

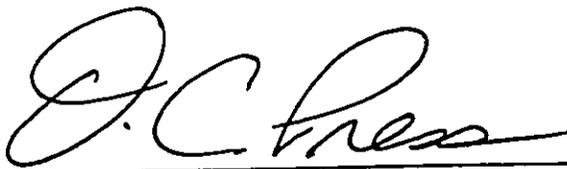
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KAUNAKAKAI STREAM

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**FINAL ENVIRONMENTAL ASSESSMENT
AND
FINDING OF NO SIGNIFICANT IMPACT
FOR THE
KAUNAKAKAI STREAM ENVIRONMENTAL
RESTORATION PROJECT:
KAUNAKAKAI, ISLAND OF MOLOKA'I, HAWAII**

**FEDERAL PROPONENT:
U.S. ARMY CORP OF ENGINEERS, HONOLULU DISTRICT**

**COUNTY PROPONENT:
COUNTY OF MAUI, DEPARTMENT OF PUBLIC WORKS
AND ENVIRONMENTAL MANAGEMENT**



10 Feb 04

David C. Press
Lieutenant Colonel, U.S. Army
District Engineer

Date

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Date



1. **PROJECT PROPONENT:** U.S. Army Engineer District, Honolulu
Building 230
Fort Shafter, Hawai'i 96858-5440

2. **PROJECT DOCUMENTS:** Project documents include the draft Environmental Assessment (EA) and the draft Ecosystem Restoration Report for the Kaunakakai Stream Environmental Restoration Project prepared by the Corp and circulated to the public in November 2002. These documents are incorporated by reference.

3. **DESCRIPTION OF PROJECT:** See attached Final EA.

4. **BASIS FOR FINDING:** The following factors were considered in the Final EA in making a determination that an environmental impact statement is not required for the action.
 - 4.1 *The proposed project is consistent with the purpose of the Kaunakakai Flood Control Project.*

 - 4.2 The purpose of the project is to restore habitat by providing foraging area for the endangered Hawaiian Stilt and other species. Although there may be disturbances to endangered species during construction, the impacts should be minor and temporary in nature. After completion of construction, the project will not adversely affect threatened or endangered species, or their critical habitat.

 - 4.3 Although the project takes place within a flood control project, the proposed project will not impact existing flood storage capacity and will not adversely affect flooding.

 - 4.4 The site and the proposed project have been assessed and a Department of the Army permit is not required under Section 404 of the Clean Water Act. The dredged material will be dewatered, as necessary, at the neighboring County of Maui, Department of Public Works Baseyard Facility prior to use at the Naiwa Landfill.

 - 4.5 The project will not adversely affect any historical properties. The State Historic Preservation Office has indicated that the project will have "no effect" on significant historic sites.

 - 4.6 The Corp has certified that the project is in compliance with the State of Hawaii's Coastal Zone Management (CZM) Program. (The Office of Planning, CZM Program has been forwarded a copy of the certification and supporting documents for concurrence.)

 - 4.7 The proposed improvements and associated impacts have been coordinated with interested agencies, community groups and individuals including the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the U.S. Environmental Protection Agency, various offices within the Hawai'i State Department of Health and



Department of Land and Natural Resources, the State's Office of Planning, and Ducks Unlimited, Inc.

5. FINDING OF NO SIGNIFICANT IMPACT: The U.S. Army Corp of Engineers, Honolulu District has determined that the proposed project does not constitute a major federal action having significant effect on the quality of the human environment. This Finding of No Significant Impact is based on the attached Final Environmental Assessment that has been determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project. Therefore, it is determined that a Federal environmental impact statement is not required.



SUMMARY

Under authority of Section 1135 of the Water Resources Development Act of 1986, as amended, the U.S. Army Corps of Engineers, Honolulu District (hereafter referred to as the "Corps") and the Maui County Department of Public Works and Environmental Management (hereafter referred to as "DPWEM"), propose to perform an environmental restoration at the Kaunakakai Stream Flood Control Project, Kaunakakai, island of Moloka'i, Hawai'i. The proposed project would restore habitat for the endangered Hawaiian Stilt.

The proposed project features include the creation of 2.75 acres of shallow ponds and mudflats for Hawaiian Stilt habitat. The sizes of the ponds were decreased a total of 3.2 acres from the proposed scope in the draft environmental assessment in order to avoid a pedestrian pathway and contact with an underground pipe.

Planning for environmental restoration is affected by two separate, independent projects/activities in the vicinity of Kaunakakai Stream. First, the Corp's Kaunakakai Harbor project, completed in 1950, is located to the southeast of the flood control project. Lands adjacent to the east levee were utilized as a dewatering and disposal area for maintenance dredging of the harbor in 1973. Although maintenance dredging of the harbor is not scheduled for the foreseeable future, these lands would likely be used again should the need arise.

Second, through its regulatory role under the Clean Water Act, the Corps has directed violators and potential permit applicants to develop wetland fill mitigation plans in the vicinity of the proposed 1135 project. Among the areas under consideration at this time are lands to the west of Kaunakakai Stream and the dredged material dewatering and disposal areas to the east of the stream.

This Environmental Assessment is written strictly for actions covered under the Section 1135 project. No significant adverse impacts are anticipated for the proposed project.



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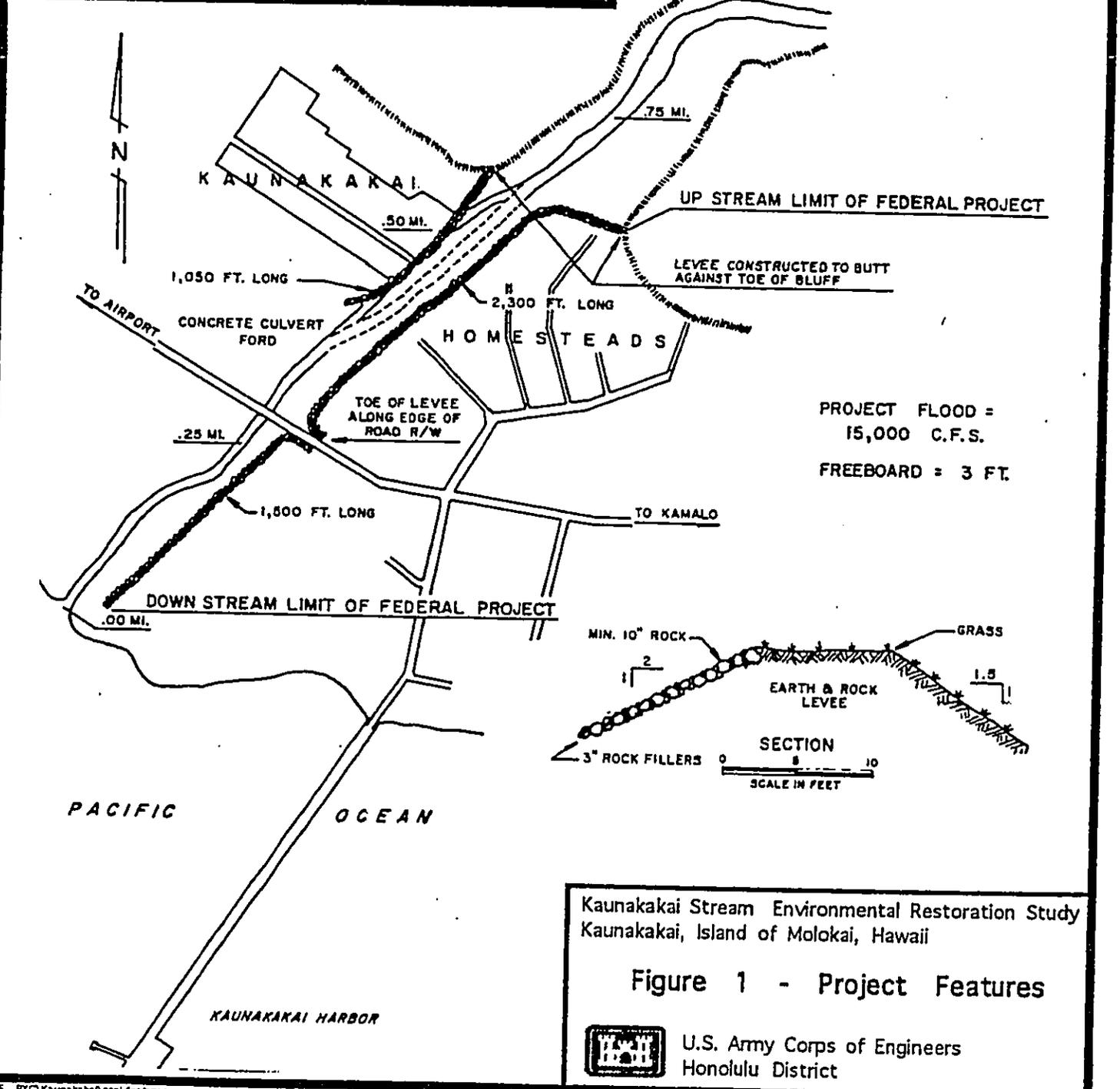
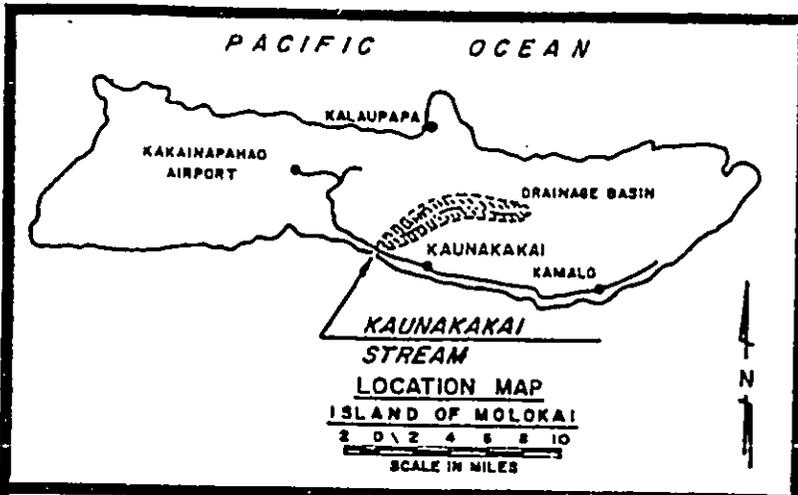
CHAPTER 1 - PURPOSE AND NEED FOR PROPOSED ACTION

A. Purpose. The U.S. Army Corps of Engineers, Honolulu District (Corp) and the County of Maui Department of Public Works and Environmental Management (DPWEM), proposes to improve 2.75 acres of streambed at the Kaunakakai Stream Flood Control Project (FCP). (See Figure 1) The improvement of habitat within the FCP will benefit the endangered Hawaiian Stilt (*Himantopus mexicanus knudsenii*) and other species. (See Figure 2) The purpose of this Environmental Assessment is to identify and describe the environmental impacts of environmental restoration in and adjacent to the FCP.

B. Need. The project site lies within the south central Moloka'i coastline, which is noted for numerous Hawaiian fishponds and is part of the Kaunakakai wetlands unit. This unit is contiguous with the Moloka'i playas, or Opihikalo wetlands, which are located to the west. About two miles east along the coast is the Kakahaia National Wildlife Refuge, owned and managed by the U.S. Fish and Wildlife Service. Both the Moloka'i playas and Kakahaia Refuge are designated priority wetlands by Ducks Unlimited, Inc. in their *Hawaiian Islands Wetlands Conservation Plan*, and are considered core habitat in the U.S. Fish and Wildlife Service's *Hawaiian Endangered Waterbird Recovery Plan*. Altered hydrology for flood protection, direct habitat loss due to human encroachment, pollution, and degradation due to overgrowth of alien plants are among the factors contributing to continuing wetland losses on Moloka'i and throughout the State of Hawai'i.

The restoration and management of all wetlands along the southern Moloka'i coastline are viewed as important elements in the recovery and maintenance of the Hawaiian Stilt, an endangered water bird endemic to the Hawaiian Islands. According to recent counts, fewer than 1,500 stilt remain in the islands today. In addition, these wetlands provide important wintering and staging habitat for migratory waterfowl and shorebirds, and their restoration represents an important step toward preventing the loss of the Hawaiian flyway.

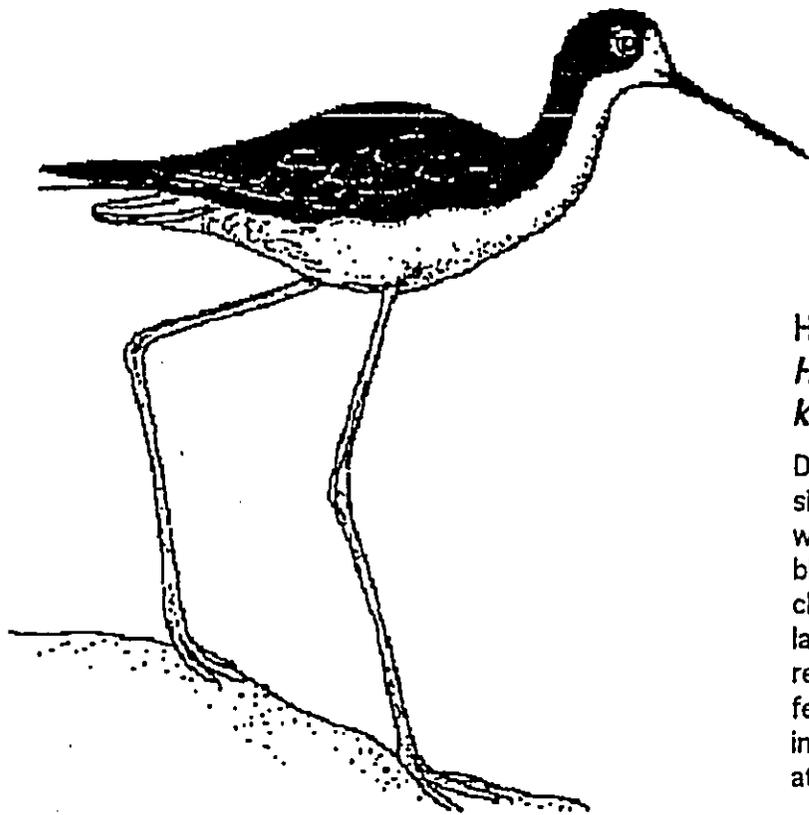
While acreages of wetlands in Hawai'i appear small in contrast to the continental United States, the historical losses have been estimated at over 30% since the late 1700's. The losses and degradation continue as the limited available land area places tremendous development pressures on remaining wetlands, estimated at over 15,000 acres by the U.S. Fish and Wildlife Service. Hence, the restoration efforts at Kaunakakai Stream Flood Control project would contribute toward the recovery and maintenance of wetlands determined to be core habitat by key resource agencies.



Kaunakakai Stream Environmental Restoration Study
 Kaunakakai, Island of Molokai, Hawaii

Figure 1 - Project Features

U.S. Army Corps of Engineers
 Honolulu District



Hawaiian Stilt or Ae'o
Himantopus mexicanus knudseni

Description: 16 inches long; sexes similar; black above and white below with white forehead. Straight, black bill and long, pink legs. Downy chicks are tan, blotched with black, later turning gray. Older juveniles resemble parents, although back feathers are browner, legs are paler in color and tarsometarsus is thicker at proximal end.*

* Description from Shallenberger (1977)
image provided by State Division of
Forestry and Wildlife

Kaunakakai Stream Environmental Restoration Study
Kaunakakai, Island of Molokai, Hawaii

Figure 2 - The Hawaiian Stilt



U.S. Army Corps of Engineers
Honolulu Engineer District



C. Project History. The business district and some residential sections of Kaunakakai are located in the floodplain. Heavy rainfall normally occurs during November through March prompting the county of Maui to request the Corps of Engineers to construct improvements to enlarge the stream channel and place levees along the stream banks. The Kaunakakai Stream Flood Control Project was authorized under Section 205 of the Flood Control Act of 1948, as amended, Public Law 858. Completed in 1950, the single-purpose flood control project consists of an enlarged stream channel with approximately 4,850 lineal feet of rock-lined levees on the stream banks. Figure 1 shows these project features. The project is located in the State of Hawai'i, Second Congressional District.

CHAPTER 2 - ALTERNATIVES

A. General Habitat Goal. The general habitat goal for this project is to maximize the restoration of shallow ponds and mudflats to provide stilt habitat within the existing flood control project.

B. Design Criteria. To design and evaluate the effectiveness of the project, the following design criteria were developed:

- Create semi permanent mudflats and shallow water
- Tidal influence
- Water depths
- Mosquito control

1) **Create semi permanent mudflats and shallow water.** The Hawaiian Stilt prefers mudflats and very shallow water for feeding and loafing. Nesting usually takes place on flat, low lying areas with emergent vegetation near the water.

2) **Tidal influence.** The tides will influence the type of flora and fauna at the project site. Having a range of bottom elevations will provide usable habitat over various tide and water level conditions. The upper reach would be wet following runoff periods and/or high tide levels. The transitional reach would be within the two-foot daily tidal range. The lower reach would have a bottom depth of (-) 1 foot below mean sea level and should be perennially wet except under extreme low tide conditions.

3) **Water control structure.** Areas that are not tidal will be depressed to trap water. The depressions will trap some of the sediments transported by stream flow.

4) **Mosquito control.** Mosquitoes can create a nuisance problem for nearby residents. The Hawai'i State Department of Health (HDOH), Disease Outbreak Control Division indicated that there are two mosquito-transmitted diseases of interest to state officials, Dengue Fever and West Nile Disease. An outbreak of Dengue Fever occurred in late 2001 with reported cases on Maui, O'ahu and Kaua'i. It was officially declared over on May 10, 2002. There have been no reported cases of West Nile Disease in the state,



although it remains of interest due to its spread in the continental United States. State officials consider both illnesses of low risk of occurrence and they continue to monitor the situation through passive surveillance.

Officials from the County of Maui and the HDOH indicated that they have not been alerted to any mosquito problems at the site. It is believed that the salinity of the water, the lack of standing and stagnant water due to tidal influences and the presence of natural predators such as fish and birds are effectively controlling the mosquito population.

C. Discussion of Alternatives

Alternative 1 - No Action. Under this alternative, there will be no improvements made to the streambed. No dredging will take place and the streambed will be left in its existing condition. This alternative is non-responsive to the needs and goals of this project.

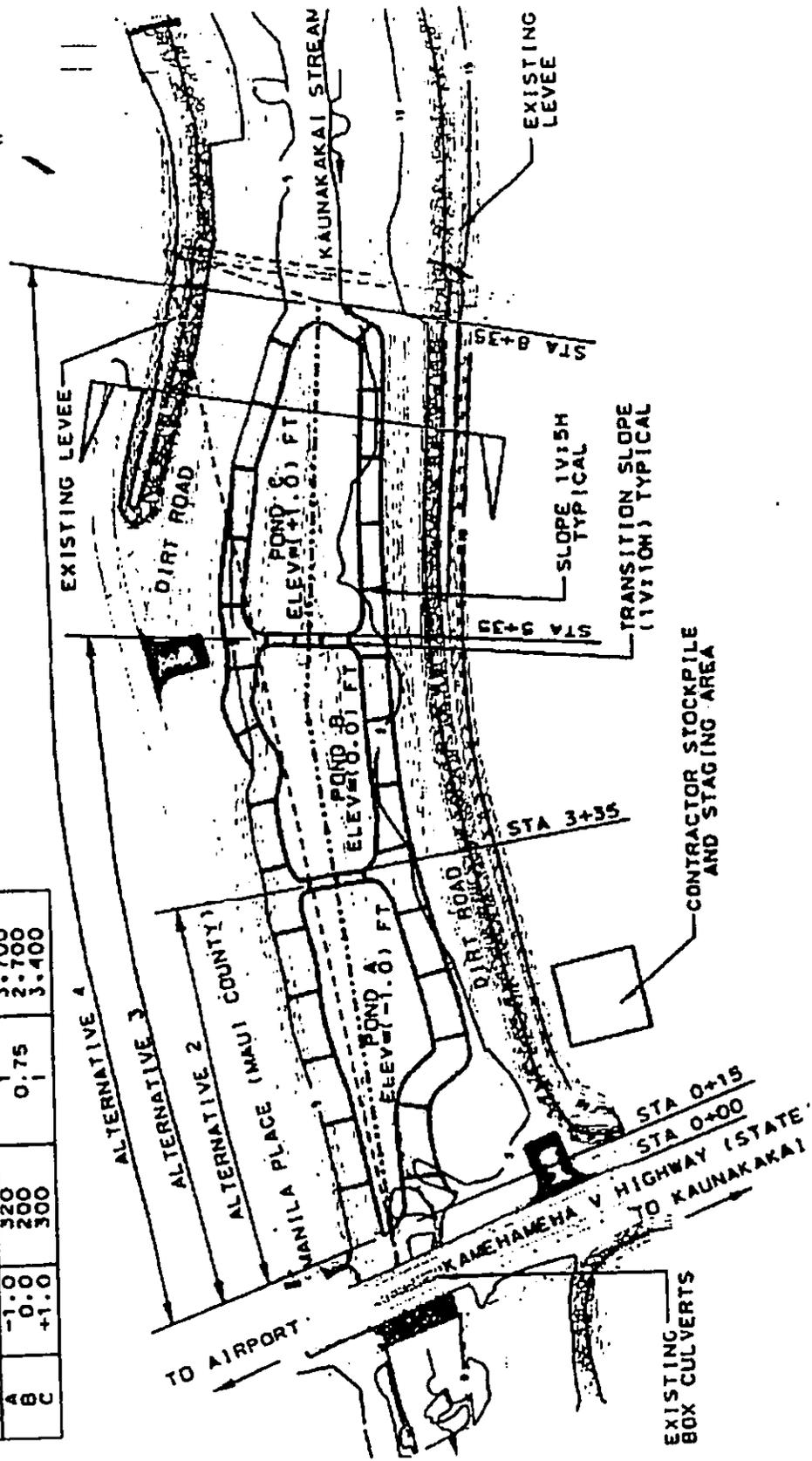
Alternative 2 - Pond A. The streambed in this alternative will be excavated to an elevation of -1 foot below mean sea level to create shallow ponds and mudflats. Excavation will begin on the upstream side of Maunaloa Highway near the bridge that crosses Kaunakakai Stream and proceed upstream approximately 320 feet. The excavation will remove about 3,700 cubic yards of material and affect about 1.0 acres of streambed. This pond is expected to be perennially wet except under extreme low tide conditions.

Alternative 3 - Pond A + Pond B. This alternative includes Pond A as described in Alternative 2 and the development of a second pond, Pond B. The streambed in Pond B will be excavated to mean sea level elevation. It will begin where Pond A ends which is approximately 320 feet upstream of the Maunaloa Highway and extend another 200 feet upstream. The excavation of Pond B will displace about 6,000 cubic yards of material and encompass about 0.75 acres of streambed. The totals for this alternative are 1.75 acres of streambed affected and 6,400 cubic yards of material excavated. While Pond A will be perennially wet, Pond B should be wet following runoff periods and/or high tides.

Alternative 4 - Pond A + Pond B + Pond C. Ponds A and B will be supplemented by Pond C in this alternative. Pond C will be adjacent to Pond B starting about 520 feet from the Maunaloa Highway and extending about 300 feet further upstream. This segment of the stream will be excavated to a depth of +1 foot above mean sea level. Approximately 3,400 cubic yards of material will be removed from about 1.0 acres of streambed for Pond C. Alternative 4 will involve 2.75 acres of streambed and remove approximately 9,800 cubic yards of material. Like Pond B, Pond C will be wet following runoff periods and/or high tides.

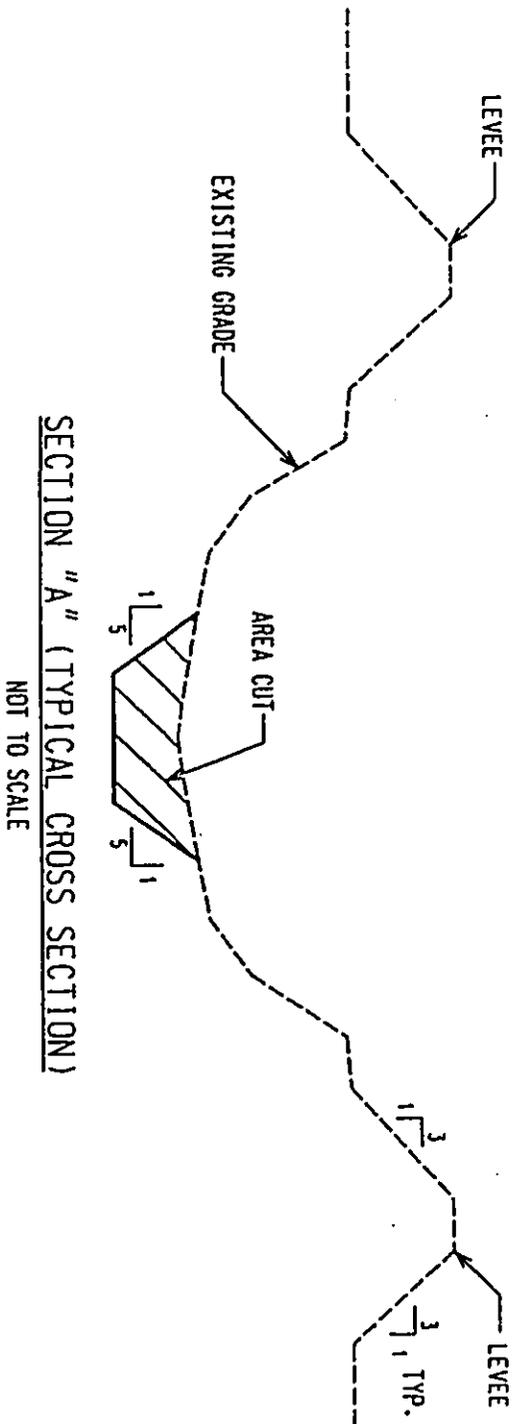
Figure 3 shows the extent of the different alternatives being considered in relation to the study area. The typical cross section for the alternatives is depicted in Figure 4.

POND	ELEV. (FT.)	LENGTH (FT.)	AREA (ACRES)	APPROX. EXCAV. (CY)
A	-1.0	320	0.75	3,700
B	0.0	200	1	2,700
C	+1.0	300	1	3,400



KAUNAKAKAI STREAM FLOOD CONTROL
STUDY, MOLOKAI, HAWAII
STUDY AREA
FIGURE 3
U.S. ARMY ENGINEER DISTRICT, HONOLULU





KAUNAKAKA STREAM FLOOD CONTROL
STUDY, MOLOKAI, HAWAII
TYPICAL CROSS SECTION
FIGURE 4

U.S. ARMY ENGINEER DISTRICT, HONOLULU



D. Recommended Plan. An incremental cost analysis was conducted to determine changes in costs for increasing levels of environmental outputs. Each pond in the various plans is dependent on the pond downstream of it. Pond A is the only pond that can stand-alone. Pond B will only be effective in conjunction with Pond A. Pond C will work only with Pond A and B in place.

Based on the habitat goals, cost estimate, and incremental cost analysis, the recommended plan is Alternative 4, which will create 2.75 acres of shallow ponds and mudflats.

Upon completion of construction, the Corp will turn the project over to the project sponsor to operate, maintain, repair, replace, and rehabilitate. The Corp will furnish the project sponsor with an Operation, Maintenance, Repair, Replacement, and Rehabilitation Manual (hereinafter the "OMRR&R Manual"). The OMRR&R Manual will be prepared by the Corp, in coordination with DPWEM. The purpose of the manual is to provide the project sponsor with the information and requirements necessary to operate and maintain the flood control and habitat restoration improvements. The manual will include current practices and the additional tasks that are necessary to preserve the pond characteristics that are beneficial to the Hawaiian Stilt.

CHAPTER 3 - AFFECTED ENVIRONMENT

A. General. Several studies contain information on the environment in and around Kaunakakai Stream. These sources have been included by reference within this document where applicable.

B. Physical Setting

Location and General Description - Moloka'i is the fifth largest island in the State of Hawaii, and is one of four islands in the County of Maui. The island is roughly 37 miles long and 10 miles wide, having a land area of about 166,400 acres or about 4 percent of the total land area in the State of Hawai'i.

Kaunakakai Stream is located on the south central coast of Moloka'i near the commercial business area of the town of Kaunakakai. The island's largest port is located at Kaunakakai Harbor.

Geology - Moloka'i is made up of three volcanic formations: West Moloka'i Dome, the Hoolehua Plain, and East Moloka'i Dome. At 4,970 feet above mean sea level, Kamakou is the highest peak and is located at the east end of the island. Puu Nana is the highest point on West Moloka'i. The south shore of Moloka'i is generally a flat plain with a broad fringing coral reef. The inshore portions of the reef flat are generally covered by a layer of mud as a result of inland erosion.



The flood control project is located at the base of the mountain where the soil forms an alluvial fan. The Natural Resources Conservation Service (NRCS) maps most of the soils in the project area as Mala Silty Clay (MmA). The area downstream of Maunaloa Highway to the shoreline is mapped as Kealia silt loam (KMW).

C. Biological Resources

1. **Flora**- The DPWEM regularly mows the channel as part of their maintenance of the flood control channel. Tidal portions of the project north of the highway are dominated by pickleweed (*Batis maritima*). Areas above the tidal influence are dominated by ricegrass (*Paspalum scrobiculatum*) and small patches of sedge (*Scirpus maritimus*).

2. Fauna - Aquatic Resources

The tidally influenced portion of Kaunakakai stream extends 50 to 75 feet upstream of Maunaloa Highway depending on the tide. The estuarine portions are inhabited by native species including Aholehole (*Kuhlia sandvicensis* - an endemic flagtail), Mullet (*Mugil cephalus*), and Barracuda (*Sphyraena barracuda*). Shrimp and crab are also found in Kaunakakai Stream. Exotic species include Milkfish (*Chanos chanos*), Tilapia, and Samoan Crab (*Scylla serrata*).

3. Fauna - Terrestrial Resources

Birds - The Hawaiian Stilt or Ae'o (*Himantopus mexicanus knudsenii*), the Cattle Egret (*Bulbucus ibis*), and the Black Crowned Night-Heron (*Nycticorax nycticorax hoactli*) have been observed at the project site.

A subspecies of the Black-Necked Stilt found in the continental U.S., the Hawaiian Stilt is endemic to the Hawaiian Islands and is listed by the USFWS as an endangered species. Ducks Unlimited Inc.'s. Hawaiian Islands Wetlands Conservation Plan (HIWCP) estimated that there are approximately 1,500 Hawaiian Stilts throughout the state. The Hawaiian Stilt is a wading bird, which frequents mudflats and shallow open water. The stilts use the project area for foraging during and after rainy periods.

Feral and Domestic Animals - Since Captain Cook discovered the Hawaiian Islands, more bird life has been lost in Hawai'i than any other part of the United States. Of the remaining 40 species endemic to Hawai'i, 70% are currently endangered (Engilis and Pratt, 1993). A major reason for the decline is the introduction of animals, which prey upon birds. These include the mongoose (*Herpestes auropunctatus*), and feral cats and dogs. The mongoose was brought in to control the rat population in sugar cane fields in the 1880's and quickly adapted to the local environment. The mongoose preys on birds and their eggs.



D. Archaeological and Cultural Resources. At the project site, there are no properties listed or eligible for listed on the National Register of Historic Places. The proposed water bird habitat restoration area was coordinated with the State Historic Preservation Officer who indicated that the land adjacent to Kaunakakai Stream is recently deposited alluvium and it is highly unlikely that significant historic sites are present in the vicinity of the proposed project.

E. Water Quality. Kaunakakai Stream discharges into Kaunakakai Harbor, which is designated as Class A coastal waters by the State of Hawai'i's Department of Health. In the vicinity of the project, Kaunakakai Stream is primarily dry except following periods of heavy runoff. The first 50 to 75 feet of streambed northeast of the highway is tidally influenced and is perennially wet with brackish water.

F. Drainage and Flooding. The project is located in the base flood plain as shown on FIRM panels 150003 0040C and 150003 0045B dated September 6, 1989. The proposed project site is located in zone A8 (area inundated by 100-year flood, base flood elevations ranging from 10 to 13 feet). The proposed project is not located within the regulatory floodway. The portion of Kaunakakai Stream within the project boundaries is protected from development as a result of its use as a flood control channel.

G. Land Use. Agriculture has always played an important role in Moloka'i's economy with the cultivation of various crops such as pineapple and watermelon, aquaculture, fishing, cattle raising, and hunting make up a majority of the economic activity of the island.

Agriculture and grazing are partly responsible for the degradation of Moloka'i's reefs. In the 1800's and early in the 1900's, experimentation in a variety of crops including potatoes, cotton, coffee, sisal, honey, sugar, barley, oats and wheat often faced obstacles such as insects, winds, and lack of irrigation water. Alteration to the natural ground cover accelerated soil erosion. When some of these crops failed, people returned to raising cattle. Widespread grazing destroyed the ground cover, which further aggravated soil erosion. Sediments made their way to the coast covered much of the reefs creating mudflats common to Moloka'i, and shoaled traditional fishponds.

Hawaiian fishponds were part of a traditional subsistence economy for early Hawaiians and were often associated with taro cultivation. Some fishponds were designed for rearing fish while others were designed as fish traps for netting or trapping fish. The fishponds were also a religious aspect of the ancient Hawaiian lifestyle in that aumakua (supernatural and/or ancestral spirits) were often guardians of the fishponds.

Prior to the Great Mahele, or division of lands, the ali'i (chiefs) were the sovereign owners of all land in Hawai'i. The ali'i's ahupuaa (land unit) usually extended from the mountain to the sea. Po'alima was a day when the common people worked on taro lo'i and fishponds for their ali'i. In addition to the distribution of lands, the Great Mahele led to the downfall of the ali'i and Po'alima systems. Without the maintenance provided by



the Po'alima system, many fishponds decayed through siltation, erosion, tsunamis and storm wave damage, and vegetation. Westernization also impacted fishponds as eating habits changed, the population shifted from rural to urban areas, and fishponds were filled or altered for housing and marinas

Another significant event, which transformed nearshore areas, was the importation of mangrove. Mangroves are salt tolerant plants, which utilize pneumatophores to withstand limited inundation. Mangroves produce large floating seeds that are dispersed with the tides. Through a process of growth and sedimentation, mangrove species can build land extending the shoreline into shallow nearshore areas. The first mangroves in Hawai'i were imported from Florida by the American Sugar Company in 1902. The sugar company planted *Rhizophora mangle* on Moloka'i to prevent coastal erosion. A second shipment of mangroves arrived in 1922 from the Phillipine's Insular Bureau of Forestry. The seedlings included *Rhizophora mucronata*, *Bruguiera gymnorrhiza*, and *Sonneratia caseolaris* (ref. Walsh, 1968). Since that time, the mangroves have spread throughout the Hawaiian Islands. On Moloka'i, the mangroves have aggressively invaded and dominated many shoreline areas choking fishponds and stream mouths.

The State of Hawai'i's Conservation District Use Application (CDUA) maps indicate that Kaunakakai Stream (north of Maunaloa Highway) is entirely out of the CDUA area. The area south of Maunaloa Highway is in the general subzone. A subdivision to the west and the downtown area of Kaunakakai east of the project site are designated as urban under the State Land Use Classification system.

H. Aesthetics. The project area is a flood control channel that has a grassed bottom and lined on its sides with stone for most of the east side of the stream and 1,050 feet of the west side of the stream. The stream is an open area separating the business district from the Kaunakakai Homesteads.

I. Hazardous, Toxic and Radioactive Wastes (HTRW). The project is within an active stream that has been restricted from development by the Corps FCP. The State of Hawai'i's Department of Health (DOH), and U.S. Environmental Protection Agency (USEPA) were requested to provide information on any known incidents of HTRW in the study area. By letter dated May 9, 1996, USEPA indicated that there were no hazardous waste licenses/permit actions, compliance actions or discoveries of illegal dumping or contamination in the project area. The DOH had no reports of license, permit, violation, enforcement or litigation regarding HTRW at the site.

CHAPTER 4 - ENVIRONMENTAL CONSEQUENCES

A. General. The recommended plan will alter 2.75 acres of streambed. This section of the EA describes the impacts of the No Action and Recommended Plan alternatives.



No Project Conditions - Under the No Action Alternative, the streambed will provide minimal habitat that will continue to be used occasionally by water birds provided that sedimentation and vegetation do not fill in the low lying areas.

Recommended Plan - The recommended plan would provide year-round foraging habitat for the endangered Hawaiian Stilt and other shorebirds and seabirds.

Plans and Specifications for this project would require the successful contractor to prepare and implement an environmental protection plan to prevent environmental pollution and damage caused by construction operations. The control of environmental pollution and damage requires consideration of air, water, and land, and includes management of visual aesthetics, noise, solid waste, and hazardous materials and pollutants.

B. Physical Setting. The proposed improvements will replace vegetated areas with mudflats and wetlands. Elevations within the flood control channel will be reduced by two to three feet.

C. Biological Resources. The recommended plan will replace grassed areas with mudflats and ponds. Creating the shallow mudflats and ponds will increase habitat for aquatic species such as crustaceans and fish, which are part of the Hawaiian Stilt's diet. The combination of favorable water depths and increased food source will increase foraging and nesting habitat for the Hawaiian Stilt.

The adverse impacts from the project are primarily associated with construction activities. Noise levels, emissions, and turbidity may temporarily disturb or displace wildlife, including endangered species. Construction impacts are not all bad as birds are known to follow construction equipment, waiting to gobble up the worms, insects, and other organisms exposed by clearing and grading.

Aquatic species may be disturbed or displaced during construction. Disturbing the bottom could result in exposure to high levels of exposure to suspended sediments and debilitation or death of sedentary organisms. However, impacts will be temporary in nature and the organisms are expected to re-colonize in the disturbed areas. Additionally, the project will create more aquatic habitat.

Vegetation will be removed and destroyed but quick recovery is expected.

D. Archaeological and Cultural Resources. The proposed undertaking is not expected to impact any historic sites.

E. Water Quality. Grading activities in existing tidal areas will bring sediments into suspension and raise turbidity levels. Turbidity will be partially controlled by grading the downstream portions of the project last. Upon completion of the proposed modifications, the increased depths will increase sediment holding capacity of the stream and reduce the



sediment load on downstream areas. Wastewater directly derived from construction activities will not be allowed to enter water areas.

F. Drainage and Flooding. The proposed modifications will have negligible impacts on drainage and flooding. The flood storage capacity of the stream will be negligibly increased by increasing the depth and removing sediment and vegetation. The improvements are consistent with the flood control project.

G. Land Use. Flood control is the primary function of the stream and the proposed modifications will not adversely affect the stream's use as a flood control channel.

H. Aesthetics. Excavating ponds will increase the estuarine area of Kaunakakai Stream. The creation of additional open water should improve the aesthetics of the stream. Since no large structures will be constructed, the natural setting of the stream will be retained.

I. Hazardous, Toxic, and Radioactive Wastes (HTRW). There will be no HTRW impacts resulting from the project. As part of the environmental protection plan, the contractor will be required to take measures to prevent spillage of HTRW materials during dispensing and to collect any HTRW wastes in suitable containers for proper disposal.

J. Solid Wastes. The solid wastes from this project will consist almost entirely of soil and vegetation. Soil will be removed from the project site and is proposed for use as day cover at the Naiwa Landfill. The contractor for this project will be required to prepare a plan on handling and disposal of solid wastes as part of the Environmental Protection Plan.

K. Socio-Economic. The No-Action Alternative will have no impact. The recommended alternative, Alternative 4, will create jobs during the construction period. Overall, the proposed improvements will not create new permanent job opportunities. The expected increase in habitat and wildlife should improve the community's interest and awareness of the natural values of the mudflats and wetlands.

L. Recreational Opportunities. The No-Action Alternative and the recommended alternative, Alternative 4, will have no impact on recreational opportunities.



CHAPTER 5 - LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS CONTACTED

Federal Agencies:

National Marine Fisheries Service, Pacific Area Office
U.S. Fish and Wildlife Service, Pacific Islands Office
U.S. Environmental Protection Agency, Region IX

State Agencies:

Hawai'i State Department of Health, Clean Water Branch
Hawai'i State Department of Health, Clean Air Branch
Hawai'i State Department of Health, Office of Hazard Evaluation & Emergency Response
Hawai'i State Department of Health, Environmental Management Division
Hawai'i State Department of Health, Safe Drinking Water Branch
Hawai'i State Department of Health, Office of Solid Waste Management
Hawai'i State Department of Health, Disease Outbreak Control Division
Hawai'i State Department of Land and Natural Resources, Historic Preservation Division
Hawai'i State Department of Land and Natural Resources, Commission on Water Resource Development
Hawai'i State Department of Land and Natural Resources, Office of Conservation and Environmental Affairs
Hawai'i State Department of Business and Economic Development and Tourism, Office Of Planning

County Agencies:

County of Maui, Department of Public Works and Environmental Management

Private Organizations:

Ducks Unlimited, Inc.



Summary of Environmental Coordination

1. Fish and Wildlife Coordination		
U.S. Army Engineer District, Honolulu (HED) to U.S. Fish and Wildlife Service (USFWS)	March 26, 1996	Request for Planning Aid Letter
USFWS to HED	June 7, 1996	Planning Aid Letter
USFWS to HED	August 15, 2003	Final 2(B) report issued.
HED to National Marine Fisheries Service (NMFS)	March 26, 1996	Request for information or input to project.
Telephone conversation John Naughton NMFS and Benton Ching of HED	March 26, 1996	No objection to project
2. Endangered Species Coordination		
HED to NMFS	March 26, 1996	Request concurrence that project is unlikely to jeopardize listed species or critical habitat.
NMFS to HED	April 11, 1996	No effect on listed or proposed threatened or endangered species.
HED to USFWS	Dec. 16, 1998	Request concurrence that project is unlikely to jeopardize listed species or critical habitat.
USFWS to HED	May 7, 1999	"no net loss of in-kind habitat value" expected from project.
3. Cultural Resource Coordination		
HED to State Historic Preservation Officer (SHPO)	March 26, 1996	Request for information on cultural and historic properties
SHPO to HED	July 18, 1996	"No effect" on significant historic sites.
4. HTRW Coordination		
HED to U.S. Environmental Protection Agency	March 26 1996	Request for information on HTRW.
U.S. Environmental Protection Agency	May 9, 1996	No information on hazardous waste license/permit actions, compliance actions, dumping, or past contamination at the project site.
HED to Hawai'i State, Department of Health	March 26, 1996	Request for information on HTRW.
Hawai'i State, Department of Health	June 20, 1996	No environmental permits, licenses, citations, or other information pertaining to site.

APPENDIX A - ENVIRONMENTAL COORDINATION



DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, CORPS OF ENGINEERS
FT SHAFTER, HAWAII 96740-4400

March 26, 1996

Planning and Operations Division

Mr. Brooks Harper
Field Supervisor
Pacific Islands Office
U.S. Fish and Wildlife Service
P.O. Box 50167
Honolulu, Hawaii 96850

Dear Mr. Harper:

This letter is to request U.S. Fish and Wildlife Service (USEWS) input into a study being conducted by the U.S. Army Corps of Engineers Honolulu District (HEED). Under Section 1135 of the Water Resources Development Act of 1986, HEED is investigating the feasibility of improving the Corps flood control channel at Kaunakakai Stream, Molokai, to restore shallow water feeding habitat for the endangered Hawaiian Stilt, *Himantopus mexicanus knudseni*.

The Kaunakakai Stream Flood Control Project was authorized by Section 205 of the Flood Control Act of 1948, as amended, Public Law 80-858. Completed in 1950, the single-purpose flood control project consists of an enlarged stream channel with rock-lined levees on the stream banks. The project is located in the town of Kaunakakai on the south-central coast of the island of Molokai.

Enclosed for your use is a Preliminary Restoration Plan (PRP) which was completed in October 1995 and is the basis for the current study. The PRP recommended grading the area to bring the surface elevations to or slightly below groundwater levels to provide year-round open water pools for use primarily by the Hawaiian Stilt.

We are requesting a Planning Aid letter to obtain any information and/or concerns you may have regarding fish and wildlife resources in the study area. Of particular concern is any information you may have on any listed, proposed, or candidate threatened or endangered species that may be affected by the project. We also request that a draft scope of work and estimate for a 2(b) report be provided. Since the study needs to

be completed by December 1996, we would appreciate your comments within 30 days of the date of this letter.

We look forward to working with you and your staff on this project, especially since the project purpose is to enhance habitat for an endangered waterbird. Should you have any questions, please do not hesitate to call Benton Ching of my planning staff at 438-1157.

Sincerely,

Ray H. Jyo, P.E.
Director of Engineering
and Technical Services

Enclosure



United States Department of the Interior

FISH AND WILDLIFE SERVICE
PACIFIC ISLANDS Ecoregion
300 ALA MOANA BOULEVARD, ROOM 3104
BOX 50088
HONOLULU, HAWAII 96850
PHONE: (808) 541-3441 FAX: (808) 541-3470

In Reply Refer To: IIMM

JUN 07 1996

Mr. Ray H. Jyo, P.E.
Director of Engineering and
Technical Services
Planning and Operations Division
U.S. Army Corps of Engineers
Ft. Shafter, HI 96858-5440

Re: Planning Aid Letter, Kaunakakai Stream Improvement, CWIS No. 062093

Dear Mr. Jyo:

This Planning Aid Letter for proposed improvements to the flood control channel at Kaunakakai Stream, Molokai, Hawaii provides U.S. Fish and Wildlife Service (Service) information and concerns regarding the proposed project and was prepared under authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.). The U.S. Army Corps of Engineers Honolulu District (IED) proposes to restore and enhance shallow water feeding habitat for the endangered Hawaiian stilt (*Himantopus mexicanus kneriensis*) through grading of the existing Kaunakakai Stream flood control channel to a level at or just below groundwater level.

Information was gathered through a review of our files, consultation with The Nature Conservancy of Hawaii (TNCH) Molokai staff and a May 1, 1996, site visit conducted by Service Biologists. Vegetation at the site is currently approximately 95% ricegrass (*Parpalim scrobiculatum*) with small patches of the indigenous sedge *Scirpus maritimus* surrounding small (less than 10 square feet) freshwater pools. Cattle egrets (*Bubulcus ibis*) were seen near the pools, and tracks of the indigenous black-crowned night-heron (*Nycticorax nycticorax hawaii*) and the Hawaiian stilt were seen in the mud nearby. TNCH Molokai staff report that this area is often used by foraging Hawaiian stilts, especially during and just after rainy periods when the freshwater pools are larger. Based on the above information and review of the Section 1135 Preliminary Restoration Plan provided by your office, the Service concludes that the proposed project would benefit the Hawaiian stilt through a substantial increase in the existing foraging habitat. Our only concern regarding this project is the possibility of siltation of the seaward portion of Kaunakakai Stream and of the marine environment in Kaunakakai Bay during the proposed grading and during subsequent floods of the improved area.

As requested, a draft Scope of Work and Cost Estimate for preparation of a Fish and Wildlife Coordination Act Report are attached. We look forward to working with IED on the design and implementation of this highly beneficial project. If you have any questions regarding this Planning Aid Letter, please contact Fish and Wildlife Biologist Heather McSharry at the above numbers.

Sincerely,

Brooks Harper
Field Supervisor
Ecological Services

Enclosures

CC: TNCH - Molokai, w/o enclosures
DAR - Molokai, w/o enclosures



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

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In Reply Refer To:
PN-03-12

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9/15/03

Lieutenant Colonel David C. Press
Honolulu District Engineer
U.S. Army Corps of Engineers
Building 230
Fort Shafter, Hawaii 96858-5440

Subject: Final Fish and Wildlife Coordination Act Report for the Kaunakakai Stream
Environmental Restoration Project, Molokai, Hawaii.

Dear Lieutenant Colonel Press:

The Fish and Wildlife Coordination Act of 1934 [16 U.S.C. 661 et seq.; 48 Stat. 401], as amended (FWCA), was established to provide a basic procedural framework for the orderly consideration of fish and wildlife conservation measures to be incorporated into Federal water resources development projects. In coordination with your staff, the U.S. Fish and Wildlife Service (Service) is providing this FWCA report for the proposed Kaunakakai Stream Environmental Restoration Project. This report has been prepared under the authority of and in accordance with provisions of FWCA; the Federal Clean Water Act of 1977 [33 U.S.C. 1251 et seq.; 62 Stat. 1155], as amended (CWA); and the Endangered Species Act of 1973 [16 U.S.C. 1531 et seq.; 87 Stat. 884], as amended. These comments are also consistent with the National Environmental Policy Act of 1969 [42 U.S.C. 4321 et seq.; 83 Stat. 852], as amended, and other authorities mandating concern for environmental values.

The purpose of the proposed project is to improve 3.2 acres of streambed in the lower reaches of the Kaunakakai Stream Flood Control Project. This action is intended to provide increased foraging habitat for the endangered Hawaiian stilt (*Himantopus mexicanus knudseni*), although other Federal trust species may benefit from the project.

The enclosed report explains in detail our investigation and documentation of the significant fish and wildlife resources in the Kaunakakai Stream Restoration Project area. One of our primary concerns is that although the project's goal is to increase foraging habitat for Hawaiian stilts, the lack of a maintenance and management plan for the restored habitat may preclude desired benefits over the long-term. The identification of this and other concerns, and recommendations to avoid and minimize associated potential impacts are presented in the report.

Lieutenant Colonel Press

2

The Service appreciates the opportunity to provide input on the proposed project. If you have questions regarding our FWCA investigation and report, please contact Fish and Wildlife Biologists Gordon Smith or Leilani Takano at 808/792-9400.

Sincerely,

A handwritten signature in cursive script that reads "Paul Henson".

Paul Henson, Ph.D.
Field Supervisor

cc: DHCWB, Hawaii
DLNR, DOFAW
DU, Hawaii
HCZMP
NPS
TNCH
U.S. EPA

FISH AND WILDLIFE COORDINATION ACT REPORT
for the
KAUNAKAKAI STREAM ENVIRONMENTAL RESTORATION PROJECT
MOLOKAI, HAWAII



Prepared by

U.S. Department of the Interior
Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
Honolulu, Hawaii

Prepared for

U.S. Army Corps of Engineers
Pacific Ocean Division
Honolulu Engineer District
Fort Shafter, Hawaii

August 2003

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INTRODUCTION

Authority, Purpose and Scope

This is the U.S. Fish and Wildlife Service's (Service's) report on the proposed Kaunakakai Stream Environmental Restoration Project on the island of Molokai in the State of Hawaii. The proposed project was developed by the U.S. Army Corps of Engineers (Corps), in cooperation with the Maui County Department of Public Works and Environmental Management (DPWEM), to restore habitat for the federally endangered Hawaiian stilt (*Himantopus mexicanus knudseni*) in lower reaches of Kaunakakai Stream.

This report has been prepared under the authority of the Fish and Wildlife Coordination Act of 1934 [16 U.S.C. 661 *et seq.*; 48 Stat. 401], as amended (FWCA), and other authorities mandating Department of the Interior (DOI) concern for environmental values. This report is also consistent with the National Environmental Policy Act of 1969 [42 U.S.C 4321 *et seq.*; 83 Stat. 852], as amended (NEPA). The purpose of this report is to document the significant fish and wildlife resources existing at the proposed project site and to ensure that fish and wildlife conservation receives equal consideration with other project objectives, as required under the FWCA. The report includes a description of the significant biological resources at the proposed project site, an assessment of potential resource impacts associated with the proposed project, and recommendations for avoiding and minimizing impacts to fish and wildlife resources in the project area.

The proposed project is authorized under section 1135 of the Water Resources Development Act of 1986, as amended (WRDA). In the WRDA, the Secretary of the Army is authorized to review water resource development projects to determine the need for modifications in the structures and operations of such projects for the purpose of improving the quality of the environment in the public interest. Modifications must be both feasible and consistent with the authorized project purposes, and the nonfederal sponsor is required to provide all lands, easements, rights-of-way, and borrow and excavated material disposal areas required for the project modification, which are not otherwise available due to the construction of the original project. A Scope of Work for this FWCA report was provided by the Service to the Corps in May 1996.

The purpose of the proposed project is to improve 3.2 acres (ac) of streambed at the site of the Kaunakakai Stream Flood Control Project. The purpose of this improvement is to provide increased foraging habitat for the Hawaiian stilt, although other Federal trust species may also benefit from the project.

Coordination with Federal and State Resource Agencies

Service biologists have discussed the proposed project with staff from The Nature Conservancy - Hawaii (TNCH), National Park Service (NPS), and Ducks Unlimited, Inc. (DU). Concerns expressed by biologists with regard to the project have been incorporated into this FWCA report. Copies of this report are being provided to the U.S. Environmental Protection Agency; the

Hawaii Department of Health Clean Water Branch; the Hawaii Department of Land and Natural Resources, Division of Aquatic Resources and Division of Forestry and Wildlife; the Hawaiian Coastal Zone Management Program; and the Hawaii DU office.

Fish and Wildlife Service Correspondence and Site Visits

In May 1996, the Service visited the proposed project site. The purpose of the visit was to perform a general reconnaissance of the area.

In June 1996, the Service provided a Planning Aid Letter to the Corps concerning the proposed project. At the time, the Corps proposed that approximately nine acres of wetlands be restored to "improved wetland habitat."

In December 1997, the Service visited the proposed project site. The purpose of the visit was to see if changes in the habitat had occurred since May 1996 and make observations on the potential for project-related impacts to Hawaiian stilts.

On July 29, 2003, the Service visited the proposed project site to make observations on the potential for project-related impacts to Hawaiian stilts, and meet with representatives from the Corps and DPWEM to discuss the possibility of conducting predator control on the proposed project site. Prior to this visit, on July 24, 2003, the Service provided a draft of this report to the Corps.

DESCRIPTION OF THE PROJECT AREA

The proposed project site lies along the south central Molokai coastline, which is noted for numerous Hawaiian fishponds, and is part of the Kaunakakai wetlands unit. This unit is contiguous with the Molokai playas, or Opihikalo wetlands, which are located to the west. About 3.2 km (2 mi) east of the site is the Kakahaia National Wildlife Refuge (NWR). Both the Molokai playas and the Kakahaia NWR are considered core recovery habitat in the Service's draft second revision of the recovery plan for endangered Hawaiian waterbirds, including the Hawaiian stilt (Service 2002).

Planning for the proposed project is affected by two previous Corps projects that occurred in the vicinity of lower Kaunakakai Stream. First, the Kaunakakai Stream Flood Control Project, which was completed in 1950, consists of an enlarged stream channel with approximately 4,850 lineal ft of rock-lined levees on the stream banks. Second, the Kaunakakai Harbor Project, which was completed also in 1950, to the southeast of the Kaunakakai Stream Flood Control Project. In

addition, lands adjacent to the east levee of the Kaunakakai Stream Flood Control Project were utilized as a dewatering and disposal area for maintenance dredging of the harbor in 1973. Figure 1 shows the upstream and downstream limits of the proposed Federal project.

FISH AND WILDLIFE RESOURCE CONCERNS AND PLANNING OBJECTIVES

The Service's primary concerns with the proposed project include evaluating the potential benefits and potential impacts to endangered species and other fish and wildlife resources and their habitats from the proposed project. A major concern is that although the intent of proposed project is to restore foraging habitat for the Hawaiian stilt, given the site's close proximity to residential housing, an increase in predation by mammals (*e.g.*, cats) may occur to foraging and potentially nesting birds.

Specific Service planning objectives are to maintain and enhance the existing significant habitat values at the proposed project site by: 1) obtaining basic biological data for the proposed project site; 2) evaluating and analyzing benefits of the proposed project alternatives on fish and wildlife resources and their habitats; 3) identifying the proposed project alternative most beneficial to fish and wildlife resources; and 4) recommending conservation measures to avoid and minimize potential direct and indirect project-related impacts.

The Service's Mitigation Policy (Service 1981) outlines guidance for evaluating project impacts affecting fish and wildlife resources. The Mitigation Policy complements the Service's responsibilities under the NEPA and FWCA. The Service's Mitigation Policy was formulated with the intent of protecting and conserving the most important fish and wildlife resources while facilitating balanced development of this nation's natural resources. The policy focuses primarily on habitat values and identifies four resource categories and mitigation guidelines that include avoidance and minimization of unnecessary impacts. The resource categories are:

- a. Resource Category 1: Habitat to be impacted is of high value for the evaluation species and is unique and irreplaceable on a national basis or in the ecoregion section;
- b. Resource Category 2: Habitat to be impacted is of high value for the evaluation species and is relatively scarce or becoming scarce on a national basis or in the ecoregion section;
- c. Resource Category 3: Habitat to be impacted is of high to medium value for the evaluation species and is relatively abundant on a national basis; and
- d. Resource Category 4: Habitat to be impacted is of medium to low value for the evaluation species.

Hawaiian stilts use a variety of aquatic habitats but are generally limited by water depth and vegetation cover. This species requires a water depth that is less than 15 centimeters (6 inches) and perennial vegetation that is limited and low-growing, or exposed tidal flats (Service 2002). Kaunakakai Stream forms a series of shallow, brackish and freshwater ponds that provide high to medium value habitat for the evaluation species. The Service considers the stream habitat at the proposed restoration site to be Resource Category 3 habitat. Because the goal of the proposed project is to enhance and restore the habitat in Kaunakakai Stream, we do not anticipate any long-term loss of in-kind habitat values.

EVALUATION METHODOLOGY

Current and historical information on rare species and other natural resources that may be affected by the proposed action were gathered through literature searches and a review of our files. The Service's National Wetland Inventory maps were reviewed to identify any aquatic environments that may be affected. The Hawaii Natural Heritage Program database was reviewed for historical records of rare species occurrence in the vicinity of the proposed project site. Additionally, Service personnel interviewed local residents to obtain information on past and present use of the site by Hawaiian stilts and other bird species. Photos of the proposed project site were taken (Figures 2 and 3).

Site-specific surveys were conducted by Service personnel at the proposed project site. The purpose of these surveys was to evaluate the habitat status of the pools and surrounding vegetation in order to assess potential adverse impacts anticipated to result from the construction and implementation of the proposed restoration project. The surveys were largely qualitative in nature and based on visual observation. Observations were made of Hawaiian stilts and other bird species present at the site. Aquatic and terrestrial biological communities at the proposed project site, including any ecologically important resources, were characterized. A refractometer was used to measure salinity levels in each pool and plant specimens were collected for later identification.

DESCRIPTION OF FISH AND WILDLIFE RESOURCES

Existing Conditions

Terrestrial:

The terrestrial portion of the site has been altered by vehicle use, grazing, and mowing. Also, the vegetation structure at the site changed from 1996 to 1997. In 1996, ground cover at the site was estimated to consist of 95% rice grass (*Paspalum scrobiculatum*), with patches of an indigenous

sedge (*Scirpus maritimus*). In 1997, large areas of bare, flat ground, covered approximately 40% of the site. Nonnative pickleweed (*Batis maritimus*); Indian fleabane (*Pluchea indica*); and grasses, including rice grass, covered approximately 30%, 10%, and 15%, respectively. The native sedge (*S. maritimus*) covered the remaining 5% of ground. The vegetation immediately bordering the pools was mostly pickleweed, which was interspersed with patches of bare ground. The bare ground at the site consisted mostly of sandy/silty sediments that had been deposited by stream flows. A few feet away from and surrounding the pools, the vegetation consisted primarily of a mix of sedge and Indian fleabane, with scattered grasses. During all site visits, except for July 2003, Hawaiian stilts along with other waterbird species were observed foraging in the area.

Aquatic:

In 1997, there were five pools at the proposed project site. The first pool began at the Highway 46 bridge. This pool had a salinity of 35 parts per thousand (ppt) and contained a species of mullet (Family Mugilidae). The next pool upstream had a salinity of 30 ppt. The third pool upstream had a salinity of 33 ppt. Based on these data, the three pools appear to be tidally influenced. Salinity levels at the fourth and fifth pools upstream were 4 ppt and 3 ppt, respectively. These pools were full of giant toad (*Bufo marinus*) larvae. In 2003, the pools looked similar to their appearance in 1997. Open-water habitat within the project area encompasses approximately 1 acre (ac).

Future Without the Project

Implementation of the No Action Alternative would lead to no further Federal involvement within the Kaunakakai Stream Flood Control Project. Currently, the County of Maui maintains the proposed project site by mowing the area on a monthly basis. This maintenance benefits Hawaiian stilts and migratory shorebirds at the site by maintaining low vegetated sites used for foraging habitat. If this type of maintenance continues, the site may continue to be an attractive foraging area for these birds, although at levels lower than what existed prior to construction of the flood control project. Mowing alone will not adequately adjust topographic elevations needed to maintain the existing habitat. Without periodic streambed regrading and culvert clearing, it is expected that sediments would continue to accumulate in the streambed over time, reducing the amount of available foraging habitat for Hawaiian stilts.

DESCRIPTION OF ALTERNATIVES EVALUATED

Four alternative actions are identified by the Corps in their Ecosystem Restoration Report for the proposed project (Figure 4).

Proposed Action: Restore foraging habitat for the Hawaiian stilt in lower Kaunakakai Stream.

- Alternative 1: No Action. This alternative would leave the existing project site as is.
- Alternative 2: This alternative proposes to create 1.3 ac of ponds, starting from Highway 46 and extending approximately 500 ft upstream. Approximately 8,000 cubic yards (yd³) of material would be excavated. The existing elevation in this area (Pond A) is 2.0 to 2.5 ft above mean sea level. This pond would be dredged to an elevation of 1 ft below mean sea level, lowering the elevation of Pond A by approximately 3 ft. Pond A is expected to be tidally influenced and perennially wet except under extreme low-tide conditions.
- Alternative 3: Under this alternative, two ponds (Pond A and Pond B) encompassing approximately 2.4 ac would be created after the removal of 14,000 yd³ of material. Pond A is described above under Alternative 2. Pond B would be adjacent to Pond A and extend another 400 feet upstream. It would require the removal of approximately 6,000 yd³ of material to establish a bottom elevation that is equal to mean sea level. The existing elevation in this area (Pond B) is about 2.5 ft above mean sea level. Excavation would bring the elevation of Pond B down by approximately 2.5 ft. While Pond A would be perennially wet, Pond B would be wet following periods of stormwater runoff periods and/or high tides.
- Alternative 4: This alternative entails developing a third pond (Pond C) in conjunction with the two ponds described above under Alternative 3. Approximately 3,000 yd³ of material would be excavated to lower the elevation in Pond C to 1 ft above mean sea level. The existing elevation in this area (Pond C) is about 4 ft above mean sea level. Alternative 4 would result in the creation or enhancement of 3.2 ac of wetland after the removal of approximately 17,000 yd³ of material. Excavation would lower the elevation of Pond C by approximately 3 ft. Like Pond B, Pond C would be wet following periods of stormwater runoff and/or high tides. Alternative 4 is the Corps' preferred alternative.

POTENTIAL PROJECT IMPACTS

Terrestrial Resources

Alternatives 2, 3, and 4 include regrading the streambed in order to increase the potential amount of semipermanent mudflat and shallow, open-water habitat at the site. These habitat types provide important feeding and loafing areas for many of the migratory waterfowl, wintering shorebirds, and resident waterbirds found in Hawaii. Expansion of these habitats should result in increasing the amount of plant, invertebrate, and vertebrate foods available to waterbirds at the site. The proposed project (Alternative 4) would increase this habitat by approximately 2.2 ac, creating a total of 3.2 ac of foraging habitat that would be available to Hawaiian stilts.

Despite the initial benefits expected to result from the proposed project, short-term negative impacts, including the temporary displacement of Federal trust species during construction, are anticipated. Furthermore, the desired long-term project benefits may not be achieved without careful development and full implementation of a plan that would provide for adequate maintenance and management of the restored wetlands. Ideally, this plan should include periodic streambed regrading, culvert clearing, and appropriate predator controls, such as trapping. Regrading and clearing activities are required to maintain restored habitat at project design depths and elevations within the streambed. Trapping to reduce predation of Hawaiian stilts is especially important because a desired objective of the project is to increase stilt use of the area. It is possible that without appropriate predator controls, the project could turn into an attractive nuisance for Hawaiian stilts whereby stilts attracted to the site would be subjected to an increased risk of predation by mammals.

Aquatic Resources

By lowering surface elevations and increasing the size of the ponds in lower Kaunakakai Stream, conditions favorable for water estuarine species such as the native mullet will improve. An increase in the extent of pond habitat with reduced salinity (Pond C in Alternative 4) would likewise be expected to create habitat for freshwater species such as the introduced toad, *Bufo marinus*. Project-related construction and clearing activities may temporarily increase downstream turbidity and siltation, which would negatively impact water quality within the stream.

SERVICE RECOMMENDATIONS

The proposed project is expected to increase the amount of Hawaiian stilt foraging habitat at the site if (1) the regraded topography is compatible with Hawaiian stilt needs, (2) water quality within the stream is maintained, (3) the action does not lead to increased sedimentation of existing stream habitats, (4) the action does not lead to decreased water levels within the stream to the point of drying out the wetland or allowing the further proliferation of grasses and other

emergent vegetation, and (5) the action does not lead to increased predation to Hawaiian stilts by mammals. Therefore, the Service recommends that these factors be fully addressed during the project planning and implementation phases.

To minimize project-related adverse impacts to fish and wildlife resources at the site, we recommend that the following measures be incorporated into the design and construction of the selected project alternative:

- 1) Pond construction will be scheduled to occur during the driest time of the year approximately May to October, but if storms result in ponded water that is being used by endangered waterbirds, the contractor will avoid the area until the area has dried and the birds have moved away;
- 2) Should any migratory shorebird, waterfowl, or resident, native bird be killed, injured or appear harmed within the project area during project construction, the Service will be contacted within 24 hours. A written report describing the incident will be provided to Service's Division of Law Enforcement, P.O. Box 50223, Honolulu, Hawaii 96850; and Division of Ecological Services, P.O. Box 50088, Honolulu, Hawaii 96850 within 48 hours of the incident;
- 3) No construction materials will be stockpiled in the aquatic environment;
- 4) All construction-related materials will be placed or stored in ways to avoid or minimize disturbance to the aquatic environment;
- 5) All construction-related materials will be free of pollutants;
- 6) No contamination of the aquatic environment (trash or debris disposal etc.) will result from construction activities;
- 7) A contingency plan to control accidental spills of petroleum products will be developed. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of petroleum spills;
- 8) Turbidity and siltation from excavation activities will be minimized and contained in the immediate vicinity of the construction site through the use of effective silt containment devices and the curtailment of excavation during adverse weather conditions; and
- 9) Dewatering of excavated materials will be done in a manner that will minimize the reintroduction of silt into the aquatic environment.
- 10) Post-construction revegetation should be undertaken with native grasses wherever

possible. Native plants used for revegetation tasks should be chosen specifically to be tolerant of saturated soil conditions. These plants can be obtained through the U.S. Department of Agriculture, Natural Resources Conservation Service, Molokai Plant Materials Center (contact Bob Joy 808/567 - 6868).

In order to maximize use of the proposed ponds by Hawaiian stilts and minimize predation to stilts by mammals (e.g., cats, rats, mongoose), we recommend that vegetation management and one of the following management alternatives (i.e., A or B) be implemented at the proposed project site:

Vegetation Management

Vegetation management should include periodically mowing grass and eliminating woody vegetation (e.g., *Pluchea indica*). Vegetation maintenance should be timed to avoid and minimize potential disturbance to Hawaiian stilts. During wet periods when ponds become inundated and used by Hawaiian stilts, vegetation control activities should be less frequent and limited to the outer edges of the ponds. If after mowing, the cut vegetation is greater than four inches deep, the cut material should be removed and disposed off-site.

Management Alternatives:

A. Island Creation and Trapping

Because of the potential for stilt predation by feral animals, the Service recommends that low-lying, irregular-shaped islands be created within each constructed pond. Creation of such islands in the center of each pond will potentially minimize predation of Hawaiian stilts by mammals since the moating around islands may act as a deterrent and provide safe loafing and possibly nesting areas. For more information regarding creating islands contact Leilani Takano, Fish and Wildlife Biologist, of my staff (telephone: 808/792-9400).

In addition to creating islands, use of live capture traps that are outfitted with water bottles and constructed in such a manner as to provide ample shade and protection from extreme weather are recommended for use as part of an on-going predator-control program. Locations of traps should take place in perimeter areas that provide cover for predators and in the area up-stream of the proposed project site. Rat traps should be placed close to the rock levee where rats are known to hide.

In combination with creation and maintenance of islands, we recommend that a predator control program should be implemented at a level of 12 trap-nights per month. This task can be undertaken by the Maui County DPWEM, by another government agency (*e.g.*, U.S. Department of Agriculture, Wildlife Services) or private contractor.

B. Trapping

Live capture traps that are outfitted with water bottles and are constructed in such a manner as to provide ample shade and protection from extreme weather. Locations of traps should take place in perimeter areas that provide cover for predators and in the area up-stream of the proposed project site. Rat traps should be placed close to the rock levee where rats are known to hide.

If established without the creation of islands, the predator control program should be increased to a level of 24 trap-nights per month. This task can be undertaken by the Maui County DPWEM, by another government agency (*e.g.*, U.S. Department of Agriculture, Wildlife Services) or private contractor.

Because the Corps will be turning over the entire project to the DPWEM to maintain after construction, we strongly recommend continued coordination among the Corps, the DPWEM, and the Service to facilitate the DPWEM's ability to provide long-term maintenance and management at the site. Without long-term maintenance of vegetation growth and streambed contours, as well as predator control, the value of this project is likely to be lost over a relatively short period of time. Accordingly, we recommend that in coordination with us a long-term management plan, which includes periodic habitat maintenance and bird monitoring, for the restored habitat be developed prior to the start of construction and implemented after completion of construction.

SUMMARY AND SERVICE POSITION

Molokai's south coastal wetlands are considered important habitat for the Hawaiian stilt (Service 2002). Although Kaunakakai Stream is disturbed and channelized, it continues to provide high to medium value foraging habitat for the Hawaiian stilt. We consider the proposed project site to be Resource Category 3 habitat. Our resource goal for Category 3 habitat is no net loss of in-kind habitat values.

The proposed project is expected to result in an increase in the amount of wetland foraging habitat for Hawaiian stilts and other Federal trust species. It is our opinion that by implementing our recommendations, the project will conform to the goals of protecting and conserving Resource Category 3 Habitat pursuant to our guidance. However, it is important to remember that this goal will not be initially met unless (1) the regraded topography is compatible with Hawaiian stilt needs (e.g., provide a water depth that less than 15 centimeters), (2) water quality within the stream is maintained, (3) the action does not lead to increased sedimentation of existing stream habitats, (4) the action does not lead to the further proliferation of grasses and other emergent vegetation but maintains perennial vegetation that is limited and low-growing, and (5) the action does not lead to increased predation of Hawaiian stilts.

The Service's primary concern with the proposed project is the lack of a firm commitment to maintain the restored Hawaiian stilt habitat over the long term. Without a long-term maintenance strategy and management and monitoring plan in place, we are concerned that the goal of the restoration project will not be achieved and the initial desired benefits from the project will be short-lived. Therefore, the Service recommends that a long-term maintenance plan, which includes stilt and habitat monitoring, periodic streambed regrading and culvert clearing, as well as predator control and such as trapping, be developed. In addition, we recommend creation of an island in the center of each pond be included in the proposed project design because islands would potentially act as a deterrent to predators and provide safe loafing areas for Hawaiian stilts. We are willing to work with the Corps and DPWEM to develop an acceptable plan.

Finally, we believe that incorporation of the above recommendations into the proposed project will greatly assist in achieving project-related goals and minimize the potential for project-related negative impacts to fish and wildlife resources. Provided that these recommendations are made part of the project, the Service would not object to implementation of the Preferred Alternative.

REFERENCES CITED

U.S. Army Corps of Engineers. 1999. Kaunakakai Stream Environmental Restoration Project, Kaunakakai, Molokai, Hawaii Ecosystem Restoration Report. U.S. Army Engineer District, Honolulu, Hawaii.

U.S. Fish and Wildlife Service. 1981. U.S. Fish and Wildlife Service Mitigation Policy. Federal Register. Vol. 46, No. 15. pp. 7644-7663.

U.S. Fish and Wildlife Service. 1995. Pacific Islands Ecoregion Coastal Ecosystems Program Proposal. U.S. Fish and Wildlife Service, Division of Ecological Services, Honolulu HI. 128 pp.

U.S. Fish and Wildlife Service. 2002. Draft Revised Recovery Plan for Hawaiian Waterbirds, Second Revision: Hawaiian duck or koloa (*Anas wyvilliana*), Hawaiian coot or alae keo keo (*Fulica americana alai*), Hawaiian moorhen or alae ula (*Gallinula chloropus sandvicensis*) and Hawaiian stilt or aeo (*Himantopus mexicanus knudseni*). U.S. Fish and Wildlife Service, Portland OR. 96 pp.

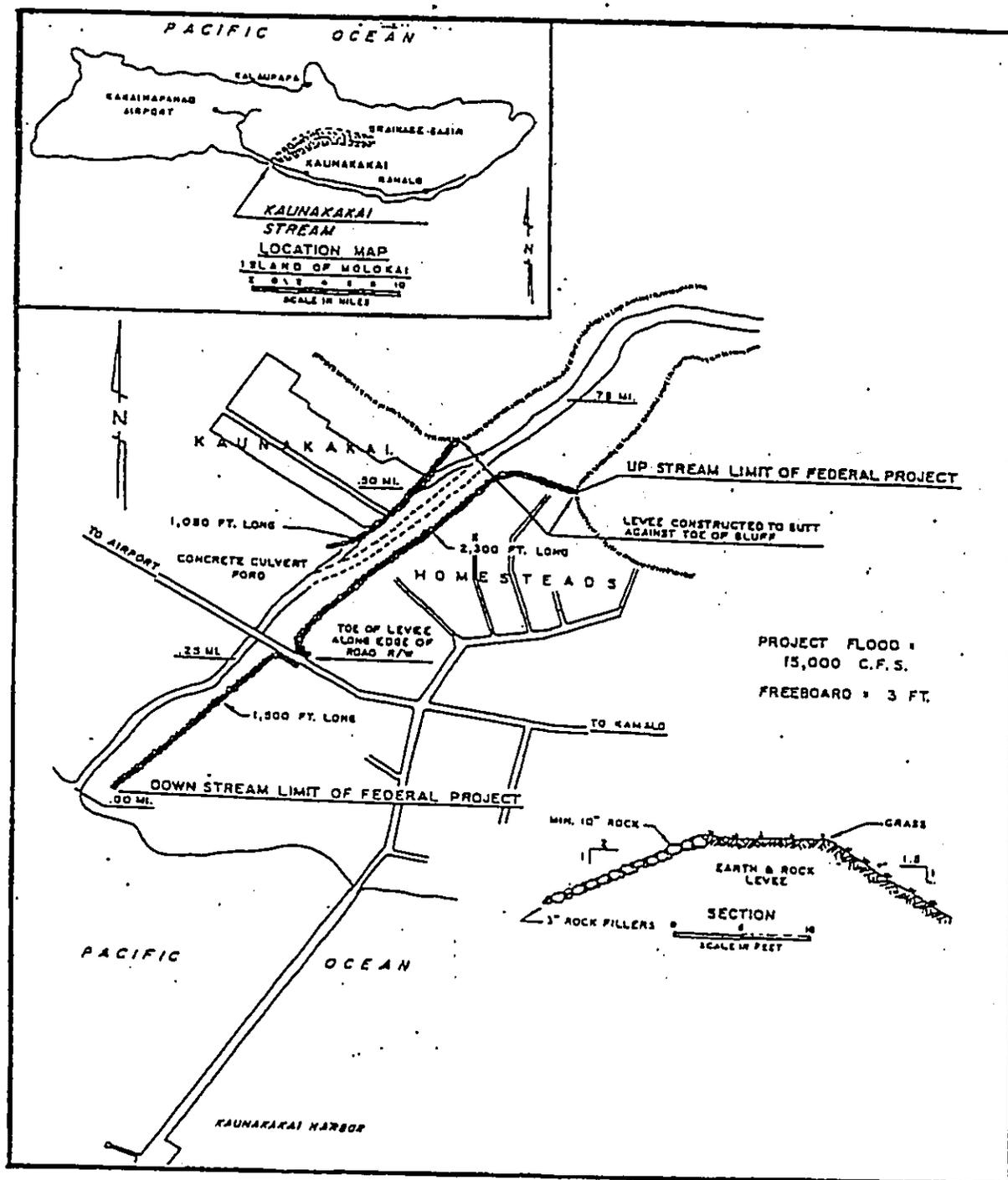


Figure 1. Upstream and downstream limits of the proposed project (Source: Corps 1999).

RECEIVED AS FOLLOWS

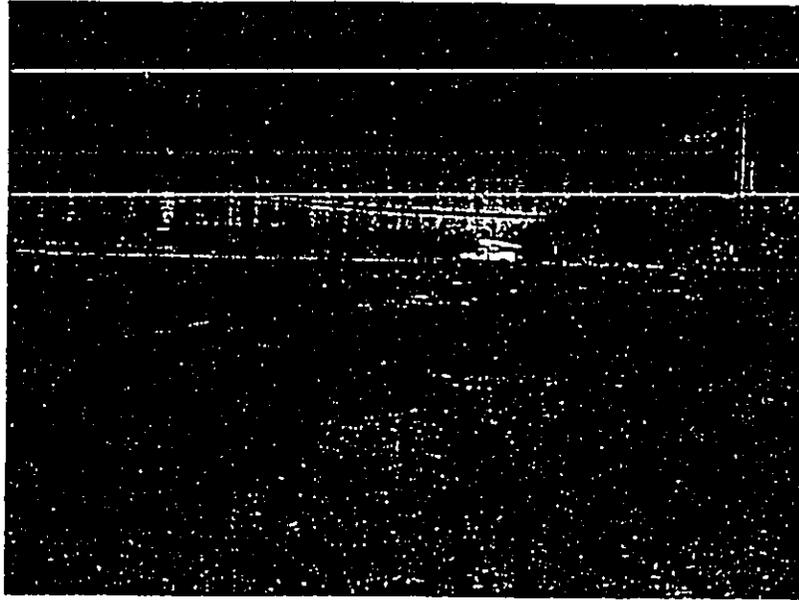


Figure 2. Proposed project site at Kaunakakai Stream (July 2003).

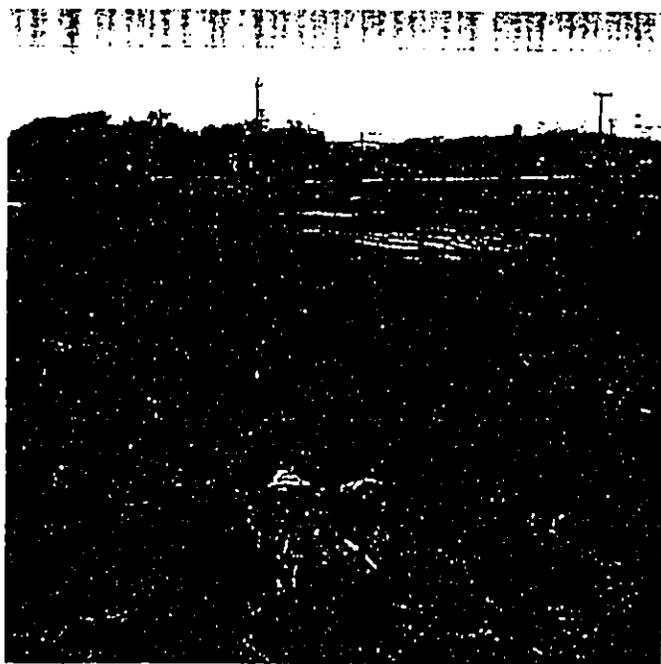


Figure 3. Rock levee and dirt road adjacent to proposed project site at Kaunakakai Stream (July 2003).

RECEIVED AS FOLLOWS

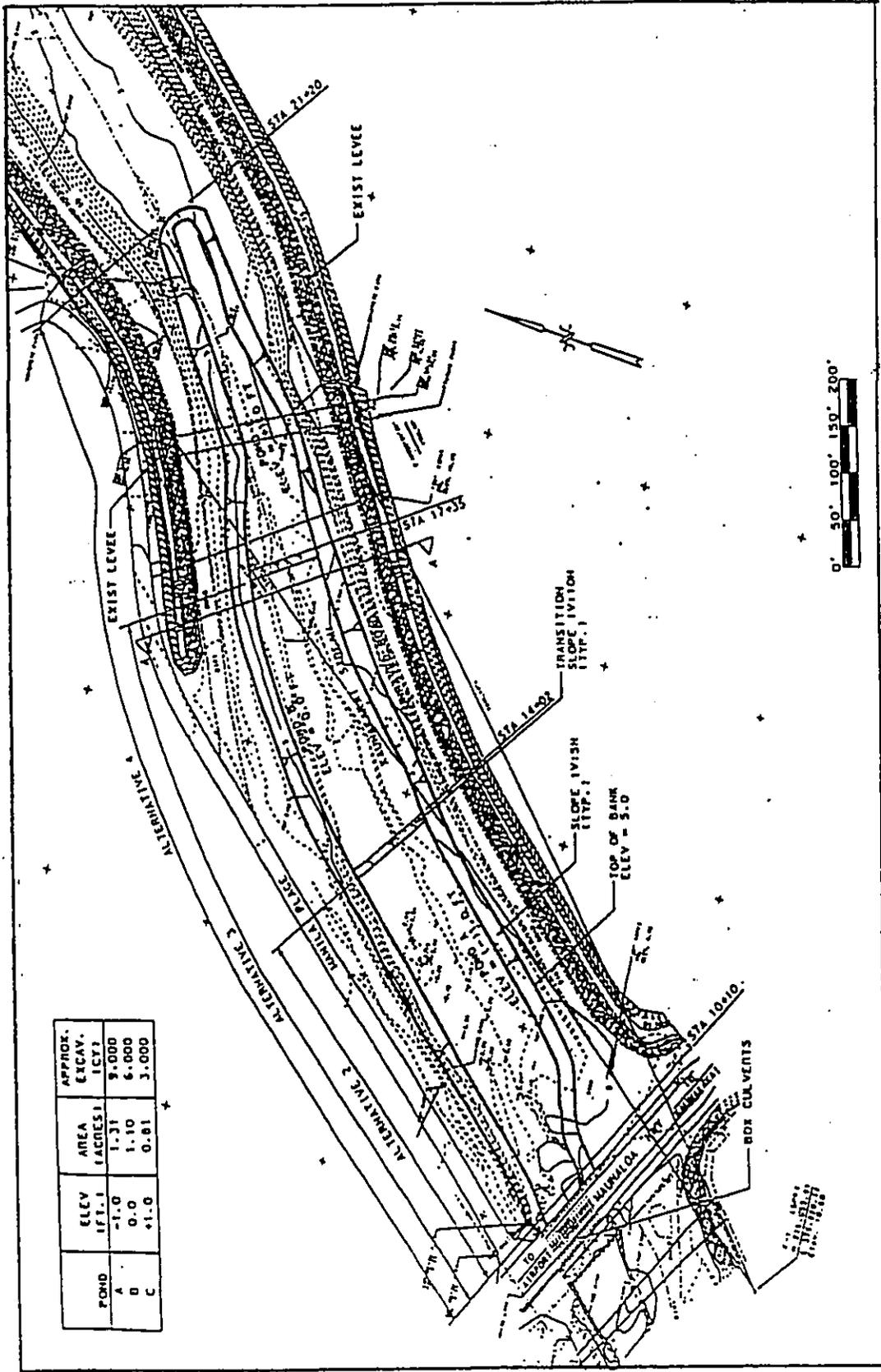


Figure 4. Proposed Federal project alternatives (Source; Corps 1999).



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96858-5440



March 26, 1996

Planning and Operations Division

Mr. John Naughton
Pacific Islands Environmental Coordinator
Pacific Area Office
National Marine Fisheries Service
2570 Dole Street
Honolulu, Hawaii 96822-2396

Dear Mr. Naughton:

The Corps of Engineers, Honolulu District, is investigating the feasibility of improving the Corps flood control channel at Kaunakakai Stream, Molokai, to restore shallow water feeding habitat for the endangered Hawaiian Stilt, *Himantopus mexicanus knudseni*. Enclosed for your use is a Preliminary Restoration Plan (PRP) which was completed in October 1995 and is the basis for the current study. The PRP recommended grading within the flood control project to maintain year-round open water pools for use primarily by the Hawaiian Stilt.

We are requesting your input on any information and/or concerns you may have regarding the project and fish and wildlife resources in the study area. We would appreciate your comments within 30 days of the date of this letter.

Thank you for your cooperation in this matter. If you have any questions regarding the project, please contact Mr. Benton Ching of my planning staff at 438-1157.

Sincerely,

Ray H. Jyo, P.E.
Director of Engineering
and Technical Services

Enclosure



DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96822-2396

ATTENTION

March 26, 1996



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213
TEL (310) 980-4000; FAX (310) 980-4018

April 11, 1996 F/SW033:ETN

Planning and Operations Division

Mr. Eugene Nitta
Protected Species Coordinator
Pacific Area Office
National Marine Fisheries Service
2570 Dole Street
Honolulu, Hawaii 96822-2396

Dear Mr. Nitta:

The Corps of Engineers, Honolulu District, is investigating the feasibility of improving the Corps flood control channel at Kaunakakai Stream, Molokai, to restore shallow water feeding habitat for the endangered Hawaiian Stilt, *Himantopus mexicanus knudseni*. Enclosed for your use is a Preliminary Restoration Plan (PRP) which was completed in October 1995 and is the basis for the current study. The PRP recommended grading within the flood control project to maintain year-round open water pools for use primarily by the Hawaiian Stilt.

We are requesting any information you may have on any listed, proposed, or candidate threatened or endangered species that may be affected by the project. We would appreciate your comments within 30 days of the date of this letter.

Thank you for your cooperation in this matter. If you have any questions regarding the project, please contact Mr. Benton Ching of my planning staff at 438-1157.

Sincerely,

Ray H. Jyo, P.E.
Director of Engineering
and Technical Services

Enclosure

Mr. Ray H. Jyo, P.E.
Director of Engineering
and Technical Services
U.S. Army Engineer District, Honolulu
Building 230
Fort Shafter, Hawaii 96858-5440

Dear Mr. Jyo:

Thank you for your letter requesting information on any listed, proposed or candidate species that may be present in the proposed Kaunakakai Stream Restoration Project area. Only the threatened green turtle (*Chelonia mydas*) is likely to be found near the project site, in the nearshore waters off the south shore of Molokai. It is unlikely that green turtles will be affected by the proposed flood control modifications and enhancement of Hawaiian stilt habitat.

Based on the available information, the proposed flood control modification will not likely adversely affect listed species or their habitats.

I can be reached at 808/973-2987 if you have any questions concerning these comments.

Sincerely,

Eugene T. Nitta
Protected Species Program
Coordinator

cc: F/SW03 - Lecky





DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, CORPS OF ENGINEERS
11 SHAFER, HAWAII 96849-5400

March 26, 1996

Planning and Operations Division

Mr. Michael Wilson
State Historic Preservation Officer
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
33 South King Street, 6th Floor
Honolulu, Hawaii 96813

Dear Mr. Wilson:

This letter is to request the views of the State Historic Preservation Officer for a study being conducted by the U.S. Army Corps of Engineers Honolulu District (HED). Under Section 1135 of the Water Resources Development Act of 1986, HED is investigating the feasibility of improving the Corps flood control channel at Kaunakakai Stream, Molokai, to restore shallow water feeding habitat for the endangered Hawaiian Stilt, *Himantopus mexicanus knudseni*.

The Kaunakakai Stream Flood Control Project was authorized by Section 205 of the Flood Control Act of 1948, as amended, Public Law 80-858. Completed in 1950, the single-purpose flood control project consists of an enlarged stream channel with rock-lined levees on the stream banks. The project is located in the town of Kaunakakai on the south-central coast of the island of Molokai.

Enclosed for your use is a Preliminary Restoration Plan (PRP) which was completed in October 1995 and is the basis for the current study. The PRP recommended grading the area to bring the surface elevations to or slightly below groundwater levels to provide year-round open water pools for use primarily by the Hawaiian Stilt.

We are requesting any information you may have on properties within the study area. The study area is located on TMK's 5-03-05:2 and 3. Currently, the area is vacant, and the vegetation is regularly mowed by County personnel. We would also like to request your opinion on whether this undertaking will have any

effect on historic sites.

We look forward to working with you and your staff on this project. Should you have any questions, please do not hesitate to call Benton Ching of my planning staff at 438-1157.

Sincerely,

Ray H. Jyo, P.E.
Director of Engineering
and Technical Services

Enclosure

BENJAMIN J. CAYetano
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY
GILBERT COLOMA-AGARAN

PP1

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
CONSERVATION AND
ENVIRONMENTAL AFFAIRS
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
DIVISION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

REF: HP-JEN

JUL 18 1996

Mr. Ray H. Jyo, Director
Engineering and Technical Services
Department of the Army
Pacific Ocean Division, Corps of Engineers
Ft. Shafter, Hawaii 96858-5440

LOG NO: 16901
DOC NO: 9604SC16

Dear Mr. Jyo:

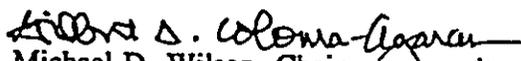
SUBJECT: National Historic Preservation Act, Section 106 Compliance - Historic Preservation Review of a Preliminary Restoration Plan for Kaunakakai Stream Kaunakakai, Moloka'i
TMKs: 5-3-05: 3

Thank you for the opportunity to comment on the preliminary restoration plan for the Kaunakakai Stream flood control project. Our review is based on historic reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspection was made of the subject parcels. Our comments are late and we apologize for any inconvenience this may cause you.

According to the submitted materials, the proposed improvements include grading along the margins of Kaunakakai Stream, and grading between the stream channel and the levees in order to restore a shallow water feeding habitat for the Hawaiian Stilt. Judging from the maps included with the preliminary plan, the improvements are to be made only on the *mauka* side of Maunaloa Highway. The land adjacent to Kaunakakai Stream in this area is recently deposited alluvium (i.e., within the last 150 years, since the advent of livestock raising on Moloka'i). Consequently, it is highly unlikely that significant historic sites are present in this area. Therefore, we believe that the proposed undertaking will have "no effect" on significant historic sites.

Should you have any questions, please feel free to call Sara Collins at 587-0013.

Aloha,


Michael D. Wilson, Chairperson and
State Historic Preservation Officer



DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96828-5440



SENT TO
ATTENTION OF

March 26, 1996

-2-

Planning and Operations Division

Copy Furnished (Without Enclosures):

Dr. Bruce Anderson
Deputy Director for Environmental Health
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

Ms. Felicia Marcus
Administrator
United States Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, California 94105-3901

Dear Ms. Marcus:

The Corps of Engineers, Honolulu District is investigating the feasibility of improving the Corps flood control channel at Kaunakakai Stream, Molokai, to restore shallow water feeding habitat for the endangered Hawaiian Stilt, *Himantopus mexicanus knudseni*. Enclosed for your use is a Preliminary Restoration Plan (PRP) which was completed in October 1995 and is the basis for the current study. The PRP recommended grading within the flood control project to maintain year-round open water pools for use primarily by the Hawaiian Stilt.

As part of the study, we are interested in obtaining any information that your office may have regarding hazardous, toxic, and radioactive wastes (HTRW) which may be located within the study boundary or may affect or be affected by a Corps Civil Works project in the area. Specifically, we are interested in any license/permit actions, compliance actions (violation, enforcement and/or litigation against property owners), and for general information about local HTRW problems such as illegal dumping and past contamination. Hard copies of any pertinent information would be appreciated.

Thank you for your cooperation in this matter. If you have any questions regarding the project, please do not hesitate to contact Mr. Benton Ching of my planning staff at (808) 438-1157.

Sincerely,

Ray H. Jyo, P.E.
Director of Engineering
and Technical Services

Enclosures



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

May 9, 1996

Mr. Benton Ching
Planning and Operations Division
Department of the Army
Pacific Ocean Division
Corps of Engineers
Fort Shafter, HI 96858-5440

SUBJECT: Kaunakakai Stream Environmental Restoration Project

Dear Mr. Ching:

I am writing in follow-up to our recent telephone conversation regarding your request for information on hazardous, toxic, and radioactive wastes (HTRW) which may be located within the study boundary or may affect or be affected by the Kaunakakai Stream Environmental Restoration Project. The database which is used to track hazardous waste facilities regulated under the Resource Conservation and Recovery Act (RCRA) does not indicate any permitted treatment, storage, or disposal facilities in the project area.

I also checked with Mr. Eric Sadoyama, Hawaii Department of Health, regarding the status of any underground storage tanks (USTs) in the project area. Enclosed please find copies of UST information Mr. Sadoyama sent in reply. Mr. Sadoyama may be reached directly at (808) 586-4231.

Should you have any questions, or if you need further assistance, please do not hesitate to call me at (415) 744-2069.

Sincerely,

Mary Blewins
Mary Blewins
Environmental Scientist

enc

Leaking UST sites in Kaunakakai, with site codes

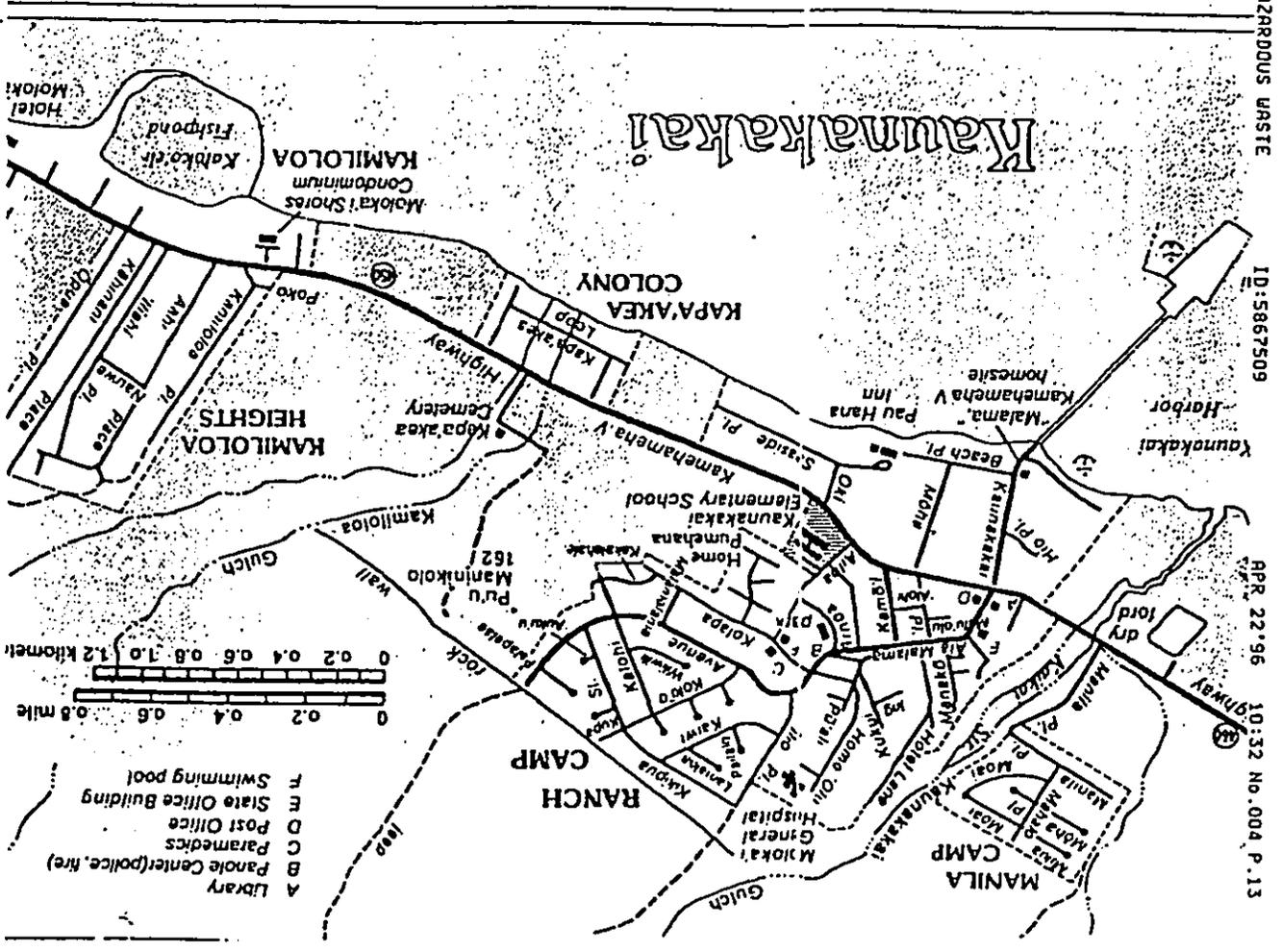
Facility ID	Leak ID	Facility Location Name	Facility Location Address	Site Code
9-303005	950024	HOLOKAI RANCH	KAUNAKAKAI PLACE	60 10 102 30
9-302990	950005	HOLOKAI FIRE STATION #4	130 AINOA ST	60
9-302429	910085	HOLOKAI RANCH, LTD	WILKUP ROAD	40 100
9-302217	940187	BOBO'S AUTO SERVICE	80 ALA KALANA	40

4 Records Processed

All UST sites in Kaunakakai

Facility ID	Owner Name and Address	Location Name and Address
9-302741	GLENN & CATHLEEN SARAHOTO P.O. BOX 1706 KAUNAKAKAI, HI 96748	GLENN & CATHLEEN SARAHOTO P.O. BOX 1706 1127 KAM HWT KAUNAKAKAI, HI 96748
9-302801	DUVAUCHELLE'S, INC. P.O. BOX 98 KAUNAKAKAI, HI 96748	DUVAUCHELLE REALTY P.O. BOX 98 KAUNAKAKAI, HI 96748
9-302933	MOLOKAI GENERAL HOSPITAL 280 PUALI ST KAUNAKAKAI, HI 96748	MOLOKAI GENERAL HOSPITAL 280 PUALI ST KAUNAKAKAI, HI 96748
9-301129	CHEVRON U.S.A., INC 1001 BISHOP ST. PAUHAHI TOWER SUITE 1000 HONOLULU, HI 96813	PAYVINS CHEVRON SERVICE P.O. BOX 348 KAUNAKAKAI, HI 96748
9-302980	MOLOKAI FIRE STATION #4 130 RINDA ST KAUNAKAKAI, HI 96748	MOLOKAI FIRE STATION #4 130 RINDA ST KAUNAKAKAI, HI 96748
9-303003	MOLOKAI RANCH KAUNAKAKAI PLACE KAUNAKAKAI, HI 96748	MOLOKAI RANCH KAUNAKAKAI PLACE KAUNAKAKAI, HI 96748
9-302217	TOM YOSHIMAGA P.O. BOX 57 KAUNAKAKAI, HI 96748	BORO'S AUTO SERVICE 80 ALA MALAHA KAUNAKAKAI, HI 96748
9-300418	T & T SALES & SERVICE P.O. BOX 277 KAUNAKAKAI, HI 96748	T & T SALES & SERVICE P.O. BOX 277 KAUNAKAKAI, HI 96748
9-301401	COUNTY OF MAUI 100 S. MICH STREET WAILUKU, HI 96793	COUNTY OF MAUI KAM V HWY KAUNAKAKAI, HI 96748
9-300546	GTE HAWAIIAN TELEPHONE CO., INC 1171 BISHOP ST. HONOLULU, HI 96813	KAUNAKAKAI CENTRAL OFFICE KAM V HWY KAUNAKAKAI, HI 96748
9-302429	MOLOKAI RANCH, LTD P.O. BOX 259 MAUNALOHA, HI 96770	MOLOKAI RANCH, LTD WHART ROAD KAUNAKAKAI, HI 96748
9-302439	MAUI ELECTRIC CO., INC. P.O. BOX 2750 HONOLULU, HI 96810-0001	INTERISLAND COMMUNICATION SYSTEM POUNAH, MOLOKAI TKX 5-2-0114 KAUNAKAKAI, HI 96748
9-302611	DEPARTMENT OF LAND AND NATURAL R 54 SOUTH HIGH ST, ROOM 101 WAILUKU, HI 96793	AVIS RENT A CAR MAUNALOHA HWY E AIRPORT RD P.O. BOX 1478 KAUNAKAKAI, HI 96748

13 Records Processed





DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96824-540



REPLY TO
ATTENTION OF

March 26, 1996

Planning and Operations Division

Dr. Bruce Anderson
Deputy Director for Environmental Health
Department of Health
P.O. Box 1374
Honolulu, Hawaii 96801

Dear Dr. Anderson:

The Corps of Engineers, Honolulu District, is investigating the feasibility of improving the Corps flood control channel at Kaunakakai Stream, Molokai, to restore shallow water feeding habitat for the endangered Hawaiian Stilt, *Himantopus mexicanus knudseni*. Enclosed for your use is a Preliminary Restoration Plan (PRP) which was completed in October 1995 and is the basis for the current study. The PRP recommended grading within the flood control project to maintain year-round open water pools for use primarily by the Hawaiian Stilt.

As part of the study, we are interested in obtaining any information that your office may have regarding hazardous, toxic, and radioactive wastes (HTRW) which may be located within the study boundary or may affect or be affected by a Corps Civil Works project in the area. Specifically, we are interested in any license/permit actions, compliance actions (violation, enforcement and/or litigation against property owners), and for general information about local HTRW problems such as illegal dumping and past contamination. Hard copies of any pertinent information would be appreciated.

Thank you for your cooperation in this matter. If you have any questions regarding the project, please do not hesitate to contact Mr. Benton Ching of my planning staff at 438-1157.

Sincerely,

Ray H. Jyo, P.E.
Director of Engineering
and Technical Services

Enclosure

Copy Furnished (without enclosure):

Ms. Felicia Marcus
Administrator
United States Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, California 94105-3901



STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96811

June 20, 1996

96-054/epo

LANDFILL UNIT

HAZARDOUS WASTE UNIT

Mr. Ray H. Jyo, P.E.
June 20, 1996
Page 2

96-054

The latest copies of the Underground Storage Tank List, the Leaking Underground Storage Tank List, and the RCRA List may be obtained by contacting the Hazardous Waste Branch at 586-4226.

If you would like to see or purchase a copy of the Spills Report or Log, which is a compilation of all hazardous substance/material spills reported to the HEER office since 1988, please contact the HEER office at 586-4249.

Very truly yours,

Thomas E. Arizumi
THOMAS E. ARIZUMI, P.E.
Chief, Environmental Management Division

Mr. Ray H. Jyo, P.E.
Director of Engineering and
Technical Services
Department of the Army
Pacific Ocean Division
Corps of Engineers
Fort Shafter, Hawaii 96858-5440

Dear Mr. Jyo:

Subject: Request for Public Records
Improving Flood Control Channel
Kaunakakai Stream
Molokai

This correspondence is in response to your letter dated March 26, 1996, requesting information regarding the subject site from the Department of Health, Environmental Management Division.

We have reviewed our files in the Clean Air, Clean Water, Safe Drinking Water, Hazardous Waste and Wastewater Branches, and the Hazard Evaluation and Emergency Response (HEER) Office, and the Office of Solid Waste Management. At this time, there are no environmental permits, licenses, citations, or other information pertaining to the site.

Please be advised that the absence of information on reports of spills, releases, or the existence of underground storage tanks, does not absolve the owner from future clean up liabilities under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, or the Hawaii Environmental Response Law, as amended, or any other applicable state or federal regulation.

A copy of the most recent CERCLIS List, which lists potential hazardous waste sites which are undergoing evaluation or have been evaluated by the U.S. Environmental Protection Agency, and the site-specific files on the CERCLIS List may be obtained by contacting the HEER Office at 586-4249.



Summary of Compliance Reports

1. Coastal Zone Management Federal Consistency Determination
2. Section 404(b)(1) Assessment
3. Compliance with Executive Order 11988
4. Hazardous, Toxic, and Radioactive Waste Assessment
5. Public Notice of:
 - a. Compliance with EO 11988, Action in Floodplain
 - b. Compliance with Section 404 of the Clean Water Act
 - c. Availability of Draft Environmental Assessment and Draft Findings of No Significant Impact



**HAWAI'I CZM PROGRAM
ASSESSMENT FORM**

RECREATION RESOURCES

Objective: Provide coastal recreation opportunities accessible to the public.

Policies:

- 1) Improve coordination and funding of coastal recreation planning and management.
- 2) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:
 - a. Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;
 - b. Requiring replacement of coastal resources having significant recreational value, including but not limited to surfing sites and sandy beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;
 - c. Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;
 - d. Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;
 - e. Encouraging expanded public recreation use of County, State, and federally owned or controlled shoreline lands and waters having recreational value coastal waters;
 - f. Adopting water quality standards and regulating point and non-point sources of pollution to protect and where feasible, restore the recreational value of coastal waters;
 - g. Developing new shoreline recreational opportunities, where appropriate, such as artificial reefs for surfing and fishing; and
 - h. Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the Land Use Commission, Board of Land and Natural Resources, County planning commissions; and crediting such dedication against the requirements of section 46-6.



Check either "Yes" or "No" for each of the following questions.

	Yes	No
1. Will the proposed action involve or be near a dedicated public right-of-way?		
2. Does the project site abut the shoreline?		X
3. Is the project site near a State or County park?		X
4. Is the project near a perennial stream?	X	
5. Will the proposed action occur in or affect a surf site?		X
6. Will the proposed action occur in or affect a popular fishing area?		X
7. Will the proposed action occur in or affect a recreational boating area?		X
8. Is the project site near a sandy beach?		X
9. Are there other recreational uses in the area?		X

Discussion

The portion of Kaunakakai Stream within the project boundary is dedicated for flood flow. The highway is sometimes overtopped during periods of high flow. However, the streambed is normally dry except in the lower, tidally influenced portions of the stream. Pedestrians walk through the dry upper portions of the project as a pathway between the commercial area and the homes on the west side of the stream. A direct path between the known walkways will remain untouched to allow pedestrian traffic to continue. The ponds will stop several hundred feet upstream of the project where residents in the area can continue to cross the existing dry streambed

The project will be adjacent to the County of Maui's existing Kaunakakai Range Lights Park.



HISTORIC RESOURCES

Objective: Protect, preserve, and where desirable, restore those natural and man-made historic and pre-historic resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Policies:

- 1) Identify and analyze significant archaeological resources;
- 2) Maximize information retention through preservation of remains and artifact or salvage operations; and
- 3) Support State goals for protection, restoration, interpretation, and display of historic resources.

Check either "Yes" or "No" for each of the following questions.

	Yes	No
1. Is the project site within a historic/cultural district?		X
2. Is the project site listed on or nominated to the Hawaii or National register of historic places?		X
3. Does the project site include undeveloped land which has not been surveyed by an archaeologist?	X	
4. Has a site survey revealed any information on historic or historic settlement area?		X
5. Is the project site within or near a Hawaiian fishpond or historic settlement area?	X	

Discussion

The project has been coordinated with the State Historic Preservation Officer (SHPO) who indicated that it is highly unlikely that significant historic sites are present in the area. The SHPO concluded that the proposed undertaking would have "no effect" on significant historic sites.



SCENIC AND OPEN SPACE RESOURCES

Objective: Protect, preserve and, where desirable, restore or improve the quality of coastal scenic and open space resources.

Policies:

- 1) Identify valued scenic resources in the coastal zone management area;
- 2) Insure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;
- 3) Preserve, maintain and, where desirable, improve and restore shoreline open space and scenic resources; and
- 4) Encourage those development which are not coastal dependent to locate in inland area.

Check either "Yes" or "No" for each of the following questions.

	Yes	No
1. Does the project site abut a scenic landmark?		X
2. Does the proposed action involve the construction of a multistory structure or structures?		X
3. Is the project site adjacent to undeveloped parcels?	X	
4. Does the proposed action involve the construction of structures visible between the nearest coastal roadway and the shoreline?		X
5. Will the proposed action involve construction in or on waters seaward of the shoreline? On or near a beach?		X

Discussion

The entire project area is undeveloped except for lining of portions of the stream channel and drainage outlets into the stream. The project will not significantly alter the overall terrain of the stream and the proposed modifications will integrate well with the stream character. The construction will primarily involve grading and vegetation clearing. There will be no large structures that would create significant adverse visual impacts.



COASTAL ECOSYSTEMS

Objective: Protect valuable coastal ecosystems from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

- 1) Improve the technical basis for natural resource management;
- 2) Preserve valuable ecosystems of significant biological or economic importance;
- 3) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land water uses, recognizing competing water needs; and
- 4) Promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibiting land and water uses which violate State water quality standards.

Check either "Yes" or "No" for each of the following questions.

	Yes	No
1. Does the proposed action involve dredged or fill activities?	X	
2. Is the project site within the Shoreline Setback Area (20 to 40 feet inland of the shoreline)?		X
3. Will the proposed action require some form of effluent discharge into a body of water?		X
4. Will the proposed action require earthwork beyond clearing and grubbing?	X	
5. Will the proposed action include the construction of special waste treatment facilities, such as injection wells, discharge pipes, or cesspools?		X
6. Is an intermittent or perennial stream located on or near the project site?	X	
7. Does the project site provide habitat for endangered species of plants, birds or mammals?	X	
8. Is any such habitat located nearby?	X	
9. Is there a wetland on the project site?	X	
10. Is the project site situated in or abutting a Natural Area Reserve?		X
11. Is the project site situated in or abutting a Marine Life Conservation District?		X
12. Is the project site situated in or abutting an estuary?	X	

Discussion

The proposed improvements would improve and increase the existing marginal habitat of the Hawaiian stilt. Removal of vegetation and excavation of ponds will increase flood storage capacity and allow settlement of solids during low flow periods. Water in Kaunakakai Stream normally extends 50 to 75 feet upstream of the highway. The proposed project will extend the normally wetted portion another 425 to 450 feet further upstream.



ECONOMIC USES

Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Policies:

- 1) Concentrate in appropriate areas the location of coastal dependent development necessary to the State's economy;
- 2) Insure that coastal dependent development such as harbors and ports, visitor industry facilities, and energy generating facilities are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and
- 3) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such development and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:
 - a) Utilization of presently designated locations is not feasible;
 - b) Adverse environmental effects are minimized; and
 - c) Important to the State's economy.

Check either "Yes" or "No" for each of the following questions.

	Yes	No
1. Does the project involve a harbor or port?		X
2. Is the project site within a designated tourist destination area?		X
3. Does the project site include agricultural lands or lands designated for such use?		X
4. Does the proposed activity related to commercial fishing or seafood production?		X
5. Does the proposed activity related to energy production?		X
6. Does the proposed activity related to seabed mining?		X

Discussion

The project is located approximately 1,800 feet away from Kaunakakai Harbor. The proposed project will have no impact to the harbor or other commercial uses.



COASTAL HAZARDS

Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion and subsidence.

Policies:

- 1) Develop and communicate adequate information on storm wave, tsunami, flood, erosion, and subsidence hazard;
- 2) Control development in areas subject to storm wave, tsunami, flood, erosion, and subsidence hazard;
- 3) Ensure that developments comply with requirement of the Federal Flood Insurance Program; and
- 4) Prevent coastal flooding from inland projects.

Check either "Yes" or "No" for each of the following questions.

	Yes	No
1. Is the project site on or abutting a sandy beach?		X
2. Is the project site within a potential tsunami inundation area as depicted on the National Flood Insurance Program flood hazard map?		X
3. Is the project site within a potential flood inundation area according to a flood hazard map?	X	
4. Is the project site within a potential subsidence hazard area according to a subsidence hazard map?		X
5. Has the project site or nearby shoreline area experienced shoreline erosion?		X

Discussion

The project is located in Zone A8 of the FEMA Flood insurance Rate Map (panels 150003 0040C and 0045 B, Revised September 6, 1989). Base flood elevations range from 10 feet to 12 feet. The stream is protected from development as a result of its use as a flood control project. Removal of vegetation and excavation of shallow ponds will have a negligible increase in the flood storage capacity of the stream.



MANAGING DEVELOPMENT

Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

Policies:

- 1) Effectively utilize and implement existing law to the maximum extent possible in managing present and future coastal zone development;
- 2) Facilitate timely processing of application for development permits and resolve overlapping or conflicting permit requirements; and
- 3) Communicate the potential short- and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the general public to facilitate public participation in the planning and review process.

Check either "Yes" or "No" for each of the following questions.

	Yes	No
1. Will the proposed activity require more than two (2) permits or approvals?	X	
2. Does the proposed activity conform with the State and County land use designation for the site?	X	
3. Has or will the public be notified of the proposed activity?	X	
4. Has a draft or final environmental impact statement or an environmental assessment been prepared?	X	

Discussion

In addition to this CZM coordination, this action is being coordinated with the U.S. Fish and Wildlife Service, the State Historic Preservation Officer, the State Department of Health, and other State and County agencies for approvals or exemptions therefrom. A Final Environmental Assessment for this project has been completed.



**FEDERAL CONSISTENCY
SUPPLEMENTAL INFORMATION SHEET**

Project Description: Kaunakakai Stream Environmental Restoration Project, Kaunakakai.

Island: Moloka'i

Tax Map Key No: 5-3-5:10.

Est. Start Date: July 2004

APPLICANT OR AGENT

Name & Title: DAVID C. PRESS
Lieutenant Colonel, U.S. Army
District Engineer

Agency/Organization: U.S. Army Corp of Engineers, Honolulu District
Address: Building 230
Fort Shafter, Hawai'i 96858-5440

TYPE OF APPLICATION

I. Federal Activity

"The proposed activity is consistent with and will be conducted in a manner consistent to the maximum extent practicable with the Hawai'i Coastal Zone Management Program."

Signature _____
DAVID C. PRESS
Lieutenant Colonel, U.S. Army
District Engineer

_____ Date



SECTION 404(B)(1) ALTERNATIVES ANALYSIS Kaunakakai Stream Environmental Restoration Project

1. General

The U.S. Environmental Protection Agency's (EPA) section 404(b)(1) guidelines (40 CFR 230) are the substantive environmental criteria used to evaluate discharges of dredged or fill material under section 404 of the Clean Water Act. These guidelines are applicable to the specification of disposal sites for discharges of dredged or fill material into waters of the United States through the regulatory and civil works programs of the U.S. Army Corps of Engineers. The purpose of the 404(b)(1) guidelines is to restore and maintain the chemical, physical, and biological integrity of waters of the United States through the control of discharges of dredged or fill material. The purpose of this alternatives analysis is to demonstrate that the proposed project modifications at Kaunakakai Stream comply with the guidelines.

The Kaunakakai Stream is an intermittent waterway that flows out to the ocean. The streambed is grassed throughout except for the area nearest the bridge that is ponded. The proposed project modifications involve excavation, and clearing and grubbing of vegetation to restore habitat for endangered, endemic water birds within the streambed. The earthwork involved does not constitute a discharge of dredged or fill material. The incidental fallback of material from the excavation operation within the streambed will not cause identifiable individual or cumulative adverse effect on the water or aquatic function.

2. Project Purpose

The basic project purpose is to create shallow ponds and mudflats.

The overall project purpose is to restore habitat for the endangered Hawaiian stilt that is endemic to the Hawaiian Islands and for the wetland ecosystem of Kaunakakai Stream. This is a water-dependent action.

3. Alternative Analysis

a. Alternative sites

Undertaken through authority of Section 1135(b) of the Water Resources Development Act of 1986, the proposed project will modify an existing completed Corps of Engineers water resources project. Although other Corps water resources projects are eligible under the 1135(b) program, this particular project has the best opportunity for habitat restoration on the island of Moloka'i.



b. Alternative designs

The no-project alternative would not meet the project goals and wetland values would continue to deteriorate.

Alternative pond layouts were considered but dismissed due to concerns on impacts to historic sites. The environmental assessment shows an alternative that uses the existing topography to create a linked pond system. A pond layout based on the State Historic Preservation Officer's interpretation of aerial photographs of historic ponds was also considered but could not be constructed with the available funds. Based on the funds available and to meet the objectives of the project, the ponds were scaled down considerably.

c. Summary

Based on the project objectives and funding constraints, the selected plan will create 2.75 acres of shallow ponds and mudflats.

The proposed project is water dependent and although alternative sites are available, the quantity and quality of habitat restoration would be unmatched by other sites. The objectives of the proposed project modifications are consistent with the purpose of the 404(b)(1) guidelines.

4. Factual Determinations

a. Physical substrate

The substrate in the affected area would not change except for the removal of the top level of soil. The construction period is a short period of time and the vegetation is expected to recover. It is anticipated that the construction activity will not impact water circulation, flushing, temperature or current patterns.

b. Water circulation, fluctuation, and salinity

There are no potable water sources at or downstream of the project site.

The proposed improvements will not interfere with tidal exchanges in the project area. Water and salinity and temperature will not be significantly impacted.

c. Suspended particulates/turbidity

The predominantly dry portions of the stream will be graded. However, there will be some work in the water particularly at the lower reaches that are tidally influenced. This



temporary activity is not expected to cause long-term impacts, and the creation of depressions within the streambed should provide a sink for sediments to settle out of the water column. The incidental fallback of material from the excavation operation will not cause an identifiable individual or cumulative adverse effect on any aquatic function.

d. Contaminant determination

The construction activity involves excavation and removal of material. No fill material will be brought to the site and hence, no contaminants will be introduced to the site.

e. Aquatic ecosystem and organisms

Construction and grading activities may temporarily displace vegetation and aquatic organisms. However, most of the affected species would be expected to move during construction. Upon completion of the proposed modifications the affected areas are expected to be recolonized and their habitat increased by creating open water and shallow ponds.

f. Proposed disposal site

The County Landfill has been designated the permanent disposal site. The excavated material will be taken first to the Contractor's storage area to dry out before being taken to the County Landfill. The Contractor's storage area is located outside the streambed and next to the County baseyard. There will be no return water flowing back into the stream, as there are no drainage pipes or culverts located within the contractor's storage yard.

g. Determination of cumulative and secondary effects on the aquatic ecosystem

The restoration of open water and wetlands would increase available aquatic habitat, and aquatic organisms would colonize those areas suitable to their life requirements.

5. Potential impacts on biological characteristics of the aquatic ecosystem

a. Threatened and endangered species

The project is intended to restore habitat for the endangered Hawaiian stilt (*Himantopus mexicanus knudseni*). While opportunistic stilt use the area following floods, most of the area does not have conditions suitable for year-round habitat. The project would provide 2.75 acres of year-round foraging habitat.

b. Fish, crustaceans, mollusks, and other aquatic organisms.



During vegetation removal in the open water areas, the bottom will be disturbed resulting in a temporary increase in local turbidity. Slow moving, bottom dwelling organisms may be damaged or exposed to predators. Finfish and mobile crustaceans may be temporarily displaced from discrete areas during construction. However, the restoration of open water will increase the amount of habitat available to aquatic organisms and they are expected to recolonize in the cleared areas.

6. Potential impacts on special aquatic sites

a. Sanctuaries and refuges

There are no sanctuary or refuges at or immediately adjacent to the project site. The proposed project is consistent with the U.S. Fish and Wildlife Service's *Hawaiian Waterbird Recovery Plan*, and Ducks Unlimited, Inc.'s *Hawaiian Islands Wetlands Conservation Plan*.

b. Wetlands and mudflats

A small area of the stream within the intertidal zone could be considered wetlands and/or mudflats. This area will be expanded to create additional wetlands and/or mudflats from existing fastlands.

c. Vegetated shallows

There are no vegetated shallows at the project site.

e. Coral reefs

There are no coral reefs within the project site. Waters from the stream discharge into the ocean where silt and sedimentation have already impacted the existing coral reefs. Thus the proposed project should have negligible impacts on coral reefs.

f. Riffle and pool complexes

Riffle and pool complexes do not exist at the project site. The proposed work will not affect any riffle and pool complexes.

7. Potential Impacts on Human Use Characteristics

Aesthetic resources may benefit from the project. The expected increase in habitat and wildlife should improve the community's interest and awareness of the natural values of estuaries and mudflats.

a. Municipal and private water supplies



Kaunakakai Stream and downstream areas are not used as a source of water for municipal or private water supply systems.

b. Recreational and commercial fisheries

The project area has no recreational and commercial fisheries and the project should have no impacts to these resources.

c. Water related recreation

The project area is not used for water related recreation and the project should have no impacts to these resources.

d. Aesthetics

The creation of permanent pools of water should enhance the aesthetics of the stream.

e. Parks, national and historical monuments, national seashores, wilderness areas, research sites and similar preserves

The Kaunakakai Range Lights Park is located adjacent to the project area. The project will have no impact to any of the listed resources.

8. Actions to Minimize Potential Adverse Effects

- Conduct excavation during the dry season when water level is lowest.
- Remove all excavated material from site.

9. Conclusion and Findings of Compliance

On the basis of the guidelines, the excavation operations are specified as complying with the requirements of these guidelines.



**EXECUTIVE ORDER 11988 ON FLOOD PLAIN MANAGEMENT
EVALUATION REPORT**

**Kaunakakai Stream Environmental Restoration Project
Kaunakakai, Island of Moloka'i, Hawai'i**

1. This evaluation report presents pertinent information required by Executive Order (EO) 11988, Flood Plain Management, dated 24 May 1997. The objective of EO 11988 is to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of the base (100-year) flood plain and to avoid direct and indirect support of development in the base flood plain where there is a practicable alternative. The EO requires federal agencies to:
 - a. Avoid development in the base flood plain unless it is the only practicable alternative;
 - b. Reduce the hazard and risk associated with floods;
 - c. Minimize the impact of floods on human safety, health, and welfare; and
 - d. Restore and preserve the natural and beneficial value of the base flood plain.
2. The project is located in the base flood plain as shown on FIRM panels 150003 0040C and 150003 0045B dated September 6, 1989. The proposed project site is located in zone A8 (area inundated by 100-year flood, base flood elevations ranging from 10 to 13 feet). The proposed project is located within the regulatory floodway.
3. Alternatives include the no-action plan and different sizes of areas for grading. The purpose of the proposed improvements is to restore habitat for the endangered Hawaiian Stilt (*Himantopus mexicanus knudseni*). There is no practicable alternative that would accomplish the project purpose.
4. To accomplish this purpose, the project must be located in the base flood plain. The public will be notified of the proposed project through a Public Notice.
5. Both beneficial and adverse impacts are expected to occur as a result of the project. Anticipated impacts are summarized and discussed in the environmental assessment.



HAZARDOUS, TOXIC, AND RADIOACTIVE WASTES (HTRW) ASSESSMENT

Kaunakakai Stream Environmental Restoration Project Kaunakakai, Island of Moloka'i, Hawai'i

Purpose: The study area is the existing Kaunakakai Stream Flood Control Project located at Kaunakakai, island of Moloka'i, Hawai'i. The Corps of Engineers is conducting a study for the restoration of habitat for the endangered Hawaiian *stilt* (*Himantopus mexicanus knudseni*) within the study area. The purpose of this assessment is to document the presence of or potential for HTRW contamination on lands in the study area or which could impact or be impacted by the proposed project.

Description of Study Area:

Coordination: The State Department of Health (DOH), and U.S. Environmental Protection Agency (USEPA) were requested to provide information on any known incidents of HTRW in the study area. By letter dated May 9, 1996, USEPA indicated that there were no hazardous waste licenses/permit actions, compliance actions or discoveries of illegal dumping or contamination in the project area. USEPA provided a list of underground storage tanks located within the watershed. The State Department of Health indicated in their June 20, 1996 letter that there were no reports of license, permit, citation or other information regarding HTRW at the site.

Visual Surveys: Corps of Engineers staff visited the site on several occasions. The Flood Control Project is also inspected annually by Corps and County personnel as part the Operations and Maintenance program. There has been no visible evidence of partially buried containers, discolored soils, seeping liquids, films on water, abnormal or dead vegetation, or any other signs of HTRW.

Assessment: Kaunakakai Stream is undeveloped and its surrounding areas are primarily residential. The County base yard and an existing gas station are located to the east of the project. There are no large commercial areas upstream of the project site.

During the construction of the original flood control project in the 1950's, the original streambed was excavated to increase the flow capacity of the stream. Since the completion of construction, no fill material has been placed and no other uses have been allowed which would introduce HTRW to the project area. As part of the operations and maintenance of the flood control project, the streambed is mowed regularly to prevent vegetation overgrowth.



The contacted agencies had no information that would indicate the potential for the presence of HTRW and there were no evidence of HTRW in visual surveys. Therefore, it is concluded that there is little potential for HTRW occurrence within the study area.



Kaunakakai Stream Environmental Restoration Project, Kaunakakai, Hawai'i

Final Environmental Assessment

U.S. Army Corp of Engineers, Honolulu District

Appendix C-Comments on Draft EA/ERR

**Summary of Comments on the Draft Environmental Assessment and
the Ecosystem Restoration Report (EA/ERR)**

Date	Commentor
Dec. 23, 2002	State of Hawai'i, Office of Environmental Quality Control

APPENDIX C - COMMENTS ON DRAFT EA/ERR



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETAMA STREET
SUITE 702
HONOLULU, HAWAII 96813
Telephone (808) 586-4185
Facsimile (808) 586-4186
Email: oeqc@health.state.hi.us

December 23, 2002

Mr. David Goode, Director
Department of Public Works and Waste Management
County of Maui
200 South High Street
Wailuku, Hawai'i 96793

Dear Mr. Goode:

Subject: Kaunakakai Stream Environmental Restoration Project

Thank you for the opportunity to review the subject document. We have the following comments.

1. Please consult with the Department of Health to get the latest information on mosquito transmitted diseases in Hawai'i and seek advice on mosquito control measures.
2. Please describe whether the proposed project is expected to impact cultural resources.
3. Please describe where the dredged spoils will be deposited. Is the dredged materials contaminated? If so, what mitigation measures are planned to prevent the transfer of contamination to another site.
4. Please describe the Hawaiian Stilt predator control plan for this project.
5. Please list all the permits required for this project.
6. Please discuss the findings and reasons supporting the FONSI determination based on the criteria listed in Hawai'i Administrative Rules section 11-200-12. See the attached example.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Genevieve Salmonson
Director

c: ACOE

DETERMINATION, FINDINGS AND REASONS FOR SUPPORTING DETERMINATION

SIGNIFICANCE CRITERIA: According to the Department of Health Rules (11-200-12), an applicant or agency must determine whether an action may have a significant impact on the environment, including all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short and long-term effects. In making the determination, the Rules establish "Significance Criteria" to be used as a basis for identifying whether significant environmental impact will occur. According to the Rules, an action shall be determined to have a significant impact on the environment if it meets any one of the following criteria:

- (1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;

The proposed project will not impact scenic views of the ocean or any ridge lines in the area. The visual character of the area will change from the current agricultural land to an improved 4-lane highway which is compatible with the surrounding land use plans and programs being implemented for the region. The highway corridor is comprised of "Prime" agricultural land which is an important resource. Development of drainage systems will follow established design standards to ensure the safe conveyance and discharge of storm runoff. In addition, the subject property is located outside of the County's Special Management Area (SMA).

As previously noted, no significant archaeological or historical sites are known to exist within the corridor. Should any archaeologically significant artifacts, bones, or other indicators of previous onsite activity be uncovered during the construction phases of development, their treatment will be conducted in strict compliance with the requirements of the Department of Land and Natural Resources.

- (2) Curtails the range of beneficial uses of the environment;

Although the subject property is suitable for agricultural uses, the land area adjoining the Mokulele Highway is naturally suited for transportation purposes due to its location proximate to an existing highway system. To return the site to a natural environmental condition is not practical from both an environmental and economic perspective.

- (3) Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS; and any revisions thereof and amendments thereto, court decisions, or executive orders;

The proposed development is consistent with the Environmental Policies established in Chapter 344, HRS, and the National Environmental Policy Act.

- (4) Substantially affects the economic or social welfare of the community or state;

The proposed project will provide a significant contribution to Maui's future population by providing residents with the opportunity to "live and work in harmony" in a high quality living environment. The proposed project is designed to support surrounding land use patterns, will not negatively or significantly alter existing residential areas, nor will unplanned population growth or its distribution be stimulated. The project's development is responding to projected population growth rather than contributing to new population growth by stimulating in-migration.

- (5) Substantially affects public health

Impacts to public health may be affected by air, noise, and water quality impacts, however, these will be insignificant or not detectable, especially when weighed against the positive economic, social, and quality of life implications associated with the project. Overall, air, noise, and traffic impacts will be significantly positive in terms of public health as compared to the "no action" alternative.

- (6) Involves substantial secondary impacts, such as population changes or effects on public facilities

Existing and planned large-scale housing development projects within Wailuku-Kahului and Kihei will contribute to the demand for public and private facilities and services. These

improvements will become necessary as the overall population of Maui grows and settlement patterns shift. However, the proposed project will not in itself generate new population growth, but provide needed infrastructure the area's present and future population.

In addition, new employment opportunities will generate new sources of direct and indirect revenue for individuals and the County of Maui by providing both temporary and long-term employment opportunities during the construction period. Indirect employment in a wide range of service related industries will also be created from construction during project development.

(7) Involves a substantial degradation of environmental quality;

The proposed development will utilize existing vacant agricultural land. With development of the proposed project, the addition of urban landscaping will significantly mitigate the visual impact of the development as viewed from outside the site while the overall design will complement background vistas.

Makai views from the subject property are available, however, they are not significant nor generally, available to the public in the property's present restricted condition.

(8) Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;

By planning now to address the future needs of the community and the State, improvement of the transportation system is consistent with the long term plans for Maui. No views will be obstructed or be visually incompatible with the surrounding area.

(9) Substantially affects a rare, threatened or endangered species or its habitat;

No endangered plant or animal species are located within the highway corridor.

(10) Detrimentially affects air or water quality or ambient noise levels;

Any possible impact to near-shore ecosystems resulting from surface runoff, will be mitigated by the establishment of on-site retention basins during the construction phases of development. After development, retention areas within the highway right-of-way will serve the same function to encourage recharge of the groundwater.

(11) Affects or is likely to suffer damage by being located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters.

Development of the property is compatible with the above criteria since there are not environmentally sensitive areas associated with the project and the physical character of the corridor has been previously disturbed by agricultural uses. As such, the property no longer reflects a "natural environment". Shoreline, valleys, or ridges will not be impacted by the development.

(12) Substantially affects scenic vistas and view planes identified in county or state plans or studies;

Due to topographical characteristics of the property, views of the area to be developed are generally not significant although they are visible. The majority of the proposed project will not be visible, except from higher elevations by the general public or from persons traveling along the highway.

(13) Requires substantial energy consumption.

The location of the proposed project is between Maui's major growth areas. This relationship will reduce travel times and energy consumption after project build out through efficiencies gained by the increased capacity of the highway.

**Kaunakakai Stream Environmental Restoration Project
Kaunakakai, Molokai, Hawaii**

**Subj: Responses to the State of Hawaii, Office of Environmental Quality Control
letter dated December 23, 2002**

1. Please consult with the Department of Health to get the latest information on mosquito-transmitted diseases in Hawai'i and seek advice on mosquito control measures.

Response:

An official with the Hawai'i State Department of Health's (DOH), Disease Outbreak Control Division indicated that there are two mosquito-transmitted diseases of interest to state officials, Dengue Fever and West Nile Disease. An outbreak of Dengue Fever occurred in late 2001 and was officially declared over on May 10, 2002. There have been no reported cases of West Nile Disease in the state, although it remains of interest due to its spread in the continental United States. Both illnesses are considered of low risk of occurrence within the state but DOH continues to monitor the situation through passive surveillance.

Officials from the County of Maui and the DOH have not been alerted to any mosquito problems at the project site. It is their belief that wildlife in the area, namely fish and water birds, are controlling the pest population that may exist. It is anticipated that an increase in the wildlife population that will be drawn to the area will continue to effectively control the mosquito population. Natural predation will be the control measure of choice, however, other control measures will be explored should predation alone prove ineffective. The DOH has indicated that there are pesticides available and approved by the EPA for use in wetlands and may be a viable option. Alternative control measures will be discussed with concerned resource agencies prior to implementation in order to address and alleviate any issues that may arise.

2. Please describe whether the proposed project is expected to impact cultural resources.

Response:

The project is not expected to impact cultural resources. This was affirmed in the State Historic Preservation Division's letter dated July 18, 1996. A copy of the letter was included as an attachment in Appendix F of the draft Environmental Assessment/Finding of No Significant Impact (EA/FNSI) for this project.

3. Please describe where the dredged spoils will be deposited. Is the dredged materials contaminated? If so, what mitigation measures are planned to prevent the transfer of contamination to another site.

Response:

The planned disposal site for the excavated material will be at the Naiwa Landfill and Recycle Moloka'i facility on the island of Moloka'i where it will be stored and used as daily cover. The U.S. Army Corp of Engineers (USACE) will have the material tested under direction from the County of Maui. The details of testing requirements are being discussed with County officials and will be conducted in accordance with accepted procedures and standards in order to determine its suitability for the intended use. Based upon past and current activities in the area, it is not anticipated that any mitigation measures will be required. Test results should confirm this. Mitigation measures shall be discussed with County and State officials should the results prove otherwise

4. Please describe the Hawai'ian Stilt predator control plan for this project.

Response:

As stated in the draft EA/FNSI, the intent of the project is to restore and create foraging area for the Hawai'ian Stilt and not to provide nesting areas for the bird. The Stilt has been observed feeding in the project area without incident. The presence of nests within the project area has not been reported. It is believed that the conditions are not conducive for nesting because of the lack of protective vegetative cover. The overgrowth of vegetation, which would normally provide them the cover they desire, is prohibited within the flood control project because it would negatively affect its function. The County periodically cuts back the vegetation as part of their ongoing flood control maintenance procedures. Reducing the vegetative cover will reduce the potential for nesting and, in turn, the potential for predatory incidents. It is anticipated that this trend will continue given the project's design and maintenance procedures. However, should the need arise for more direct predator control measures, the County has agreed that they will place traps in the area as necessary. The traps will be appropriate for use in a wetland area. The County may also seek the assistance of concerned volunteer groups that have expressed an interest in helping with the vegetation and trap maintenance.

5. Please list all the permits required for this project.

Response:

The list of all potential permits required for this project appears below. The need for some of these permits are in the process of being resolved with the action agencies.

- a. Stream Channel Alteration Permit
- b. NPDES General Permit for Stormwater Associated with Construction Activity
- c. NPDES General Permit for Construction Activity Dewatering

- d. Section 401 Water Quality Certification
- e. Section 404 Permit
- f. County of Maui Grading and Stockpiling Permit
- g. County of Maui, Special Management Area Permit
- h. U.S. Fish and Wildlife Service 2b Report
- i. Coastal Zone Management concurrence determination
- j. National Historic Protection Act, Section 106 consultation

6. Please discuss the findings and reasons supporting the FNSI determination based on the criteria listed in Hawai'i Administrative Rules (HAR) Section 11-200-12.

Response:

The responses to each of the items in HAR, Section 11-200-12 is as follows:

- (1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;

The project will be located entirely within an existing flood control project. It will involve the excavation of material from the bed of the flood control project in order to create tidally influenced ponds of varying depths. Excavation will create short-term impacts to the surrounding air and water environment during construction, which will be mitigated through best management practices (BMP's). No cumulative or long-term negative impacts are envisioned. Since the project's intent is to create additional year round, foraging area for the Stilt, a positive effect is anticipated that will lead towards increasing useable habitat for the endangered species. It would aid in their survival and still maintain beneficial use of the area for the human population. The State Historic Preservation Division has issued their opinion that there would be "no effect" to historical artifacts in the area.

- (2) Curtails the range of beneficial uses of the environment;

The project is located within an existing flood control project. The use of the area as a flood control project will not change and it will continue to serve as a mechanism to safeguard property in the vicinity from floodwater damage. The proposed project will enhance the use of the immediate area by providing an ecological function as additional foraging area for the endangered Hawai'ian Stilt. The project should not have any long-term effects on the environment or its current uses surrounding the site.

- (3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;

The proposed project does not conflict with the State's long-term environmental policies or goals. It seeks to enhance the existing environment and augment the survival of an

endangered species, thus, the project will further reinforce the State's long-term policies and goals regarding the environment.

- (4) Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;

As stated in the EA/FONSI, there are no negative effects associated with the economic welfare, social welfare and cultural practices of the community or the State. There is the potential for employment opportunities to the community during the period of construction. The project will not burden or change the social structure or culture of the surrounding community.

- (5) Substantially affects public health;

The proposed project will not have any long-term cumulative effects upon public health to the community in the surrounding area. There will be short-term effects upon the immediate air and water environments associated with construction activity that may create a nuisance to the community; however, long-term or cumulative effects are not anticipated. These effects will be mitigated through BMP's. The projected use of the excavated material will be as day cover at the landfill and is not expected to present a risk to public health. It is anticipated that the test results will confirm this and that it will be suitable for its intended use.

- (6) Involves substantial secondary impacts, such as population changes or effects on public facilities;

No secondary impacts are anticipated. The project will be confined to the boundaries of the existing flood control project and will only involve increasing the depth of a portion of it. This will not have any impacts upon the population base or existing uses for the surrounding community. The current use of the project site as a flood control project will not change. It will not result in any changes to the existing community structure or have any impact on other public facilities.

- (7) Involves a substantial degradation of environmental quality;

As stated in the EA/FNSI, any degradation to the environment will be short-term and associated primarily with construction activities. These impacts will be mitigated through construction BMP's.

- (8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

The project involves excavating the bottom of a portion of the existing flood control project in order to create foraging area for an endangered water bird. No further follow on actions are anticipated beyond the scope of this project. Maintenance of the project

endangered species, thus, the project will further reinforce the State's long-term policies and goals regarding the environment.

- (4) Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;

As stated in the EA/FONSI, there are no negative effects associated with the economic welfare, social welfare and cultural practices of the community or the State. There is the potential for employment opportunities to the community during the period of construction. The project will not burden or change the social structure or culture of the surrounding community.

- (5) Substantially affects public health;

The proposed project will not have any long-term cumulative effects upon public health to the community in the surrounding area. There will be short-term effects upon the immediate air and water environments associated with construction activity that may create a nuisance to the community; however, long-term or cumulative effects are not anticipated. These effects will be mitigated through BMP's. The projected use of the excavated material will be as day cover at the landfill and is not expected to present a risk to public health. It is anticipated that the test results will confirm this and that it will be suitable for its intended use.

- (6) Involves substantial secondary impacts, such as population changes or effects on public facilities;

No secondary impacts are anticipated. The project will be confined to the boundaries of the existing flood control project and will only involve increasing the depth of a portion of it. This will not have any impacts upon the population base or existing uses for the surrounding community. The current use of the project site as a flood control project will not change. It will not result in any changes to the existing community structure or have any impact on other public facilities.

- (7) Involves a substantial degradation of environmental quality;

As stated in the EA/FNSI, any degradation to the environment will be short-term and associated primarily with construction activities. These impacts will be mitigated through construction BMP's.

- (8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

The project involves excavating the bottom of a portion of the existing flood control project in order to create foraging area for an endangered water bird. No further follow on actions are anticipated beyond the scope of this project. Maintenance of the project

has been addressed in the EA/FNSI and may be enhanced through the cooperation of interested volunteer groups.

- (9) Substantially affects rare, threatened, or endangered species, or its habitat;

The project may have a transient affect on the endangered Hawaiian Stilt during the construction phase, however, the overall net effect will be to improve feeding opportunities for these birds and enhance their survivability.

- (10) Detrimentially affects air or water quality or ambient noise levels;

Affects to air and water quality as well as ambient noise levels are believed to be transient and will be limited to the construction phase. Increased noise level will be limited to those generated by earthmoving equipment and will be limited to normal daylight working hours. The effects on wildlife has been addressed in the EA/FNSI and reinforced by the findings and opinions issued in the U.S. Fish and Wildlife's Draft 2b Report.

- (11) Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;

Proposed project is entirely within an existing flood control project and will not affect its ability to function in this capacity. The flood control project was meant to help protect the surrounding population and properties from harm and damage due to floodwaters without being harmed in the process.

- (12) Substantially affects scenic vistas and view planes identified in state plans or studies; or,

Scenic vistas and view planes identified in State plans or studies are not associated with this project. Existing views will not be affected since the project only involves increasing the depth of the flood control project area, not its height. As stated in the EA/FONSI, the aesthetic value of the stream should be enhanced because of the additional open water vista that will be created.

- (13) Requires substantial energy consumption

The project will not draw upon nor impact any existing energy reserves, except for the fuel required to operate the machinery during construction.



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FORT SHAFTER, HAWAII 96858-5440

October 2, 2003

Environmental Technical Branch

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Thank you for your comments on the Draft Environmental Assessment and Finding of No Significant Impact for the Kaunakakai Stream Environmental Restoration Project. We reviewed your comments and submitted responses via electronic transmission to Mr. Jeyan Thirugnanam of your office for review. We would like to confirm Mr. Thirugnanam's satisfactory review of our responses with you that we received via electronic transmission on September 22, 2003.

As a cost-sharing partner for this project, a copy of this letter will be sent to Mr. David Goode, Director, Department of Public Works and Waste Management, County of Maui for informational purposes.

Should you have any additional questions regarding the responses or the project, please contact Mr. Kevin Nishimura of my office at 438-3832. Thank you for your time and assistance.

Sincerely,


James D. Bersson, P.E.
Chief, Engineering and
Construction Division

LINDA LINGLE
GOVERNOR OF HAWAII



GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186
E-mail: oeqc@health.state.hi.us

November 6, 2003

James L. Bersson, P.E.
Chief, Engineering and Construction Division
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawai'i 96858-5440

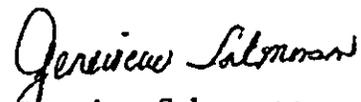
Dear Mr. Bersson:

Subject: Draft Environmental Assessment for the Kaunakakai Stream
Environmental Restoration Project

OEQC is satisfied with the Department of Army's responses to OEQC's comments on the Draft Environmental Assessment for the Kaunakakai Stream Environmental Restoration Project.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,


Genevieve Salmonson
Director



U.S. Army Corps of Engineers
Honolulu District

PUBLIC NOTICE

Date: November 23, 2002

Respond by: December 23, 2002

Reply to: District Engineer (CEPOH-PP-C)
U.S. Army Corps of Engineers
Building 230
Fort Shafter, Hawai'i 96858-5440

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NOTICE OF

1. Compliance with E.O. 11988, Action in Floodplain
2. Compliance with Section 404 of the Clean Water Act
3. Availability of DRAFT Environmental Assessment and DRAFT Findings of No Significant Impact

FOR KAUNAKAKAI STREAM ENVIRONMENTAL RESTORATION
PROJECT, KAUNAKAKAI, ISLAND OF MOLOKAI, HAWAII
Corps of Engineers Civil Works Authorization No. PWI 096136

1. APPLICANT: U.S. Army Corps of Engineers, Honolulu District, Building 230, Fort Shafter, Hawai'i 96858-5440 and the County of Maui Department of Public Works and Environmental Management, 200 South High St, Wailuku, Maui, Hawai'i 96793.

2. APPLICABLE STATUTORY AUTHORITIES: Section 1135 of the Water Resources Development Act of 1986 (WRDA 1986).

3. LOCATION OF PROPOSED ACTIVITY: Kaunakakai Stream, Kaunakakai, island of Moloka'i, Hawai'i.

4. DESCRIPTION OF PROPOSED ACTIVITY:

The U.S. Army Corps of Engineers, Honolulu District, and the County of Maui, Department of Public Works and Environmental Management (DPWEM) propose to modify the existing Corps of Engineers flood control project at Kaunakakai Stream to restore habitat for the endangered Hawaiian Stilt (*Himantopus mexicanus knudseni*) which is endemic to the Hawaiian Islands.

The proposed modifications would consist of removing vegetation and grading. The grading would bring surface elevations to or slightly below groundwater levels to restore shallow water feeding habitat. The project will create 2.75 acres of wetlands for the Hawaiian Stilt in the Kaunakakai Stream. The proposed grading of the channel near the existing levees will not involve any modification of the levee structures. The lowering of the surface elevations within



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the floodway will not impact, and will be consistent with, the flood control purpose of the original project.

5. IMPACTS OF THE PROPOSED ACTION ON THE ENVIRONMENT:

Construction activities will increase dust and vehicle exhaust emissions in the project area; however, these effects will be temporary and only affect the near vicinity of the project. The project will also require clearing, grubbing and grading for construction of the proposed modifications. Temporary dust barrier will be erected during construction for dust control. The contractor will be required to conform to State air quality standards during construction.

Noise levels will be temporarily increased during construction of the project by the operation of heavy construction equipment.

Grading and clearing and grubbing operations may affect water quality in the project area during construction of the project that includes the creation of ponds and mudflats.

To evaluate the adequacy of the pollution control measures and to document compliance with state water quality criteria, the Corps will monitor water quality. Monitoring will be conducted prior to construction, during construction, and following construction. Construction activity will be temporarily suspended if monitoring indicates that adverse impacts to receiving water are occurring as a result of construction. The construction contractor will be required to suspend the operation or operations until the condition is corrected. Additional control measures will be instituted should the existing measures prove insufficient.

6. IMPACTS ON ENDANGERED AND THREATENED SPECIES: The proposed improvements would improve the habitat of the marsh for the endangered Hawaiian Stilt. This project has been coordinated with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) the project's effects on listed, proposed and candidate endangered and threatened species. The proposed modifications are consistent with the U.S. Fish and Wildlife Service's *Hawaiian Waterbird Recovery Plan* as well as Ducks Unlimited, Inc.'s *Hawaiian Islands Wetlands Conservation Plan*.

7. IMPACTS ON ARCHAEOLOGICAL RESOURCES: The project has been coordinated with the State Historic Preservation Division. It is highly unlikely that historic properties exist within the project area, and the proposed undertaking should have "no effect" on significant historic sites.



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8. COMMENTS AND INQUIRIES: The Corps of Engineers is soliciting comments from the public, Federal, State, and local agencies and officials. Comments are used to determine the need for a public hearing and to determine the overall public interest in the proposed activity. Interested parties may submit in writing any comments that they may have on the proposed activity. Comments should be submitted to the Honolulu District no later than 30 days from the date of this notice. Written comments should be mailed to the address indicated in the letterhead and should make reference to Public Notice No. PWI 096136. Additional information may be obtained from:

Ms. Edwina Williams
Project Manager
U.S. Army Engineer District, Honolulu
Building 230
Fort Shafter, Hawai'i 96858-5440
Telephone: (808) 438-7053 Telefacsimile: (808) 438-3430
Email: Edwina.Williams@usace.army.mil

9. REQUEST FOR PUBLIC HEARING: Within 30 days from the date of this notice, any person may request, in writing, that the U.S. Army Corps of Engineers, Honolulu District hold a public hearing. Requests for public hearings shall state clearly, and concisely, the reasons and rationale for such requests.