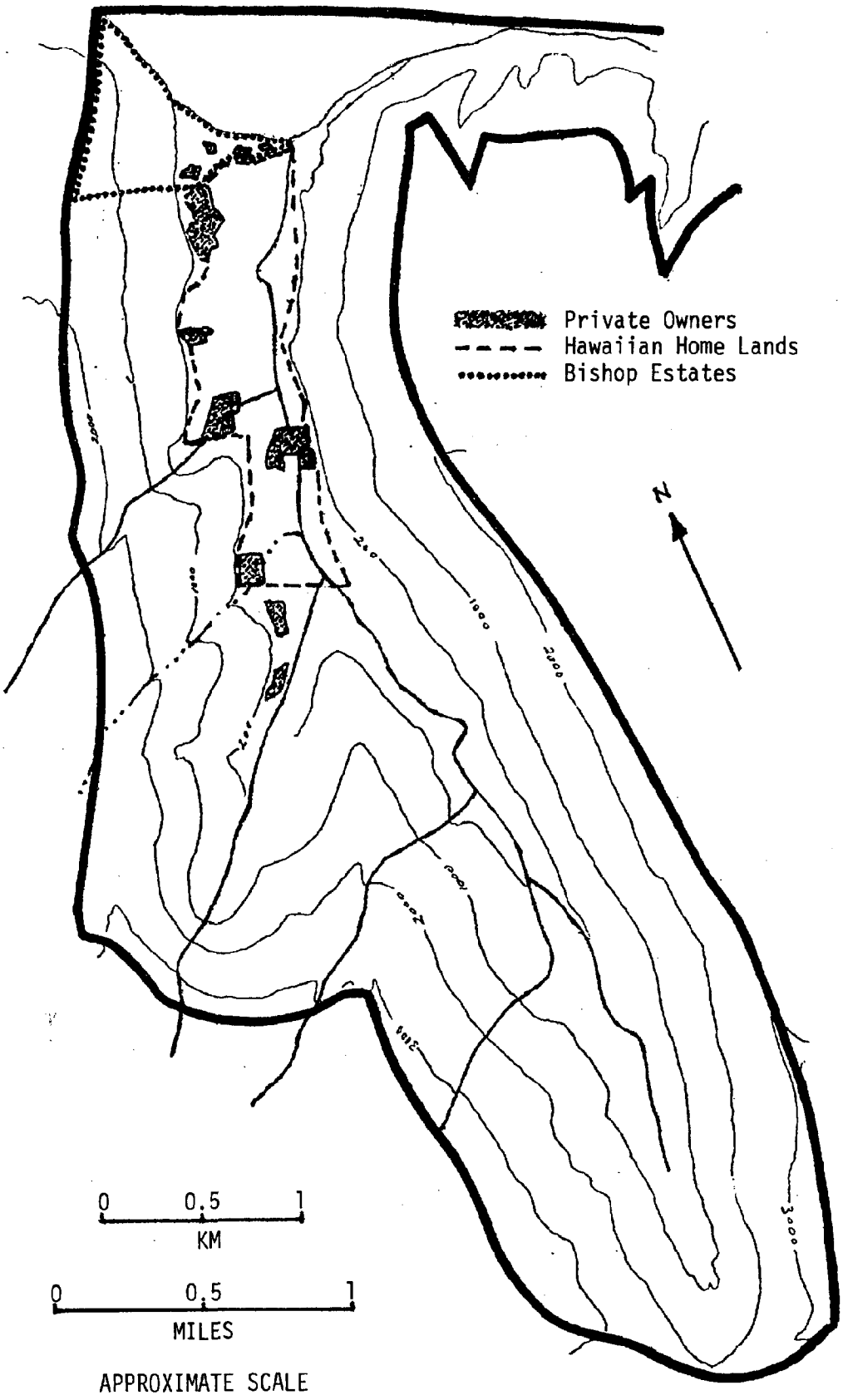


Figure 3. Approximate Boundaries of Privately Owned Lands in Waimanu.

to some extent. In order to utilize their land resources more efficiently, the land was divided into administrative units which were not privately owned. A moku is an island or a district of an island; an ahupuaa is a portion of a moku and an ili is a smaller unit of land within an ahupuaa. The boundaries of the land were not surveyed but were defined by natural features of the land and were kept by oral record passed down from generation to generation. It is the boundaries of one of these ahupuaa that comprise the boundaries of the proposed sanctuary.

In 1848 the King of Hawaii, Kamehameha III, divided his land into two parts: one part as the Crown Lands for himself and his heirs and the other part as Government Lands. Landholdings called Konohiki Lands had already been granted to the chiefs, although title had not been granted. Two years after the King divided his lands, the Land Commission awarded fee simple titles to some of the native tenants. These parcels were known as kuleana lands The privately held 57 acres in Waimanu Valley consist of 19 kuleana owned by 11 persons. The Government Lands, in addition to much of the former Crown Lands, are now state owned properties on the islands.

Waimanu has been occupied for many centuries although it is probable this occupation has been intermittent. The Hawaiian life-style did little to change the natural landscape in this valley. Water ditches were used to regulate water supply to the taro (Colocassi esculenta) fields, the principal crop produced in the valley. By the turn of the century, both taro and rice were grown in the valley with some of the residences constructed on the remains of Hawaiian temples. Agriculture and residences alike were destroyed by a tsunami in 1946. Since that time, the valley has been left to the forces of nature and a few hunters and campers; it is now uninhabited.

The archaeological value of Waimanu Valley is relatively unknown. As of the 1974 Supplement to the National Register of Historical Places, no historic properties of state or local significance were listed within Waimanu Valley. The inventory of possible candidates, however, is not yet complete. Bonk and Loo in 1970 conducted a preliminary site survey along the southeast side of the Valley. Of the ten sites recorded in this narrow area, eight were judged significant enough to warrant further study. Then, in 1972, the state site survey team viewed the above sites as well as a strip along the northwestern side of the valley. These located sites include perhaps six terraces, a stone platform, a burial platform, and wall fragments. Because of the 1946 tsunami, many sites are in poor condition and of marginal value. Nevertheless, both survey teams recommended further study.

The Island of Hawaii is the largest of the seven populated islands in the Hawaiian chain, and comprises 4,037 square miles (62.5%) of the land area of the state. Over 65,000 people live on the island, representing eight percent of the state population. It is, as are the other islands, of volcanic origin and has a high degree of porosity. Geologicall, it is the most recent of the Islands in the chain. The highest mountains

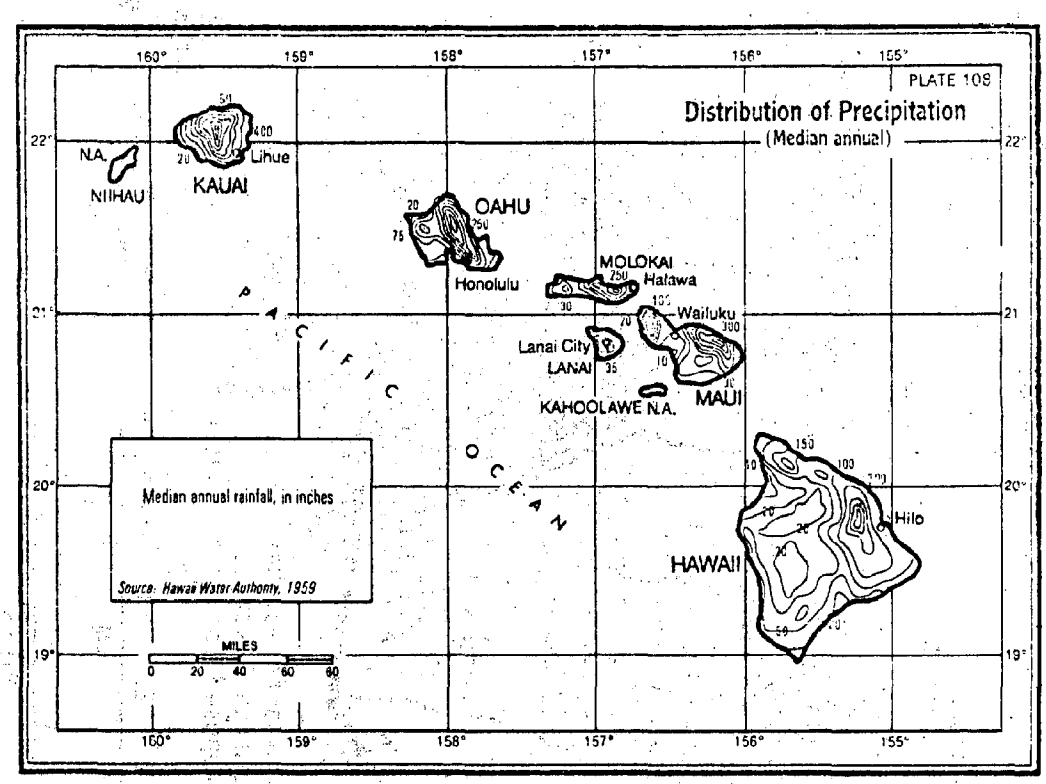


Figure 4. Precipitation in the Hawaiian Islands. Plate 108, Water Atlas of the U.S. (reprinted by permission of Water Information Center, Inc.)

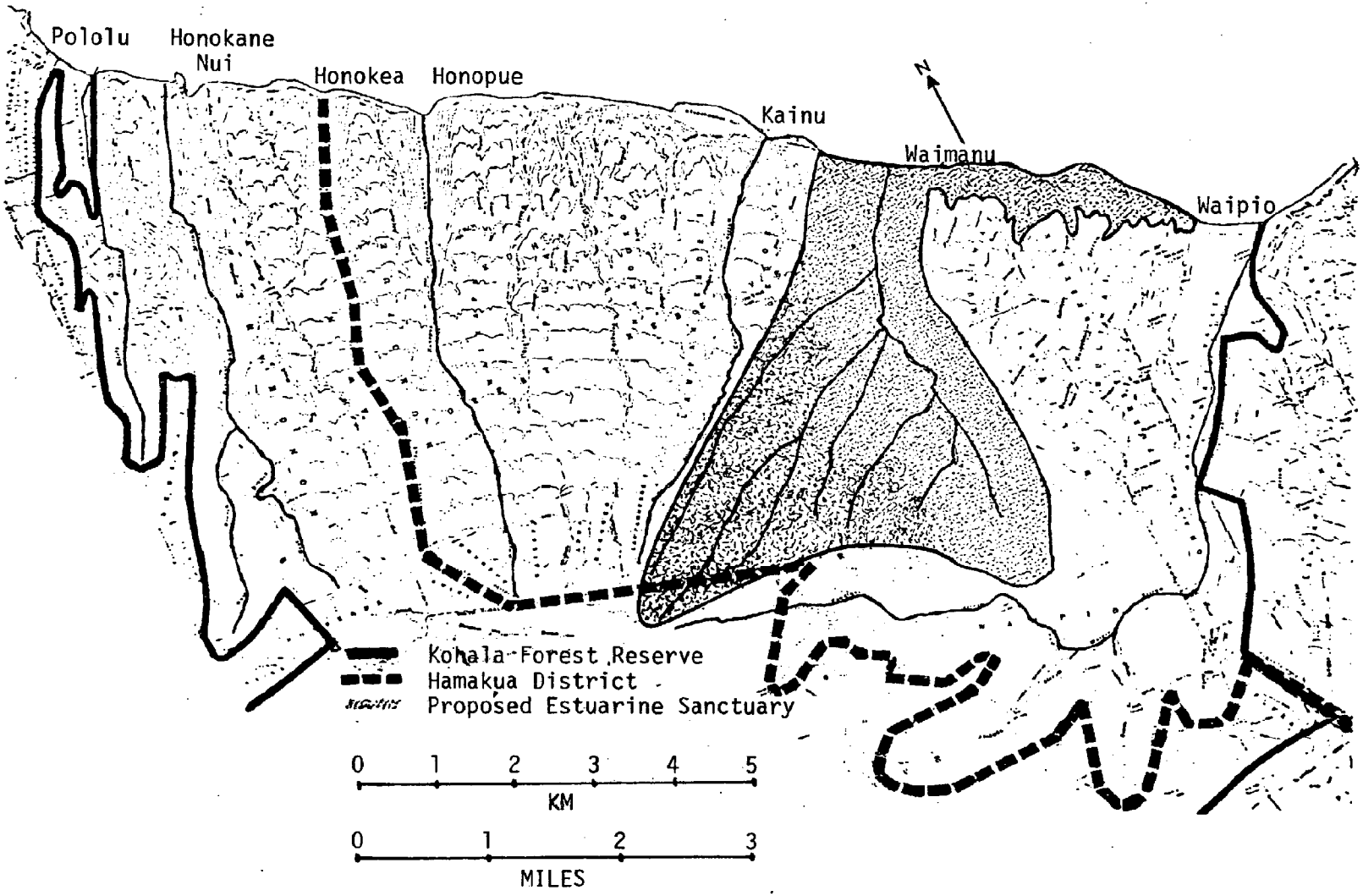


Figure 5. Location of major valleys, Kohala Forest Preserve, and the Hamaku District

in the state, Mauna Kea (4,048 meters; 13,496 feet) and Mauna Loa (4,160 meters; 13,677 feet), are on the Island of Hawaii. Mauna Loa consists o of several volcanoes, two of which are still active.

The temperatures of the entire state are warm and equable, the lowest temperature on record in Honolulu being 10° Centigrade (52° Fahrenheit), and the highest 34° Centigrade (93° Fahrenheit). The warmest month is August and the coldest is February. As expected, temperatures decrease uniformly with increasing elevation to an inversion level usually between 1500 meters and 2100 meters (5000 feet and 7000 feet).

The climate of the Big Island is semi-tropical, varying locally with elevation and orientation to the trade winds. The trade winds are northeasterly and remain relatively uniform and persistent throughout the year. Their average velocity is 19.2 kilometers per hour (12 miles per hour). This wind pattern is an important factor in determining the climate of the island, particularly precipitation patterns. The incoming trade winds cool as they rise over the mountains, dumping most of their moisture on the windward side of the island. The resultant rainfall patterns can vary from 760 centimeters (300 inches) annually on the northeast, or windward, side of Mauna Kea to 15 centimeters (six inches) annually on the southeast and southwest, or lee, sides of the island (Figure 4). The rainfall in the Kohala Mountains in the Waimanu area averages about 500 centimeters (200 inches) annually. Data available from the Division of Water and Land Development, DLNR, for 1973, and the National Weather Service (formerly U.S. Weather Bureau)(for 1959 and 1961) for Waimanu and Waipio Valleys give some indication of the distribution of rainfall within the valleys. The data indicated highly variable total rainfall between years. However, in a given year, the data indicated less rain fell at the mouth of the valleys than at their higher elevations.

In addition to the effects of the trade winds, two other major types of weather influence this island, although they have relatively little effect on the Waimanu area. Convective storms do occur off the Kona Coast in the lee side of the island. In addition, infrequent major winter storms, known as Kona storms, originate in a low pressure zone southwest of the island.

The entire northeastern coast of this island is part of the flanks of the Kohala shield volcanoes. The Kohala shield is capped by an erosion resistant siliceous lava called the Hawi Series. It is underlain by basalt flows of the Pololu Series, which are thin and interleaved with ash and tuft beds. There are seven valleys on the northeast coast within the Kohala Forest Reserve that are geologically similar. These are, from east to west: Waipio, Waimanu, Kainu, Honopue, Honokea, Honokana Nui, and Pololu (Figure 5). Waimanu is the second largest of these valleys: Waipio, the largest. These valleys owe their development to the fact that fault scarps protected the valleys from being filled by lavas of the Hawi Series and that the valleys drain the windward, wettest, side of the island. Subsequent to the formation of the valleys, they were submerged to a depth of at least 250 meters (830 feet), and are now filled with alleuvial sediments. Since this island is the youngest of the Hawaiian Islands, its valleys and estuaries are also the least developed of those in the state. In fact, the valleys of of the Waimanu area might well be the youngest and least developed of the entire state.

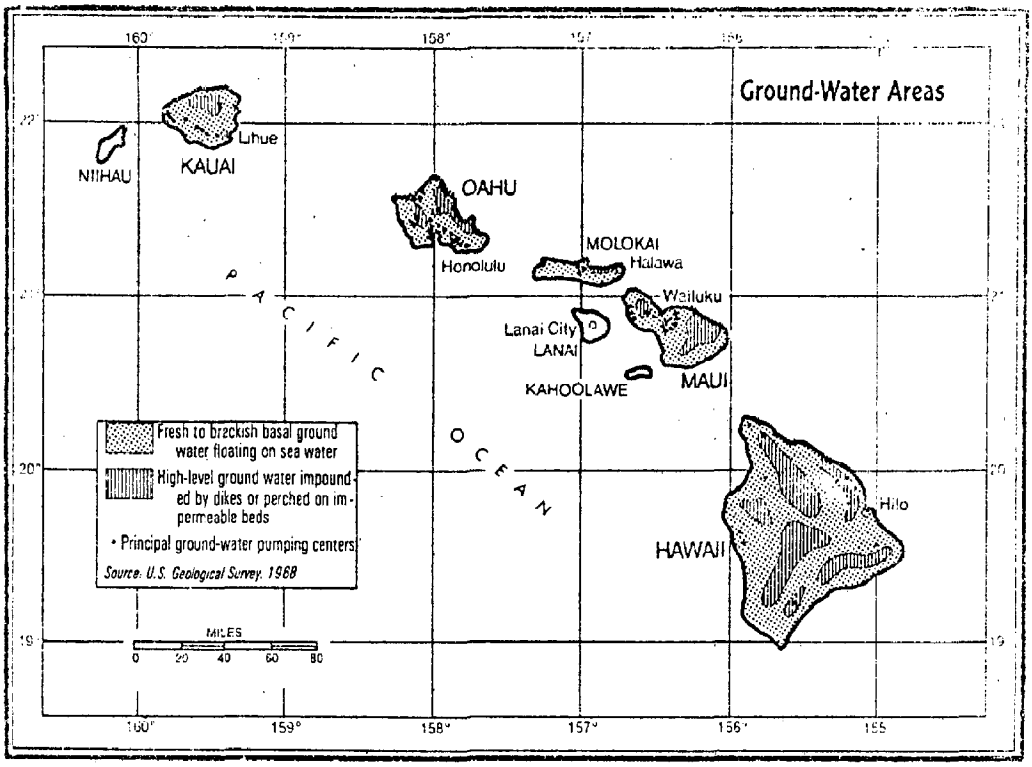


Figure 6. Ground Water Supplies of Hawaiian Islands. Plate 112, Water Atlas of the U.S. (reprinted by perm. of Water Information Center, Inc.)

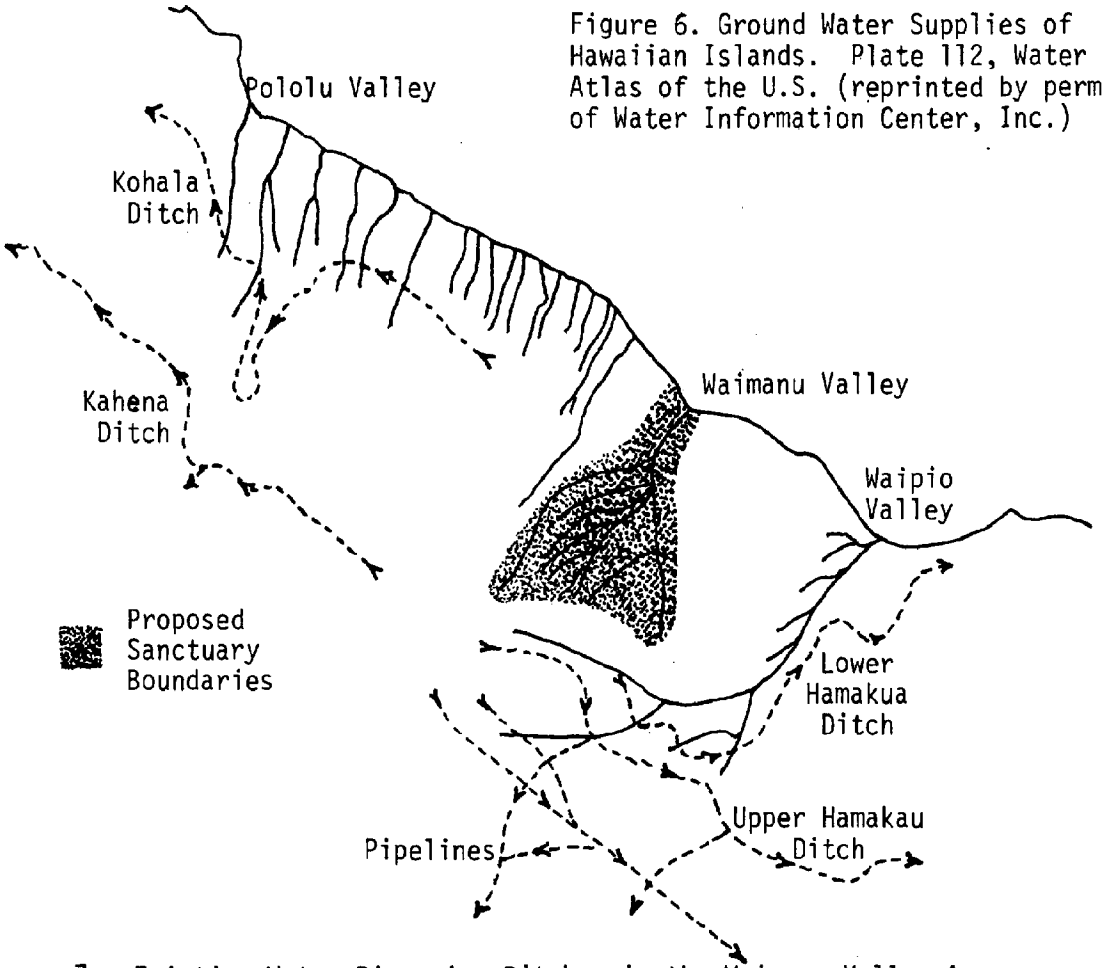


Figure 7. Existing Water Diversion Ditches in the Waimanu Valley Area.

The shorelines near Waimanu Valley are composed of steep cliffs, some as high as 465 meters (1528 feet). Sand and cobblestone beaches are found at the valley mouths and in some areas dunes are blown inland to a height of 16 meters (51 feet). The sand is generally well-sorted, medium grained and composed entirely of detrital grains of fresh lava fragments. The beach at Waimanu is composed of basaltic boulder/cobblestones on the Waipio side and dark grey sand on the west side of the mouth.

The soil survey for the island of Hawaii, published by the Soil Conservation Service, U. S. Department of Agriculture (USDA), lists two types of soils for the area. These two types represent general types of soils occurring on the island as no extensive studies of Waimanu Valley have been undertaken. The valley bottom lands are listed as Tropaquepts soils consisting of moderately deep, poorly drained soils formed in recent alluvium. They have a surface layer of dark-grey mucky silt loam and subsoil of silty clay loam. The second type of soil occurring here is classed only as Rough Broken Land consisting of very steep, precipitous lands broken by intermittent drainage channels. The soil material may range from very shallow to deep on slopes from 35 to 70 percent.

The water resources of the island come primarily from high level impoundments and water on perched ash and tuft beds (Figure 6). The primary source of water to Waimanu and its neighboring valleys is from perched water beds in the Kohala Mountain ash and tuft beds. Presently, the water supplies to Waimanu are the only ones of this area which have not been diverted and ditched to other areas (Figure 7). This is due to the technical difficulty and high cost of diverting Waimanu's water resources.

The flow of Waimanu Stream has not been gauged; Stearns and Macdonald in 1946 published some information on Waimanu Stream but their figures are based on a limited set of data. A summary of their findings follow. Stearns and Macdonald hypothesized that the Kawainui tributary of Waipio once was a tributary of Waimanu Stream since the present flow of Waimanu Stream would have been unable to cut the existing 1000 meter valley. In 1946, and even now, the head of Waimanu Valley Stream originated behind a twelve foot dike, at an elevation of 129 meters (425 feet) one mile from the head of the canyon, and discharged about five million gallons per day (mgpd) during dry weather. Above the springs, the discharge was only half a million gallons per day. Waihilau, at an elevation of 129 meters (425 feet) was thought to be the largest high level stream on Hawaii; they estimated its flow to be 12 mgpd. Then, as now, Waihilau Stream joined Waimanu in the valley floor; numerous other streams and springs also contributed to the flow of Waimanu Stream. Stearns and Macdonald estimated the flow by the mouth of the valley to be 30 mgpd.

After Waihilau Stream, Waiilikahi Stream is the second major tributary of Waimanu Stream. The USGS placed a gauging station on Waiilikahi Stream at an elevation of 835 meters (2740 feet) between 1950 and 1960. Their records indicate yearly mean low discharges of about 5 mgpd and yearly mean high discharges of about 8 mgpd. The variation in annual discharge does not have a large range, however, individual months do

show a large range from year to year. For instance, July discharge records range from a low of 4.2 mgpd in 1960 to a high of 13.9 mgpd in 1959. December discharges ranged between 4.9 mgpd and 19.6 mgpd. Similar variations for other streams could be expected, thus the flow measured at the mouth of Waimanu Stream may be quite variable.

The predominant current in the Hawaiian Islands is the North Equatorial Current. The currents around each island are a function of bottom topography, shoreline topography, winds and tides. Generally, along the northeast coast of the Big Island, the currents set northwest in the summer and southeast in the winter. This is a high energy coastline, with limited coral reef development off Waimanu. The waves are generally moderate to large all year and the tidal range is less than one meter.

Waimanu Bay is not an estuary where measurable dilution of sea water with fresh water occurs. It could be considered a tidal stream backed by extensive fresh water wetlands. Marine influence at the mouth is restricted by a cobblestone berm perhaps three meters (10 feet) wide. The stream's flow is sluggish on the valley floor creating freshwater marshes on practically the entire northern half of the valley floor.

During a field trip conducted by the DPED with participants from DLNR, NMFS, and OCZM in May 1975, the stream paralleled the berm before entering the sea approximately 40 meters (130 feet) west of the main stream channel. During high tide, the surf regularly overrode the berm; subsurface percolation of sea water through the berm also occurred. At high tide a tongue of warm saline water, approximately half a meter thick, progressed up the stream bed for a distance of approximately 30 meters (100 feet) from the berm. Samples taken at this time indicated a salinity of 10 parts per thousand in the tongue (surface salinities were about 5 parts per thousand). At low tide, no tongue of saline water was detected; samples taken at the same locations in the stream as those taken at high tide indicated salinties of less than one part per thousand from surface to bottom. Normal sea water has a salinity of about 35 parts per thousand. Other members of the party reported that the stream has in the past entered the sea directly from its channel and has also paralleled the berm for as much as a hundred meters to the west of the channel before entering the sea. The outlet probably varies as a function of stream flow and wave intensity. There are some indications that portions of the marsh may be brackish; the extent of these areas is unknown. The estuarine portion of the stream is limited; this type of valley/stream system, however, is representative of the estuarine streams found on this island and on others having a similar geological age and history.

Although there are no industries in Waimanu, the valley mouth is periodically effected by industries located northwest and southeast of the valley. Bagasse and other detrital material from the sugar cane processing plants is occasionally brought onto the beach by currents. It is not known what effect the discharge from such industries have on the waters near Waimanu.

The flora and fauna have not been studied or inventoried in Waimanu. In fact, the lack of human influence has allowed the vegetation to follow its own course of succession for at least the last 30 years, since the tsunami of 1946. Inventories of flora and fauna would be the first

priority should an estuarine sanctuary be established. The following description of flora and fauna is based primarily on a report by a DPED staff member. In addition, the Waipio Valley Master Plan indicates certain species exist in Waipio Valley; it could reasonably be expected that in some instances the same species would also occur in Waimanu.

The isolation and volcanic origin of the Hawaiian Islands has resulted in many unique species of plants and animals. These are derived from native species, Polynesian introductions (many of which have developed endemic varieties) and "exotic" species brought by later settlers. The vegetative patterns result principally from the elevation, exposure to ocean spray, orientation to trade winds and exposure to human influences. Common and Hawaiian names will be used in the discussion; Table II provides the corresponding scientific names, origins, habitats, and uses of species referred to in the text.

The trail to Waimanu Valley climbs a 366 meter (1200 feet) cliff and traverses 13 water cut valleys (seven of which are small perennial streams) before descending into Waimanu Valley. Within the Valley, there are extensive areas of marsh; remnants of a trail exist along the lower valley wall.

The zigzag trail from Waipio to the top of the first ridge has Lantana (an exotic species), 'Ulei, Kukae-nene, and Kauna'oa uka (all native) species along the trail. The top of the ridge has a covering of a hardy exotic species, Ironwood. This species occurs on all the ridge tops and provides protection to other forms of vegetation from the trade winds. The trail corridor then traverses lower coastal areas, protected stream valleys and higher elevations. Each area has its own complement of vegetation. The coastal areas tend to have more exotics - Eucalyptus, Java Plum, Albizia, Norfolk Island Pine, and Cook Island Pine - all of which are used extensively in reforestation projects. The coastal area also supports native populations of Koa and Acacia species. In the protected stream valleys occur such native species as Kukui, Ti, Hapu and other ferns. The exposed slopes have native Pandanus groves while the higher elevations are covered primarily with native species like Ohia, 'Ulei and various ferns. As the trails descend into Waimanu, native species of Ohia, Koa, Ti and Pandanus become mixed with such exotics as Christmas Berry and Guava. Along the vegetated talus slopes at the valley wall/floor break, native species include Kuku, Noni, Birdsnest fern, Laua'e, Hapu and other ferns. There are also Breadfruits (a Polynesian introduction), Guava and Mango (both exotic). In the upper reaches of the watershed the rare 'ape'ape is found.

Directly behind the berm there is a small area of higher, dry ground. This area supports native Pandanus, Papaya, Coconut and Pohuahue species, the Polynesian Breadfruit and the exotic Ironwood. The northern half to two thirds of the valley consists of freshwater marshes and ponds. California grass and an endemic sedge are the principle species of the marsh. There may be apreas of brackish water, however, the extent of these areas, and the species associated with them,are unknown. Upstream of the marshes, the ground becomes dry enough to support Ohia and Guava.

TABLE II

Waimanu Estuarine Sanctuary Flora

Scientific Name	Common Name (Hawaiian Name)	Habitat	Uses
Native Species			
Aleurites moluccana (L.)	Candlenut tree (Kukui)	Sea level to 2,000'	State tree, oil leis, medicine
Metrosideros collina (Forst.) Gray subsp. polymorpha	('Ohi'a-lehua)	1,000' to 6,000'	Leis, spears flooring
Cocos nucifera	Coconut tree (Nui)	Coastal	Food, crafts, oil shade, cordage (husk)
Cassytha filiformis L.	Kauna'oa (Kauna'oa uka)	1,000' to 3,000'	
Osteomeles anthyllidifolia	'Ulei ('Ulei)	Sea level to 4,000'	Fish spears, 'ukeke hoop for fish nets
Coprosma ernodeoides	(Kakae-nene)	3,000' to 6,000'	
Acacia koa Gray	Koa (Koa)	1,500' to 4,000'	Canoes, crafts, furniture, reforestation
Pandanus odoratissimus L.F.	Screw pine (Hala or Puhala)	Sea level to 2,000'	Leaves for many craft uses
Dicranopteris linearis (Burm.) synonyms: Gleichenia linearis (Burm.), Clarke dichotoma Hook	False staghorn fern (Uluhe)	500' to 3,000'	Ground cover
Morinda citrifolia L.	Indian mulberry (Noni)	Open lowlands, edge of forest	Important as a medicinal plant
Microsorium scolopendria (Burm.) Copel	Maile-scented fern (Laua'e)	Sea level to 2,000'	Leis, landscaping
Rauwolfia, several species	Hao tree (Hao)	Sea level to 1,000'	Medicinal, Arbors

TABLE II (cont)

Scientific Name	Common Name (Hawaiian Name)	Habitat	Uses
Native Species (cont.)			
Asplenium nidus L.	Birds-nest fern ('Ekaha)	Lower forest	Ornamental crafts
Caricaceae, Carica papaya L.	Papaya (He'i)	Sea level to 1,200'	Edible fruit (Commercial)
Ipomoea pes-caprae L.	Beach morningglory	Beach vine	
Polynesian Species			
Artocarpus communis Forst.	Breadfruit ('ulu)	Lowlands	Food, gum part of canoes
Eugenia malaccensis L.	Mountain Apple (Ohi'a'ai)	Sea level to 1,800'	Edible fruit attractive forest cover
Exotic Species			
Casuarina equisetifolia	Ironwood	Sea level to 3,000'	Windbreak, reforestation
Psidium guajava L.	Guava	Sea level to 2,000'	Fruit, jam medicinal tea
Lantana camara L.	Lantana	Sea level to 2,000'	Ornamental, has become a pest
Eucalyptus E. robusta Sm.	Eucalyptus	2,000' to 5,000'	Reforestation, commercial timber
Eucalyptus E. saligna Sm.	Eucalyptus	1,000' to 6,000'	Reforestation, commercial timber
Eugenia	Java Plum	Sea level to 4,000'	Reforestation
Albizia (L.) moluccana Miq.	Albizia (Siris)	Sea level to 5,000'	Reforestation
Araucaria heterophylla (Salisb.) Franco; synonym: A.excelsa Lamb R. Br.	Norfolk Island Pine	Sea level to 5,000'	Reforestation, fog drip, ornamental, lumber, masts

TABLE II (cont)

Scientific Name	Common Name (Hawaiian Name)	Habitat	Uses
Exotic Species (cont.)			
Araucaria columnaris (Forst.) synonym: A. cookii R.	Cook Island Pine	Sea level to 5,000'	Reforestation, fog drip, ornamental lumber, masts
Coffea arabica L.	Coffee	1,000' to 2,500'	Commercial coffee
Ficus F. nota (Blco.) Merr.	Fig	Sea level	Reforestation
Mangifera indica L., various species	Mango	Lower altitudes	Edible fruit
Schinus terebinthifolius, Raddi	Christmas-berry	Sea level	Ornamental, pest

The Department of Interior has published in the Federal Register (Volume 40, #127, 1 July 1975) a list of threatened or endangered vascular plants within the United States. Over 3000 species are listed in this review with over one third of them occurring in the State of Hawaii. Even though there are no data specific to Waimanu, it is reasonable to expect that some of these species would occur here. The area has been uninhabited for 30 years and even when inhabited, the activities occurred mostly on the valley floor near the mouth of the stream. Until an actual inventory can be carried out, the endangered species cannot be determined.

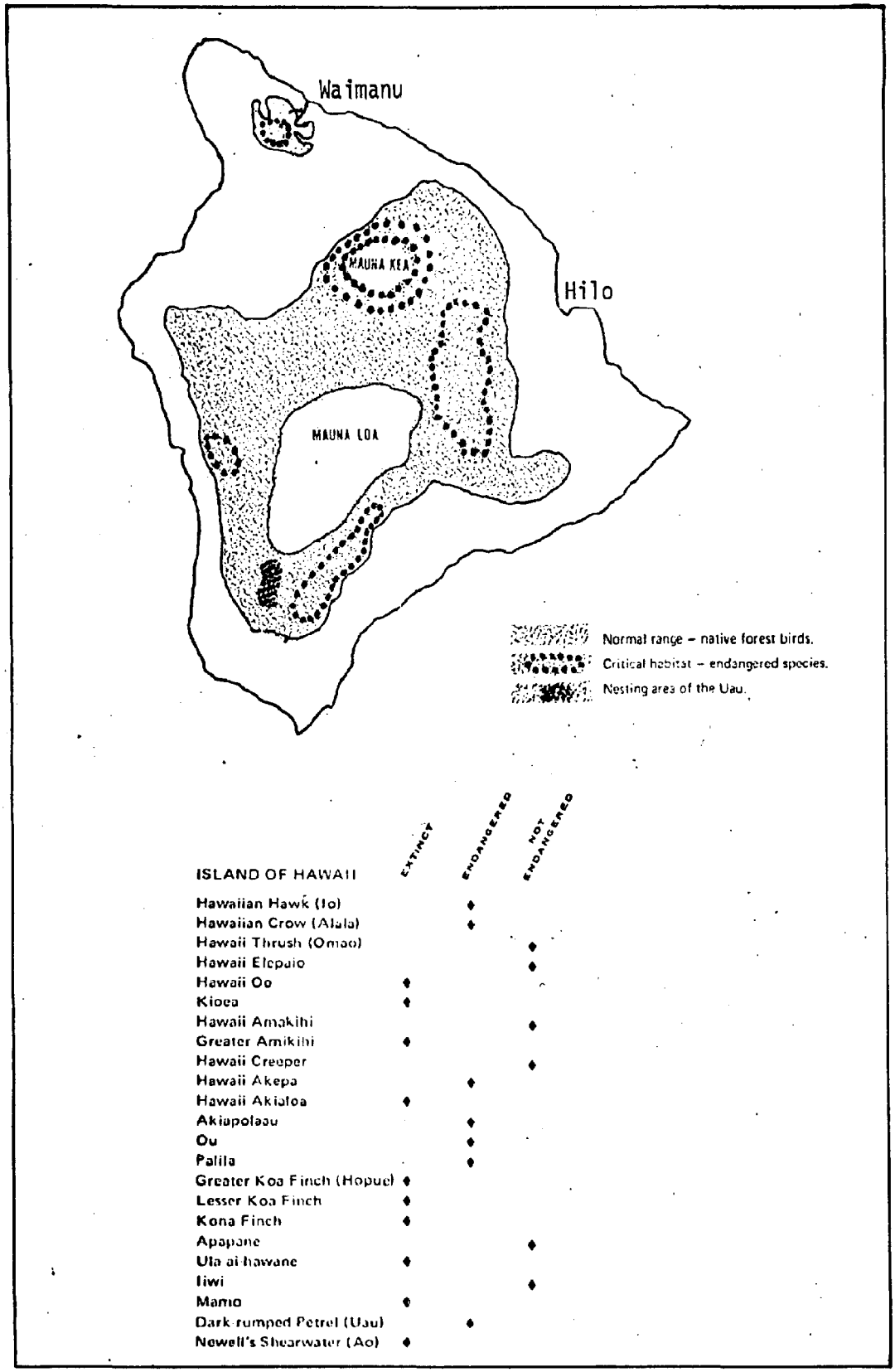
The State of Hawaii has no native reptiles or amphibians and only one species of mammal - the hoary bat of Hawaii. This bat is known to occur in Waipio Valley and is on the endangered species list. Although no sightings have been reported in Waimanu Valley, it could easily be present. Hawaii's only native hawk, the Io (Buteo solitarious), is also an endangered species and has been seen in Waimanu Valley. Both of these species are dependent on native vegetation; the Io is supposed to rear its young in the Ohia covered slopes of the gorges. Other endangered species may occur in Waimanu, but here again,until studies can be carried out in the region, no listing of endangered species of the area can be given. Although specific information about Waimanu is lacking, something is known about the status of endangered forest birds on the Island of Hawaii. A publication entitled "Hawaii's Endangered Forest Birds" by the U. S. Fish and Wildlife Service and the DLNR of Hawaii list the extinct, endangered and not endangered species for the individual islands (Figure 9). The report points out that the forest areas of the Hamakua District (which includes Waimanu Valley) have not been thoroughly studied, thus the existence of endangered forest birds in this area is not documented. Since much of the northeast region of the island is forest reserve, it seems likely that here again some of the endangered forest birds would be found in this area.

The Waipio wetlands are a habitat for the black crowned night heron (auku) and a stopover for such migrants as the golden plover. Unidentified ducks are often seen; they could be the native Koloa, resident of the Kohala watershed. It is quite possible that some or all of these species also frequent Waimanu Valley. A National Marine Fisheries Service biologist also reports having sighted the black crowned night heron (Aukuu) in Waimanu.

Although never surveyed, various species of animals have been seen in Waimanu Stream. Listed below are the macrofauna which have been observed in Waimanu Stream or which, by professional opinion, might occur in Waimanu Stream (source: DPED and NMFS personnel):

Macrofauna Observed in Waimanu Stream

- aholehole (Kuhlia sandvicensis)
- mullet (ama'ama)(Mugil cephalus)
- o'opu anihaniha (Awaous genivittatus)
- O'opu akupa (Eleotris sandvincensis)
- Tahitian prawn (Macrobrachium lar)
- Hihiwai (Neritina granosa)
- Brown wi (Theodoxus vespertina)
- bullfrog (Rana catesbeiana)
- toad (Bufo marinus)



ISLAND OF HAWAII	EXTINCT	ENDANGERED	NOT ENDANGERED
Hawaiian Hawk (Io)		♦	
Hawaiian Crow (Alala)		♦	
Hawaii Thrush (Omao)			♦
Hawaii Elepaio			♦
Hawaii Oo	♦		
Kioea	♦		
Hawaii Amakihi			♦
Greater Amikihi	♦		
Hawaii Creeper			♦
Hawaii Akepa		♦	
Hawaii Akialoa	♦		
Akiapolaau		♦	
Ou		♦	
Palila		♦	
Greater Koa Finch (Hopue)	♦		
Lesser Koa Finch	♦		
Kona Finch	♦		
Apapane			♦
Ula ai hawane	♦		
Iiwi			♦
Mamo	♦		
Dark-rumped Petrel (Uau)		♦	
Newell's Shearwater (Ao)	♦		

Figure 8. Distribution of Forest Birds, Island of Hawaii. From Hawaii's Endangered Forest Birds, 1975. U.S. Department of Interior and Hawaii Department of Land and Natural Resources.

Macrofauna Likely to be Present in Waimanu Stream

black opae (Atya bisulcata)
Hawaiian shrimp (opae oeha'a) (Macrobrachium grandimanus)
o'opu nakea (Awaous stamineus)
o'opu nopili (Sicydium stimponi)
Papio (Caranx sp.)
Awa (Chanos chanos)
Awaawa (Elops hawaiensis)

The wild pig, an introduced species, causes considerable damage to the vegetation and to trails, because of extensive rooting. The areas rooted up by the pigs provide an open, "cultivated," area making it easy for seeds of "exotics" to gain a foothold, thus posing a threat to an intact native ecosystem. Because of the great numbers and large size of the feral pigs in Waimanu, there would also be some danger to scientists working in the valley. This population would be brought under control if Waimanu were designated an estuarine sanctuary.

There is one native (Polynesian introduction) rat in Hawaii (wai wai iole) which pollinates the native 'ie'ie vine. An unintentionally introduced rat species causes considerable damage to the sugar cane crops, but is not known to occur in Waimanu. The mongoose was intentionally introduced in Hawaii for the purpose of controlling the rats; they also destroy the eggs of ground nesting birds. A large number of mongoose have been sighted in Waimanu Valley.

IV. RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES AND CONTROLS FOR THE AREA.

If established, the proposed estuarine sanctuary management program would supersede all other existing proposals and plans for Waimanu Valley. The Valley would be managed under the guidelines discussed in Section II, primarily for research and public education purposes. It should be noted that of the existing plans dealing with this area, none would appear to have any major conflicts with designation of this area as an estuarine sanctuary.

Under a 1961 Hawaiian State Law, all lands within the state have been classified as Urban, Agricultural, Rural or Conservation Districts. Waimanu Valley is part of a Conservation District which includes all of the Kohala Forest Reserve. In Conservation Districts, land uses are administered solely by the State Board of Land and Natural Resources through Administrative Regulation 4. In this case, Waimanu is administered by the Division of Forestry under the aegis of the State Board of Land and Natural Resources. At present, and for the foreseeable future, state owned lands in Waimanu Valley are being managed for watershed protection. This policy essentially prevents consumptive or destructive uses of the forests. Designation as an estuarine sanctuary would be in accord with the present watershed management policies and would provide permanent, long-term protection of this watershed. It should be noted that Conservation District zoning does not preclude such developments as resorts, residences, lodges, agricultural or logging activities on either state

or private land holdings, nor water withdrawal from the watershed. This is more fully explained in Section VI, D, Alternative Forms of Protection.

Waimanu Valley has been listed by the Natural Area Reserves Commission for consideration of inclusion within the state's Natural Area Reserves System. Designation as an estuarine sanctuary could provide better protection and better research opportunities than could the state Natural Reserves System because the entire watershed, including privately held lands, could be acquired under the estuarine sanctuary program.

The county has generally planned Waimanu for conservation; both the Waipio Valley Master Plan and the Forestry Division's desire for trails in the Kohala District could accommodate the existence of an estuarine sanctuary without altering the philosophy behind their proposals. The proposed Waipio Valley Master Plan designates Waimanu Valley as an ecosystem which should be held in reserve in an undeveloped state. The proposal recommends a trail across the stream mouth, with a small camping area on higher ground. The Forestry Division has altered its original Kohala District proposal so that, should a sanctuary be established, the trail would cross Waimanu at the mouth and then lead into the next valley where more extensive trail systems could eventually be built between Waimanu Valley and Pololu Valley. Designation as an estuarine sanctuary would not represent a major change in land use with respect to these proposals.

The Kohala Mountains watershed has been ditched for irrigation and industrial purposes. Waimanu watershed is the only water system in the mountains and, in fact, one of the few perennial streams in the entire state which has not been diverted. Establishment of the estuarine sanctuary in this watershed would preclude the possibility of diverting this water. This may conflict with any present or probable future plans although the diversion of this system would be very difficult. The state has indicated that diversion could only occur through the use of large pumps and at a cost which would make diversion at the present time economically prohibitive. With an increase in water demand, however, the project could become economically feasible. In addition, the DLNR has stated their commitment to protect the Waimanu system from water diversions should a sanctuary be established.

At present there is no utilization of the resources of Waimanu Valley for economic purposes. At least one individual, however, has expressed his intent to develop his land for recreational/hunting purposes. The Marubeni Corporation and Oji Paper Co., Ltd. are currently involved in a joint operation reforesting and harvesting eucalyptus trees for wood chip production. Although they have not expressed a direct interest in Waimanu, the operation is active in similar areas along the northwestern coast, and is expanding. Designation as an estuarine sanctuary, while not changing any present land uses, would foreclose these options.

V. PROBABLE IMPACT OF THE PROPOSED ACTION ON THE ENVIRONMENT

If awarded, a grant from the OCZM would enable the State of Hawaii to acquire and protect the Valley of Waimanu, its watershed, streams, springs, beach and bay. The most direct environmental impact of this action would be the assured use of the area and its resources for scientific, educational

and other compatible uses. Protection of this ecological unit would maintain water quality in the Valley and would provide useful baseline data for comparison with altered watersheds.

Research carried out within the proposed sanctuary would increase the understanding of the physical and biological characteristics in tidally influenced valley/stream ecosystems. This is important to the development of a coastal zone management program at the local, state, and regional levels in a state where the majority of the people live and work on its coast. The research and controlled long-term monitoring would improve the capability of such management programs to cope with the issues and conflicts occurring in the state's coastal zone. Scientific research carried out on a single ecosystem by a variety of state and Federal agencies could also enhance the communication and coordination among the agencies managing Hawaii's coastal zone. In addition, the sanctuary would offer the county a unique opportunity to evaluate the impact of man's development to Waipio Valley, a nearly identical system which supports agriculture and grazing and which is expected to undergo various types of development pressure in the near future.

The sanctuary would provide a vehicle for increasing public knowledge and awareness of the complex nature of such valley systems and the problems which confront them. Since Waimanu is, and would remain, relatively inaccessible, the educational aspects within the valley would be available only to those who sought them. The information gained from studies in Waimanu should, however, apply to other more accessible areas and that information might aid in other educational programs on the island.

The proposed rules and regulations would have little effect on public use of the area as the rules represent little change from present usage patterns in the valley. The rules would, however, present unlimited access to all parts of the valley and would maintain recreational uses within the valley at a low intensity. Although public access would be controlled, the interest in visiting Waimanu could actually increase due to trail improvements and publicity about the program. So long as this use is not detrimental to the valley's environment, the understanding of nature and the program gained by the public through the educational program in the valley could be considered beneficial to the estuarine sanctuary program. The existence of a sanctuary in Waimanu would also assure the public of some access to a natural valley, a condition which does not necessarily exist on other state or privately owned lands. In addition, the sanctuary might provide moral support for recreational plans in the rest of the Kohala Forest Reserve, thus preserving a use of the entire region, recreation,which could be lost through inappropriate or piecemeal development.

Although the extent to which endangered plant and animal species occur within the valley is unknown, the permanent protection of the valley would ensure the survival of their habitat. Species which are disappearing from other areas stressed by development might find refuge here. Feral populations presently causing extensive damage to the vegetation would eventually be phased out, or reduced to a low level. If found to be essential, their numbers could be controlled through managed hunting, or by capture and transplant.

The actual physical impact on the valley due to the establishment of an estuarine sanctuary would be small. There are presently no residences or businesses within the valley; thus no relocations would be necessary. Two proposed scientific shelters would be constructed, but would be designed to be visually and environmentally unobtrusive. The suggested trail improvements consist principally of clearing old trails of brush. These improvements would allow access to the valley, provide protection for scientists and visitors, but would also limit uncontrolled access. The wooden walkways over the marsh would initially cause some disturbance, but, again, this disturbance would cause less long-term damage to the marsh than uncontrolled access. The campsites would be located outside of the valley proper, would provide control over visitors and would protect visitors from flooding and pigs. These structures and improvements are deemed necessary to the successful operation of the sanctuary and do not appear to constitute a threat to the integrity of the valley.

This construction of shelters and walkways and clearing of trails would be conducted so as not to interfere with archaeological and historical sites of significant value. The possible increase usage due to publicity and trail improvements could affect such sites; if problems arose, access to these sites could be restricted. Lastly, declaring Waimanu a sanctuary would insure that any archaeological or historical sites would remain free of interference by development. Thus while the proposal could have an effect upon possible valuable sites, it will not be an adverse one.

Certain economic factors must also be considered in the probable impact on the environment. These include: loss of water development rights, loss of mineral development rights, loss of the taxes on the privately owned lands, and loss of the potential for future development. In addition, some return of revenue may accrue to the county as a result of the establishment of an estuarine sanctuary.

If an estuarine sanctuary were designated in Waimanu, water from this watershed could not be diverted to other areas. Water is a constant concern to the state and to the county of Hawaii. The demand for water in the Kona area south of the Kohala Mountains will no doubt increase in the future as there are plans to expand the resort potential of the Kona area. Although Waimanu watershed is the only watershed whose water is not diverted, there appears to be overall agreement among the various state and county agencies that the preservation of the intact water system of Waimanu outweighs the potential gain from water diversion. Several studies on the potential of the Kohala Mountains water resources indicate that more efficient use of the present systems should satisfy foreseeable future needs of the region. In addition, it is not now feasible economically to divert water from Waimanu watershed, thus reducing the probability that such diversion would or could occur.

Should any mineral resources be discovered, these could not be utilized. In addition, no removal of timber or other consumptive use of the resources of the valley would be permitted. It should be noted, however, that in all cases the resources would remain intact; thus the resource potential would always exist, even if not utilized.

The economic impact of removing the privately owned lands from the tax rolls is insignificant. At present, the approximately 347 acres of private land have an average valuation of $30 per acre and the total tax collected for these lands amounts to about $34. The tax exempt Hawaiian Home Lands would be taxed about $36 if they were not exempted. Section II discusses in greater detail the taxes assessed on these properties. There are, however, no residents or any structures in the valley; thus there would be no relocation costs.

In protecting and preserving this valley, the potential for development is lost. Such development could increase the tax revenues and could bring in additional revenues to the county. However, the demand for public services, access roads and flood protection would also increase. These types of costs could easily cost the public more in the long run than would be gained in revenue from any private development. For instance, in Waipio Valley a flood protection program developed by the Corps of Engineers in the early 1960's was abandoned primarily because of an unfavorable cost/benefit ratio, but also because the program would have provided flood protection at the expense of the scenic beauty of the valley. The valley is still without adequate flood protection, although a limited plan is under consideration. Any net revenue increase which might occur as a result of development of Waimanu would occur at the expense of the presently undisturbed natural system and at the expense of the naturally high water quality. This would in turn adversely affect the area's research potential.

With the establishment of an estuarine sanctuary, the potential for increased field research grants exists. For the Hilo campus in particular, this could provide some opportunities which are presently unavailable. Some short term jobs would probably be made available as a result of the proposed improvements, and the position of the resident manager would become available. Although the value of the area's potential as an educational experience cannot be evaluated, the value does exist. Neither can a value be assigned to the long-term impact of preserving the aesthetic and scientific values of the area; there is, however, some value in that preservation as well.

The overall impact of the proposed action appears to be beneficial to the county and state. The environmental impact of the proposed action would be to preserve the valley in its natural state. This would be in accord with the designations of the county and state for this area. Protection of the estuary for long-term educational and scientific use would stimulate a more thorough examination and understanding of the relationship between man's activities and the environment and would improve the capability of man to wisely shape the environment.

VI. ALTERNATIVES TO THE PROPOSED ACTION

A. Alternatives to the Site Selected

Waimanu Valley was proposed by the state for inclusion in the Federal estuarine sanctuary program after an extensive selection procedure was

carried out by the DPED. This process included input from local, state, and Federal agencies, and from private individuals.

A preliminary list of candidate estuaries was prepared by the Estuaries Technical Committee in May, 1974. This committee included representatives from DPED, DLNR, University of Hawaii, and several Federal and state agencies. In June, 1974, a Hawaii Estuary Policy Committee was formed consisting of the State Marine Affairs Coordinator, the Chairman of DLNR and the Director of DPED. They appointed a Working Committee composed of representatives from DLNR, DPED, and the University of Hawaii. The Working Committee expanded the initial 16 candidate sites recommended by the Estuaries Technical Committee to 24 candidate sites. Information on the 24 sites, the estuarine sanctuary program, and the suggested criteria for evaluating the sites were sent to state and county agencies and individuals for review. The evaluation criteria were based on the Federal Estuarine Sanctuary Guidelines and included such considerations as: extent to which site fits biogeographic definition of an estuary, research potential, and existing land use conflicts. As a result of this input, 14 of the sites were eliminated because they could not be protected, were already developed, or for one reason or another did not satisfy the Estuarine Sanctuary Guidelines. The remaining ten sites were evaluated and ranked by the Working Committee (Appendix 4),again using criteria based on the order of priority. The first five were ranked: Kahana (Oahu), Kiholo (Hawaii), Waimanu, Hanalei (Kauai) and Waipio. Lumahai, on Kauai, ranked sixth on this list. Site profiles for each of these top five candidates were sent to the County Planning Departments for comment. Their input, plus the Working Committee recommendations, were given to the Hawaii Estuary Policy Committee. This Committee considered both the ability of the site to meet Federal Guidelines and the state's financial ability to provide matching funds. It was decided, in January 1975, to apply for an Estuarine Sanctuary Grant for the valley/bay of Waimanu on the Island of Hawaii. Several of the other sites had state lands available for matching Federal funds; Waimanu, however, was felt to be the least altered and to have the best potential for research pertinent to the Hawaii CZM program on valley/tidal stream systems. In addition, designation of Waimanu would account for the least disruption of present land use practices of all of the sites considered.

During the final selection process, the OCZM requested the DPED to give special attention to the estuaries on Kauai. The estuaries on Kauai are both the most developed and most representative of the "true" estuaries in the state. Several of them have significant areas of "unimpaired connection with the open sea where the seawater is measurably diluted with freshwater derived from land drainage" (Section 921.2.b of Federal Estuarine Sanctuary Guidelines). The state reviewed these estuaries and found Lumahai and Kilauea the most suitable potential sites. (A comparative analysis of these two with Waimanu appears in Appendix 5). After a thorough investigation, these alternative sites were rejected for a variety of reasons.

There is no doubt that the rivers of either Lumahai or Kilauea have superior estuaries in the biological or physical sense to that of Waimanu. Both areas would involve the designation of an estuarine sanctuary in the lower river mouth area, with protection provided by acquisition of at least 122 (Lumahai) or 2000 (Kilauea) acres. In neither case would the entire watershed, or for that matter the valley floor, be acquired because of the size and cost of the areas.

Both areas are presently zoned Agricultural in the valley floor/river mouth region. Kilauea is used for intensive agriculture and is diverted for irrigation, although it is still a perennial stream. Lumahai is used primarily for grazing. There is also increasing residential and commercial development in the Lumahai area. To obtain state approval for an estuarine sanctuary in either area, a zoning change to Conservation would first have to be secured. The state indicates the required zoning change would be difficult to obtain. At the present time, and for the foreseeable future, the Island of Kauai as a whole is encouraging income producing activities. State and county plans indicate both areas are planned for either more intensive agriculture or income producing developments. There would apparently be very little local support for an estuarine sanctuary on either site. Aside from these considerations, the sites were also ruled out because of financial considerations. The estimated cost of acquiring the minimum land required to protect a sanctuary in Lumahai is about 2.4 million dollars; for Kilauea, about 4 million dollars. In neither case is state land available for matching Federal monies: thus the state would have to provide a minimum of either 1.2 million or 2 million dollars. The state does not have the cash available for this type of acquisition. Without existing monies to draw upon, without local support and with many other projects of the state having a higher priority in the budget than the estuarine sanctuary program, the DPED feels it would be virtually impossible to obtain sufficient funds to match the Federal funds for acquisition of these lands.

B. Alternative Boundaries

The boundaries proposed by the state largely reflect natural features, and include the stream, valley bottom, bay and the entire watershed. To include less land in the sanctuary would mean not acquiring certain aspects of this natural ecological unit and providing less protection from man's activities for what was acquired. Since the watershed is state owned and under watershed management policies of the Forestry Division, no objections were raised to including the majority of the watershed within the proposed sanctuary boundaries. In fact, sanctuary designation provides better long-term watershed protection than the Forestry Division since sanctuary designation is effectively perpetual. The acquisition of private lands in the valley bottom is essential to the protection of the valley wetlands as an integral part of this natural ecological unit. There exist no other regulatory measures which could control these private lands if they were not acquired. To meet the sanctuary objectives and Federal guidelines concerning estuarine sanctuaries, acquisition of these lands is essential.

The original reason for not including the southwest section of the watershed was the difficulty in establishing the southernmost extent of the watershed. Although the southwestern section of the watershed is under Forestry Division Management, and although there have been assurances that this area would be protected if a sanctuary were designated, it was recommended that this area be included within the sanctuary boundaries. The area does represent 40 percent of the watershed of Waimanu Valley and though it is presently not economically or technically feasible to divert the water from this region, diversion could conceivably be possible sometime in the future. Diversion of this water could jeopardize the ecosystems in the entire valley, particularly the wetlands, since these streams appear to provide a large proportion of the water to the valley. It is as important to include these lands as it is to include other components of the natural ecological unit Waimanu represents. For these reasons, the entire watershed is included in the FEIS as the proposed sanctuary area. Because the area has not been surveyed, however, the boundary shown in Figure 2 is approximate.

C. Alternative Management Programs

If designated an estuarine sanctuary, and the private lands were acquired, there are two existing state management schemes which might possibly manage the sanctuary without the development of a separate management plan. These are the Natural Area Reserves System and the DLNR regulations. However, neither of these two possible management programs would provide the necessary controls and regulations for managing an estuarine sanctuary under Federal guidelines. They are not designed to accommodate protection of an area primarily for research and educational purposes; thus the need arises for a specific management program tailored to the estuarine sanctuary guidelines.

Under Hawaiian state law concerning Conservation Areas, the DLNR would assume overall management responsibility. Indeed, the broad range of expertise available in this Department would make it the chosen agency in any event. Although management responsibility could have been placed in the Fish and Game Division or perhaps some other division in the DLNR, the choice of the Forestry Division for overall management responsibility within the Department seems most logical. Most of the sanctuary consists of forest lands in the watershed and has been managed by the Forestry Division. That Division has the most knowledge of Waimanu and the entire area; thus it has the most experience and epxertise available on the island for managing the area.

The alternative to a resident manager would be a nonresident manager. In this case, a nonresident manager would have to live in Waipio or Honokoa and come into Waimanu by boat, helicopter or by the trail several times a week. The expense of entering the valley by sea or air is a deterrent to using these forms of transportation on a regular basis. The frequency of poor weather also makes these methods of questionable value. To expect the manager to spend most of his time traversing the nine mile trail is not only an inefficient use of the manager's time, but also seems an unreasonable demand on the manager. In addition, the ability to monitor visitors and scientists would be inadequate with only periodic visits. Any less frequent visits by the manager or by an advisory

group would not provide the supervision required by the management program over activities occurring within the valley. In addition, periodic supervision would not remove the necessity or desirability to have some sort of shelter in the valley to house scientists and their equipment during the course of their observations.

An alternative to the existing group which could act as a Management Advisory Committee would be the establishment of a special committee just to advise the estuarine sanctuary program. Members could be drawn from the local citizens on the island, the University of Hawaii, conservation groups and possibly other state and Federal agencies. However, such a committee would not have the established agency relations and the established community relations which the proposed group, the Outdoor Center Board, already possesses, thus this alternative appears to be less desirable than the proposed action.

D. Alternative Methods of Acquisition and Protection for the Proposed Sanctuary

In the course of developing its application for an estuarine sanctuary, Hawaii has examined a variety of possible funding sources and alternative methods of protection. At one time or another, these have included:

a) Federal Acquisition
   i. Pittman-Roberts Fund
   ii. Dingell-Johnson Act
   iii. Migratory Bird Conservation Fund
   iv. Endangered Species Act
   v. Land and Water Conservation Act
   vi. Marine Sanctuary Program

b) State Acquisition

Hawaii received approximately $130,000 last year through the Pittman-Roberts Fund for use in wildlife habitat restoration, primarily for hunting purposes. The state also received approximately $200,000 through the Dingell-Johnson Act for fish habitat restoration. Although the state is expected to continue to receive monies through these programs, there are already other projects for which the money will be allocated. These funds, even if they were available, are generally used in manipulative management programs for consumptive recreational purposes, thus they would not be entirely compatible with sanctuary objectives.

The Migratory Bird Conservation Fund, which is distributed nationally for the purchase of Federal migratory bird refuges, has objectives which differ in purpose from the proposed sanctuary. The Endangered Species Act also differs in purpose; in addition, funding under this Act is not yet available.

Hawaii receives 1.8 million dollars annually from the Land and Water Conservation Fund. These funds are passed through to local governments and are not available to the state as match to OCZM funding. These funds are generally used for construction costs in developing recreation areas

and that emphasis on recreational uses raises some questions concerning its application here.

Consideration was given to designating part of the area a Marine Sanctuary under Title III of the Marine Protection, Research and Sanctuaries Act of 1972. Although the objectives are similar to those of the estuarine sanctuary program, this program does not include provision to acquire lands, does not include protection for upland areas and in fact, its authority is limited to tidal waters. In this case, the program would not provide adequate protection to the area under consideration.

It could be argued that Waimanu Valley is already protected, by virtue of being part of a Conservation District. This designation does not, in fact, provide protection against development on either private or state lands. Under Regulation 4, logging, aquaculture, resorts, residences, camping and hunting lodges, exotic plant and animal introductions, grazing and even airstrips are allowed by special permit. While it is true that the upland watershed is presently protected from logging and other development by the Forestry Division's watershed management practices, no such protection exists for the valley bottom lands or the private lands. Thus, designation as a Conservation District does not provide the same type of protection, or purposes for protection, that designation as an estuarine sanctuary could provide.

There are several indications from the county and state that they would prefer to keep Waimanu in its natural state. This is evidenced by the county's natural preservation designation of the valley, the Waipio Valley Master Plan proposal and the Forestry Division's desire for limited access trails. However, these proposals carry no authority to actually control land use practices within the valley or on the private lands within the valley. The proposals do indicate a desire to maintain the valley in its natural state, which the proposed action would accomplish for both state and privately owned lands.

It could also be argued that the inaccessibility of Waimanu would prevent development. This argument is invalidated by the development and by the effect man has had on other so called inaccessible areas. For instance, the "inaccessible" valley of Kalalau on Kauai has been extensively used by transients and the water quality has been degraded to the point that several cases of hepatitis have been reported. Waipio itself was once considered inacessible but now there are proposals on how to best guide its development. Inaccessibility provides no protection from development; it may actually enhance the possibility of inappropriate development or of irreversible changes to the environment, neither of which may be in the best interests of the community, county or state.

One other possible method of state protection would be under the Natural Area Reserves System, administered by DLNR. This program is not, however, entirely suited to the proposed program in Waimanu Valley, although the objectives of this program are similar in some respects to those of the estuarine sanctuary program. The emphasis in the state program is principally on protection; some research, public education and public access is allowed, but these uses are not considered the primary uses of the reserves.

The program concentrates on state land designations and although it is permitted to acquire private lands, there are generally insufficient funds available for this purpose. Even if a designation of a reserve were made in Waimanu Valley it is unlikely the entire watershed could be included. In addition, the state program has a long list of possible lands which may be included in the program, and which have more urgent state priorities than does Waimanu Valley.

E. Alternative Courses of Action for the Office of Coastal Zone Management.

Because the estuarine sanctuary program is basically one of Federal response to state initiatives, the alternatives for Federal action are limited. The Office of Coastal Zone Management can accept the application as presented or after modification, awarding a grant in either case; or refuse to accept the application and decline the grant. The OCZM has worked with the State of Hawaii since it first indicated interest in the estuarine sanctuary program, and that Office's input has caused some modification of the proposal. The options remain, however, to award, delay or refuse the grant.

Delay of the grant would permit other areas in the Insular category to develop estuarine sanctuary proposals for submission to NOAA. While states and territories within the Insular category are not in direct competition for a grant award, the receipt of a grant by Hawaii would significantly diminish the chances of the remaining Insular entities. They were advised in July, 1975 of Hawaii's grant application, but no indication of interest in the estuarine sanctuary program was forthcoming. Thus delay would not serve any purpose to the program; delay would also increase the potential for development or other destructive uses of the area.

Unless the application lacked merit, the outright refusal to award a grant would serve no purpose. Indeed, in view of the widely acknowledged need for such a program (see, for example, the National Estuarine Study, 1970 and Ketchum, 1972), such action would be contrary to the public interest. After careful consideration, OCZM has determined that Waimanu Valley is representative of a type of valley/estuary system occurring in Hawaii. The acquisition of a nearly pristine watershed, and the potential benefits the state would accrue from research carried out there, has satisfied OCZM that Waimanu is indeed a good choice for an estuarine sanctuary in Hawaii.

VII. PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

There are two potentially adverse environmental impacts within the sanctuary boundaries which may not be avoidable. These are: the loss of tax revenues and the restriction on land and water use.

Public acquisition of the lands for the proposed sanctuary would remove approximately 347 acres of land from the county tax rolls. This land contributes about $34 annually in taxes, a small percentage of the property tax revenues of the county.

Some restrictions would be placed on land and water uses within the sanctuary. Since present use of the valley is minimal, these restrictions would not, for the most part, affect present uses, but would be designed to control future uses in order to maintain the valley in its present natural state. Additional restrictions might be imposed if current or future uses are found to pose a threat to the integrity of the sanctuary. Low intensity recreational uses such as now occur would be permitted to continue, but intensified use, such as might occur with a commercial camping ground or park, would be restricted. If recreational usage of the entire Kohala Forest Reserve increases in the future, the proposals by the Forestry Division to route people across the mouth of the valley, essentially bypassing Waimanu, should prevent undue stress from being placed on the sanctuary. In addition, future diversions of water from the sanctuary would be prohibited.

VIII. RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

While designation of Waimanu as an estuarine sanctuary would restrict local, short-term uses of the environment, it would provide long-term assurance that this natural pristine area, along with its associated resources and benefits, would be available for future use and enjoyment. Without sanctuary designation, greater short-term uses and gains, such as provided by intense recreational or residential development, might be realized. However, such uses would probably result in long-term restrictions, conscious or inadvertent, on use and benefit because of the environmental degradation involved in such development. Without additional controls, the traditional conflicts between estuarine users--residential, commercial, agricultural, industrial, and wildlife--could be anticipated.

The neighboring valley of Waipio, which is physically similar in many respects to Waimanu, is under a greater degree of agricultural and residential use than is Waimanu. There exist proposals for further land modifications, water diversions and for increased agricultural and recreational use of Waipio. A comparison study of the two areas that would include various baseline measurements, hydrologic data gathering, limnological studies and other analyses of the estuarine and the freshwater biosystems would enable long-term comparisons to be made between an undisturbed system and a disturbed, stressed counterpart. Over the long-term, the information derived from this research would assist in the coastal zone management decision-making process, and would provide a basis for wise usage of the valley resources of Hawaii. These results, which would apply to areas outside of Waimanu and Waipio, would help avoid the conflicts caused by the diverse activities occurring within the coastal zone.

It is unlikely that the Waimanu water resources could be diverted. If they were diverted, however, the possibility for research on the functioning of mountain water recharge systems would be seriously reduced since so few mountain watersheds remain undisturbed. In addition, through the protection of the valley, the sanctuary could make a significant

contribution toward the long-term protection of some of Hawaii's endangered species. The preservation of an intact watershed, valley, and bay would provide a natural area for future scientists to study and for the general public to enjoy.

IX. IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

Inasmuch as the resources within the proposed sanctuary will be protected and preserved, rather than destroyed or removed, there will be no actual irreversible or irretrievable loss or commitment of resources involved in this proposed action. However, as the intention of this action is to provide for the permanent protection of the estuary and adjacent lands, any mineral deposits or timber resources would be removed from direct commercial exploitation. The steep terrain in the valley would tend to discourage such activities in any event. In addition, the water supply to Waimanu Valley would be permanently protected and could not be diverted.

X. CONSULTATION AND COORDINATION

The State of Hawaii has worked closely at one time or another with a variety of Federal, state and local agencies and private individuals in developing Waimanu Valley as the proposed estuarine sanctuary site. These agencies have included the Department of Hawaiian Home Lands; Planning Department, County of Hawaii; State Board of Natural Resources; United States Department of the Interior, Geological Survey; Department of Parks and Recreation, County of Hawaii; National Marine Fisheries Service; University of Hawaii Sea Grant College; University of Hawaii; and the Bishop Estates. All of the above groups have expressed their accord with the intent to establish Waimanu Valley as an estuarine sanctuary. Letters have been sent to all landowners in the valley apprising them of the state's desire to purchase their land. In addition, before preparation of the final application, a public meeting was held in the District of Hamakua, Hawaii, on February 18, 1975 to solicit the views of local citizens.

During the preparation of this Draft Environmental Impact Statement, information and comments on particular issues were solicited or received from state and local agencies and individuals familiar with the area or proposal. These included individuals from the State of Hawaii DPED, DLNR, the University of Hawaii Sea Grant College, the United States Department of Agriculture, the United States Department of the Interior and the National Marine Fisheries Service.

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Appendix 1

Coastal Zone Management Act of 1972

Public Law 92-583
92nd Congress, S. 3507
October 27, 1972

An Act

To establish a national policy and develop a national program for the management, beneficial use, protection, and development of the land and water resources of the Nation's coastal zones, and for other purposes.

Marine Resources and Engineering Development Act of 1966, amendment.

80 Stat. 998; 84 Stat. 865.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Act entitled "An Act to provide for a comprehensive, long-range, and coordinated national program in marine science, to establish a National Council on Marine Resources and Engineering Development, and a Commission on Marine Science, Engineering and Resources, and for other purposes", approved June 17, 1966 (80 Stat. 203), as amended (33 U.S.C. 1101-1124), is further amended by adding at the end thereof the following new title:

TITLE III—MANAGEMENT OF THE COASTAL ZONE

SHORT TITLE

SEC. 301. This title may be cited as the "Coastal Zone Management Act of 1972".

CONGRESSIONAL FINDINGS

SEC. 302. The Congress finds that—

(a) There is a national interest in the effective management, beneficial use, protection, and development of the coastal zone;

(b) The coastal zone is rich in a variety of natural, commercial, recreational, industrial, and esthetic resources of immediate and potential value to the present and future well-being of the Nation;

(c) The increasing and competing demands upon the lands and waters of our coastal zone occasioned by population growth and economic development, including requirements for industry, commerce, residential development, recreation, extraction of mineral resources and fossil fuels, transportation and navigation, waste disposal, and harvesting of fish, shellfish, and other living marine resources, have resulted in the loss of living marine resources, wildlife, nutrient-rich areas, permanent and adverse changes to ecological systems, decreasing open space for public use, and shoreline erosion;

(d) The coastal zone, and the fish, shellfish, other living marine resources, and wildlife therein, are ecologically fragile and consequently extremely vulnerable to destruction by man's alterations;

(e) Important ecological, cultural, historic, and esthetic values in the coastal zone which are essential to the well-being of all citizens are being irretrievably damaged or lost;

(f) Special natural and scenic characteristics are being damaged by ill-planned development that threatens these values;

(g) In light of competing demands and the urgent need to protect and to give high priority to natural systems in the coastal zone, present state and local institutional arrangements for planning and regulating land and water uses in such areas are inadequate; and

(h) The key to more effective protection and use of the land and water resources of the coastal zone is to encourage the states to exercise their full authority over the lands and waters in the coastal zone by assisting the states, in cooperation with Federal and local governments and other vitally affected interests, in developing land and water use programs for the coastal zone, including unified policies, criteria, standards, methods, and processes for dealing with land and water use decisions of more than local significance.

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DECLARATION OF POLICY

SEC. 303. The Congress finds and declares that it is the national policy (a) to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations, (b) to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone giving full consideration to ecological, cultural, historic, and esthetic values as well as to needs for economic development, (c) for all Federal agencies engaged in programs affecting the coastal zone to cooperate and participate with state and local governments and regional agencies in effectuating the purposes of this title, and (d) to encourage the participation of the public, of Federal, state, and local governments and of regional agencies in the development of coastal zone management programs. With respect to implementation of such managament programs, it is the national policy to encourage cooperation among the various state and regional agencies including establishment of interstate and regional agreements, cooperative procedures, and joint action particularly regarding environmental problems.

DEFINITIONS

SEC. 304. For the purposes of this title—

(a) "Coastal zone" means the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends, in Great Lakes waters, to the international boundary between the United States and Canada and, in other areas, seaward to the outer limit of the United States territorial sea. The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters. Excluded from the coastal zone are lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents.

(b) "Coastal waters" means (1) in the Great Lakes area, the waters within the territorial jurisdiction of the United States consisting of the Great Lakes, their connecting waters, harbors, roadsteads, and estuary-type areas such as bays, shallows, and marshes and (2) in other areas, those waters, adjacent to the shorelines, which contain a measurable quantity or percentage of sea water, including, but not limited to, sounds, bays, lagoons, bayous, ponds, and estuaries.

(c) "Coastal state" means a state of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes. For the purposes of this title, the term also includes Puerto Rico, the Virgin Islands, Guam, and American Samoa.

(d) "Estuary" means that part of a river or stream or other body of water having unimpaired connection with the open sea, where the sea water is measurably diluted with fresh water derived from land drainage. The term includes estuary-type areas of the Great Lakes.

(e) "Estuarine sanctuary" means a research area which may include any part or all of an estuary, adjoining transitional areas, and adjacent uplands, constituting to the extent feasible a natural unit, set

aside to provide scientists and students the opportunity to examine over a period of time the ecological relationships within the area.

(f) "Secretary" means the Secretary of Commerce.

(g) "Management program" includes, but is not limited to, a comprehensive statement in words, maps, illustrations, or other media of communication, prepared and adopted by the state in accordance with the provisions of this title, setting forth objectives, policies, and standards to guide public and private uses of lands and waters in the coastal zone.

(h) "Water use" means activities which are conducted in or on the water; but does not mean or include the establishment of any water quality standard or criteria or the regulation of the discharge or runoff of water pollutants except the standards, criteria, or regulations which are incorporated in any program as required by the provisions of section 307(f).

(i) "Land use" means activities which are conducted in or on the shorelands within the coastal zone, subject to the requirements outlined in section 307(g).

MANAGEMENT PROGRAM DEVELOPMENT GRANTS

SEC. 305. (a) The Secretary is authorized to make annual grants to any coastal state for the purpose of assisting in the development of a management program for the land and water resources of its coastal zone.

(b) Such management program shall include:

(1) an identification of the boundaries of the coastal zone subject to the management program;

(2) a definition of what shall constitute permissible land and water uses within the coastal zone which have a direct and significant impact on the coastal waters;

(3) an inventory and designation of areas of particular concern within the coastal zone;

(4) an identification of the means by which the state proposes to exert control over the land and water uses referred to in paragraph (2) of this subsection, including a listing of relevant constitutional provisions, legislative enactments, regulations, and judicial decisions;

(5) broad guidelines on priority of uses in particular areas, including specifically those uses of lowest priority;

(6) a description of the organizational structure proposed to implement the management program, including the responsibilities and interrelationships of local, areawide, state, regional, and interstate agencies in the management process.

(c) The grants shall not exceed 66⅔ per centum of the costs of the program in any one year and no state shall be eligible to receive more than three annual grants pursuant to this section. Federal funds received from other sources shall not be used to match such grants. In order to qualify for grants under this section, the state must reasonably demonstrate to the satisfaction of the Secretary that such grants will be used to develop a management program consistent with the requirements set forth in section 306 of this title. After making the initial grant to a coastal state, no subsequent grant shall be made under this section unless the Secretary finds that the state is satisfactorily developing such management program. Limitation.

(d) Upon completion of the development of the state's management program, the state shall submit such program to the Secretary for

review and approval pursuant to the provisions of section 306 of this title, or such other action as he deems necessary. On final approval of such program by the Secretary, the state's eligibility for further grants under this section shall terminate, and the state shall be eligible for grants under section 306 of this title.

Grants, allocation.

(e) Grants under this section shall be allocated to the states based on rules and regulations promulgated by the Secretary: *Provided, however*, That no management program development grant under this section shall be made in excess of 10 per centum nor less than 1 per centum of the total amount appropriated to carry out the purposes of this section.

(f) Grants or portions thereof not obligated by a state during the fiscal year for which they were first authorized to be obligated by the state, or during the fiscal year immediately following, shall revert to the Secretary, and shall be added by him to the funds available for grants under this section.

(g) With the approval of the Secretary, the state may allocate to a local government, to an areawide agency designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, to a regional agency, or to an interstate agency, a portion of the grant under this section, for the purpose of carrying out the provisions of this section.

80 Stat. 1262; 82 Stat. 208. 42 USC 3334.

Expiration date.

(h) The authority to make grants under this section shall expire on June 30, 1977.

ADMINISTRATIVE GRANTS

Limitation.

SEC. 306. (a) The Secretary is authorized to make annual grants to any coastal state for not more than 66⅔ per centum of the costs of administering the state's management program, if he approves such program in accordance with subsection (c) hereof. Federal funds received from other sources shall not be used to pay the state's share of costs.

Allocation.

(b) Such grants shall be allocated to the states with approved programs based on rules and regulations promulgated by the Secretary which shall take into account the extent and nature of the shoreline and area covered by the plan, population of the area, and other relevant factors: *Provided, however*, That no annual administrative grant under this section shall be made in excess of 10 per centum nor less than 1 per centum of the total amount appropriated to carry out the purposes of this section.

Program requirements.

(c) Prior to granting approval of a management program submitted by a coastal state, the Secretary shall find that:

(1) The state has developed and adopted a management program for its coastal zone in accordance with rules and regulations promulgated by the Secretary, after notice, and with the opportunity of full participation by relevant Federal agencies, state agencies, local governments, regional organizations, port authorities, and other interested parties, public and private, which is adequate to carry out the purposes of this title and is consistent with the policy declared in section 303 of this title.

(2) The state has:

(A) coordinated its program with local, areawide, and interstate plans applicable to areas within the coastal zone existing on January 1 of the year in which the state's management program is submitted to the Secretary, which plans have been developed by a local government, an areawide agency designated pursuant to regulations established under section 204 of the Demonstration

Cities and Metropolitan Development Act of 1966, a regional agency, or an interstate agency; and 80 Stat. 1262; 82 Stat. 208; 42 USC 3334.

(B) established an effective mechanism for continuing consultation and coordination between the management agency designated pursuant to paragraph (5) of this subsection and with local governments, interstate agencies, regional agencies, and areawide agencies within the coastal zone to assure the full participation of such local governments and agencies in carrying out the purposes of this title.

(3) The state has held public hearings in the development of the management program.

(4) The management program and any changes thereto have been reviewed and approved by the Governor.

(5) The Governor of the state has designated a single agency to receive and administer the grants for implementing the management program required under paragraph (1) of this subsection.

(6) The state is organized to implement the management program required under paragraph (1) of this subsection.

(7) The state has the authorities necessary to implement the program, including the authority required under subsection (d) of this section.

(8) The management program provides for adequate consideration of the national interest involved in the siting of facilities necessary to meet requirements which are other than local in nature.

(9) The management program makes provision for procedures whereby specific areas may be designated for the purpose of preserving or restoring them for their conservation, recreational, ecological, or esthetic values.

(d) Prior to granting approval of the management program, the Secretary shall find that the state, acting through its chosen agency or agencies, including local governments, areawide agencies designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, regional agencies, or interstate agencies, has authority for the management of the coastal zone in accordance with the management program. Such authority shall include power—

(1) to administer land and water use regulations, control development in order to ensure compliance with the management program, and to resolve conflicts among competing uses; and

(2) to acquire fee simple and less than fee simple interests in lands, waters, and other property through condemnation or other means when necessary to achieve conformance with the management program.

(e) Prior to granting approval, the Secretary shall also find that the program provides:

(1) for any one or a combination of the following general techniques for control of land and water uses within the coastal zone;

(A) State establishment of criteria and standards for local implementation, subject to administrative review and enforcement of compliance;

(B) Direct state land and water use planning and regulation: or

(C) State administrative review for consistency with the management program of all development plans, projects, or land and water use regulations, including exceptions and variances thereto, proposed by any state or local authority or private developer, with power to approve or disapprove after public notice and an opportunity for hearings.

(2) for a method of assuring that local land and water use regulations within the coastal zone do not unreasonably restrict or exclude land and water uses of regional benefit.

(f) With the approval of the Secretary, a state may allocate to a local government, an areawide agency designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, a regional agency, or an interstate agency, a portion of the grant under this section for the purpose of carrying out the provisions of this section: *Provided*, That such allocation shall not relieve the state of the responsibility for ensuring that any funds so allocated are applied in furtherance of such state's approved management program.

80 Stat. 1262; 82 Stat. 208. 42 USC 3334.

Program modification.

(g) The state shall be authorized to amend the management program. The modification shall be in accordance with the procedures required under subsection (c) of this section. Any amendment or modification of the program must be approved by the Secretary before additional administrative grants are made to the state under the program as amended.

Segmental development.

(h) At the discretion of the state and with the approval of the Secretary, a management program may be developed and adopted in segments so that immediate attention may be devoted to those areas within the coastal zone which most urgently need management programs: *Provided*, That the state adequately provides for the ultimate coordination of the various segments of the management program into a single unified program and that the unified program will be completed as soon as is reasonably practicable.

INTERAGENCY COORDINATION AND COOPERATION

SEC. 307. (a) In carrying out his functions and responsibilities under this title, the Secretary shall consult with, cooperate with, and, to the maximum extent practicable, coordinate his activities with other interested Federal agencies.

(b) The Secretary shall not approve the management program submitted by a state pursuant to section 306 unless the views of Federal agencies principally affected by such program have been adequately considered. In case of serious disagreement between any Federal agency and the state in the development of the program the Secretary, in cooperation with the Executive Office of the President, shall seek to mediate the differences.

(c)(1) Each Federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs.

(2) Any Federal agency which shall undertake any development project in the coastal zone of a state shall insure that the project is, to the maximum extent practicable, consistent with approved state management programs.

Certification.

(3) After final approval by the Secretary of a state's management program, any applicant for a required Federal license or permit to conduct an activity affecting land or water uses in the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the state's approved program and that such activity will be conducted in a manner consistent with the program. At the same time, the applicant shall furnish to the state or its designated agency a copy of the certification, with all necessary information and data. Each coastal state shall establish procedures for public notice in the case of all such

certifications and, to the extent it deems appropriate, procedures for public hearings in connection therewith. At the earliest practicable time, the state or its designated agency shall notify the Federal agency concerned that the state concurs with or objects to the applicant's certification. If the state or its designated agency fails to furnish the required notification within six months after receipt of its copy of the applicant's certification, the state's concurrence with the certification shall be conclusively presumed. No license or permit shall be granted by the Federal agency until the state or its designated agency has concurred with the applicant's certification or until, by the state's failure to act, the concurrence is conclusively presumed, unless the Secretary, on his own initiative or upon appeal by the applicant, finds, after providing a reasonable opportunity for detailed comments from the Federal agency involved and from the state, that the activity is consistent with the objectives of this title or is otherwise necessary in the interest of national security. Notification.

(d) State and local governments submitting applications for Federal assistance under other Federal programs affecting the coastal zone shall indicate the views of the appropriate state or local agency as to the relationship of such activities to the approved management program for the coastal zone. Such applications shall be submitted and coordinated in accordance with the provisions of title IV of the Intergovernmental Coordination Act of 1968 (82 Stat. 1098). Federal agencies shall not approve proposed projects that are inconsistent with a coastal state's management program, except upon a finding by the Secretary that such project is consistent with the purposes of this title or necessary in the interest of national security. 42 USC 4231.

(e) Nothing in this title shall be construed—

(1) to diminish either Federal or state jurisdiction, responsibility, or rights in the field of planning, development, or control of water resources, submerged lands, or navigable waters; nor to displace, supersede, limit, or modify any interstate compact or the jurisdiction or responsibility of any legally established joint or common agency of two or more states or of two or more states and the Federal Government; nor to limit the authority of Congress to authorize and fund projects;

(2) as superseding, modifying, or repealing existing laws applicable to the various Federal agencies; nor to affect the jurisdiction, powers, or prerogatives of the International Joint Commission, United States and Canada, the Permanent Engineering Board, and the United States operating entity or entities established pursuant to the Columbia River Basin Treaty, signed at Washington, January 17, 1961, or the International Boundary and Water Commission, United States and Mexico.

(f) Notwithstanding any other provision of this title, nothing in this title shall in any way affect any requirement (1) established by the Federal Water Pollution Control Act, as amended, or the Clean Air Act, as amended, or (2) established by the Federal Government or by any state or local government pursuant to such Acts. Such requirements shall be incorporated in any program developed pursuant to this title and shall be the water pollution control and air pollution control requirements applicable to such program. Ante, p. 816. 81 Stat. 485; 84 Stat. 1676. 42 USC 1857 note.

(g) When any state's coastal zone management program, submitted for approval or proposed for modification pursuant to section 306 of this title, includes requirements as to shorelands which also would be subject to any Federally supported national land use program which may be hereafter enacted, the Secretary, prior to approving such pro-

gram, shall obtain the concurrence of the Secretary of the Interior, or such other Federal official as may be designated to administer the national land use program, with respect to that portion of the coastal zone management program affecting such inland areas.

PUBLIC HEARINGS

SEC. 308. All public hearings required under this title must be announced at least thirty days prior to the hearing date. At the time of the announcement, all agency materials pertinent to the hearings, including documents, studies, and other data, must be made available to the public for review and study. As similar materials are subsequently developed, they shall be made available to the public as they become available to the agency.

REVIEW OF PERFORMANCE

SEC. 309. (a) The Secretary shall conduct a continuing review of the management programs of the coastal states and of the performance of each state.

Financial assistance, termination.

(b) The Secretary shall have the authority to terminate any financial assistance extended under section 306 and to withdraw any unexpended portion of such assistance if (1) he determines that the state is failing to adhere to and is not justified in deviating from the program approved by the Secretary; and (2) the state has been given notice of the proposed termination and withdrawal and given an opportunity to present evidence of adherence or justification for altering its program.

RECORDS

SEC. 310. (a) Each recipient of a grant under this title shall keep such records as the Secretary shall prescribe, including records which fully disclose the amount and disposition of the funds received under the grant, the total cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

Audit.

(b) The Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examination to any books, documents, papers, and records of the recipient of the grant that are pertinent to the determination that funds granted are used in accordance with this title.

ADVISORY COMMITTEE

Coastal Zone Management Advisory Committee, establishment; membership.

SEC. 311. (a) The Secretary is authorized and directed to establish a Coastal Zone Management Advisory Committee to advise, consult with, and make recommendations to the Secretary on matters of policy concerning the coastal zone. Such committee shall be composed of not more than fifteen persons designated by the Secretary and shall perform such functions and operate in such a manner as the Secretary may direct. The Secretary shall insure that the committee membership as a group possesses a broad range of experience and knowledge relating to problems involving management, use, conservation, protection, and development of coastal zone resources.

Compensation, travel expenses.

(b) Members of the committee who are not regular full-time employees of the United States, while serving on the business of the committee, including traveltime, may receive compensation at rates not exceeding $100 per diem; and while so serving away from their

homes or regular places of business may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of title 5, United States Code, for individuals in the Government service employed intermittently. 80 Stat. 499; 83 Stat. 190.

ESTUARINE SANCTUARIES

SEC. 312. The Secretary, in accordance with rules and regulations promulgated by him, is authorized to make available to a coastal state grants of up to 50 per centum of the costs of acquisition, development, and operation of estuarine sanctuaries for the purpose of creating natural field laboratories to gather data and make studies of the natural and human processes occurring within the estuaries of the coastal zone. The Federal share of the cost for each such sanctuary shall not exceed $2,000,000. No Federal funds received pursuant to section 305 or section 306 shall be used for the purpose of this section. Grants. Federal share.

ANNUAL REPORT

SEC. 313. (a) The Secretary shall prepare and submit to the President for transmittal to the Congress not later than November 1 of each year a report on the administration of this title for the preceding fiscal year. The report shall include but not be restricted to (1) an identification of the state programs approved pursuant to this title during the preceding Federal fiscal year and a description of those programs; (2) a listing of the states participating in the provisions of this title and a description of the status of each state's programs and its accomplishments during the preceding Federal fiscal year; (3) an itemization of the allocation of funds to the various coastal states and a breakdown of the major projects and areas on which these funds were expended; (4) an identification of any state programs which have been reviewed and disapproved or with respect to which grants have been terminated under this title, and a statement of the reasons for such action; (5) a listing of all activities and projects which, pursuant to the provisions of subsection (c) or subsection (d) of section 307, are not consistent with an applicable approved state management program; (6) a summary of the regulations issued by the Secretary or in effect during the preceding Federal fiscal year; (7) a summary of a coordinated national strategy and program for the Nation's coastal zone including identification and discussion of Federal, regional, state, and local responsibilities and functions therein; (8) a summary of outstanding problems arising in the administration of this title in order of priority; and (9) such other information as may be appropriate.

(b) The report required by subsection (a) shall contain such recommendations for additional legislation as the Secretary deems necessary to achieve the objectives of this title and enhance its effective operation.

RULES AND REGULATIONS

SEC. 314. The Secretary shall develop and promulgate, pursuant to section 553 of title 5, United States Code, after notice and opportunity for full participation by relevant Federal agencies, state agencies, local governments, regional organizations, port authorities, and other interested parties, both public and private, such rules and regulations as may be necessary to carry out the provisions of this title. 80 Stat. 383.

AUTHORIZATION OF APPROPRIATIONS

SEC. 315. (a) There are authorized to be appropriated—

(1) the sum of $9,000,000 for the fiscal year ending June 30, 1973, and for each of the fiscal years 1974 through 1977 for grants under section 305, to remain available until expended;

(2) such sums, not to exceed $30,000,000, for the fiscal year ending June 30, 1974, and for each of the fiscal years 1975 through 1977, as may be necessary, for grants under section 306 to remain available until expended; and

(3) such sums, not to exceed $6,000,000 for the fiscal year ending June 30, 1974, as may be necessary, for grants under section 312, to remain available until expended.

(b) There are also authorized to be appropriated such sums, not to exceed $3,000,000, for fiscal year 1973 and for each of the four succeeding fiscal years, as may be necessary for administrative expenses incident to the administration of this title.

Approved October 27, 1972.

LEGISLATIVE HISTORY:

HOUSE REPORTS: No. 92-1049 accompanying H.R. 14146 (Comm. on Merchant Marine and Fisheries) and No. 92-1544 (Comm. of Conference).

SENATE REPORT No. 92-753 (Comm. on Commerce).

CONGRESSIONAL RECORD, Vol. 118 (1972):

Apr. 25, considered and passed Senate.

Aug. 2, considered and passed House, amended, in lieu of H.R. 14146.

Oct. 12, House and Senate agreed to conference report.

WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, Vol. 8, No. 44:

Oct. 28, Presidential statement.

Appendix 2

Final Rules for Estuarine Sanctuary Grants

federal register

TUESDAY, JUNE 4, 1974

WASHINGTON, D.C.

Volume 39 ■ Number 108

PART IV

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

■

Estuarine Sanctuary Guidelines

Title 15—Commerce and Foreign Trade

CHAPTER IX—NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE

PART 921—ESTURAINE SANCTUARY GUIDELINES

The National Oceanic and Atmospheric Administration (NOAA) on March 7, 1974, proposed guidelines (15 CFR Part 921) pursuant to section 312 of the Coastal Zone Management Act of 1972 (Pub. L. 92-583, 86 Stat. 1280), hereinafter referred to as the "Act," for the purpose of establishing the policy and procedures for the nomination, selection and management of estuarine sanctuaries.

Written comments were to be submitted to the Office of Coastal Environment (now the Office of Coastal Zone Management), National Oceanic and Atmospheric Administration, before April 8, 1974, and consideration has been given those comments.

The Act recognizes that the coastal zone is rich in a variety of natural, commercial, recreational, industrial and esthetic resources of immediate and potential value to the present and future well-being of the nation. States are encouraged to develop and implement management programs to achieve wise use of the resources of the coastal zone, and the Act authorizes Federal grants to the States for these purposes (sections 305 and 306).

In addition, under section 312 of the Act, the Secretary of Commerce is authorized to make available to a coastal State grants of up to 50 per centum of the cost of acquisition, development and operation of estuarine sanctuaries. The guidelines contained in this part are for grants under section 312.

In general, section 312 provides that grants may be awarded to States on a matching basis to acquire, develop and operate natural areas as estuarine sanctuaries in order that scientists and students may be provided the opportunity to examine over a period of time ecological relationships within the area. The purpose of these guidelines is to establish the rules and regulations for implementation of this program.

The National Oceanic and Atmospheric Administration is publishing herewith the final regulations describing the procedures for applications to receive grants for estuarine sanctuaries under section 312 of the Act. The final regulations and criteria were revised from the proposed guidelines based on the comments received. A total of fifty (50) States, agencies, organizations and individuals submitted responses to the proposed section 312 guidelines published in the FEDERAL REGISTER on March 7, 1974. Of those responses received, eight (8) offered no comment or were wholly favorable as to the nature and content of the guidelines as originally proposed. Forty-two (42) commentators submitted suggestions concerning the proposed section 312 guidelines.

The following summary analyzes key comments received on various sections of the proposed regulations and presents the rationale for the responses made.

Section 921.2 *Definitions.* Three comments requested that the term "estuary" be defined. Although the term is defined in the Act and also in the regulations dealing with Coastal Zone Management Program Development Grants (Part 920 of this chapter) published November 29, 1973, it has been added to these regulations and broadened slightly to include marine lagoons with restricted freshwater input such as might occur along the south Texas coast.

Two other comments requested that the "primary purpose" referred to in § 921.2(b) be clearly defined. Although elaborated upon in § 921.3(a), for the purpose of clarity this change has been made.

Section 921.3 *Objectives and Implementation.* Several comments suggested that the estuarine sanctuary program objectives were too narrowly defined and specifically that they should be broadened to include the acquisition and preservation of unique or endangered estuaries for wildlife or ecological reasons. Although the Act (section 302) declares it the nation's policy to preserve, protect, develop, and where possible, to restore or enhance coastal resources, this is perceived to be achievable through State actions pursuant to sections 305 and 305. While it is recognized that the creation of an estuarine sanctuary may in fact serve to preserve or protect an area or biological community, the legislative history of section 312 clearly indicates the estuarine sanctuary program was not intended to duplicate existing broad purpose Federal preservation programs, such as might be accommodated by use of the Land and Water Conservation Fund Act. Instead, both in the Act as well as its legislative history, the objective is defined as preserving representative estuarine areas for long-term research and educational uses.

Three other comments suggested the objectives of the program should be enlarged to include the restoration of environmentally degraded areas. This, too, is perceived to be a State requirement separate from section 312. In addition, adequate authority for restoring degraded water areas now exists (for example, Pub. L. 92-500 in addition to sections 302, 305 and 306 of the Act). No significant additional benefit would appear to result from declaring an area an estuarine sanctuary for the purposes of restoration.

A few comments indicated that the examples of sanctuary use were too heavily weighted toward scientific uses to the exclusion of educational uses. Public education concerning the value and benefits of, and the nature of conflict within the coastal zone, will be essential to the success of a coastal zone management program. The section has been changed to reflect an appropriate concern for educational use.

Some commentators suggested changes in or additions to the specific examples of sanctuary uses and purposes. These examples were taken from the Senate and House Committee Reports and are considered sufficient to reflect the kinds of uses intended within an estuarine sanctuary.

Several comments were received pertaining to § 921.3(c) involving the restrictions against overemphasis of destructive or manipulative research. Ten comments indicated that the section was too weak and would not provide sufficient long-term protection for the sanctuary ecosystem. Several commentators specifically recommended deleting the words "would not normally be permitted" and inserting in their place "will not be permitted." In contrast, three respondents indicated that the potential use of estuarine sanctuaries for manipulative or destructive research was too restricted, and that these uses should be generally permitted if not encouraged.

The legislative history of section 312 clearly indicates that the intent of the estuarine sanctuary program should be to preserve representative estuarine areas so that they may provide long-term (virtually permanent) scientific and educational use. The uses perceived are compatible with what has been defined as "research natural areas." In an era of rapidly degrading estuarine environments, the estuarine sanctuary program will ensure that a representative series of natural areas will be available for scientific or educational uses dependent on that natural character, for example, for baseline studies, for use in understanding the functioning of natural ecological systems, for controls against which the impacts of development in other areas might be compared, and as interpretive centers for educational purposes. Any use, research or otherwise, which would destroy or detract from the natural system, would be inappropriate under this program.

In general, the necessity of or benefit from permitting manipulative or destructive research within an estuarine sanctuary is unclear. While there is a legitimate need for such kinds of research, ample opportunity for manipulative or destructive research to assess directly man's impact or stresses on the estuarine environment exists now without the need for creation or use of an estuarine sanctuary for this purpose. In contrast, a clear need exists for natural areas to serve as controls for manipulative research or research on altered systems.

The section on manipulative research has been changed to reflect the concern for continued maintenance of the area as a natural system. However, the modifier "normally" has been retained because, within these limits, it is not felt necessary to preclude all such uses; the occasion may rarely arise when because of a thoroughly demonstrated direct benefit, such research may be permitted.

Several comments suggested that the program should include degraded estuarine systems, rather than be limited to areas which are "relatively undisturbed by human activities." Such areas would permit research efforts designed to restore an estuarine area. As indicated

above, an ample legislative mandate to restore environmentally degraded areas already exists; the benefits to be derived from declaring such areas estuarine sanctuaries would be marginal. Indeed, it would appear that if restoration efforts cannot occur without estuarine sanctuary designation, then, given the limited resources of this program, such efforts would not be feasible.

A few commentators suggested that the phrase (§ 921.3(e)) "if sufficient permanence and control by the State can be assured, the acquisition of a sanctuary may involve less than the acquisition of a fee simple interest" be more clearly defined. Explanatory language has been added to that section.

Section 921.4 *Zoogeographic Classification.* Because the classification scheme utilized plants as well as animals, two commentators suggested that zoogeographic be changed to biogeographic. This change is reflected in the final regulations.

One comment suggested that selection of sanctuaries should depend on the pressures and threats being brought to bear upon the natural areas involved even if this meant selecting several sanctuaries from one classification and none from another.

The legislative history of section 312 clearly shows the intent to select estuarine sanctuaries on a rational basis which would reflect regional differentiation and a variety of ecosystems. The biogeographic classification system, which reflects geographic, hydrographic, and biologic differences, fulfills that intention. A scheme which would abandon that system, or another similar one, and would not fulfill the requirements of providing regional differentiation and a variety of ecosystems, would not be consistent with the intended purpose of the Act.

A few comments received suggested that the biogeographic classification scheme be enlarged by the addition of a new class reflecting an area or State of special concern or interest to the respondent. (No two commentators suggested the same area.) It is felt that adequate national representation is provided by the biogeographic scheme proposed, and that the changes offered were in most cases examples of sub-categories that might be utilized.

One comment suggested a specific change in the definition of the "Great Lakes" category. Portions of that suggestion have been incorporated into the final rules.

Two commentators requested assurance that sub-categories of the biogeographic scheme will in fact be utilized. The final language substitutes "will be developed and utilized" for "may be developed and utilized."

Section 921.5 *Multiple Use.* Several comments were received pertaining to the multiple use concept. Three commentators suggested that the multiple use directive was contrary to or absent from the Act and should be omitted. Ten respondents felt the concept should be more explicitly defined and restricted so that the primary purpose of the sanctuary would be more clearly protected. In contrast, two commentators felt that the definition might prove too restrictive and should be broadened. Several commentators suggested that examples of anticipated multiple use might be appropriate.

While recognizing that it is not always possible to accommodate more than a single use in an environmentally sensitive area, it is not the intention to unnecessarily preclude the uses of sanctuary areas where they are clearly compatible with and do not detract from the long-term protection of the ecosystem for scientific and educational purposes. The language of § 921.5 has been changed accordingly.

Section 921.6 *Relationship to Other Provisions of the Act and to Marine Sanctuaries.* Several comments were received which commended and stressed the need for close coordination between the development of State coastal zone management programs, especially and land and water use controls, and the estuarine sanctuary program.

The relationship between the two programs is emphasized: estuarine sanctuaries should provide benefit—both short-term and long-term—to coastal zone management decision-makers; and State coastal zone management programs must provide necessary protection for estuarine sanctuaries. This necessary coordination is discussed not only in the estuarine sanctuary regulations, but will also be addressed in an appropriate fashion in guidelines and rules for Coastal Zone Management Program Approval Criteria and Administrative Grants.

Three commentators discussed the need for swift action by both State and Federal governments to establish and acquire estuarine sanctuaries. The Office of Coastal Zone Management intends to pursue the program as swiftly as available manpower restraints will permit.

A few comments sought reassurance that the estuarine sanctuaries program will in fact be coordinated with the Marine Sanctuaries Program (Title III, Pub. L. 92-532). The guidelines have been changed to reflect that both programs will be administered by the same office.

Subpart B—Application for Grants

Section 921.10 *General.* One reviewer indicated uncertainty about which State agency may submit applications for grants under section 312. Although individual States may vary in the choice of individual agencies to apply for an estuarine sanctuary, because of the necessity for coordination with the State coastal zone management program the entity within the State which is the certified contact with the Office of Coastal Zone Management, NOAA, responsible for the administration of the coastal zone management program must endorse or approve an estuarine sanctuary application.

Appropriate language has been included to ensure this coordination.

Section 921.11 *Initial Application for Acquisition, Development and Operation Grants.* Two comments requested that the source and nature of acceptable matching funds should be explicitly identified.

OMB Circular A-102 generally defines and identifies legitimate "match" for Federal grant projects. In general, reference should be made to that document. However, the section has been expanded in response to some specific and frequent questions.

Two comments stressed the need for increased availability of research funds to adequately utilize the potential of estuarine sanctuaries. While not an appropriate function of the estuarine sanctuary program, the Office of Coastal Zone Management is discussing the necessity of adequate funding with appropriate agencies.

One comment suggested that the term "legal description" of the sanctuary (§ 921.11(a)) is not appropriate for all categories of information requested. The word "legal" has been omitted.

Three reviewers indicated that the Act provides no basis for consideration of socio-economic impacts (§ 921.11(1)) and that this criterion seemed inappropriate to selecting estuarine sanctuaries. Apparently these reviewers misunderstood the intention of this requirement. The information in this section is necessary for preparation of an environmental impact statement which will be prepared pursuant to NEPA. Although required in the application, such information is not a part of the selection criteria, which are addressed in Subpart C, § 921.20.

One similar comment was received with regard to consideration of existing and potential uses and conflicts (§ 921.11(h)). This item is also discussed under selection criteria (§ 921.20(h)). It is intended that this criterion will only be considered when choosing between two or more sanctuary applications within the same biogeographic category which are of otherwise equal merit.

One comment drew attention to an apparent typographic error in § 921.11 (m) where the term "marine estuaries" seems out of context. This has been corrected.

Two commentators suggested that public hearings should be required in the development of an estuarine sanctuary application. Although such a hearing is deemed desirable by the Office of Coastal Zone Management, it would not always seem to be necessary. The language in § 920.11(1) has been changed to reflect the sincere concern for the adequate involvement of the public, which is also addressed under a new § 920.21.

One respondent suggested that a new section be added requiring the applicant to discuss alternative methods of acquisition or control of the area, including the designation of a marine sanctuary, in place of establishing an estuarine sanctuary. A new section (§ 920.11(n)) has been added for this purpose.

Section 921.12 *Subsequent Application for Development and Operation Grants.* Three commentators expressed concern that the intent of § 921.12 be more clearly expressed. Appropriate changes have been made.

One comment was made that a provision should be included to use existing Federally owned land for the purpose of the estuarine sanctuary program. A section has been added for that purpose.

Section 921.20 *Criteria for Selection.* One comment suggested that the consideration of conflict with existing or potential competing uses should not be included as a selection criterion. As discussed above, this criterion is considered appropriate.

Another reviewer suggested the addition of a new criterion, consideration of "the need to protect a particular estuary from harmful development." As discussed earlier, this criterion is not considered appropriate. Such a basis for determining selection would lead to a reactionary, random series of estuarine sanctuaries, rather than the rationally chosen representative series mandated in the legislative history.

Two reviewers commented that the limitation on the Federal share ($2,000,000 for each sanctuary) was too low and would severely restrict the usefulness of the program. However, this limitation is provided by the Act.

Another commentator suggested that § 921.20(g) was unnecessarily restrictive in that it might prevent selecting an estuarine sanctuary in an area adjacent to existing preserved lands where the conjunction might be mutually beneficial. The language of § 921.20(g) does not preclude such action, but has been changed to specifically permit this possibility.

Two commentators inquired whether the reference to a "draft" environmental impact statement (§ 921.20, last paragraph) indicated an intention to avoid further compliance with NEPA. It is the firm intention of the Office of Coastal Zone Management to fully comply in all respects with NEPA. The word "draft" has been struck.

Three reviewers addressed the problems of providing adequate public participation in the review and selection process. In addition to the change in § 920.11(1), a new section has been added to address this issue.

SUBPART D—OPERATION

Section 921.30 *General.* One commentator suggested that during contract negotiations, there should be a meeting between the applicant agency and proposed sanctuary management team, and representatives of the Office of Coastal Zone Management. The general provisions have been broadened to provide for this suggestion.

Two comments were submitted which urged that some discretion be exercised in the use and access to the sanctuary by scientists and students. Two other comments were received which requested specific protection for use by the general public. The guidelines have been changed to include these suggestions.

One comment was received suggesting language to clarify § 921.30(g). This was incorporated into the guidelines.

Two commentators expressed concern for enforcement capabilities and activities to ensure protection of the estuarine sanctuaries. A new section has been added which addresses this issue.

Finally, one suggestion was received that a vehicle for change in the management policy or research programs should be provided. A new section has been added for that purpose.

Accordingly, having considered the comments received and other relevant information, the Secretary concludes by adopting the final regulations describing the procedure for applications to receive estuarine sanctuary grants under section 312 of the Act, as modified and set forth below.

Effective date: June 3, 1974.

Dated: May 31, 1974.

ROBERT M. WHITE,
Administrator.

Subpart A—General

Sec.

921.1 Policy and objectives.
921.2 Definitions.
921.3 Objectives and implementation of the program.
921.4 Biogeographic classification.
921.5 Multiple use.
921.6 Relationship to other provisions of the Act and to marine sanctuaries.

Subpart B—Application for Grants

921.10 General.
921.11 Application for initial acquisition, development and operation grants.
921.12 Application for subsequent development and operation grants.
921.13 Federally owned lands.

Subpart C—Selection Criteria

921.20 Criteria for selection.
921.21 Public participation.

Subpart D—Operation

921.30 General.
921.31 Changes in the sanctuary boundary, management policy or research program.
921.32 Program review.

AUTHORITY: Sec. 312 of the Coastal Zone Management Act of 1972 (Pub. L. 92-583, 86 Stat. 1280).

Subpart A—General

§ 921.1 Policy and Objectives.

The estuarine sanctuaries program will provide grants to States on a matching basis to acquire, develop and operate natural areas as estuarine sanctuaries in order that scientists and students may be provided the opportunity to examine over a period of time the ecological relationships within the area. The purpose of these guidelines is to establish the rules and regulations for implementation of the program.

§ 921.2 Definitions.

(a) In addition to the definitions found in the Act and in the regulations dealing with Coastal Zone Management Program Development Grants published November 29, 1973 (Part 920 of this chapter) the term "estuarine sanctuary" as defined in the Act, means a research area which may include any part or all of an estuary, adjoining transitional areas, and adjacent uplands, constituting to the extent feasible a natural unit, set aside to provide scientists and students the opportunity to examine over a period of time the ecological relationships within the area.

(b) For the purposes of this section, "estuary" means that part of a river or stream or other body of water having unimpaired connection with the open sea where the seawater is measurably diluted with freshwater derived from land drainage. The term includes estuary-type areas of the Great Lakes as well as lagoons in more arid coastal regions.

(c) The term "multiple use" as used in this section shall mean the simultaneous utilization of an area or resource for a variety of compatible purposes or to provide more than one benefit. The term implies the long-term, continued uses of such resources in such a fashion that other uses will not interfere with, diminish or prevent the primary purpose, which is the long-term protection of the area for scientific and educational use.

§ 921.3 Objectives and implementation of the program.

(a) General. The purpose of the estuarine sanctuaries program is to create natural field laboratories in which to gather data and make studies of the natural and human processes occurring within the estuaries of the coastal zone. This shall be accomplished by the establishment of a series of estuarine sanctuaries which will be designated so that at least one representative of each type of estuarine ecosystem will endure into the future for scientific and educational purposes. The primary use of estuarine sanctuaries shall be for research and educational purposes, especially to provide some of the information essential to coastal zone management decision-making. Specific examples of such purposes and uses include but are not limited to:

(1) To gain a thorough understanding of the ecological relationships within the estuarine environment.

(2) To make baseline ecological measurements.

(3) To monitor significant or vital changes in the estuarine environment.

(4) To assess the effects of man's stresses on the ecosystem and to forecast and mitigate possible deterioration from human activities.

(5) To provide a vehicle for increasing public knowledge and awareness of the complex nature of estuarine systems, their values and benefits to man and nature, and the problems which confront them.

(b) The emphasis within the program will be on the designation as estuarine sanctuaries of areas which will serve as natural field laboratories for studies and investigations over an extended period. The area chosen as an estuarine sanctuary shall, to the extent feasible, include water and land masses constituting a natural ecological unit.

(c) In order that the estuarine sanctuary will be available for future studies, research involving the destruction of any portion of an estuarine sanctuary which would permanently alter the nature of the ecosystem shall not normally be

permitted. In the unusual circumstances where permitted, manipulative field research shall be carefully controlled. No experiment which involves manipulative research shall be initiated until the termination date is specified and evidence given that the environment will be returned to its condition which existed prior to the experiment.

(d) It is anticipated that most of the areas selected as sanctuaries will be relatively undisturbed by human activities at the time of acquisition. Therefore, most of the areas selected will be areas with a minimum of development, industry or habitation.

(e) If sufficient permanence and control by the State can be assured, the acquisition of a sanctuary may involve less than the acquisition of a fee simple interest. Such interest may be, for example, the acquisition of a conservation easement, "development rights", or other partial interest sufficient to assure the protection of the natural system. Leasing, which would not assure permanent protection of the system, would not be an acceptable alternative.

§ 921.4 Biogeographic classification.

(a) It is intended that estuarine sanctuaries should not be chosen at random, but should reflect regional differentiation and a variety of ecosystems so as to cover all significant variations. To ensure adequate representation of all estuarine types reflecting regional differentiation and a variety of ecosystems, selections will be made by the Secretary from the following biogeographic classifications:

1. *Arcadian.* Northeast Atlantic coast south to Cape Cod, glaciated shoreline subject to winter icing; well developed algal flora; boreal biota.

2. *Virginian.* Middle Atlantic coast from Cape Cod to Cape Hatteras; lowland streams, coastal marshes and muddy bottoms; characteristics transitional between 1 and 3; biota primarily temperate with some boreal representatives.

3. *Carolinian.* South Atlantic coast, from Cape Hatteras to Cape Kennedy; extensive marshes and swamps; waters turbid and productive; biota temperate with seasonal tropical elements.

4. *West Indian.* South Florida coast from Cape Kennedy to Cedar Key; and Caribbean Islands; shoreland low-lying limestone; calcareous sands, marls and coral reefs; coastal marshes and mangroves; tropical biota.

5. *Louisianian.* Northern Gulf of Mexico, from Cedar Key to Mexico; characteristics of 3, with components of 4; strongly influenced by terrigenous factors; biota primarily temperate.

6. *Californian.* South Pacific coast from Mexico to Cape Mendocino; shoreland influenced by coastal mountains; rocky coasts with reduced fresh-water runoff; general absence of marshes and swamps; biota temperate.

7. *Columbian.* North Pacific coast from Cape Mendocino to Canada; mountainous shoreland; rocky coasts; extensive algal communities; biota primarily temperate with some boreal.

8. *Fiords.* South coast Alaska and Aleutians; precipitous mountains; deep estuaries, some with glaciers; shoreline heavily indented and subject to winter icing; biota boreal to sub-Arctic.

9. *Subarctic.* West and north coasts of Alaska; ice stressed coasts; biota Arctic and sub-Arctic.

10. *Insular.* Larger islands, sometimes with precipitous mountains; considerable wave action; frequently with endemic species; larger island groups primarily with tropical biota.

11. *Great Lakes.* Great Lakes of North America; bluff-dune or rocky, glaciated shoreline; limited wetlands; freshwater only; biota a mixture of boreal and temperate species with anadromous species and some marine invaders.

(b) Various sub-categories will be developed and utilized as appropriate.

§ 921.5 Multiple use.

(a) While the primary purpose of estuarine sanctuaries is to provide long-term protection for natural areas so that they may be used for scientific and educational purposes, multiple use of estuarine sanctuaries will be encouraged to the extent that such use is compatible with this primary sanctuary purpose. The capacity of a given sanctuary to accommodate additional uses, and the kinds and intensity of such use, will be determined on a case by case basis. While it is anticipated that compatible uses may generally include activities such as low intensity recreation, fishing, hunting, and wildlife observation, it is recognized that the exclusive use of an area for scientific or educational purposes may provide the optimum benefit to coastal zone management and resource use and may on occasion be necessary.

(b) There shall be no effort to balance or optimize uses of an estuarine sanctuary on economic or other bases. All additional uses of the sanctuary are clearly secondary to the primary purpose and uses, which are long-term maintenance of the ecosystem for scientific and educational uses. Non-compatible uses, including those uses which would cause significant short or long-term ecological change or would otherwise detract from or restrict the use of the sanctuary as a natural field laboratory, will be prohibited.

§ 921.6 Relationship to other provisions of the act and to marine sanctuaries.

(a) The estuarine sanctuary program must interact with the overall coastal zone management program in two ways: (1) the intended research use of the sanctuary should provide relevant data and conclusions of assistance to coastal zone management decision-making, and (2) when developed, the State's coastal zone management program must recognize and be designed to protect the estuarine sanctuary; appropriate land and water use regulations and planning considerations must apply to adjacent lands. Although estuarine sanctuaries should be incorporated into the State coastal zone management program, their designation need not await the development and approval of the management program where operation of the estuarine sanctuary would aid in the development of a program.

(b) The estuarine sanctuaries program will be conducted in close cooperation with the marine sanctuaries program (Title III of the Marine Protection, Research Act of 1972, Pub. L. 92-532, which is also administered by the Office of Coastal Zone Management, NOAA), which recognizes that certain areas of the ocean waters, as far seaward as the outer edge of the Continental Shelf, or other coastal waters where the tide ebbs and flows, or of the Great Lakes and their connecting waters, need to be preserved or restored for their conservation, recreational, ecologic or esthetic values. It is anticipated that the Secretary on occasion may establish marine sanctuaries to complement the designation by States of estuarine sanctuaries, where this may be mutually beneficial.

Subpart B—Application for Grants

§ 921.10 General.

Section 312 authorizes Federal grants to coastal States so that the States may establish sanctuaries according to regulations promulgated by the Secretary. Coastal States may file applications for grants with the Director, Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, Rockville, Maryland 20852. That agency which has been certified to the Office of Coastal Zone Management as the entity responsible for administration of the State coastal zone management program may either submit an application directly, or must endorse and approve applications submitted by other agencies within the State.

§ 921.11 Application for initial acquisition, development and operation grants.

(a) Grants may be awarded on a matching basis to cover the costs of acquisition, development and operation of estuarine sanctuaries. States may use donations of land or money to satisfy all or part of the matching cost requirements.

(b) In general, lands acquired pursuant to this section, including State owned lands but not State owned submerged lands or bay bottoms, that occur within the proposed sanctuary boundary are legitimate costs and their fair market value may be included as match. However, the value of lands donated to or by the State for inclusion in the sanctuary may only be used to match other costs of land acquisition. In the event that lands already exist in a protected status, their value cannot be used as match for sanctuary development and operation grants, which will require their own matching funds.

(c) Development and operation costs may include the administrative expenses necessary to monitor the sanctuary, to ensure its continued viability and to protect the integrity of the ecosystem. Research will not normally be funded by Section 312 grants. It is anticipated that other sources of Federal, State and

private funds will be available for research in estuarine sanctuaries.

(d) Initial applications should contain the following information:

(1) Description of the proposed sanctuary include location, boundaries, size and cost of acquisition, operation and development. A map should be included, as well as an aerial photograph, if available.

(2) Classification of the proposed sanctuary according to the biogeographic scheme set forth in § 921.4.

(3) Description of the major physical, geographic and biological characteristics and resources of the proposed sanctuary.

(4) Identification of ownership patterns; proportion of land already in the public domain.

(5) Description of intended research uses, potential research organizations or agencies and benefits to the overall coastal zone management program.

(6) Demonstration of necessary authority to acquire or control and manage the sanctuary.

(7) Description of proposed management techniques, including the management agency, principles and proposed budget including both State and Federal shares.

(8) Description of existing and potential uses of and conflicts within the area if it were not declared an estuarine sanctuary; potential use, use restrictions and conflicts if the sanctuary is established.

(i) Assessment of the environmental and socio-economic impacts of declaring the area an estuarine sanctuary, including the economic impact of such a designation on the surrounding community and its tax base.

(9) Description of planned or anticipated land and water use and controls for contiguous lands surrounding the proposed sanctuary (including if appropriate an analysis of the desirability of creating a marine sanctuary in adjacent areas).

(10) List of protected sites, either within the estuarine sanctuaries program or within other Federal, State or private programs, which are located in the same regional or biogeographic classification.

(i) It is essential that the opportunity be provided for public involvement and input in the development of the sanctuary proposal and application. Where the application is controversial or where controversial issues are addressed, the State should provide adequate means to ensure that all interested parties have the opportunity to present their views. This may be in the form of an adequately advertised public hearing.

(ii) During the development of an estuarine sanctuary application, all landowners within the proposed boundaries should be informed in writing of the proposed grant application.

(iii) The application should indicate the manner in which the State solicited the views of all interested parties prior to the actual submission of the application.

(e) In order to develop a truly representative scheme of estuarine sanctuaries, the States should attempt to coordinate their activities. This will help to minimize the possibility of similar estuarine types being proposed for designation in the same region. The application should indicate the extent to which neighboring States were consulted.

(f) Discussion, including cost and feasibility, of alternative methods for acquisition, control and protection of the area to provide similar uses. Use of the Marine Sanctuary authority and funds from the Land and Water Conservation Fund Act should be specifically addressed.

§ 921.12 Application for subsequent development and operation grants.

(a) Although the initial grant application for creation of an estuarine sanctuary should include initial development and operation costs, subsequent applications may be submitted following acquisition and establishment of an estuarine sanctuary for additional development and operation funds. As indicated in § 921.11, these costs may include administrative costs necessary to monitor the sanctuary and to protect the integrity of the ecosystem. Extensive management programs, capital expenses, or research will not normally be funded by section 312 grants.

(b) After the creation of an estuarine sanctuary established under this program, applications for such development and operation grants should include at least the following information:

(1) Identification of the boundary.

(2) Specifications of the management program, including managing agency and techniques.

(3) Detailed budget.

(4) Discussion of recent and projected use of the sanctuary.

(5) Perceived threats to the integrity of the sanctuary.

§ 921.13 Federally owned lands.

(a) Where Federally owned lands are a part of or adjacent to the area proposed for designation as an estuarine sanctuary, or where the control of land and water uses on such lands is necessary to protect the natural system within the sanctuary, the State should contact the Federal agency maintaining control of the land to request cooperation in providing coordinated management policies. Such lands and State request, and the Federal agency response, should be identified and conveyed to the Office of Coastal Zone Management.

(b) Where such proposed use or control of Federally owned lands would not conflict with the Federal use of their lands, such cooperation and coordination is encouraged to the maximum extent feasible.

(c) Section 312 grants may not be awarded to Federal agencies for creation of estuarine sanctuaries in Federally owned lands; however, a similar status may be provided on a voluntary basis for Federally owned lands under the provisions of the Federal Committee on Ecological Preserves program.

Subpart C—Selection Criteria

§ 921.20 Criteria for selection.

Applications for grants to establish estuarine sanctuaries will be reviewed and judged on criteria including:

(a) Benefit to the coastal zone management program. Applications should demonstrate the benefit of the proposal to the development or operations of the overall coastal zone management program, including how well the proposal fits into the national program of representative estuarine types; the national or regional benefits; and the usefulness in research.

(b) The ecological characteristics of the ecosystem, including its biological productivity, diversity and representativeness. Extent of alteration of the natural system, its ability to remain a viable and healthy system in view of the present and possible development of external stresses.

(c) Size and choice of boundaries. To the extent feasible, estuarine sanctuaries should approximate a natural ecological unit. The minimal acceptable size will vary greatly and will depend on the nature of the ecosystem.

(d) Cost. Although the Act limits the Federal share of the cost for each sanctuary to $2,000,000, it is anticipated that in practice the average grant will be substantially less than this.

(e) Enhancement of non-competitive uses.

(f) Proximity and access to existing research facilities.

(g) Availability of suitable alternative sites already protected which might be capable of providing the same use or benefit. Unnecessary duplication of existing activities under other programs should be avoided. However, estuarine sanctuaries might be established adjacent to existing preserved lands where mutual enhancement or benefit of each might occur.

(h) Conflict with existing or potential competing uses.

(i) Compatibility with existing or proposed land and water use in contiguous areas.

If the initial review demonstrates the feasibility of the application, an environmental impact statement will be prepared by the Office of Coastal Zone Management in accordance with the National Environmental Policy Act of 1969 and implementing CEQ guidelines.

§ 921.21 Public participation.

Public participation will be an essential factor in the selection of estuarine sanctuaries. In addition to the participation during the application development process (§ 921.11(e)), public participation will be ensured at the Federal level by the NEPA process and by public hearings where desirable subsequent to NEPA. Such public hearings shall be held by the Office of Coastal Zone Management in the area to be affected by the proposed sanctuary no sooner than 30 days after it issues a draft environmental impact

statement on the sanctuary proposal. It will be the responsibility of the Office of Coastal Zone Management, with the assistance of the applicant State, to issue adequate public notice of its intention to hold a public hearing. Such public notice shall be distributed widely, especially in the area of the proposed sanctuary; affected property owners and those agencies, organizations or individuals with an identified interest in the area or estuarine sanctuary program shall be notified of the public hearing. The public notice shall contain the name, address and phone number of the appropriate Federal and State officials to contact for additional information about the proposal.

Subpart D—Operation

§ 921.30 General.

Management of estuarine sanctuaries shall be the responsibility of the applicant State or its agent. However, the research uses and management program must be in conformance with these guidelines and regulations, and others implemented by the provisions of individual grants. It is suggested that prior to the grant award, representatives of the proposed sanctuary management team and the Office of Coastal Zone Management meet to discuss management policy and standards. It is anticipated that the grant provisions will vary with individual circumstances and will be mutually agreed to by the applicant and the granting agency. As a minimum, the grant document for each sanctuary shall:

(a) Define the intended research purposes of the estuarine sanctuary.

(b) Define permitted, compatible, restricted and prohibited uses of the sanctuary.

(c) Include a provision for monitoring the uses of the sanctuary, to ensure compliance with the intended uses.

(d) Ensure ready access to land use of the sanctuary by scientists, students and the general public as desirable and permissible for coordinated research and education uses, as well as for other compatible purposes.

(e) Ensure public availability and reasonable distribution of research results for timely use in the development of coastal zone management programs.

(f) Provide a basis for annual review of the status of the sanctuary, its value to the coastal zone program.

(g) Specify how the integrity of the system which the sanctuary represents will be maintained.

(h) Provide adequate authority and intent to enforce management policy and use restrictions.

§ 921.31 Changes in the sanctuary boundary, management policy or research program.

(a) The approved sanctuary boundaries; management policy, including permissible and prohibited uses; and research program may only be changed after public notice and the opportunity of public review and participation such as outlined in § 921.21.

(b) Individuals or organizations which are concerned about possible improper use or restriction of use of estuarine sanctuaries may petition the State management agency and the Office of Coastal Zone Management directly for review of the management program.

§ 921.32 Program review.

It is anticipated that reports will be required from the applicant State on a regular basis, no more frequently than annually, on the status of each estuarine sanctuary. The estuarine sanctuary program will be regularly reviewed to ensure that the objectives of the program are being met and that the program itself is scientifically sound. The key to the success of the estuarine sanctuaries program is to assure that the results of the studies and research conducted in these sanctuaries are available in a timely fashion so that the States can develop and administer land and water use programs for the coastal zone. Accordingly, all information and reports, including annual reports, relating to estuarine sanctuaries shall be part of the public record and available at all times for inspection by the public.

[FR Doc.74-12775 Filed 5-31-74;9:57 am]

Appendix 3

Waimanu Estuarine Sanctuary Draft Regulations

State of Hawaii
Department of Land and Natural Resources
Honolulu, Hawaii

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The Board of Land and Natural Resources, in conformity with and pursuant to Section 187-3 and Section 195-6, Hawaii Revised Statutes, and other applicable laws of the State of Hawaii, does hereby establish the following Regulation to read as follows:

REGULATION--CONCERNING THE ESTABLISHMENT, PROTECTION AND REGULATION OF THE WAIMANU ESTUARINE SANCTUARY, HAMAKUA DISTRICT, ISLAND OF HAWAII

Section 1. The Board of Land and Natural Resources, hereinafter referred to as "the Board" does hereby declare and establish the Waimanu Estuarine Sanctuary for the protection of the native flora and fauna, and the existing natural systems in order that scientists and students may be provided the opportunity to examine over a period of time, ecological relationships within the area.

Section 2. Waimanu Estuarine Sanctuary, Island of Hawaii, shall be the area shown on the attached map (Exhibit A), and known as the ahupua'a of Waimanu, in the Hamakua District of the County of Hawaii, and shall be known henceforth as the Waimanu Estuarine Sanctuary. The boundary of the Sanctuary is the boundary of the Waimanu ahupua'a which extends from the sea to the pali, and also is to include the trail corridor from Waipio Valley (known as the Z trail) across Muliwai as shown on the attached map.

Section 3. Use Restrictions and Prohibited Acts

The general public is to be allowed free access for daytime viewing and non-consumptive enjoyment except that the following activities are held to be unlawful by anyone except for agents or employees of the Board engaged in official duties and/or anyone authorized by and operating under the provisions of a permit from the Board or the Chairman of the Department of Land and Natural Resources.

a. To fish for, take, possess or remove any fish, mollusk, crustacean, seaweed or other marine life within the waters of the sanctuary area except for marine fish with hook and line or throw net from shore and except for the taking of tahitian prawn (Macrobrachium lar) from the stream.

b. To kill, disturb, destroy, molest, capture or possess any mammal or bird or the nest or eggs thereof except that game mammals may be taken pursuant to Regulation 23 of the Division of Fish and Game.

c. To possess, except as above, any firearm, bow and arrow, cross-bow, pellet gun, air gun, sling shot, trap, poisons or snares.

d. To introduce or land any plant or animal except that riding horses and pack animals used in connection with hunting and in accordance with Regulation 23 of the Division of Fish and Game may be used on designated trails and kept within the designated area.

e. To land or operate any aircraft or other motorized vehicle.

f. To damage, destroy or remove any native flora.

g. To damage, destroy or remove any official sign, marker, or building or shelter.

h. To camp or to erect or construct any structure except in designated camp sites.

i. To trespass into any posted "No Trespassing Area" when such areas have been established within the sanctuary.

j. To dispose of any litter, garbage or trash or deposit in any stream or other water any animal carcass, substance or chemical which may pollute or be liable to pollute said stream or water.

k. To start or maintain any fires except within a site designated for that purpose.

Section 4. Permits

All permits for hunting, although in conformance with Regulation 23, must also be presented to the resident manager, whose residence shall be a hunter check-in station. All permits for scientific or educational research must be presented to the resident manager and the number of such permittees staying overnight or longer in the sanctuary shall be limited to the capacity of the shelter provided for such purpose. Permits approved for scientific or educational work in the sanctuary shall specify any terms and/or conditions deemed necessary for the protection and conservation of the wildlife and their habitats in the sanctuary. The Board may, at its discretion, cancel any permit issued pursuant to this regulation for any infraction of the terms and/or conditions of the permit when such fact is made evident to the satisfaction of the Board.

Section 5. Penalty

Any person who violates any of the provisions of this regulation or whoever violates the terms and conditions of any permit issued as provided in this regulation shall be guilty of a misdemeanor and upon conviction thereof shall be imprisoned not more than one year or fined not more than $1,000 or both as provided under Section 195D-9, H.R.S.

Section 6. Severability

Should any section, subsection, sentence, clause or phrase of the Regulation be for any reason held by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the remaining portions of this Regulation.

Appendix 4

Estuarine Sanctuary Site Evaluation Matrix

ESTUARINE SANCTUARY SITE EVALUATION MATRIX*

Candidate Sites	Which five sites best fit the definition of an estuarine sanctuary?	Which five sites would provide the most pertinent CZM input?	Which five sites have best land ownership conditions for State equity?**	Which five sites have the greatest potential for non-destructive multiple use?	Which five sites have the least conflict with existing use, owners zoning?	Which five sites have the most evidence of scientific and/or public concern?	Which five sites are under the greatest threat to existing conditions?	Which five sites would provide the most relevant research if preserved?	Which five sites are the most unaltered and/or pristine?	Which five sites could best preserve an ecological unit?	Total Score
Kahana	30	25	30	30	21	34	4	27	7	28	236
Kiholo	10	18	25	22	15	17	19	18	12	13	168
Waimanu	24	8	29	2	27	4	0	14	35	24	164
Hanalei	16	20	0	16	1	23	24	5	0	0	108
Waipio Bay	10	12	0	15	6	15	16	11	6	14	105
Lumahai	4	11	0	3	17	0	0	10	21	10	75
Halawa Bay	8	10	0	11	16	2	1	6	10	9	74
Honolua Bay	3	1	0	5	2	4	15	7	2	4	43
Kohanaiki	0	0	0	1	0	2	19	1	8	1	32
Kapoho Pond	0	0	0	0	0	4	7	6	4	2	15

* Matrix scores show the combined points from the seven working committee evaluators in regard to the site suitability ranking under each criteria. The highest score possible under each category for each site is 35.

** Only 3 of the 10 sites are partially State owned.

Appendix 5

Comparative Analysis of Three Candidate Estuary Sites

COMPARATIVE ANALYSIS OF THREE CANDIDATE ESTUARY SITES

ISSUE	LUMAHAI	KILAUEA	WAIMANU
ESTUARY, SIZE AND QUALITY	Medium size, excellent quality, but mouth partially blocked by sand bar.	Large size, good quality, some excess sediment load.	Small to medium, excellent quality, free flowing, but not as deep as rivers on Kauai.
PROSPECTS FOR CONTINUED QUALITY MAINTENANCE	Poor because of highway crossing, easy access, attractive beach, pressure from development at Princeville.	Very poor because of Governor's Task Force plans for more intensive agriculture on both sides of river.	Entire watershed and related ecosystem can be preserved. No detrimental land uses are proposed. Buffer zone areas on both sides.
EXISTING ZONING	Agriculture	Agriculture	Conservation
PROSPECTS FOR ZONING CHANGE	Poor because both County Policy and the leasee support agriculture and acqua-culture uses.	Very poor because land owned by developers, State Task Force policy pushing more intensive agriculture.	No change needed.
NECESSARY LAND BOARD APPROVAL OF SANCTUARY STATUS	Not possible until zoning is changed to Conservation. This might take a year.	Not possible unless zoning is changed to Conservation, highly unlikely for this area.	The Waimanu proposal is on the Board agenda for April 11th meeting. Approval probable.
COUNTY AND/OR PUBLIC SUPPORT FOR SANCTUARY	No support, existing and proposed uses which generate income are preferred.	No support, intensive Agriculture being pushed.	Excellent County support and little indication of public criticism.

ISSUE	LUMAHAI	KILAUEA	WAIMANU
PRESSURE OF NEARBY DEVELOPMENT	Lumahai is a very popular beach, highway has heavy traffic, large resort, second home, community development at Princeville, 3 miles away.	Intensive agriculture may endanger water quality because of pesticides, fertilizers, and other chemicals.	Only other proposed development is a compatible use, namely a wilderness trail. No water diversion planned.
SIZE AND COST OF NECESSARY LAND ACQUISITION	1,200 acres minimum; estimate, $2,000 per acre; total cost, $2,400,000. State share, $1,200,000; Federal share, $1,200,000.	Minimum, 2,000 acres; estimate, $2,000 per acre; total cost, $4,000,000. State share, $2,000,000; Federal share, $2,000,000.	Total, 980 acres. Acquisition, 347 acres. No homes or businesses will be displaced. Federal share, $173,500; State share, land equity. (633 acres).
AVAILABILITY OF FUNDING	No funding available from either State or Nature Conservancy.	No funding available from either State or Nature Conservancy.	State land available as equity in lieu of cash; management funding in future State operating budget.
PROXIMITY OF UNIVERSITY RESEARCH FACILITY	Nearest research facility is on U.H. Manoa Campus on Oahu, no facility on Kauai.	Nearest research facility is on U.H. Manoa Campus on Oahu, no facility on Kauai.	Some research capability at the U.H., Hilo Campus, several faculty interested in writing research grant requests if Waimanu chosen.
COMMUNITY PRIORITIES AND PUBLISHED PLANS AND/OR COUNTY ORDINANCES	1. Keep agriculture. 2. Keep scenic beauty. 3. Develop housing. 4. Need for more shopping and medical services.	1. Keep agriculture. 2. Keep scenic beauty. 3. Develop housing. 4. Need for more shopping and medical services.	Waimanu a "scenic treasure" and should be preserved.

Appendix 6

Comments Upon the Draft Environmental Impact Statement

PATSY T. MINK
SECOND DISTRICT
HAWAII

COMMITTEE ON EDUCATION AND LABOR (ON LEAVE)
SELECT SUBCOMMITTEE ON EDUCATION
GENERAL SUBCOMMITTEE ON EDUCATION
SUBCOMMITTEE ON EQUAL OPPORTUNITIES

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS
SUBCOMMITTEE ON TERRITORIAL AND INSULAR AFFAIRS
SUBCOMMITTEE ON NATIONAL PARKS AND RECREATION
SUBCOMMITTEE ON MINES AND MINING, CHAIRMAN

COMMITTEE ON THE BUDGET

Congress of the United States
House of Representatives
Washington, D.C. 20515

OFFICES:
WASHINGTON, D.C.
2338 RAYBURN BUILDING
PHONE: 225-4906

HONOLULU, HAWAII
346-348 FEDERAL BUILDING
PHONE: 531-4602

WAIPAHU, HAWAII
94-801 FARRINGTON HIGHWAY
PHONE: 671-0170

April 6, 1976

CZM Information Kifer GD/Bm TP

Dr. Robert R. Kifer
Office of Coastal Zone Management
National Oceanic and
Atmospheric Administration
3300 Whitehaven Street, N.W.
Washington, D.C. 20235

Dear Dr. Kifer:

Thank you for the Draft Environmental Impact Statement for a proposed estuarine sanctuary grant award to the State of Hawaii for the preservation of Waimanu on the Island of Hawaii.

I support this effort and believe that the Impact Statement addresses the issue in a positive way.

Very truly yours,

Patsy T. Mink

PATSY T. MINK
Member of Congress

Advisory Council
On Historic Preservation
1522 K Street N.W.
Washington, D.C. 20005

AP please handle

CZM
~~Information~~ Kifer
Action

April 14, 1976

check with Stab

CZM
REC'D.
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Dr. Robert R. Kifer
Office of Coastal Zone Management
National Oceanic and Atmospheric
Administration
3300 Whitehaven Street, N.W.
Washington, D. C. 20235

Dear Dr. Kifer:

This is in response to Sidney R. Galler's undated request for comments on the draft environmental statement for a Proposed Estuarine Sanctuary Grant Award for Waimanu Valley, Hawaii County, Hawaii. Pursuant to its responsibilities under Section 102(2)(C) of the National Environmental Policy Act of 1969, the Advisory Council on Historic Preservation has determined that while you have discussed the historical, architectural, and archeological aspects related to the undertaking, the Advisory Council needs additional information to adequately evaluate the effects on these cultural resources. Please furnish additional data indicating:

I. Compliance with Executive Order 11593, "Protection and Enhancement of the Cultural Environment" of May 13, 1971.

A. Under Section 2(a) of the Executive Order, Federal agencies are required to locate, inventory, and nominate eligible historic, architectural and archeological properties under their control or jurisdiction to the National Register of Historic Places. The results of this survey should be included in the environmental statement as evidence of compliance with Section 2(a). 1.

B. Until the inventory required by Section 2(a) is complete, Federal agencies are required by Section 2(b) of the Order to submit proposals for the transfer, sale, demolition or substantial alteration of federally owned properties eligible for inclusion in the National Register to the Council for review and comment. Federal agencies must continue to comply with Section 2(b) review requirements

The Council is an independent unit of the Executive Branch of the Federal Government charged by the Act of October 15, 1966 to advise the President and Congress in the field of Historic Preservation.

even after the initial inventory is complete, when they obtain jurisdiction or control over additional properties which are eligible for inclusion in the National Register or when properties under their jurisdiction or control are found to be eligible for inclusion in the National Register subsequent to the initial inventory.

The environmental statement should contain a determination as to whether or not the proposed undertaking will result in the transfer, sale, demolition or substantial alteration of eligible National Register properties under Federal jurisdiction. If such is the case, the nature of the effect should be clearly indicated as well as an account of the steps taken in compliance with Section 2(b). (36 C.F.R. Part 800 details compliance procedures.) 2.

C. Under Section 1(3), Federal agencies are required to establish procedures regarding the preservation and enhancement of non-federally owned historic, architectural and archeological properties in the execution of their plans and programs.

The environmental statement should contain a determination as to whether or not the proposed undertaking will contribute to the preservation and enhancement of non-federally owned districts, sites, buildings, structures and objects of historical, architectural or archeological significance. 3.

II. Contact with the State Historic Preservation Officer.

The procedures for compliance with Section 106 of the National Historic Preservation Act of 1966 and the Executive Order 11593 require the Federal agency to consult with the appropriate State Historic Preservation Officer. The State Historic Preservation Officer for Hawaii is Ms. Jane L. Silverman, Department of Land and Natural Resources, P. O. Box 621, Honolulu, Hawaii 96809. 4.

Should you have any questions or require any additional assistance, please contact Michael H. Bureman of the Advisory Council staff at P. O. Box 25085,

Denver, Colorado 80225, telephone number (303) 234-4946.

Sincerely yours,

Michael A. Barnea
for Louis S. Wall
Assistant Director, Office
of Review and Compliance

Reply to the Advisory Council on Historical Preservation:

1. An inventory will be conducted as part of the baseline studies following designation of the sanctuary and awarding of the grant.

2. The Office of Coastal Zone Management has determined that, if indeed any properties within the sanctuary are eligible for the National Register, the effect of the sanctuary upon them will be positive.

3. This impact statement states that the proposed action will indeed preserve and enhance historical and archaeological sites of significant value.

4. The Hawaii State Historic Preservation Officer has been contacted, and is currently making an independent evaluation of the nature of the effect of the proposed action.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Rockville, Md. 20852

DATE : APR 30 1976

TO : Robert W. Knecht
Assistant Administrator for Coastal Zone Management

FROM : David H. Wallace
Associate Administrator for Marine Resources

SUBJECT: Review and Comments on the State of Hawaii Estuarine Sanctuary (Waimanu Valley Sanctuary) DEIS

On April 5, 1976, I submitted to you our review and comments on subject estuarine sanctuary Discussion Paper. We have now reviewed the subject DEIS. My comments follow.

For the reasons stated in my previous memorandum and in Section VI-B Alternative Boundaries (pages 34-35) of the DEIS, I feel very strongly that the proposed sanctuary boundaries be expanded to include the entire watershed of Waimanu Stream and its tributaries. 1.

Section 2 of Appendix 3 of the DEIS states that the sanctuary (as proposed) is shown on an attached map (Exhibit A). Such a map was not included in our copy of the DEIS. 2.

Attached you will find copies of comments on subject estuarine sanctuary Discussion Paper and DEIS from some MR MLC's and EM. I recommend that each of the points raised in these comments be addressed before you issue the FEIS. 3.

Attachments

cc: Robert M. White
John W. Townsend
Edward S. Epstein
Robert R. Kifer
MR2
MR3
MR4
MR5
NMFS
EDS
NOS
ERL

CZM Information K. Lee
TP
GD/BM
BM

CZM RECVD MAY 7 11 59 AM '76 MAIL ROOM

Reply to the National Oceanic and Atmospheric Administration

1. The boundary of the sanctuary has been expanded to include the entire watershed.

2. It is true that Exhibit A was not included in the DEIS. The sanctuary referred to, however, is precisely the same as shown in Figure 2 (page 3) of the DEIS.

3. The attached comments raise specific informational points, which have been incorporated into the FEIS. In addition several of the comments reiterate the desire to expand the sanctuary boundary to include the entire watershed.

CZM
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1976 MAY 10 PM 2 47
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Box 15
Volcano
Hawaii 96785

May 7, 1976

Dr. Robert Kifer
OCZM - NOAA
Page Building No. 1
3300 Whitehaven NW
Washington, D.C. 20235

CZM Information
Kifer
TP
BD/BM
BM

Dear Dr. Kifer:

After the Waimanu Estuarine Sanctuary public hearing in Hilo, I sent a copy of the EIS draft along with a copy of my statement to Dr. David Tuggle, a member of the Hawaii Historic Places Review Board.

I asked him for his comments or suggestions, and/or corrections to what had been presented.

The enclosed is his reply.

Respectfully,

Violet Hansen

Violet Hansen

University of Hawaii at Manoa

Department of Anthropology
Porteus Hall 346 • 2424 Maile Way
Honolulu, Hawaii 96822

April 30, 1976

A General Statement on the Proposed Estuarine Sanctuary Grant Award for Waimanu Valley, Hawaii County, Hawaii

H. David Tuggle
Associate Professor

This statement is based on the information in the Draft Environmental Impact Statement, with public release on March 26, 1976.

I support the general aims of the proposal, but I would like to make the following comments.

The archaeological resources of the valley have been largely neglected in the development of the plan and in the impact statements. These faults should be corrected. While it is noted (p. 14) that archaeological sites are now thought to be marginal, this conclusion is based on limited and probably faulty information. NO ADEQUATE OR PROPER SURVEY OF THE VALLEY FOR ARCHAEOLOGICAL PURPOSES HAS EVER BEEN CONDUCTED. Such a survey and appropriate inclusion of archaeological concerns should be included in the scientific program planned for the valley. 1.

Based on my research in valleys further north along the Hamakua-Kohala coast (Honopue, Honokane, and Pololu) I would say that there is every reason to believe that significant archaeological remains will be found in Waimanu. Further, Waimanu's relationship to Waipio, a valley which should prove to be one of the major archaeological zones in Hawaii, makes it of further significance.

Finally, as far the the environmental impact is concerned, an archaeologist should participate in all planning regarding location of campgrounds, scientists facilites, quarters, etc, and should participate in any clearing and construction work for such facilities. 2.

Addendum: I fully support Violet Hansen's statement(4/27/76) regarding the Waimanu EIS.

AN EQUAL OPPORTUNITY EMPLOYER

Reply to Violet Hansen/H. David Tuggle

1. The FEIS has been updated (p. 13) to indicate that, while several partial surveys have been undertaken, Waimanu Valley merits further study. As noted on p. 9 of the FEIS, archaeological and historical studies are listed as appropriate and intended areas of research.

2. It is intended that an archaeologist be included in the original study team, and that he be consulted in decisions involving construction or clearing. The description of the impact section (p. 30) and the discussion of the proposed regulations (p. 7) reflect these concerns.

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN
BLDG. 230, FT. SHAFTER
APO SAN FRANCISCO 96558

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MAY 5 May 1976

Dr. Robert R. Kifer
Office of Coastal Zone Management
National Oceanic & Atmospheric Administration
3300 Whitehaven Street, N.W.
Washington, D. C. 20235

CZM Information

K. Fer

GD/BM
BM

Dear Dr. Kifer:

The Draft Environmental Impact Statement for State of Hawaii, Estuarine Sanctuary, Proposed Grant Award was referred to our office of the Office of the Chief of Engineers for review and comments. We have reviewed the draft statement and offer the following comments for consideration in preparation of the final statement.

a. More detail on the sewage disposal facilities described on page 7 should be included in the final statement. 1.

b. It is suggested that the following activities be included among the prohibited uses listed on page 7: excavation, filling, and construction or installation of any structures. 2.

c. It is suggested that the meaning of "manipulative, destructive, or consumptive research" be defined (page 9). 3.

d. Although the removal of introduced vegetation species is "desirable," more specific field guidelines and regulations should be developed for personnel who will be responsible for their removal. 4.

e. The last portion of the caption for Figure 6, page 17, should be clarified to read, "...and the Northern Sector of the Hamakua District." 5.

f. In view of the research purposes listed on page 1, the emphasis on understanding of estuarine systems is conspicuously lacking from the State's list of appropriate areas of research (page 9). While the research areas collectively contribute to an understanding of the ecosystems in the valley, it appears appropriate that specific reference be made to its estuarine qualities and systems. 6.

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

PODED-P 5 May 1976
Dr. Robert R. Kifer

Thank you for the opportunity to review this statement. We would appreciate a copy of the final statement when it becomes available.

Sincerely yours,

for KISUK CHEUNG
Chief, Engineering Division

Copy furnished:
HQDA (DAEN-CWP-P)
WASH DC 20314

Reply to the Department of the Army

1. The preliminary site investigation team was not trained in sewage disposal methods. When these facilities are to be built, the site investigation team will address this problem in greater depth.

2. Although not specifically stated, these activities are implicitly excluded.

3. Manipulative, destructive, or consumptive research refers to that research which will alter the natural dynamics of the ecosystem, either in the short or long run. The resident manager will be responsible for all decisions concerning such research.

4. One possible means to begin removal of introduced species and trail improvement is through summer efforts by the Youth Conservation Corps, under supervision by the Division of Forestry. In this case, the first week would be spent training the YCC in proper procedures.

5. The original wording has been retained for brevity.

6. It is true that a study of estuarine systems is not specifically discussed; the research areas proposed instead are quite problem-oriented. System dynamics will necessarily be investigated in the course of such research.

UNITED STATES OF AMERICA
GENERAL SERVICES ADMINISTRATION

Public Buildings Service
Washington, D.C. 20405

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MAY 6 1976

Dr. Robert R. Kifer
Office of Coastal Zone Management
National Oceanic and Atmospheric Administration
3300 Whitehaven Street, NW
Washington, DC 20235

CZM Information K. Fee
GD/BM
BM

Dear Dr. Kifer:

Per your request, we have reviewed the Draft Environmental Impact Statement entitled State of Hawaii Estuarine Sanctuary Proposed Grant Award for Wimanu Valley and have concluded that no GSA interest exists in the subject project.

Sincerely,

for Gary O. Roberts
ANDREW E. KAUDERS
Director
Environmental Affairs

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University of Hawaii at Manoa

Environmental Center
Crawford 317 • 2550 Campus Road
Honolulu, Hawaii 96822
Telephone (808) 948-7361

Office of the Director

6 May 1976

Kifer
TP
GD/BM
BM

Dr. Robert Kifer
OCZM NOAA
Page Building, No. 1
3300 Whiteheaven St, N.W.
Washington, D.C. 20235

Dear Dr. Kifer:

PROPOSED GRANT AWARD
DRAFT E.I.S. FOR STATE OF HAWAII (WAIPIO) ESTUARINE SANCTUARY

This responds to your memorandum of 27 April requesting comments on the draft EIS on the proposed Estuarine Sanctuary Grant Award for Waimanu Valley, Hawaii. When we received your memorandum and the DEIS, we indicated to each of the University of Hawaii units and personnel, listed on p. iii of the DEIS as potential sources of review comments, that we would be pleased to reflect their comments in this response, and if they desired to serve as the conduit and coordination for their comments. The extent of the comments that you can expect from the University community will, we expect, be somewhat limited owing to the failure of some of the potential commentators to receive copies of the DEIS. So far as possible we have made copies available to them.

Reflected in this letter are views expressed by the following:

Doak C. Cox, Environmental Center
Alison Kay, Department of General Science
Watson Okubo, Water Resources Research Center
J.F. Campbell, Hawaii Institute of Geophysics

The following additional persons were contacted on specific points:

Andrew Berger, Department of Zoology
Ruth Gay, Department of Botany

Leonard Wilson of the Environmental Center both contributed to the discussion and assisted in its coordination.

Overall comment

No contributor to this review has expressed doubts that the establishment of Waimanu as a sanctuary is inappropriate. The relative insignificance of the Waimanu estuary itself is offset by the potential for establishment at Waimanu of a sanctuary including practically all of the tributary watershed and the adjacent waters on the open coast. The proposed sanctuary will constitute a very valuable resource for environmental research and education.

It should be noted that neither Waimanu Valley nor its estuary are typical. There are such great inter-regional geographic differences in the Hawaiian Islands that no estuary could be considered as typical of those in Hawaii. The Waimanu estuary is, however, typical of the stream-mouth estuaries on the windward coast of the island of Hawaii, and in particular of the estuaries to which the deep valleys of the Kohala Range are tributary, except that it is the least altered of these, and hence best suited to preservation as a sanctuary.

Waimanu estuary and comparable estuaries

Because the action proposed is the establishment of an estuarine sanctuary, it is surprising that, in the EIS, there is so little discussion of the Waimanu estuary and comparison between it and other Hawaiian estuaries.

In addition to the one reference cited (Smith, 1974), the following might be noted:

Coulbourn, William T., "Sedimentology of Kahana Bay, Oahu, Hawaii." Hawaii Institute of Geophysics HIG - 71-14, University of Hawaii, December 1971.

Walsh, Gerald E., "An Ecological Study of a Hawaiian Mangrove Swamp," Estuaries, edited by George Lauff, American Association for the Advancement of Science, Publication No. 83, Washington D.C., 1967.

Timbol, Amadeo S., Trophic Ecology and Microfauna of Kahana Estuary, PhD dissertation, Department of Zoology, University of Hawaii, December 1972.

Cox, Doak C., et. al., Estuarine Pollution in the State of Hawaii, Vol I, Statewide Study, Vol. II, Kaneohe Bay Study, Water Resources Research Center Tech. Rpt. 31, University of Hawaii, March 1970, November 1973.

Waimanu Valley is a drowned river valley (as indicated in p. 12, para 2), but most of the drowned valley has been filled with sediments. The slight coastal indentation represented by Waimanu Bay is the only part of the valley that has not been filled above sea level. The waters of the bay (as indicated on p. 21, para. 3) are not measurably diluted. The Bay is not properly described as a tidal stream, but the mouth of Waimanu stream is a stream-mouth estuary, being tidal and intermittently saline (as indicated in p. 21, para. 4). Considering the conditions, an estuarine faunal assemblage should be expected (as indicated in p. 26, para. 4, p. 27, para. 1).

The comparisons among estuaries indicated in Appendix 4 seem valid.

Flora and fauna

In considering the establishment of a sanctuary at Waimanu, special concerns with endangered species are appropriate, and different levels of importance must certainly be attached to endemic species (those found only in Hawaii), other indigenous species (those occurring naturally in Hawaii), and exotic species (those introduced by man) -- and among the exotics which were pre-Cook Polynesian introductions and which were later introductions. However the distinctions in the DEIS are inexact.

Among species listed in Table II as native species, for example, are the kukui, coconut, launa'oa, noni, and laua'e, which are or may be Polynesian introductions, and the papaya which is a post-Cook introduction. The rest are endemic or indigenous (incidentally, however, the particular species of hala listed is not the one most commonly used in Hawaiian crafts). The Polynesian rat is a Polynesian introduction but not a native (p. 28). (Incidentally, more than one introduced rat species causes damage in sugar cane fields. Further, significant mongoose populations have certainly been documented in Hawaii, though perhaps not in Waimanu.)

In an estuarine sanctuary particular interest centers in the estuarine flora and fauna, but the list of Waimanu Stream macrofauna (p. 26, para. 4) includes indescriminately the aholehole, ama'ama, oopu, hihiwai, and wi (endemic or indigenous) with the bullfrog, toad, and Tahitian prawn (introduced), and without distinction as to amphibian, fresh water, estuarine, or diadromous habit. 2.

Close interest centers also in the wetlands, particularly in Hawaii where native wetland ecosystems have especially suffered from man's impact (Polynesian and post-Cook). For reasons indicated (p. 14) the Polynesian influence in the wetlands of Waipio has been extensive, but the post-Cook influence is relatively slight owing to the isolation and early abandonment of the Valley. There is almost no discussion of the wetland flora in the DEIS.

An additional center of interest must be the forest ecosystem, as suggested by the DEIS, even though this has little direct bearing on the estuary.

The paucity of ecosystem information is a reflection, as the DEIS indicates of the lack of specific ecological investigations in Waipio, but the case for establishment of the sanctuary would have been stronger if the DEIS included more informed guesswork, and reflected guesswork better informed.

Geology

The discussion of geology in the DEIS seems weak. The entire northeastern coast of the island of Hawaii is not part of the flank of the Kohala range (indicated on p. 18, para. 5), but includes the northeastern flanks of

Mauna Kea, Kilauea, and a bit of Mauna Loa as well. The Hawi series that caps the Kohala Range is not a single lava flow (as implied in p. 18, para. 5) but a series of lava flows whose resistance to erosion is probably more a function of their thickness than their silica content. However, there is appropriate discussion of particularly interesting geomorphologic development of the major valleys of the northeast Kohala coast (p. 18, para. 5 and p. 20, para. 4).

Land classification, ownership, value, and transfer

Even though the 19 kuleanas in Waimanu Valley (p. 14, para. 3) will be purchased and integrated with the estuary, there may be reason to retain evidences of the kuleana boundaries, as well as the archaeological remains that are physical evidences of past occupance of the valley, in the light of the historical significance of kuleanas in the development of land ownership concepts in Hawaii. 3

Incidentally, only three land use districts were established by original land use law of 1961 (p. 28, para. 5), the Conservation, Agriculture, and Urban Districts. The Rural District was established by a 1963 amendment.

Table I indicates the values of 980 acres of Waimanu land to be included in the estuarine sancturay. These include 347 acres to be purchased which, together with the costs of appraisal will cost $175,000; and 633 additional acres on the valley to be provided by the state, valued at approximately $316,500. The total area of the sanctuary will be about 3,680 acres (p. 4, para. 5). The 2,700 acres not accounted for in Table I are presumably steep valley sites owned by the State. Although their cash value per unit area is small, the value of their contribution to the sanctuary should not be overlooked.

Incidentally, there is no explanation for the asterisk in Table I following the note on need for compensation to the State for the purchase of lands to be exchanged with the Department of Hawaiian Homes.

Although the DEIS indicates very satisfactory negociations with the Department of Hawaiian Homes Lands and the Bishop Estate toward the acquisitions of their land holdings in Waipio (p. 10, paras. 2 & 3), there is no discussion of the extent of notification of and negociation with kuleana land owners, a matter which should be addressed in the final EIS. 4.

Yours very truly,

Doak C. Cox, Director

cc: Potential U.H. reviewers named in EIS
Contributors to review
Charles Lamoureux, Chairman E.C. Policy Comm.
J.B. Halbig, E.C. Policy Comm., Hilo
Virginia Brooks Macdonald, DPED

Reply to the Environmental Center, University of Hawaii

1. These references are greatly appreciated, and will be useful in preparing a research program for Waimanu if the sanctuary is designated.

2. There is no question that the DEIS does contain some faulty or inexact information. This problem merely highlights the need for closer cooperation between the Department of Planning and Economic Development, the Division of Forestry, and the Environmental Center. Hopefully these informational gaps can be plugged through directed research in the Valley.

3. All archaeological remains of significance will be protected and preserved. It is intended that an archaeologist be included on the site investigation team, both to examine the archaeological remains and to recommend areas for construction of shelters and walkways.

4. Negotiations with the Kuleana owners have been initiated and are being handled by the Hawaii Department of Land and Natural Resources.

CZM
REC'D.

1976 MAY 10 PM 2 49

MAIL ROOM

May 5, 1976

Office of Coastal Zone Management
RE Waimanu Valley Estuary
Page Bldg #1
3300 Whitehaven St.
Northwest
Washington, D. C. 20235

CZM Information

K. Le
TP
GD/BP
BM

Dear Sir:

On April 25, 1976 in Hilo, I was allowed to make further presentations. The presentation dwells on Hawaiian Aboriginal rights.

The Impact Statement should include:

A. KONOHIKI OF THE SEA

1. All kapus dealing with the ocean and rivers as the Hawaiian people observed it should be preserved for the people of the Hawaiian nation.

a. This should include the area of conservation as practiced by the Hawaiians of old.

B. KONOHIKI OF THE LAND

1. All kapus of the land as the Hawaiian people observed it should be preserved for the Hawaiian nation.

a. If hunting were to be allowed, this should be limited to the aborigines.

1.

C. MINERAL AND WATER RIGHTS

1. The kapus in this area should be preserved for the Hawaiian nation.

D. RELIGIOUS

1. All religious ceremonies should be performed by people of the Hawaiian nation.

E. ADMISSIONS

1. Were there to be admission charges to the area, the monies should go to the Hawaiian Nation.

The above is presented because:

1. Most of the land of Waimanu belongs to Hawaiians.

2. There are two (2) bills pending in Congress. These deal with the Hawaiian nation's claim for aboriginal rights.

3. Present laws are not being enforced to protect the Konohiki of the Sea, as witness the harvesting of the coral trees off the island of Maui by others not of the Hawaiian nation.

4. The annexation treaty of 1897 give certain considerations to the Hawaiian people when their lands are involved.

Thank you for your consideration.

Genesis Lee Loy

Genesis Lee Loy

copy to: ALOHA Association

Reply to Genesis Lee Loy

1. These considerations upon Hawaiian aboriginal rights are primarily of concern in the development of specific regulations. The Federal concern regarding these regulations is to insure that the ecological integrity is preserved; more specific issues are rightly the concern of the State. Accordingly, the Department of Land and Natural Resources will shortly hold hearings upon such regulatins. Your comments will be forwarded through to the DLNR.

GEORGE R. ARIYOSHI
Governor

HIDETO KONO
Director

FRANK SKRIVANEK
Deputy Director

DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT

Kamamalu Building, 250 South King St., Honolulu, Hawaii • Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

CZM
REC'D.

MAIL ROOM

May 4, 1976

Ref. No. 0957

Kifer
TP
GD/BM

Mr. Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs
Office of Coastal Zone Management
National Oceanic and Atmospheric
Administration
3300 Whitehaven St., N.W.
Washington, D.C. 20235

Attention: Dr. Robert R. Kifer

Dear Mr. Galler:

Thank you for your memorandum requesting our comments regarding the Draft Environmental Impact Statement for the proposed grant award for the State of Hawaii estuarine sanctuary.

The proposed sanctuary is part of the statewide Coastal Zone Management Program being developed by this Department and, as such, meets the requirements of the Federal CZM Act for preservation of a relatively pristine estuary (Section 312). We feel that in general the draft statement adequately describes the probable environmental impact of the program.

We would, however, like to suggest that a more exact determination of any significant historical and/or archaeological sites within the vicinity of the proposed project be conducted by the State Historic Preservation Office, Department of Land and Natural Resources. 1.

We also suggest that the alternative of land exchange rather than condemnation be considered for the acquisition of private land. 2.

We appreciate this opportunity to comment on the draft environmental impact statement for this important preservation program.

Sincerely,

HIDETO KONO

Reply to the Department of Planning and Economic Development

1. The FEIS has been amended to specifically propose such an inventory.

2. The Department of Land and Natural Resources is currently investigating this option, in addition to the third option of negotiated purchase.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

Office of Programs Rx3

DATE: APR 2 8 1976

TO: Robert R. Kifer
OCZM

FROM: Wilmot N. Hess
ERL

SUBJECT: DEIS on Proposed Grant Award for a State of Hawaii Estuarine Sanctuary

ERL has no substantive comments to offer on the subject DEIS at this time.

CZM
REC'D.
1976 MAY 12 AM 10 56
MAIL ROOM

Form DOT F 1320.1 (1-67)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE SECRETARY

DATE: May 7, 1976

In reply refer to: TES-70

SUBJECT: Draft Environmental Impact Statement: for a Proposed Estuarine Sanctuary Grant Award for the State of Hawaii

FROM : Director, Office of Environmental Affairs

TO : Dr. Robert R. Kifer
Office of Coastal Zone Management
National Oceanic & Atmospheric Administration
3300 Whitehaven St., N.W.
Washington, D.C. 20235

Kifer

1976 MAY 12 AM 11: 24
MAIL ROOM
CZM
REC'D.

We appreciate the opportunity to review and comment on this draft environmental impact statement. The Department of Transportation has no specific comments to offer on the statement.

M Convisser

Martin Convisser

GEORGE R. ARIYOSHI
GOVERNOR

JOHN FARIAS, JR.
CHAIRMAN, BOARD OF AGRICULTURE

YUKIO KITAGAWA
DEPUTY TO THE CHAIRMAN

STATE OF HAWAII
DEPARTMENT OF AGRICULTURE
1428 SO. KING STREET
HONOLULU, HAWAII 96814

April 30, 1976

CZM RECD.
1976 MAY 12 AM 11: 25
MAIL ROOM

Dr. Robert R. Kifer
Office of Coastal Zone Management
National Oceanic and Atmospheric Administration
3300 Whitehaven Street, N.W.
Washington, D. C. 20235

Dear Mr. Kifer:

Re: Proposed Waimanu Estuarine Sanctuary,
County of Hawaii

The Department of Agriculture has reviewed the Draft Environmental Impact Statement for the above-proposed estuarine grant award. There is little or no impact on agriculture should this site be selected. No significant diversion of water supplies would be anticipated in the reasonable future, and any agricultural activities that could cause environmental degradation are reasonably remote.

We appreciate the opportunity to comment.

Many thanks,

John Farias, Jr.
Chairman, Board of Agriculture

JF:d:d

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
100 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94111

REC'D.
1976 MAY 11 PM 3:47
MAIL ROOM

MAY 11 1976

CZM
Information

Dr. Robert R. Kifer
Office of Coastal Zone Management
National Oceanic and Atmospheric Administration
3300 Whitehaven Street Northwest
Washington D.C. 20235

Kifer
TP
WM
GD/BM

Dear Dr. Kifer:

The Environmental Protection Agency has received and reviewed the Draft Environmental statement for the Proposed Estuarine Sanctuary in Hawaii.

EPA's comments on the Draft Environmental Statement have been classified as Category Lo-1. Definitions of the categories are provided on the enclosure. The classification and the date of EPA's comments will be published in the Federal Register, in accordance with our responsibility to inform the public of our views on the proposed Federal actions under Section 309 of the Clean Air Act. Our procedure is to categorize our comments on both the environmental consequences of the proposed action, and the adequacy of the Environmental Statement.

EPA appreciates the opportunity to comment on the Draft Environmental Statement, and requests one copy of the final Environmental Statement when available.

Sincerely,

Paul De Falco, Jr.,
Regional Administrator

Enclosure

cc: Council on Environmental Quality

EIS CATEGORY CODES

Environmental Impact of the Action

LO--Lack of Objections

EPA has no objection to the proposed action as described in the draft impact statement; or suggests only minor changes in the proposed action.

ER--Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to reassess these aspects.

EU--Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

Adequacy of the Impact Statement

Category 1--Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2--Insufficient Information

EPA believes that the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3--Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the impact statement.

If a draft impact statement is assigned a Category 3, no rating will be made of the project or action, since a basis does not generally exist on which to make such a determination.

CZM Information Kifer

CZM REC'D 1976 MAY 17 AM 9:41 MAIL ROOM

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southwest Fisheries Center
Honolulu and La Jolla Laboratories
P. O. Box 3830
Honolulu, Hawaii 96812

Date: May 10, 1976

Reply to Attn. of:

To: Mr. Robert R. Kifer, OCZM, NOAA, Rockville, Maryland 20852

From: Richard S. Shomura, Director, Honolulu Laboratory

Subject: Comments; State of Hawaii Estuarine Sanctuary Proposal

The selection of Waimanu Valley as an estuarine sanctuary is an excellent choice. As indicated in the proposal, other sites may better represent estuarine conditions in Hawaii; however, in examining the trade offs the best candidate appears to be Waimalu Valley.

I would like to offer the following comments on the present proposal:

1. I believe the State agency with the closest involvement with estuaries should be selected as the lead agency for managing the sanctuary. This would be the Division of Fish and Game. I recognize the fact that the bulk of the area is forest; however, the focal point of this section of the Coastal Zone Management Act is on estuaries. 1.

2. I would have thought that the Natural Area Reserves Commission would be the ideal body to provide advice and guidance to the Department of Land and Natural Resources in managing the sanctuary. The goals of the State of Hawaii in establishing the Natural Area Reserves Commission and the concept of the estuarine sanctuary appear to be basically the same, i.e. to preserve an area in as pristine a condition as possible and to allow for scientific research. 2.

   While I agree that local interests should be represented in the Management Advisory Committee, establishment of a purely localized group has a major drawback. The basic rationale in establishing the estuarine sanctuary program is to meet the national and state needs; thus, it is essential that the best talents available in the state be represented on the Advisory Committee.

3. I would recommend that the Waimanu Valley estuarine sanctuary start its program with a pristine baseline of operation. This would mean (a) not having the resident manager live in the valley (page 7, line 1), (b) not permitting the construction of shelters to house the resident manager and to provide quarters for scientists or visitors (page 7, line 2), and (c) not construct the wooden walkway (page 8, line 31). 3.

I believe the estuarine sanctuary program should start with as natural condition as possible. In order to accommodate this, the resident manager could live in Waipio Valley and make physical checks of Waimanu Valley at intervals, scientists could sleep in pitched tents and people could cross the stream by wading.

3.

If after a trial period it becomes obvious that manmade encroachments to the system have to be made the Management Advisory Committee can then take this matter up. There is great danger in a priori assuming needs of the system. A better plan would be to have the need surface and consider all alternatives before selecting a solution.

I hope the above comments are of use in your evaluation of the proposal. I would like to state that the recommendations that I have made should be considered as my views to improve the establishment and management of the sanctuary and should not in any way be construed as negative points of the proposal in general. I believe the Waimany Valley estuarine sanctuary could prosper very well even under the conditions laid down in the present proposal.

cc: Director, Southwest Fisheries Center, F14
Regional Director, Southwest Region, FSW
Regional Representative, Honolulu, FSWx1

Reply to Southwest Fisheries Center, Honolulu Laboratory

1. A primary consideration in management of the sanctuary will be management of the watershed. In this regard, the Division of Forestry is particularly important. In any case, however, close cooperation between the Division of Forestry and the Division of Fish and Game is essential.

2. Both alternatives have merits and deficiencies. At this point, the choice of an advisory committee is not determined. Perhaps some intermediate alternative can be found to incorporate the best points of both.

3. Scientific research is not the only focal point of the sanctuary. Education is also important. The sanctuary presently has a fairly high volume of traffic; this can be expected to increase somewhat as a result of trail improvements and publicity. While the presence of a resident manager and wooden walkways may not be necessary for purely scientific use, the use by the general public must be monitored and controlled.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
PACIFIC SOUTHWEST REGION
BOX 36098 • 450 GOLDEN GATE AVENUE
SAN FRANCISCO, CALIFORNIA 94102
(415) 556-8200

OCZM RECD. MAY 17 11:48 MAIL ROOM

ER-76/321

May 10, 1976

CZM Information Kifer TP GD/Bm WM

Dr. Robert R. Kifer
Office of Coastal Zone
Management
National Oceanic and
Atmospheric Administration
3300 Whitehaven Street, NW
Washington, D.C. 20235

Dear Dr. Kifer:

The Department of the Interior has reviewed the draft environmental statement for Waimanu Estuarine Sanctuary Grant, Hawaii County, Hawaii.

From the standpoint of natural resource preservation, we endorse the basic concept of the proposed project. The area should provide excellent educational and scientific opportunities to examine ecological relationships within a protected natural area.

However, we believe the draft does not adequately consider cultural resources that may be affected by the project. Page 14 of the document says area archeological resources are apparently in poor condition. We suggest further elaboration on this statement be included in the final version. 1.

In general, present knowledge of cultural resources which could be affected by the proposal cannot be considered an adequate basis for assessment of potential adverse project effects. Until factual data derived from intensive survey of affected areas are available indicating the presence and significance of cultural resources, it is impossible to evaluate either project impact or that of viable alternatives upon archeology. 2.

Executive Order 11593, Section 2(b) requires all Federal agencies to ensure that cultural properties under their jurisdiction that might qualify for inclusion on the National Register of Historic Places are not inadvertently demolished or substantially altered. The proposed construction of resident manager and scientists' shelters and trail improvements would adversely affect cultural resources that may be in the area. If significant cultural resources are discovered, they should be described and evaluated for their National Register potential. If they qualify for nomination to the National Register of Historic Places, compliance with Title 36, CFR 800 should be documented in the final statement. 3.

A copy of the State Historic Preservation Officer's comments regarding the project's impact upon cultural properties either listed on or in the process of nomination to the National Register of Historic Places should be included in the final statement. 4.

In order to achieve perpetual protection of the wetland and estuarine environment in the valley, it appears advisable to acquire at least some form of easement on all land within the watershed, particularly in a moist climate and in steeply sloping terrain such as that of the Waimanu watershed. With regard to the southwestern part of the watershed, that has not been proposed for acquisition, it is mentioned near the end of the environmental statement that "it is recommended that this area be included within the sanctuary boundaries" (p. 35, lines 6-7). The acquisition of the southwestern 40 percent of the watershed has been considered as an alternative (p. 34-35, sec. B). We believe the final environmental statement should clarify whether efforts have been made to assure that the sponsors of the project have fully considered the advisability of acquiring the entire watershed, and have considered protecting the southwestern portion by acquisition or some form of easement. 5.

The original reason for not including the southwest section of the watershed was the difficulty in establishing the southernmost extent of the watershed. Since it is evidently recognized that this area should ultimately be included, at least to the extent of assuring the preservation of natural runoff conditions that otherwise might affect the environment of wetlands in the lower valley, it would be advisable to clarify the current status of knowledge on the southwestern extent of the watershed and any proposed survey work to fill the gaps in present knowledge.

It is stated on the first page of appendix 4, under the heading Waimanu, that the "entire watershed and related ecosystem can be preserved." This statement should be qualified if it is proposed to include only 60 percent of the watershed. 5.

The total acreage, given as 980 acres on the table on page 2 of appendix 4, should be clarified, as the total acreage was given previously as 3,680 acres (summary, p. i, par. 2). 6.

Measures regarding water supply and sanitary waste disposal facilities at the two camp sites on either side of the valley (p. 8, par. 1) should be discussed. 7.

We appreciate the opportunity to review and comment on the draft statement.

Cordially,

Webster Otis
Special Assistant to the Secretary

cc: OEPR, with copy of incoming
Regional Director, FWS, Portland
Regional Director, BOR, San Francisco
Regional Director, NPS, San Francisco
USGS, Reston ATTN: Bonham

Reply to the Department of the Interior

1. Page 13 has been updated to include additional information upon archaeological resources.

2. A complete archaeological survey has been included upon the list of appropriate and intended research in the sanctuary (page 9).

3. The list of prohibited uses (p. 7) has been modified to reflect archaeological concerns. Also, an archaeologist will be included on the site investigation team, and will participate in all decisions concerning the construction of shelters and walkways.

4. There are currently no cultural properties either listed on, or in the process of nomination to, the National Register of Historic Places which lie within Waimanu Valley. The State Historic Preservation Officer has been contacted concerning the impact upon eligible properties, but has not yet replied.

5. The FEIS has been amended to include the entire watershed within the sanctuary boundary.

6. The 980 acres refer to the area of the valley floor; 3680 acres is the area of the entire Valley.

7. Because the two sites do not lie within the Valley, extensive elaboration was not intended. As no member of the preliminary site investigation team was skilled in water supply or waste disposal methods, no firm measures are planned. These facilities, however, will be constructed specifically to minimize impacts to the environment.

APPENDIX 7

COMMENTS RECEIVED AT PUBLIC HEARING

Public Hearings

Hilo, Hawaii May 22, 1976
Honokaa, Hawaii May 24, 1976

The following list indicates those persons in attendance at each session of the hearings. Formal presentations included six written and four strictly oral statements in Hilo, and one written and five verbal sets of comments in Honokaa. Copies of all written statements are attached. Both sessions also included more informal discussions upon the relative merits of the proposal.

At both hearings, the majority of those making presentations opposed the present proposed action. The reasons for this opposition appear in the statements, and can also be grouped into the following categories:

Concern #1 - It was felt that the DEIS gives a false impression of land values. The state-supplied estimate of $500 per acre, based partly upon tax records, does not approximate the true value. In fact, one owner indicated that he has refused offers ranging from $20,000 to $30,000 per acre.

In reply it should be noted that if a grant were made to the State of Hawaii an appraisal of the parcels would be required according to Federal appraisal standards and the Uniform Relocation Assistances Act. Until these Federal provisions have been complied with, no funds will be made available.

Concern #2 - Many individuals and group representatives expressed fear that the proposed Hawaiian Home Lands exchange would result in "another uncompleted land exchange". Currently 1700 acres of similar land exchanges are outstanding; some for considerable time. Those raising this point felt this backlog should be cleared before another exchange takes place.

Concern #3 - A related point stems from the fact that these Home Lands belong to native Hawaiians, and in that respect have significant cultural value. It was suggested that these lands, as well as the kuleana holdings, should be made part of the sanctuary by means other than fee simple acquisition; purchase of development easements is one possibility.

The estuarine sanctuary program does not require acquisition by fee simple interest, if adequate protection can otherwise be assured. Should a grant be awarded, evidence would be required that alternative means of control be explored, and that accord with respect to the Hawaiian Home Lands be reached.

Concern #4 - Two bills dealing with Hawaiian aborigine rights have been introduced into the U. S. Congress: H.R. 1944 and S.J.R. 155. Certain attendees felt that action upon the estuarine sanctuary proposals should be postponed until the outcome of these bills is resolved, so that aborigine rights are not abridged.

Concern #5 - Concern was raised over numerous technical errors in the flora and fauna listings in the DEIS. Some changes have been made in this FEIS, but until a definite inventory has been made, the listings will be incomplete or in error. The State has proposed conducting such an inventory as an initial action in the sanctuary.

Concern #6 - Some controversy was generated over the proposed rules and regulations, which indicated that certain historic use patterns, such as hunting, would be eliminated. Many attendees felt such regulations would be unacceptable. The specific nature of any final regulations will be determined after public meetings held by the Hawaii Department of Land and Natural Resources.

Concern #7 - One speaker feld that the term "natural area" was misleading, for man at various times has used Waimanu extensively. It should be noted, however, that the term "natural" in the estuarine sanctuaries program refers to those estuarine areas relatively undisturbed by man at the present time. The intent of the program is to maintain the present conditions to the extent feasible so that comparisons can be made between areas not subject to gross human interference and those undergoing significant alteration.

Meeting Attendance Record

Hilo

Ann K. Nathaniel	Keaukaha Panaewa Community Association
George Amaral	
Russell Amaral	
Richard DeRoy	
Alika Cooper Jr.	
Alika Cooper	
Earl Pacleco	
John Hansen	Hawaiian Civic Club of Ka'u
Edmund Doi	
Hubert Akai	Prince David Kam. Association
Kaohu Cooper	
Arthur Hoke	Aloha Association
Gordon Macdonald	University of Hawaii
Larry Bereman	Hawaii Tribune-Herald
Mae E. Mull	Hawaii Audubon Society
Bill Mull	
Violet Hansen	
Marymae Leilani Onea	
Harold Fisher	
Helen A. Baldwin	
Bill Bechtel	
Duane Kanuha	Hawaii County Planning Department
Genesis Lee Loy	
George Kahumada Jr.	
Sonny A. Kapirho	

Honoka'a

P. Quentin Tomich	Hamakua District Development Council
Virginia Goldstein	Hawaii County Planning Department
Roy H. Forbes	Honoka'a Sugar Company
Gordon Macdonald	University of Hawaii
Theodore W. Angelo	
Bobby Cannara	
Leonard Garcia	
Anita Heen	
Tammie Kanekoa	
Calvin Lindsay	
Kenneth Kala	
Roy Nagita	
Gregory Silva	
Ainslii Loo	
Jacob Batalona	
William Mill	
Edward Quaintance	

Re:- Waimanu Valley Natural Area
and Estuarian Sanctuary

453-C Waianuenue Ave.
Hilo, Hawaii, 96720

May 22, 1976

Dr. Robert Kifer
Estuarian Sanctuaries Co-ordinator
National Oceanic andAtmospheric Administration

I am speaking this morning as a private citizen and also on behalf of the thousands of wild inhabitants of Waimanu Valley who cannot be here and who do not speak or write the English language. These are the plants, animals, birds, fish insects and other wildlife who live in Waimanu Valley today, most of which are native to Hawaii.

These as well as humans have rights. This is their land and the land of their ancestors. They have a right to continue to live on it according to the life styles of their kinds and subject to their natural government which we call the balance of nature.

They have welcomed into their community certain malahini plants, animals, fish, etc., which have blended in with them and become part of their community. These also have a right to be there as long as they do not destroy or seriously alter the native environment. Unfortunately some do just as some people do. These need to be controlled or kept out of the environment.

There are also historic remains and values in the Valley which need to be preserved, studied and appreciated. These, too, have rights to exist and be unharmed.

These entities for which I speak and I myself want to have the Waimanu Valley Natural Area and Estuarian Sanctuary become real and be administered for all their interests as well as those of the members of the public who can in moderate numbers enjoy and contribute, not damage, the wild and historic values of the Valley. This is, I believe, the best way now and in the foreseeable future to keep Waimanu a truly wild and Hawaiian place.

If we do not do this but continue to let whomever and whatever establish themselves in the Valley without guidance and control, these wildlife and historic values will be badly damaged or eventually destroyed.

Already military exercise have taken place there which did some damage. Squatters also have "done their own thing" there and will continue to do so unless checked. Persistent rumors say that a hui of investors is interested in establishing an elite hunting, fishing and perhaps gambling lodge for well to do persons in Waimanu. This would exclude the rest of the public, most of all those who want to enforce law order, and the preservation of the Hawaiian environment.

So please do what you can to make the Natural Area Estuarian Sanctuary real and properly maintained in Waimanu Valley.

Sincerely,

Helen S. Baldwin

Helen S. Baldwin

CONSERVATION COUNCIL FOR HAWAII

State Board
P. O. Box 2923 - Honolulu, Hawaii 96802

Hawaii Island Chapter
P. O. Box 666 - Keaau, Hawaii 96749

Oahu Chapter
P. O. Box 2923 - Honolulu, Hawaii 96802

Maui Chapter
P. O. Box 416 - Haiku, Hawaii 96708

THE HAWAII ISLAND CONSERVATION COUNCIL'S PLEA THAT WAIMANU VALLEY, ISLAND OF HAWAII, BE MADE AN OFFICIAL NATURAL AREA

The Hawaii Island Conservation Council urgently requests that the Waimanu Valley region and environs be made an official Natural Area and be administered as such for the preservation, appreciation, study and maintenance of its uniquely Hawaiian natural habitats, both native and partially exotic, and its historic remains.

The geology and topography of Waimanu Valley and surrounding rugged region have kept it in a natural wild state little altered by man in this century. This is unusual in Hawaii for the State's land area is small and most parts of the State have been greatly altered by man's activities. Even where left wild, they are continually being encroached upon and changed by man's uses of adjacent lands.

Nor is this wild rugged country of Waimanu essential for man's future developments. It is remote, difficult to reach by land or sea, not needed nor suited for highways, agriculture, pasture, electric power, home sites, or other developments. Though it is rumored that an exclusive resort use of questionable and highly speculative nature has been suggested for part of the Valley.

Such use, if it became real, would effectively bar public access or use of much of the Valley and do much to alter and destroy the natural wild conditions and historic values of the Valley which long ago had a thriving native population when Hawaiians lived in a much more primitive way than they do now.

Also, land acquisition by the State for the proposed Natural Area is fairly simple now. Most of the land suggested for the Natural Area is already owned by the State. Another part is under the control of the Hawaiian Homes Commission but not very useful for their purposes today; so it could be exchanged for other State land more useful for present day Hawaiians. This is similarly true for the smaller portion owned by the Bernice P. Bishop Estate, not now producing any income for the Estate.

The still smaller portion divided into small lots privately owned by a number of persons could, we think, be acquired by the State, too, without great difficulty. None of the owners now live on any of it

CONSERVATION COUNCIL FOR HAWAII

State Board
P. O. Box 2923 - Honolulu, Hawaii 96802

Oahu Chapter
P. O. Box 2923 - Honolulu, Hawaii 96802

Hawaii Island Chapter
P. O. Box 666 - Keaau, Hawaii 96749

Maui Chapter
P. O. Box 416 - Haiku, Hawaii 96708

nor have they for a generation or more. This land is not producing any income for them. Some parcels, we are informed, do not have clear titles. Others, according to rumor, are being held for speculative reasons. So the time to act is now.

Waimanu Valley has its own self contained system of springs and streams not connected with any other nor polluted by man. They can easily be kept that way. The Valley is surrounded on three sides by high steep cliffs and on the third side by the ocean which has no real harbor here. The landing is suitable only for outrigger canoes and similar small craft when seas are calm.

As it is today Waimanu Valley is an excellent place for all who want to appreciate its unspoiled beauty and remoteness from modern civilization; for hikers, hunters and non-commercial fishermen under management regulations; for scientists to study Hawaii's present day wildlife and delve into its archeology. But it is especially valuable as a place where its wildlife can prosper if this area is set aside for its preservation and administered for its well being. So please do what you can to bring this about.

May 5, 1976

For Hawaii Island Conservation Council

Helen S. Baldwin

Helen S. Baldwin, chairman
Flora and Fauna Committee

KEAUKAHA PANAEWA COMMUNITY
ASSOCIATION
HILO, HAWAII 96720
May 22, 1976

To: Hearing Officer
Office of Coastal Zone Management
National Oceanic & Atmospheric Adm.
Dept. of Commerce, Washinton D.C.

From: Ann Kukakina Nathaniel
Legislative Chairperson
Koaukaha Panaewa Community Assn.
Hilo, Hawaii

Re: Proposed Estuarine Sanctuary
Waimanu Valley, Hawaii County

The Board of Directors of the Koaukaha Panaewa Community Assn. is opposed to the acquisition of 200 acres of Hawaiian Home Lands for inclusion in the Waimanu Sanctuary.

In the EIS the Hawaiian Homes Commission is reported to have met in Jan. 31, 1975 and unanimously voted to accept the state's proposal to acquire their Waimanu holdings.

However, commencing in February of 1976 the Hawaiian Homes Com. conducted public hearings to review the Department of Hawaiian Home Lands General Plan designed for land management and land use. In this GP Waimanu was placed in a Land Bank Reserve status.

We opposed the Land Bank proposal because there was no procedure for land in a preserve status being withdrawn.

On April 29, 1976 the Hawaiian Homes Commission did vote to approve in concept the esturary and to follow through with the land exchange.

The Constitution of the State and the State Compact with US government made at the time of admission to the Union imposed upon both parties the obligation to promote the rehabilitation of the Hawaiian people.

Preservation of Historic sites isas important to us as anyone else, however, in further reviewing the EIS Waimanu was listed as third of a possible six sites. That the most suitable sites were on Kauai but due to low priority due to lack of funds.

Unfortunately, whenever projects of any nature are made available feasibility is always placed on funds and land acquisition which always seem to be those areas that belong to the native Hawaiians.

The fiduciary obligations between the State and Hawaiian Home s Commission has been discharged with benign neglect. The total acreage of pending land exchanges between the State and Hawaiian Home s Commission that has been identified to date is 1,772.495 acres.

Until such time as this matter of land exchange has been identified we will retain our stance of disapproval.

attachments:

AIMEA OFFICE
P. O. BOX 125
TEL HAWAII 96743

UMEA OFFICE
P. O. BOX 833
O. HAWAII 96720

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P. O. BOX 1879
HONOLULU, HAWAII 96805

MAUI OFFICE
P. O. BOX 22
KAHULUI, MAUI 96732

MOLOKAI OFFICE
P. O. BOX 198
HOOLEHUA, MOLOKAI 96729

KAUAI OFFICE
P. O. BOX 332
LIHUE, KAUAI 96766

April 5, 1976

MEMORANDUM

TO: CHRISTOPHER COBB, CHAIRMAN
DEPARTMENT OF LAND AND NATURAL RESOURCES

FROM: MRS. BILLIE BEAMER, CHAIRMAN

SUBJECT: LAND EXCHANGES

As we have progressed through the year 1975-76, more outstanding land exchanges seem to emerge. The meetings between the Departments of Land and Natural Resources and the Hawaiian Home Lands personnel commencing March 12, 1975, have extended to a full year. The total acreage of Hawaiian Home Lands pending that have been identified to date approximate 1,772.495 acres.

As repeatedly expressed, we seek in exchange lands suitable for residential lots on the islands of Oahu and Maui. The Department of Hawaiian Home Lands has submitted to Mr. Detor plot maps of all Department of Hawaiian Home Lands involved.

We have been awaiting your listing of available lands from which preliminary choices may be selected previous to appraisal for negotiation.

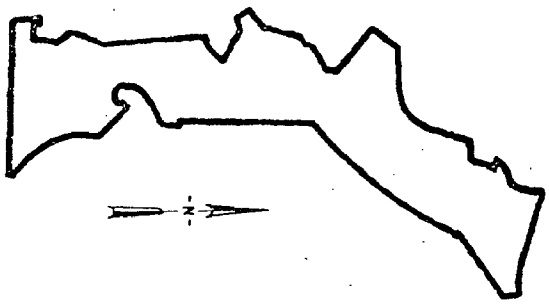
May I ask your kokua during this busy time to accommodate this request.

Billie Beamer

(MRS.) BILLIE BEAMER, CHAIRMAN

bcc: Department of Land and Natural Resources file (admin.)
Mason Young, Land Division
Mrs. Beamer's Land Exchange folder
Reading File
Legal, Kaeo
Legal (admin.)

19



WAIMANU

200 Acres
See Land Inventory
Plate 22

Introduction

Because of the inaccessibility of this parcel, there is little likelihood for decades that it can contribute directly to DHHL goals of housing, agriculture, or income. On the other hand, there has been some recent specific interest expressed by others in preservation of the area. There may be reluctance to permanently transfer outright control of the area, because of cultural sentiments related to use of this land by earlier generations of Hawaiians. Accordingly, DHHL may wish to consider some lease or license arrangement that accomplishes the aim of preservation of the area.

POLICY

DESIGNATE AS LAND BANK RESERVE.

DHHL planning factors report:
"features consist of ephemeral alignments, terraces and platforms, most seen in deteriorated conditions - marginal

C&C CP lists
platforms, terraced platforms + canal platforms

Com action: action taken Jan 1976 (?)

V. Hansen 4/27/76
Interest - Research & the protection of
archaeological & historical
sites.

Estuarine Sanctuary, Draft Environmental Impact Statement
Waimanu Valley, Hawaii

May I suggest that an archaeologist be included in the initial survey and reconnaissance investigations of the valley. This primarily relates to the location of and the disturbance of ground surface for the construction of two shelters, sewage disposal facilities and trails. You also speak of constructing wooden walkways over the marsh - here again I feel that an archaeologist should first be given the opportunity to survey the project area for possible evidence of agricultural field systems extending out into the marsh.

p. 9, 2nd para. The state has identified the following general areas of research as appropriate:

I wish to suggest that a "complete archaeological and historical site survey" be included.

The archaeological value, as a whole is presently unknown. There is need to know the settlement pattern, residence areas, irrigation terrace systems, agricultural sites, religious structures and trails.

Should this site survey be included, the archaeologist will most likely have to do hand clearing of brush within and around some of the surface structures.

Archaeological excavations and the removal of artifacts to be considered and should be controlled also depository for artifacts be stated.

p. 14, 4th para. May I comment further on this.
In 1970, a preliminary sites survey, inland along the base of the pali on the southeast side of the valley was done by Bonk and Loo.
Of the 10 sites recorded in this narrow strip, 8 sites are listed in Category 2, this category indicates further study is desirable.

In 1972, the state sites survey team viewed the above sites, also surveyed a narrow strip inland along the base of the pali on the northwest side of the valley.
Undistinguished individually and as a whole, the sites within this complex include perhaps 6 terraces, 1 stone platform, 1 burial platform and fragments of walls.

Though a number of sites are in poor condition and considered marginal - both reports Bonk/Loo and the state do indicate that further study is needed.

May 22, 1976

Estuarine Sanctuary, Draft Environmental Impact Statement
Waimanu Valley, Hawaii

APPENDIX 3 WAIMANU ESTUARINE SANCTUARY REGULATIONS

Section 1. Insert - "protection of archaeological and historical sites"

Section 3. Use Restrictions and Prohibited Acts

Insert - "The damaging, removal of artifacts, excavating, disfiguring, defacing or destroying in any manner of any archaeological and/or historical site".

Section 4. Conditions of permits for archaeological research should be set by the State Historic Preservation Office, Department of Land and Natural Resources.

Violet Hansen

Violet Hansen

Rec. May 22, as part of hearing record.
RBK

Subject: "Waimanu Valley Estuarine Sanctuary"

Presented by: Alika Cooper and family

Date: April 27, 1976

My name is Alika Cooper. I am here to make this presentation on behalf of my father, Alika, who is attending a seminar in Honolulu; my mother, Alma, who is working for her Doctor of Education degree at the Manoa campus; and my brothers, Kaohu and Mahi. We are a Hawaiian family and we own one lot in Waimunu Valley, award number 7105, tax key 4-9-14-7, 1.12 acres.

I can remember that years ago, my parents, brothers and I discussed purchasing this property in waimanu. Our primary purpose for buying this property in the isolated valley was to have a choice acreage where the natural beauty and cultural past of our ancestors would be preserved and enhanced. We continue to believe in this purpose even as offers to purchase the property have been received and turned down.

The fact that the valley is isolated and generally inaccessible may be a reason that the property owners are largely native Hawaiians. The following data shows the distribution of ownership by Hawaiian and non-Hawaiian ethnic divisions:

Private title land owners (native Hawaiians).....	18 lots or 53.18 acres
Private title land owners (non Hawaiians).....	3 lots or 5.33 acres
Hawaiian Home Lands.....	1 lot or 200 acres
Bishop Estate Lands.....	1 lot or 90 acres
State of Hawaii Lands.....	1 lot or .38 acres

A total of 343.18 acres in Waimanu Valley is owned by native Hawaiian persons and by Hawaiian Home Lands and the Bishop Estate. A total of 5.33 acres which is less than .65% is owned by non-Hawaiians. This fact is important at this time when a proposal to condemn the lands is being considered for there appears to be a move to repeat the historical acts of condemnation which are gross injustices.

For example, the present Kalapana Extention is the result of the condemnation of lands belonging to native Hawaiians who were forced to accept 30¢ and 50¢ per acre for their property. In 1959, the highest price paid was $16.00 an acre. The average price paid for lands condemned was $4.00 an acre. The gross unfairness the native Hawaiians were forced into in the condemnation of their lands was clearly seen when lands adjoining the condemned properties were sold for $1.00 per square foot.

We do not believe that in this year of 1976, that the government can be looking at the properties in Waimanu Valley from a distance and assuming that the property is worth next to nothing. My family and I have been deeply disturbed by the obvious disinterest on the part of State department in communicating with property owners. For the record, let me state the willful neglect we have experienced as property owners, as State representative have proceeded with their proposal to the Federal government and the condemnation of properties.

Our first knowledge of the proposal for establishing an estuarine sanctuary came to our attention more than a year ago when we read in the Hawaii Tribune Herald that a small group of persons met in Honokaa and agreed to the concept and proposal. Not a single property owner was invited to this meeting. Never was there an action from the State representatives to contact property owners. It was our own initiation that led my father and mother

to contact these government persons. In October of last year, my father met with representatives in the Department of Planning and Economic Department. At that time, he suggested that representatives meet with property owners to discuss alternative designs such as the fair exchange of lands. The representatives promised they would arrange for these meetings however, they have failed to do this. My father also met with James Detor of the Land and Natural Resources office to explore the options for land exchanges. We were expecting to meet with State representatives to discuss these options however, no effort to arrange for these meetings have been forthcoming from the very persons making the proposal for funds to the Federal government.

We were not able to understand therefore, how the article in the Tribune Herald dated April 14, 1976 headlined"Trailblazing into Waimanu" and announcing these meetings,could possibly be called. We are dismayed at the state's gross disregard for the rights of property owners and for the proceedings leading to condemnation. The state did not even have the courtesy to send a copy of the environmental impact statement to property owners.

From the article in the Hawaii Tribune Herald dated April 14, 1976, we learned that"$191,250.00 in a federal grant will be used to buy private land in the uninhabited valley." Of interest to those individuals who have decided that this sum of funds is adequate to purchase the lands is that we have received offers for purchase that range from $20,000 to $32,000 per acre.

Our family wishes to emphasize our position as property owners once more at this meeting. We as well as other property owners want the opportunity to discuss the option of fair land exchange...we certainly do not want to suffer a loss in our property that we planned to keep as a natural area depicting the cultural past of our ancestors.

You may also be interested to learn that in the past thirty years four parcels of land belonging to our family have been condemned by the government. The last parcel in downtown Honolulu was condemned by the State in January of this year. To lose a fifth piece of property through condemnation seems wholly unjust and a gross miscarriage of justice.

We would also like to state that the provisions and criteria for establishing an estuarine sanctuary have been studied carefully. We note that there are several factors necessary to meeting the criteria of the estuarine sanctuary concept that do not exist in Waimanu Valley. We would like to receive a written statement from Federal and State representatives responsible for this proposal for an estuarine that clarifies the existing disparities.

As native Hawaiian people, we are also concerned about the status of Hawaiian Home Lands and Bishop Estate Lands. The intent of the Hawaiian Homes Act of 1920 was to put the native Hawaiian back onto the land so he or she may be rehabilitated. To accomplish this intent, 189,000 acres of land were set aside. Through the years, 30,000 acres have found their way out of the originial 189,000 acres and are considered "missing". The treatment of the Hawaiian Home Lands in Waimanu Valley, 200 acres in total, is of particular interests to native Hawaiian persons and to the purposes and intent of the Act of 1920. Significant importance must be placed upon the fact that the 200 acres of Hawaiian Home Lands in Waimanu Valley are the only water taro lands in the inventory of lands belonging to Hawaiian Homes. The distinctive value of water taro lands for the native Hawaiians is clear and if only for this reason, these lands should not be separated from the inventory of lands first created in the Hawaiian Homes Commission Act of 1920.

The Bishop Estate Lands were left in perpetuity for the support of the Kamehameha Schools by Princess Bernice Pauahi Bishop. It appear to us that the lands in Waimanu Valley belonging to the Bishop Estate may be a future resource for educational and cultural experiences for the students of the Kamehameha Schools or for other purposes of similar value and use. We feel there would be a lack of vision for the Bishop Estate to release these lands, totally 90 acres, for they offer a potential resource for educational experiences in the future of rapid change in a technological society.

In closing, let me restate points of importance for your consideration:

1. The process leading to this meeting has proceeded without effort on the part of the representatives from the Department of Planning and Economic Development to communicate with private land owners. As best as we can see, the assumption by the State representatives is that private land owners will be forced to accept decisions made by certain public and private persons. As property owners, we feel the state has treated our welfare and interest in gross disregard and with wilful injustice.
2. As property owners, we want to be offered other options such as the fair land exchange option for we can be accept without opposition, a position that our property is worth a bare minimal sum as determined by some other parties criteria and assessment and that we are foced to accept this decision.
3. The interests of the total native Hawaiian population are affected by the properties belonging to Hawaiian Home Lands and to the Bishop Estate...and the intent and purposes for both organizations must be assessed and should be of prime importance and placed before the idea of an estuarine sanctuary in Waimanu Valley.

And lastly, in particular reference to this meeting, we would like to note the following factors into the record:

1. The land owners were never notified by letter of this meeting. We veiw this ocassion as a meeting rather than a public hearing for the procedures for planning and programming a public hearing have not been followed.

2. The County Department of Planning and Economic Development did not receive the Environmental Impact Statement contrary to such a statement published in the Hawaii Trubune Herald, April 14, 1976. By April 21, 1976 according to my father's investigation, the EIS documents were not in the County office.

3. The Environmental Impact Statement was not sent to private property owners as was promised by Richard Poirier, Department of Planning and Economic Development for the State.

4. There was no publication of Notice for Public Hearing in the local paper as required by law.

For the above stated reasons, we find that reasons exist that show this meeting can not be conducted as a public hearing on the "Waimanu Valley Estuarine Sanctuary".

Hilo, Hawaii
May 22, 1976

To: The Waimanu Sanctuary Committee

From: Genesis Lee Loy
1228 Kalanianaole Ave
Hilo, Hawaii

Sirs:

You have my letter urging that the committee to have included the particulars pertaining to aboriginal rights.

The aboriginal rights should include the Konohiki of the oceans, and the Konohiki of the lands.

You have received testimony to the effect that no permanent residences are in the area now. You should also be made aware that the Hawaiian families that own the land make use of these lands. They hunt, fish, enjoy relaxation, and contemplate their heritage. To deny them their aboriginal rights in this bicentennial year would be a farce.

The above should be considered only after:

1. Fair land exchanges have been affected; not the absurd figure of $500 an acre as has been suggested.

2. The question of the use of Hawaiian Homes Land has been settled to our benefit as plaintiffs in the Federal Court.

Genesis Lee Loy

PLANNING DEPARTMENT

25 AUPUNI STREET • HILO, HAWAII 96720

HERBERT T. MATAYOSHI
Mayor

RAYMOND H. SUEFUJI
Director

COUNTY OF
HAWAII

May 24, 1976

Rec'd Honolulu May 24, 1976 RRK

Office of Coastal Zone Management
National Oceanic & Atmospheric Administration
Department of Commerce
Washington, DC 20235

Re: Comments on Draft Environmental Impact Statement
Proposed Estuarine Sanctuary Grant Award
Waimanu Valley

Thank you for the opportunity to present testimony on the subject draft Statement. We have reviewed the impact statement and have the following observations.

The Department of Commerce, NOAA, Office of Coastal Zone Management proposes to award the State of Hawaii, a grant to establish an estuarine sanctuary at Waimanu Valley. The primary purpose of the national sanctuary program is to set aside select estuarine areas for research and education. Data from the sanctuaries may then be used in evaluating actions within other comparable coastal zone areas. Under guidelines of the program, multiple use, such as light recreation, is not necessarily excluded if in specific cases research values are not impaired. These other uses, however, must clearly be secondary to the research/educational uses.

We support the concept and purpose of the Waimanu Valley Estuarine Sanctuary proposal. However, we do have some reservations over the content and breadth of the draft impact statement. It is our understanding that the function of an EIS is basically to set forth the environmental implications of a proposed action. In this case, the proposed action is the establishment of Waimanu Valley as an estuarine sanctuary. As such, the EIS should be directed at the proposal itself. Throughout the statement, however, there are references to the improvement and/or clarification of the basic proposal itself. For example, the statement discusses various alternate organizations to serve as an advisory committee. It further recommends that the Hawaii Outdoor Center Board be considered. We respectfully submit that an EIS should discuss the environmental impact of the project itself and not necessarily come to any specific conclusions and/or recommendations.

Another of our reservations deals with the question of land ownership. While it is apparent that State ownership and/or control of the Valley is essential to the management of the proposed sanctuary, the draft impact statement does not adequately discuss all alternatives available. These include outright acquisition and sale of land; land exchange; acquisition of interest in land which is less than fee, i.e., acquisition of an easement. The first of these alternatives is discussed in the impact statement. The land exchange alternative should be discussed also with the Department of Hawaiian Homes Land and all of the landowners of kuleana parcels. The other alternative of easement has not been discussed at all in the EIS. If control over the use of land will be regulated by the sanctuary guidelines, it may indeed be a practical alternative for those landowners who wish to retain title to their land. We respectfully request that the impact statement be revised to discuss this last alternative and that ample opportunity for discussion with the affected landowners be made available prior to finalization of the impact statement.

Another reservation we have deals with the kinds of research which will be permitted. Both the federal guideline and impact statement note that "manipulative, destructive and consumptive research" shall not be allowed. We ask that these terms be further defined. The impact statement notes that archaeological sites on the Hawaii Register have been listed as marginal. However, most of the previous archaeological surveys of the Valley have been limited and not directed at questions of prehistoric or historic settlement and agriculture. Much of the archaeological significance of the Valley as a whole or its relationship to other valley systems of the coast have not yet been addressed. Thus, we ask that archaeological studies be allowed even if it may be deemed by some to be consumptive.

We also note that campsites are proposed to be located at Laupahoehoe Nui and Iki as those areas are listed as valuable on the Hawaii Register, the impact of the campsites on these Registered sites should be discussed.

Lastly, we should like to note one omission. In the list of plant species growing in the Valley, the hau tree, which is usually associated with estuarine areas, was inadvertently not listed.

RAYMOND SUEFUJI
Director

VKG:rfd

cc: Mayor Matayoshi
State Planning & Economic Development Dept.

COASTAL ZONE
INFORMATION CENTER

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