KAUNAKAKAI STREAM ENVIRONMENTAL RESTORATION PROJECT

Kaunakakai, Island of Molokai, Hawaii

ECOSYSTEM RESTORATION REPORT
APPENDIX F
DRAFT ENVIRONMENTAL ASSESSMENT
&
FINDING OF NO SIGNIFICANT IMPACT

U.S. Army Corps of Engineers
Honolulu Engineer District

SUMMARY

Under the authority of Section 1135 of the Water Resources Development Act of 1986, as amended, the Corps of Engineers, Honolulu Engineer District (hereafter referred to as the "Corps") and the Maui County Department of Public Works and Waste Management (hereafter referred to as "DPWWM"), propose to perform environmental restoration at the Kaunakakai Stream Flood Control Project, Kaunakakai, island of Molokai, Hawaii. The proposed project would restore habitat for the endangered Hawaiian Stilt.

The proposed project features include the creation of 3.2 acres of shallow ponds and mudflats for Hawaiian Stilt habitat.

Planning for environmental restoration is affected by two separate, independent projects/activities in the vicinity of Kanuakakai Stream. First, the Corps' Kaunakakai Harbor, 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 will 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

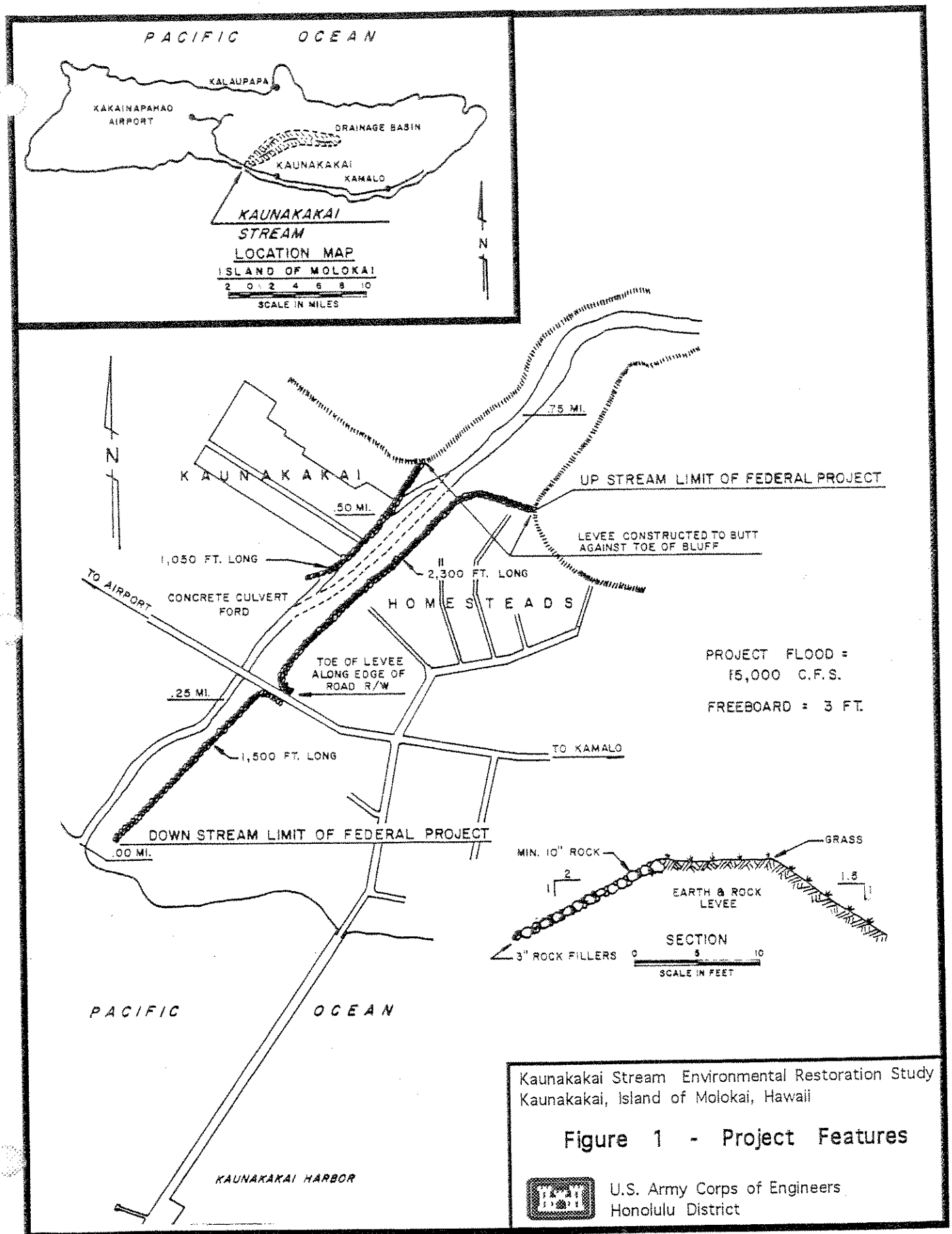
A. Purpose. The Corps of Engineers, Honolulu Engineer District (HED) and the County of Maui Department of Public Works and Waste Management (DPWWM) propose to improve 3.2 acres of streambed at the Kaunakakai Stream Flood Control Project (FCP). (See Figure 1.) The improvement of habitat within the FCP will benefit the endangered Hawaiian Stilt (*Himantopus mexicanus knudseni*) 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 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 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 Molokai 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 Molokai and throughout the State of Hawaii.

The restoration and management of all wetlands along the southern Molokai coastline are viewed as important elements in the recovery and maintenance of the Hawaiian Stilt, an endangered waterbird 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 acreage of wetlands in Hawaii 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 the Kaunakakai Stream Flood Control Project would contribute toward the recovery and maintenance of wetlands determined to be core habitat by key resource agencies.

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.

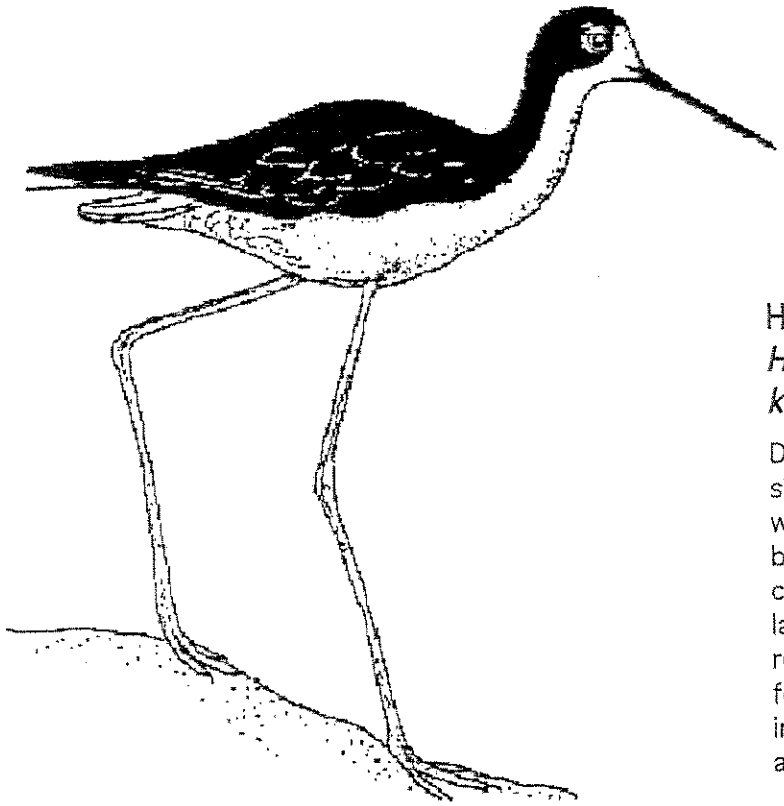


Kaunakakai Stream Environmental Restoration Study
Kaunakakai, Island of Molokai, Hawaii

Figure 1 - Project Features

U.S. Army Corps of Engineers
Honolulu District

5/96 BYC\Kaunakakai\proj features



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

5/96 BYC\Stilt.CVS

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 Hawaii, 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 semipermanent mudflats and shallow water
- Tidal influence
- Water depths
- Mosquito control

1) **Create semipermanent 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.** According to Naval entomologists, there are no mosquito transmitted diseases in Hawaii. Mosquitoes can create a nuisance problem for residents. If there are any waves (common in larger pools of water) or water is brackish, mosquitoes cannot breed. Small fish caught downstream can be transported to the project area to control mosquitoes.

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 500 feet. The excavation will remove about 8,000 cubic yards of material and affect about 1.3 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 500 feet upstream of the Maunaloa Highway and extend another 400 feet upstream. The excavation of Pond B will displace about 6,000 cubic yards of material and encompass about 1.1 acres of streambed. The totals for this alternative are 2.4 acres of streambed affected and 14,000 cubic yards of material excavated. While Pond A will be perennially wet, Pond B should be wet following run off periods and/ or high tides.

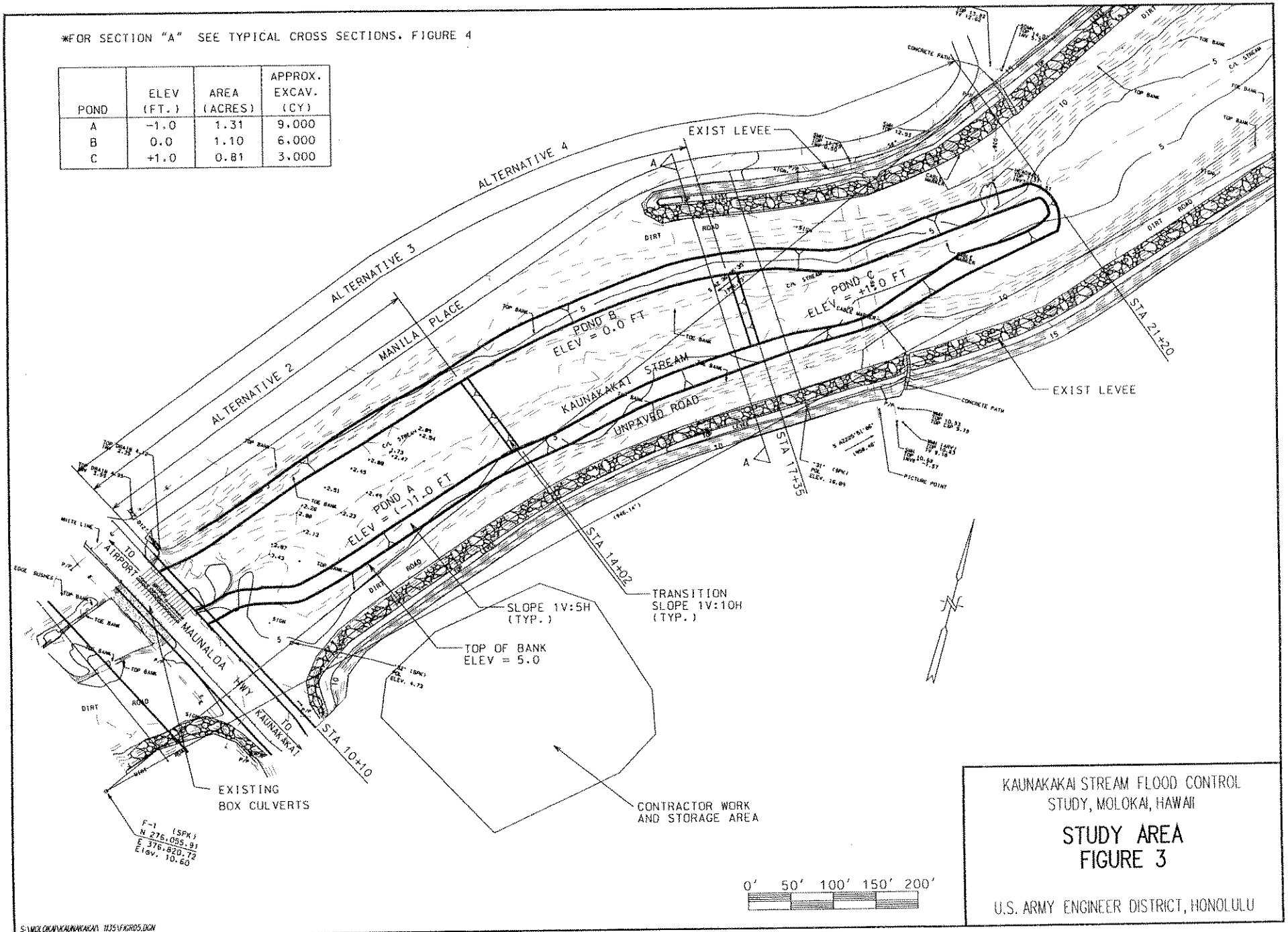
Alternative 4 - Pond A + Pond B + Pond C. Ponds A and B will be supplemented by Pond C in this alternative. Pond C will be adjacent to Pond B starting about 900 feet from the Maunaloa Highway and extending about 300 feet further upstream. This segment of the stream will be excavated to a depth of +1 foot above mean sea level. Approximately 3,000 cubic yards of material will be removed from about 0.8 acres of streambed for Pond C. Alternative 4 will involve 3.2 acres of streambed and remove approximately 17,000 cubic yards of material. Like Pond B, Pond C will be wet following run-off 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.

D. Recommended Plan. An incremental cost analysis (See Appendix A of the Ecosystem Restoration Report) was conducted to determine changes in the 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 B and Pond A in place.

*FOR SECTION "A" SEE TYPICAL CROSS SECTIONS. FIGURE 4

POND	ELEV (FT.)	AREA (ACRES)	APPROX. EXCAV. (CY)
A	-1.0	1.31	9,000
B	0.0	1.10	6,000
C	+1.0	0.81	3,000



KAUNAKAKAI STREAM FLOOD CONTROL STUDY, MOLOKAI, HAWAII

STUDY AREA
FIGURE 3

U.S. ARMY ENGINEER DISTRICT, HONOLULU

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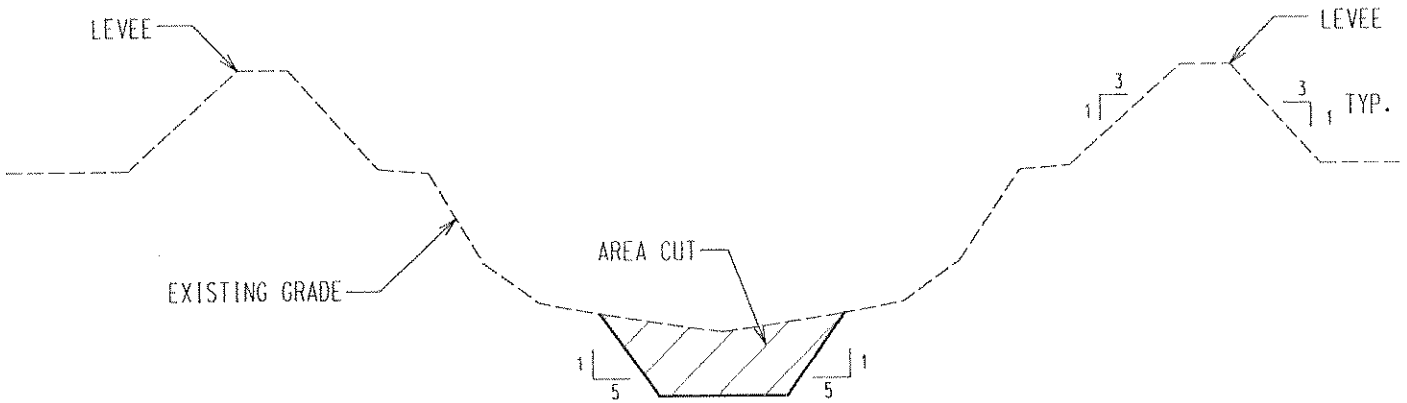


SECTION "A" (TYPICAL CROSS SECTION)

NOT TO SCALE

KAUNAKAKAI STREAM FLOOD CONTROL
STUDY, MOLOKAI, HAWAII

TYPICAL CROSS SECTION
FIGURE 4

U.S. ARMY ENGINEER DISTRICT, HONOLULU

\MOLOKAI\KAUNAKAKAI\ 1135\DETL01.DGN

Based on the habitat goals, cost estimate, and incremental cost analysis, the recommended plan is Alternative 4 which will create 3.2 acres of shallow ponds and mudflats.

Upon completion of construction, the Corps will turn the project over to the project sponsor to operate, maintain, repair, replace, and rehabilitate. The Corps 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 Corps, in coordination with DPWWM. 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 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 - Molokai 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 Hawaii.

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

Geology - Molokai is made up of three volcanic formations: West Molokai Dome, the Hoolehua Plain, and East Molokai 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 Molokai. The south shore of Molokai 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 DPWWM 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 Stilt throughout the state. The Hawaiian Stilt is a wading bird which frequents mudflats and shallow open water. The stilt 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 Hawaii than any other part of the United States. Of the remaining 40 species endemic to Hawaii, 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 listing on the National Register of Historic Places. The proposed waterbird 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 Department of Health. In the vicinity of the project, Kaunakakai Stream is primarily dry except following periods of heavy runoff. The first 50 to 100 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 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 Molokai's economy. Along 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 Molokai'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 Molokai, 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 fishtraps 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 alii (chiefs) were the sovereign owners of all land in Hawaii. The alii's ahupuaa (land unit) usually extended from the mountain to the sea. Po'alima was a day when the common people worked on taro loi and fishponds for their alii. In addition to the distribution of lands, the Great Mahele led to the downfall of the alii 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 which 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 Hawaii were imported from Florida by the American Sugar Company in 1902. The sugar company planted *Rhizophora mangle* on Molokai to prevent coastal erosion. A second shipment of mangroves arrived in 1922 from the Philippine's Insular Bureau of Forestry. The seedlings included *Rhizophora mucronata, Brugiuera gymnorhiza*, and *Sonneratia caseolaris* (ref. Walsh, 1968). Since that time, the mangroves have spread throughout the Hawaiian Islands. On Molokai, the mangroves have aggressively invaded and dominated many shoreline areas choking fishponds and stream mouths.

The State of Hawaii'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 is 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. The project is within an active stream which has been restricted from development by the Corps FCP. 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. The State Department of Health had no reports of license, permit, violation, enforcement nor litigation regarding HTRW at the site.

CHAPTER 4 - ENVIRONMENTAL CONSEQUENCES

A. General. The recommended plan will alter 3.2 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 waterbirds provided that sedimentation and vegetation do not fill in the low lying areas.

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

Plans and specifications for this project will 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 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 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. Waste water 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 depths 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 will likely be used as fill for other construction projects. The contractor for this project will be required to prepare a plan on the handling and disposal of solid wastes as part of the Environmental Protection Plan.

K. Socio-Economic. The no-project alternative will have no impact. The recommended plan 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 mudflats and wetlands.

L. Recreational Opportunities. The no-project and the recommended alternatives 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
United States Environmental Protection Agency, Region IX

State Agencies:

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

County Agencies:

City and County of Maui, Department of Public Works

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
HED to National Marine Fisheries Service (NMFS)	March 26, 1996	Request for information or input to project.
Telephone conversation John Naughton of 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	March 26, 1996	Request for information on cultural and historic properties.
State Historic Preservation Officer 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 to HED	May 9, 1996	No information on hazardous waste license/permit actions, compliance actions, dumping, or past contamination at the project site.
HED to State of Hawaii, Department of Health	March 26, 1996	Request for information on HTRW.
State of Hawaii, Department of Health to HED	June 20, 1996	No environmental permits, licenses, citations, or other information pertaining to site.

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

REPLY TO ATTENTION OF

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 (USFWS) input into 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 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 3108
BOX 50088
HONOLULU, HAWAII 96850
PHONE: (808) 541-3441 FAX: (808) 541-3470

In Reply Refer To: HMM

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 (HED) proposes to restore and enhance shallow water feeding habitat for the endangered Hawaiian stilt (*Himantopus mexicanus knudseni*) 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 (*Paspalum 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 hoactli*) 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 HED 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

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

REPLY TO
ATTENTION OF

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 96858-5440

REPLY TO
ATTENTION OF

March 26, 1996

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

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/SWO33:ETN

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
FT. SHAFTER, HAWAII 96858-5440

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

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

DEPUTY
GILBERT COLOMA-AGARAN

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

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

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

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,

Gilbert S. Coloma-Agaran

for Michael D. Wilson, Chairperson and
State Historic Preservation Officer

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

REPLY TO ATTENTION OF

March 26, 1996

Planning and Operations Division

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

Copy Furnished (Without Enclosures):

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

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 Blevins

Mary Blevins
Environmental Scientist

enc

Leaking UST sites in Kaunakakai, with site codes

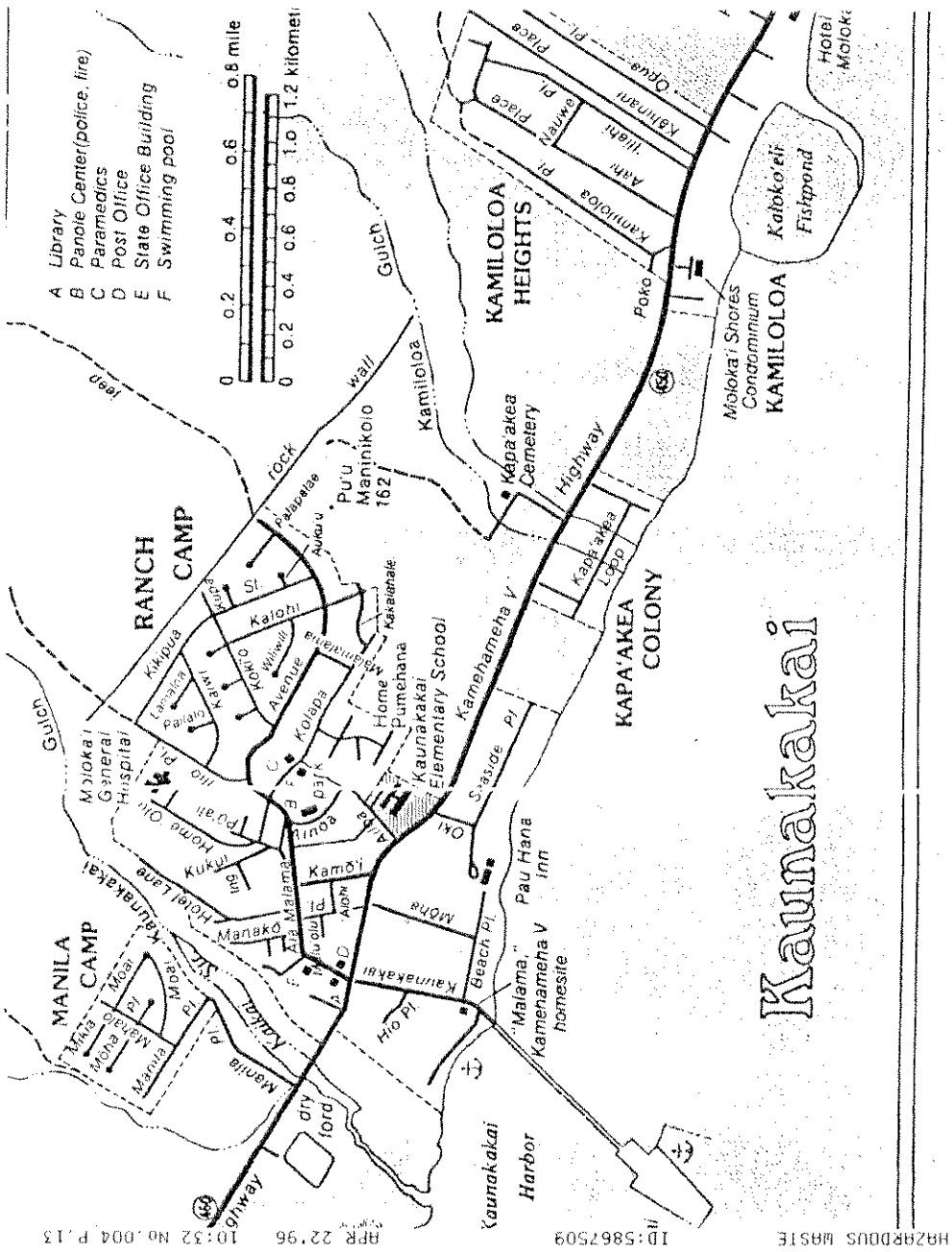
Facility Leak ID	Facility Location Name	Facility Location Address	Site Code
9-303605 950044	MOLOKAI RANCH	KAUNAKAKAI PLACE	60
-			10
-			102
-			30
9-302990 950005	MOLOKAI FIRE STATION #4	130 AINOA ST	40
9-302429 910085	MOLOKAI RANCH, LTD	WHARF ROAD	40
-			100
9-302217 940187	BOBO'S AUTO SERVICE	80 ALA MALAMA	40

4 Records Processed

All UST sites in Kaunakakai

Facility ID	Owner Name and Address	Location Name and Address
9-302741	GLENN & CATHLEEN SAKAMOTO P.O. BOX 1706 KAUNAKAKAI, HI 96748	GLENN & CATHLEEN SAKAMOTO P.O. BOX 1706 1127 KAM HWY KAUNAKAKAI, HI 96748
9-302901	DUVAUCHELLE'S, INC. P.O. BOX 98 KAUNAKAKAI, HI 96748	DUVAUCHELLE REALTY P.O. BOX 98 KAUNAKAKAI, HI 96748
9-302939	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. PAUAHI TOWER SUITE 1000 HONOLULU, HI 96813	PAWLINS CHEVRON SERVICE P.O. BOX 346 KAUNAKAKAI, HI 96748
9-302990	MOLOKAI FIRE STATION #4 130 AINOA ST KAUNAKAKAI, HI 96748	MOLOKAI FIRE STATION #4 130 AINOA ST KAUNAKAKAI, HI 96748
9-303005	MOLOKAI RANCH KAUNAKAKAI PLACE KAUNAKAKAI, HI 96748	MOLOKAI RANCH KAUNAKAKAI PLACE KAUNAKAKAI, HI 96748
9-302217	TOM YOSHINAGA P.O. BOX 57 KAUNAKAKAI, HI 96748	BOBO'S AUTO SERVICE 80 ALA MALAMA 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. HIGH STREET WAILUKU, HI 96793	COUNTY OF MAUI KAM V HWY KAUNAKAKAI, HI 96748
9-300546	GTE HAWAIIAN TELEPHONE CO., INC 1177 BISHOP ST. HONOLULU, HI 96813	KAUNAKAKAI CENTRAL OFFICE KAM V HWY KAUNAKAKAI, HI 96748
9-302429	MOLOKAI RANCH, LTD P.O. BOX 259 MAUNALOA, HI 96770	MOLOKAI RANCH, LTD WHARF ROAD KAUNAKAKAI, HI 96748
9-302439	MAUI ELECTRIC CO., INC. P.O. BOX 2750 HONOLULU, HI 96840-0001	INTERISLAND COMMUNICATION SYSTEM PUUNANA, MOLOKAI TMK 5-2-01:4 KAUNAKAKAI, HI 96748
9-302611	DEPARTMENT OF LAND AND NATURAL R 54 SOUTH HIGH ST, ROOM 101 WAILUKU, HI 96793	AVIS RENT A CAR MAUNALOA HWY & 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 96858-5440

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 3378
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

BENJAMIN J. CAYETANO

LAWRENCE MIKE

STATE OF HAWAII
DEPARTMENT OF HEALTH
P O BOX 3378
HONOLULU HAWAII 96801

June 20, 1996

96-054/epo

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.

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

PP-J

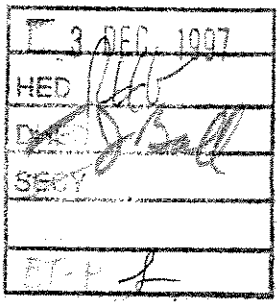
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

BENJAMIN J. CAYETA
GOVERN
SEIJI F. NA
DIRECT
BRADLEY J. MOSSM
DEPUTY DIRECT
RICK EGG
DIRECTOR, OFFICE OF PLANN

OFFICE OF PLANNING
235 South Beretania Street, 6th Flr., Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Tel.: (808) 587-28
Fax: (808) 587-28

Ref. No. P-7075



November 25, 1997

Lt. Col. Ralph H. Graves
District Engineer
Department of the Army
U.S. Army Engineer District, Honolulu
Ft. Shafter, Hawaii 96858-5440

Dear Colonel Graves:

Subject: Hawaii Coastal Zone Management (CZM) Program Federal Consistency Review for U.S. Army Corps of Engineers Proposal to Restore Hawaiian Stilt Habitat in the Kaunakakai Stream Flood Control Project, Molokai

The proposal by the U.S. Army Corps of Engineers to restore endangered Hawaiian Stilt habitat in the Kaunakakai Stream Flood Control Project, Molokai, has been reviewed for consistency with Hawaii's CZM Program. We support your efforts to restore endangered water bird habitat and, thus, concur with your CZM assessment and finding that the activity is consistent to the maximum extent practicable based on the following conditions.

1. The project shall be in compliance with all requirements of the Commission on Water Resource Management, Department of Land and Natural Resources.

2. The project shall be in compliance with State water quality standards and requirements of the Department of Health. The Corps of Engineers shall evaluate whether a Section 401 Water Quality Certification is applicable to the project.

3. The project proposal does not extend south of Kam V Highway which is within the State Conservation District.

CZM consistency approval is not an endorsement of the project nor does it convey approval with any other regulations administered by any State or County agency. Thank you for your cooperation in complying with Hawaii's CZM Program. If you have any questions, please call John Nakagawa of our CZM Program at 587-2878.

Sincerely,

Rick Egged
Director
Office of Planning

cc: U.S. Army Corps of Engineers, Operations Branch
U.S. National Marine Fisheries Service, Pacific Area Office
U.S. Fish and Wildlife Service, Pacific Islands Ecoregion
Department of Health, Clean Water Branch
Department of Land & Natural Resources,
Planning & Technical Services Branch
Division of Forestry and Wildlife
Commission on Water Resource Management
Planning Department, County of Maui

Summary of U.S. Fish and Wildlife Service Documents

1. Informal Consultation Under Section 7 of the Endangered Species Act
2. Draft Fish and Wildlife Coordination Act Report

APPENDIX B - U.S. FISH AND WILDLIFE SERVICE DOCUMENTS

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

In Reply Refer to: KAJ

MAY 3 1999

Lt. Colonel Wally Walters
Honolulu Engineer District
U.S. Army Corps of Engineers
Ft. Shafter, HI 96858-5440

Re: Draft Fish and Wildlife Coordination Act Report and Informal Consultation under Section 7 of the Endangered Species Act for Kaunakakai Stream Environmental Restoration Project, Molokai, Hawaii.

Dear Lieutenant Colonel Walters:

Enclosed is the U.S. Fish and Wildlife Service's (Service) draft report to the Army Corps of Engineers (Corps) concerning the proposed Kaunakakai Stream Environmental Restoration Project, Molokai, Hawaii. This report has been prepared in accordance with section 2(b) 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 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.

The purpose of this draft FWCA report is to document the major fish and wildlife resources at the proposed project site and to ensure that the conservation of fish and wildlife resources receives equal consideration with other project objectives. In this case, the Kaunakakai Stream Environmental Restoration Project funded under section 1135 of the Water Resources Development Act of 1986, as amended, is designed to improve the quality of habitat for the federally endangered Hawaiian stilt (*Himantopus mexicanus knudseni*).

The report includes a description of the significant fish and wildlife resources at the project site, an evaluation of potential impacts associated with the proposed project design alternatives, and recommendations to avoid and minimize impacts to fish and wildlife resources. Copies of the draft report are being sent to the U.S. Environmental Protection Agency (USEPA), Hawaii Department of Land and Natural Resources, Hawaii Division of Forestry and Wildlife, Hawaii Division of Aquatic Resources, Hawaii Coastal Zone Management Program, Hawaii Clean Water Branch, and the Hawaii office of Ducks Unlimited, Inc., for their review and comment.

This letter also responds to your December 18, 1998, request for Service concurrence under section 7 of the U.S. Endangered Species Act of 1973, as amended (Act), that the proposed Kaunakakai Stream Environmental Restoration Project is not likely to adversely affect the

federally listed Hawaiian stilt. Based on a conference call between the Service and the Corps on January 13, 1999, we agreed that our response would be delayed past our normal 30-day time frame and transmitted to you with the draft FWCA report.

According to the information provided in your letter and in the Draft Ecosystem Restoration Report and Environmental Assessment (DERREA), the Corps proposes to restore foraging habitat for the Hawaiian stilt by removing sediments in the streambed and creating semipermanent mudflat and shallow, open-water habitat. Sediment removal will be done by bulldozer and take approximately six months to complete. The work will be performed during the dry season. Further details of the construction and maintenance activities are contained in the DERREA.

The Service believes that the proposed project will be a temporary nuisance to Hawaiian stilts at the project site. During construction, the birds will be discouraged from foraging at the site and will likely fly to other locations to feed. Stilt nesting at the site is not expected to occur and significant impacts to fish and wildlife resources are not anticipated. In view of this, the Service concurs that the proposed project is not likely to adversely affect the Hawaiian stilt. Based on this determination, we believe that the requirements of section 7 of the Act have been satisfied. However, the Corps' obligations under section 7 of the Act must be reconsidered if (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner that was not considered in this assessment, or (3) a new species is listed or critical habitat determined that may be affected by the identified action.

The Service appreciates the opportunity to provide you with the draft FWCA report and we appreciate your concern for endangered species. If you have any questions regarding either the report or this letter, please contact Fish and Wildlife Biologist Karen "Kitti" Jensen (phone: 808/541-3441; fax: 808/541-3470).

Sincerely,

Robert P. Smith
Pacific Islands Manager

Enclosure

cc: USEPA-Region IX, Honolulu
CZMP, Hawaii
DLNR, Hawaii
DOFAW, Hawaii
DAR, Hawaii
CWB, Hawaii
DPWWM, Maui

DRAFT
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 Office
Honolulu, Hawaii

Prepared for

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

April 1999

TABLE OF CONTENTS

LIST OF FIGURES

INTRODUCTION

Authority, Purpose and Scope

This is the U.S. Fish and Wildlife Service's (Service) draft 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 Waste Management (DPWWM), to restore habitat for the federally endangered Hawaiian stilt (*Himantopus mexicanus knudseni*) in Kaunakakai Stream. This draft report has been prepared under the authority of section 2(b) 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 U.S. Department of the Interior 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 major 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 fish and wildlife resources at the proposed project site, an assessment of potential impacts associated with the proposed project design alternatives, and recommendations for fish and wildlife mitigation measures.

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 the FWCA report was provided to the Corps in May 1996.

The purpose of the proposed project is to improve 3.2 acres of streambed at the site of the Kaunakakai Stream Flood Control. The purpose or 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) and the National Park Service (NPS). Concerns expressed by biologists with regard to the project have been incorporated into this draft 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 office of Ducks Unlimited, Inc.

DESCRIPTION OF THE PROJECT AREA

Molokai is in the southeastern portion of the Hawaiian archipelago, juxtaposed between the islands of Oahu and Maui, with the island of Lanai to the south (Figure 1, page 11). Molokai is the fifth largest island in the archipelago, being approximately 61 kilometers (km) (38 miles [mi]) long, up to 17 km (10 mi) wide, and about 688 square km (266 square mi) in area (Juvik and Juvik 1998). Three shield volcanoes make up most of the land mass of Molokai: West Molokai Mountain, East Molokai Mountain, and a volcano that formed Kalaupapa Peninsula. The island can be divided into three major sections: the West Molokai section, comprising West Molokai Mountain; the East Molokai section incorporating East Molokai Mountain and Kalaupapa Peninsula; and the central Molokai section or Hoolehua Plain formed between the two large mountain masses. The taller and larger East Molokai Mountain rises 1,813 meters (4,980 feet [ft]) above sea level and comprises roughly 50 percent of the island's land area (Juvik and Juvik 1998).

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 habitat in the Service's latest recovery plan for endangered Hawaiian waterbirds, including the Hawaiian stilt (Service 1994).

Planning for the proposed project is affected by two previous Corps projects that occurred in the vicinity of 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. In addition, lands adjacent to the east levee of the Kaunakakai Stream Flood Control were utilized as a dewatering and disposal area for maintenance dredging of the harbor in 1973. The Corps may choose to again use these lands should the need arise for additional dredging of the harbor. Figure 2 (page 12) shows the upstream and downstream limits of the proposed Federal project.

Prior Fish and Wildlife Service Studies and Reports

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 to make observations on the potential for project-related impacts to Hawaiian stilts.

In February 1999, the Service visited the proposed project site. The purpose of this visit was to see if any changes in habitat had occurred since December 1997.

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. Specific Service planning objectives are to 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 the proposed benefits of 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.

Under the authority of the Endangered Species Act (ESA), the U.S. Department of Interior and the Department of Commerce share responsibility for the conservation, protection, and recovery of federally-listed endangered and threatened species. Authority to conduct consultations has been delegated by the Secretary of the Interior to the Director of the Service and by the Secretary of Commerce to the Assistant Administrator for Fisheries of the National Oceanic Atmospheric Administration (NOAA). Section 7(a)(2) of the ESA requires federal agencies, in consultation with and with the assistance of the Service or the National Marine Fisheries Service (NMFS), to insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitats. The Biological Opinion is the document that states the opinion of the Service or the NMFS as to whether the Federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

The Service's Mitigation Policy (Service 1981) outlines internal 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. 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.

The Hawaiian stilt was selected as the evaluation species for the wetland habitats that may be affected by the proposed project. Hawaiian stilts use a variety of aquatic habitats but are generally limited by water depth and vegetation cover. This species requires early successional marshlands with a water depth that is less than 15 centimeters (6 inches), perennial vegetation that is limited and low-growing, or exposed tidal flats (Service 1994). Kaunakakai Stream forms a series of shallow, brackish and fresh water 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, the Service does not anticipate any long-term loss of in-kind habitat values. However, there may be unavoidable short-term, indirect impacts from the proposed project. The Service will provide comments on ways to avoid or minimize these impacts.

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 TNCH 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 existing stream habitat and its use by stilts and other bird species were taken.

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. Observations and other notes were recorded in an all-weather field book. 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:

There is a levee that delineates the proposed project site. 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, 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 1999, the pools looked similar to their appearance in 1997. Currently, 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. 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 intermittently enhancing their 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 the Flood Control Project. Mowing alone will not adequately adjust topographic elevations needed to maintain the existing habitat. Without periodic stream bed regrading and culvert clearing, it is expected that sediments would continue to accumulate in the stream bed over time, reducing the amount of available foraging habitat for Hawaiian stilts and other waterbirds.

DESCRIPTION OF ALTERNATIVES EVALUATED

Four alternative actions are identified by the Corps in their Ecosystem Restoration Report for the proposed project. The objectives of these planning alternatives are to increase foraging habitat for the Hawaiian stilt. Figure 3 (page 13) shows the different alternatives under consideration. A typical cross section for the alternatives is depicted in Figure 4 (page 14). Details of these alternative actions are summarized below.

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 9,000 cubic yards (yd^3) 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 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 15,000 yd^3 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 yd^3 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 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 yds^3 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 18,000 yd^3 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.

PROJECT IMPACTS

Terrestrial Resources

Alternatives 2, 3, and 4 include regrading the stream bed 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 and other species.

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 due to the lack of a plan that would provide for adequate maintenance of the restored wetlands. Ideally, this plan should include periodic stream bed regrading, culvert clearing, and appropriate predator controls, such as fencing. Regrading and clearing activities are required to maintain restored habitat at project design depths and elevations within the stream bed. Fencing to reduce disturbance to Hawaiian stilts, is especially important since 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

The proposed project will neither benefit nor hinder the aquatic resources in the proposed project area. However, project-related construction and clearing activities may temporarily increase downstream turbidity and siltation, which would adversely 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 or improved, (3) the action does not lead to increased sedimentation of existing stream habitats, and (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. 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, the Service recommends that the following measures be incorporated into the design and construction of the selected project alternative:

1) A trained biologist will be present at the project site during the clearing of vegetation to provide assistance to the contractor in preventing any disturbances to waterbirds that may be present along the stream banks;

2) Pond construction will be scheduled to occur during the driest time of the year, 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;

3) Should any migratory shorebird, waterfowl, or resident, native bird be 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 the 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;

4) Should any migratory or endangered birds be killed in relation to proposed project activities, those activities are to cease pending evaluation of the control technique by the Service. A written report must be provided within 48 hours, as specified above;

5) No construction materials will be stockpiled in the aquatic environment;

6) All construction-related materials will be placed or stored in ways to avoid or minimize disturbance to the aquatic environment;

7) All construction-related materials will be free of pollutants;

8) No contamination of the aquatic environment (trash or debris disposal etc.) will result from construction activities;

9) 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;

10) 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

11) Dewatering of excavated materials will be done in a manner that will minimize the reintroduction of silt into the aquatic environment.

Because the Corps will be turning over the entire project to the DPWWM to maintain after construction, the Service strongly recommends continued coordination among the Corps, the DPWWM, and the Service to facilitate the DPWWM's ability to provide long-term maintenance at the site. Without long-term maintenance of vegetation growth and stream bed contours, as well as predator controls, the value of this project is likely to be lost over a relatively short period of time. Accordingly, the Service recommends that a long-term maintenance plan 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 selected evaluation species, the Hawaiian stilt (Service 1994). Although Kaunakakai Stream is disturbed and channelized, it continues to provide high to medium value foraging habitat for the Hawaiian stilt. The Service considers 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. Therefore, the project is expected to meet the requirements of no net loss of in-kind habitat values and actually provide a beneficial increase in habitat for wildlife in the area. 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, (2) water quality within the stream is maintained or improved, (3) the action does not lead to increased sedimentation of existing stream habitats, and (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.

The Service's primary concern with the proposed project includes the lack of a firm commitment to maintain the restored stilt habitat over the long term. Without a long-term maintenance strategy in place, the Service is 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 periodic stream bed regrading and culvert clearing, as well as predator controls such as fencing, be developed. The Service is willing to work with the Corps and DPWWM to develop an acceptable plan.

Finally, the Service believes 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 adverse impacts to fish and wildlife resources. Provided that these recommendations are made part of the project and are included in the Final EA, the Service would not object to implementation of the Preferred Alternative.

REFERENCES CITED

Juvik, S.P. and J.O. Juvik (eds.). 1998. Atlas of Hawaii (3rd ed.). University of Hawaii Press, Honolulu. 333 pp.

U.S. Army Corps of Engineers. 1999. Kaunakakai Stream Environmental Restoration Project, Kaunakakai, Island of Molokai, Hawaii. Draft Environmental Assessment & Finding of No Significant Impact. U.S. Army corps of Engineers, Pacific Ocean Division. 10 pp.

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. 1994. 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.

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.

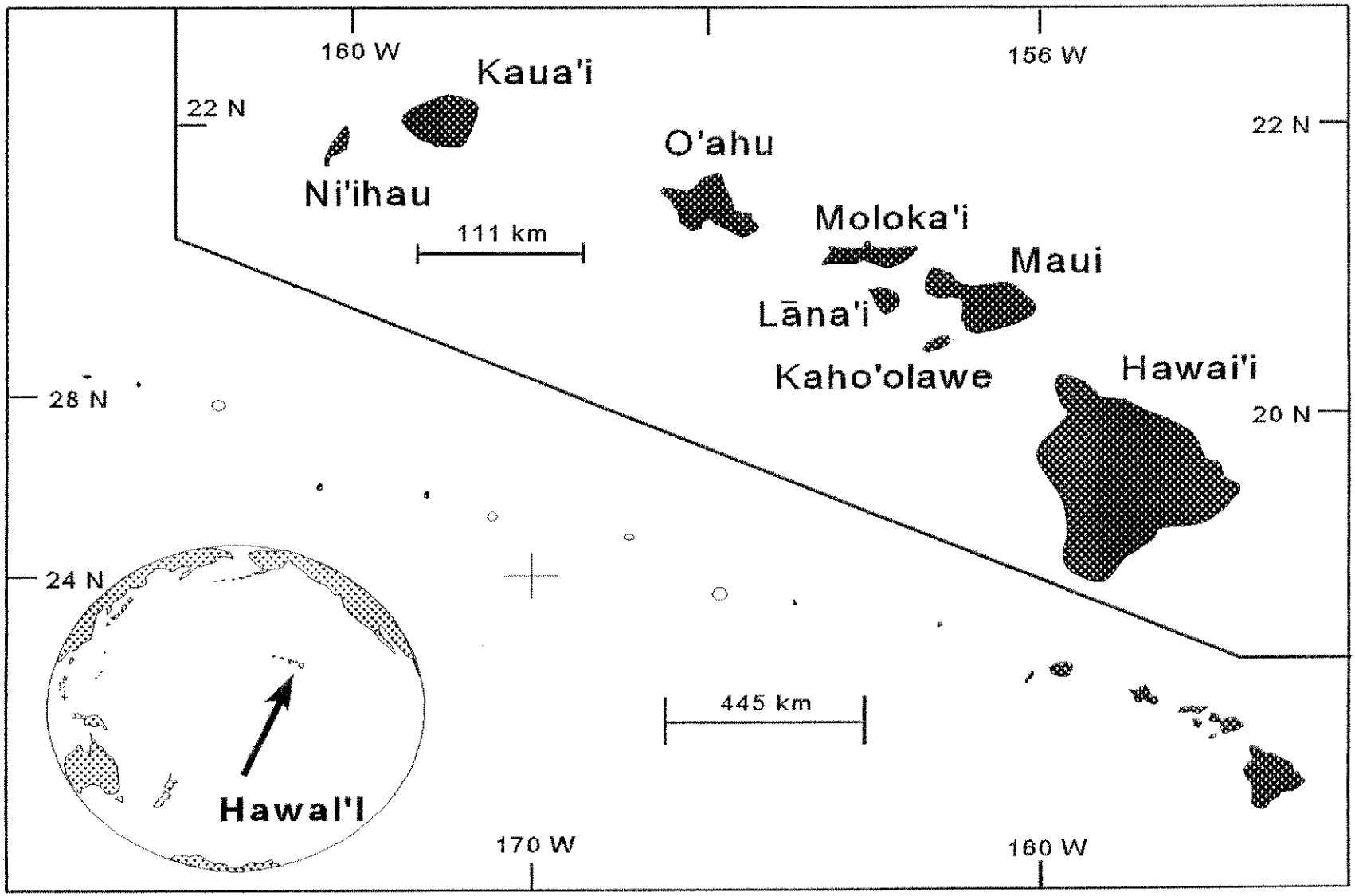


Figure 1: The Island of Molokai in the Hawaiian Archipelago

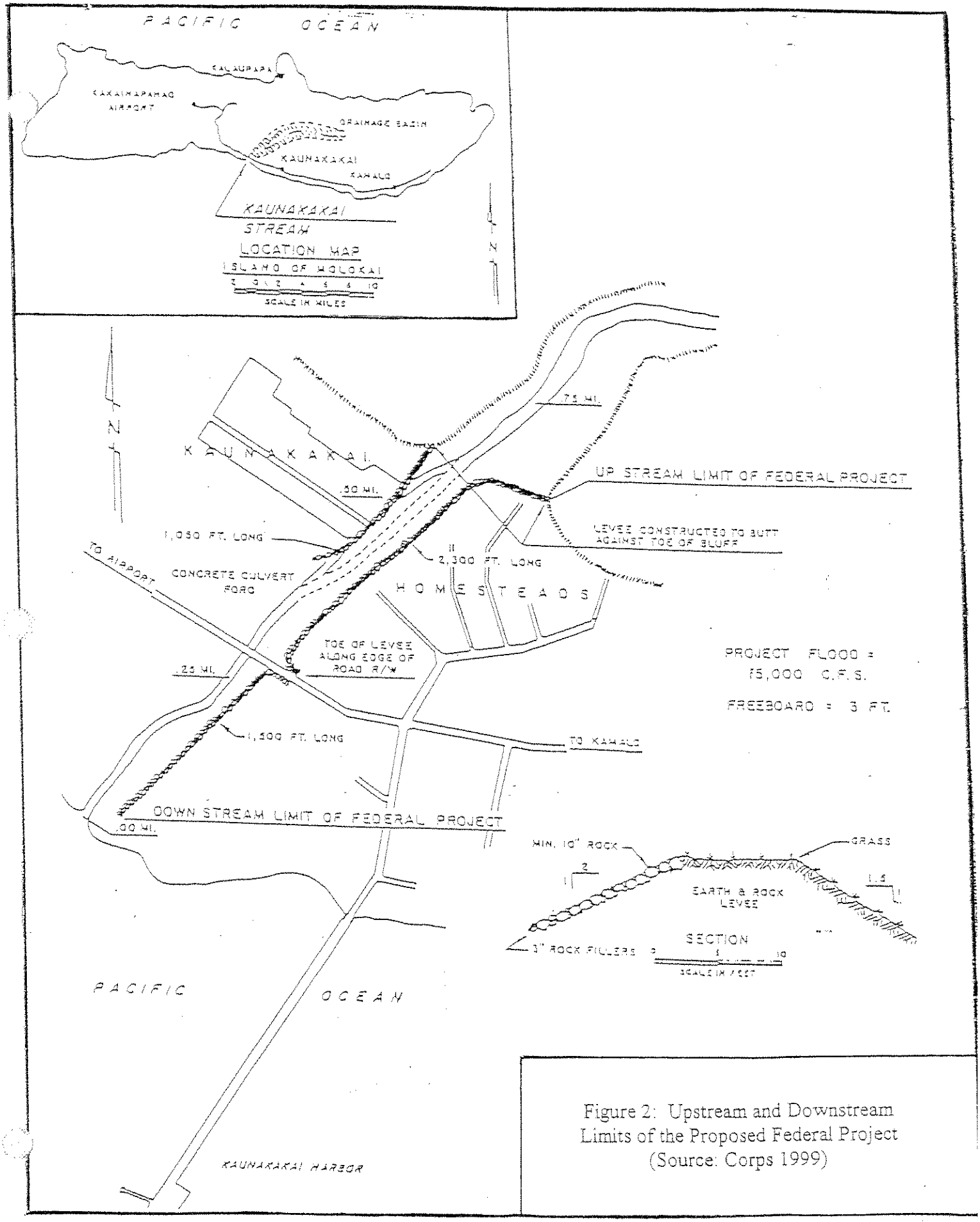


Figure 2: Upstream and Downstream Limits of the Proposed Federal Project (Source: Corps 1999)

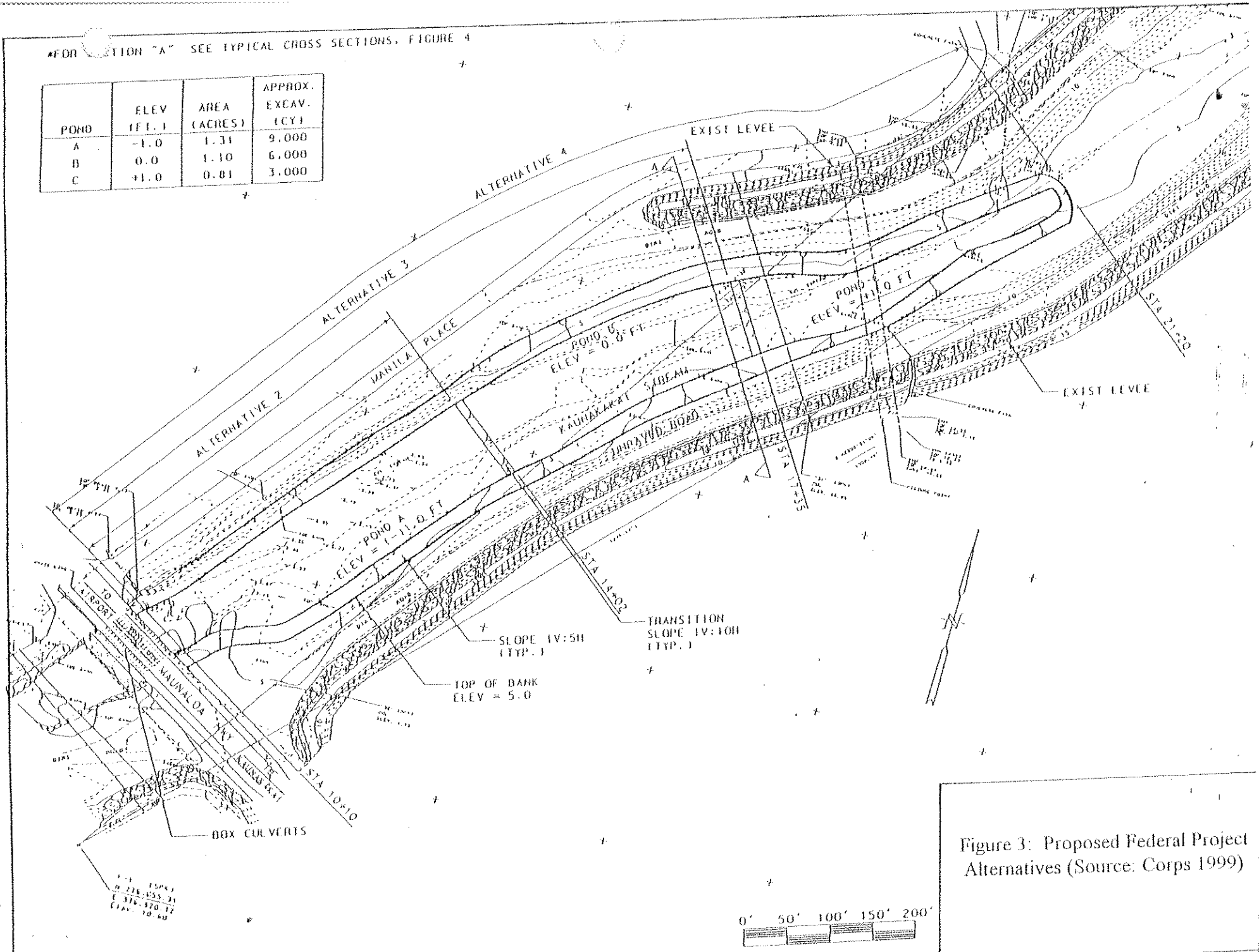
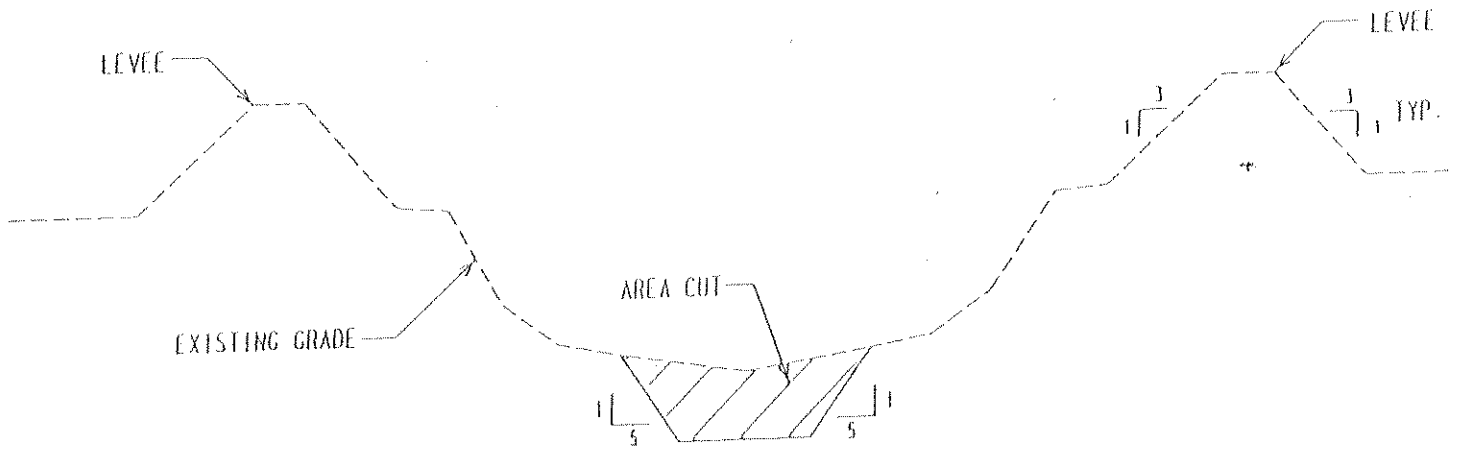


Figure 3: Proposed Federal Project Alternatives (Source: Corps 1999)



SECTION "A" (TYPICAL CROSS SECTION)

NOT TO SCALE

Figure 4: Cross Section of the Proposed Federal Project Alternatives (Source: Corps 1999)

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 E.O. 11988, Action in Floodplain
    b. Compliance with Section 404 of the Clean Water Act
    c. Intent to discharge dredged and fill material into waters of the U.S.
    d. Availability of Draft Environmental Assessment and Draft Findings of No Significant Impact

HAWAII 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?		X
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 cross through the dry upper portions of the project which serves 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 upstream and across the highway from 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 will 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 developments 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 which 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 enhance and increase the existing minimal 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 CZM coordination, this action has been 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. An Environmental Assessment for this project will be coordinated with the interested public.

FEDERAL CONSISTENCY SUPPLEMENTAL INFORMATION SHEET

Project Description: Kaunakakai Stream Environmental Restoration Project, Kaunakakai.

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

Est. Start Date: February 2002

APPLICANT OR AGENT

Name & Title: RONALD N. LIGHT
Lieutenant Colonel, U.S. Army
District Engineer

Agency/Organization: U.S. Army Engineer District, Honolulu
Address: Building 230
Fort Shafter, Hawaii 96858-5440

TYPE OF APPLICATION

[X] I. Federal Activity

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

Signature_____ _____

RONALD N. LIGHT Date
Lieutenant Colonel, U.S. Army
District Engineer

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 proposed project modifications involve excavation and clearing and grubbing of vegetation to restore habitat for the endangered, endemic Hawaiian Stilt (*Himantopus mexicanus knudseni*). A portion of the work will occur in wetted stream and transitional wetlands areas, while other portions would convert existing fastland into wetlands. The earthwork involved constitutes a discharge of fill although there is no intention of adding additional fill to the project area.

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 which 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 improvements will modify an existing completed Corps of Engineers water resources project. Although other Corps water resources projects are located on island, this particular project has the best opportunity for habitat restoration on the island of Molokai. The project site lies within the south central Molokai coastline which is viewed as an important area in the recovery and maintenance of the endangered Hawaiian Stilt. In addition the wetlands in this area provide valuable wintering and staging habitat for a variety of migratory waterfowl and shorebirds. The restoration of

these wetlands represent an important step toward preventing the loss of the Hawaiian flyway.

b. Alternative designs

The main goal of this project is to provide stilt habitat by maximizing the restoration of mudflats and shallow ponds. The chosen alternative must achieve this goal while maintaining the integrity of the original flood control project.

The no-action alternative would not meet the project goal and stilt habitat within the stream would remain minimal at best.

It was decided that a system of ponds would best meet the objective of the project. These ponds would provide the shallow water and mudflats favored by Hawaiian Stilt. Also, these ponds would not interfere with the flood prevention capabilities of the existing Corps project. The recommended plan was chosen based on the criteria that it maximizes the acreage of improved streambed within the project affordability range.

c. Summary

Based on the project objectives and funding constraints, the selected plan will create 3.2 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 will not change except for the removal of the top level of soil. Since the discharges will take place over a reasonably short period of time and the vegetation is expected to recover, it is anticipated that the discharges shall 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 proposed discharge 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

Predominantly dry portions of the stream will be graded. However, there will be some work in the water particularly at the lower reaches which are tidally influenced. This temporary activity is not expected to cause long-term impacts, and the creation of depressions within the stream bed should provide a sink for sediments to settle out of the water column.

d. Contaminant determination

The discharge involves excavation and removal of material from the bed of intermittent Kaunakakai Stream. No fill material will be brought to the site and hence, the discharge will not introduce contaminants.

e. Aquatic ecosystem and organisms

Construction and grading activities may temporarily displace vegetation and aquatic organisms. However, most of the affected species are expected to move during construction. Upon completion of the proposed modifications, the affected areas are expected to be re-colonized and aquatic habitat increased by creating open water and intertidal mud flats.

f. Proposed disposal site

By the Corps of Engineers excavation rule, the "discharge" will consist of excavation within the stream. Thus, the extraction site will be immediately adjacent to the discharge site.

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

The restoration of open water and intertidal mudflats will increase available aquatic habitat, and aquatic organisms will 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 3.2 acres of year-round habitat.

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

During grading in wet portions of the stream, 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, excavation will increase the amount of habitat available to aquatic organisms and they are expected to re-colonize in the cleared areas.

6. Potential impacts on special aquatic sites

a. Sanctuaries and refuges

There are no sanctuaries 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 can 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.

d. 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.

e. 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 aquatic habitat 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 or commercial fisheries and the project should have no significant 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. Evaluation and Testing

Under the Corps of Engineers excavation rule, the discharge will consist of grading within waters of the U.S. Additional fill material will not be brought in from outside sources.

9. Actions to Minimize Adverse Effects

- Conduct excavation during dry season.
- Remove all excavated material from site.

10. Conclusions and Findings of Compliance with Restrictions on Discharge

The discharge of fill material complies with the Environmental Protection Agency Section (404)(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material. In summary, the following points are pertinent:

a. The proposed action is water dependent, and as such, no practicable alternatives analysis is required. There is no practicable alternative to the proposed discharge that would have less adverse impact on the aquatic environment and that does not have other significant adverse environmental consequences. The project is intended to improve the environment by restoring degraded waterbird habitat.

b. There is no practicable alternative to the proposed discharge that would have less adverse impact on the aquatic environment and that does not have other significant adverse environmental consequences.

c. The information provided is sufficient to make a reasonable judgment on the effects of the discharge on the aquatic ecosystem.

d. The discharge will not result in a significant degradation of the aquatic ecosystem based on the factual determination.

e. The chemical-biological tests were not performed because the evaluation of the material indicated that the likelihood of the discharge material being contaminated was low, the extraction site would be adjacent to the discharge site, and the materials are similar and are not likely to degrade the disposal site.

_____ _____

RONALD N. LIGHT
Lieutenant Colonel, U.S. Army
District Engineer

Date

EXECUTIVE ORDER 11988 ON FLOOD PLAIN MANAGEMENT EVALUATION REPORT

KAUNAKAKAI STREAM ENVIRONMENTAL RESTORATION PROJECT KAUNAKAKAI, ISLAND OF MOLOKAI, STATE OF HAWAII

1. This evaluation report presents pertinent information required by Executive Order (EO) 11988, Flood Plain Management, dated 24 May 1977. 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 native endangered Hawaiian Stilt (*Himantopus mexicanus knudseni*). There is no practicable alternative which would accomplish the project purpose.

4. To accomplish its purpose, the project must be located in the base flood plain. The public will be notified of the proposed project through a Public Notice. Views and comments will be obtained and addressed prior to finalizing the EA.

5. Both beneficial and adverse impacts are expected to occur as a result of the project. Anticipated impacts are summarized below and are discussed in the environmental assessment.

Beneficial impacts

- Increase biodiversity within Kaunakakai Stream
- Restore habitat for an endangered waterbird endemic to Hawaii
- Create and restore wetlands and mudflats
- Minor increase in flood storage capacity of the stream.

Adverse impacts

- Increased levels of noise, and equipment emissions during construction.
- There will be temporary impacts to traffic during the construction period.

6. The action will not induce development in the base flood plain. The project will utilize existing flood storage areas to enhance waterbird habitat. This project will have minimal impacts to the flood plain.

7. The draft Environmental Assessment and Finding of No Significant Impact will be coordinated with interested agencies, and the general public will be notified of the availability of these documents.

Hazardous, Toxic, and Radioactive Waste (HTRW) Assessment Kaunakakai Stream Environmental Restoration Project Kaunakakai, Island of Molokai, Hawaii

Purpose: The study area is the existing Kaunakakai Stream Flood Control Project located at Kaunakakai, island of Molokai, Hawaii. 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: Kaunakakai Stream is located on the south central cost of Molokai near the commercial business area of the town of Kaunakakai. The island's largest port is also located at Kaunakakai. The Kaunakakai Stream Flood Control Project begins near the mouth of Kaunakakai Stream and ends approximately 4,000 feet upstream. Project features include a 1,500-foot-long levee on the east side of the stream above the stream mouth and extending to Maunaloa Highway. Upstream of the highway, a 2,300-foot-long earth and rock lined levee extends up the east side of the stream to protect the commercial and business development located on that side of the stream. A 1,050-foot-long levee is located on the west side of the stream above the highway to protect the residential area from flood waters.

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 stream bed 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 operation and maintenance of the flood control project, the stream bed is mowed regularly to prevent vegetation overgrowth.

The contacted agencies had no information which 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.

U.S. Army Corps of Engineers
Honolulu District

PUBLIC NOTICE

Date: January XX, 2001 Respond by: February XX, 2001

Reply to: District Engineer (CEPOH-DE)
U.S. Army Corps of Engineers
Building 230
Honolulu, Hawaii 96858-5440

DRAFT - NOT READY FOR PUBLIC DISTRIBUTION

NOTICE OF

1. Compliance with E.O. 11988, Action in Floodplain
2. Compliance with Section 404 of the Clean Water Act
3. Intent to discharge dredged and fill material into waters of the U.S.
4. 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 Engineer District, Building 230, Fort Shafter, Hawaii 96858-5440 and the County of Maui Department of Public Works and Waste Management, 200 South High St., Wailuku, Maui, Hawaii 96793.

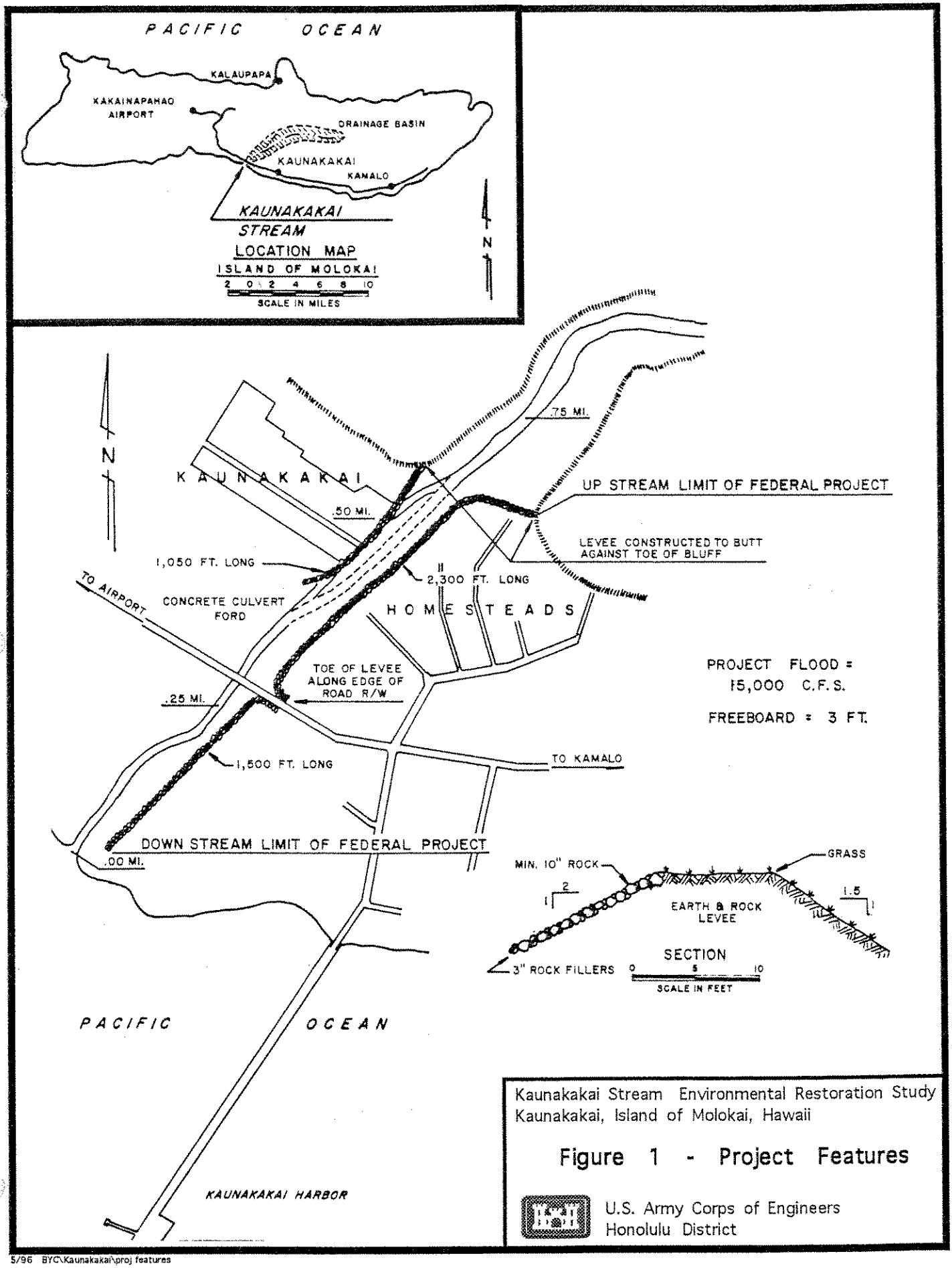
2. APPLICABLE STATUTORY AUTHORITIES: Section 404 of the Clean Water Act (33 U.S.C. 1344).

3. LOCATION OF PROPOSED ACTIVITY: Kaunakakai Stream, Kaunakakai, island of Molokai, Hawaii. (See Figure 1.)

4. DESCRIPTION OF PROPOSED ACTIVITY:

The U.S. Army Corps of Engineers, Honolulu Engineer District, and Maui County, Department of Public Works and Waste Management (DPWWM) 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. (See Figure 2.)

The proposed modifications will consist of removing vegetation and grading a portion of the streambed. The grading will bring surface elevations to intertidal levels to restore shallow water feeding habitat. Figure 3 shows the study area and the location of the proposed improvements.

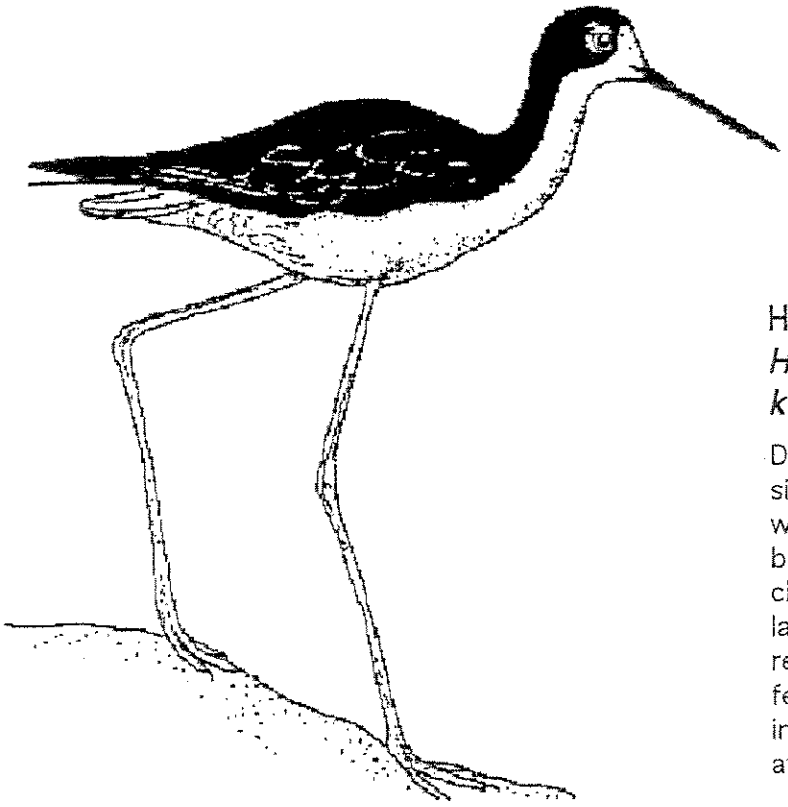


Kaunakakai Stream Environmental Restoration Study
Kaunakakai, Island of Molokai, Hawaii

Figure 1 - Project Features

U.S. Army Corps of Engineers
Honolulu District

5/96 BYC\Kaunakakai\proj features



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

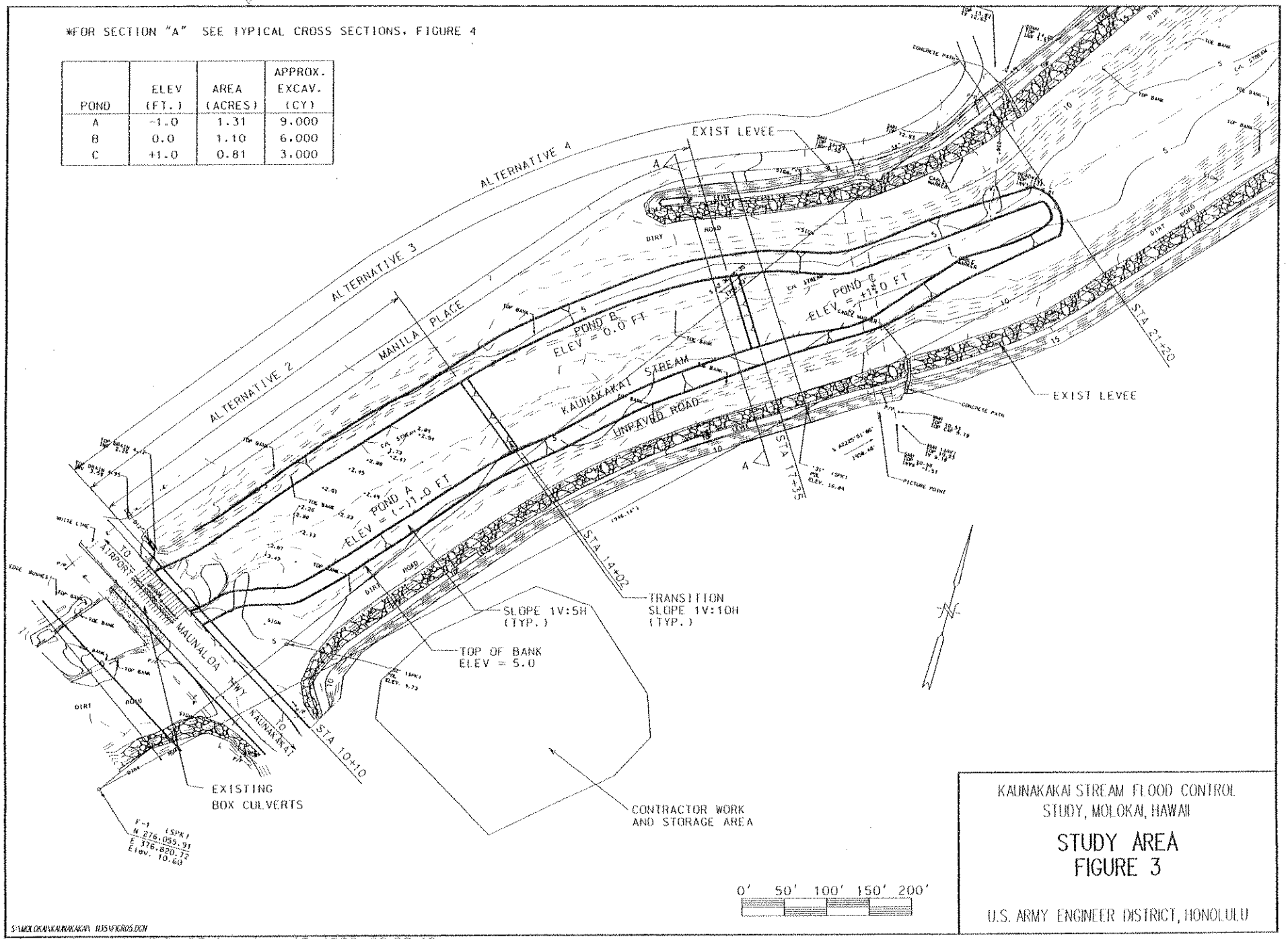
Figure 2 - The Hawaiian Stilt

U.S. Army Corps of Engineers
Honolulu Engineer District

5/96 BYC\Stilt.CVS

*FOR SECTION "A" SEE TYPICAL CROSS SECTIONS, FIGURE 4

POND	ELEV (FT.)	AREA (ACRES)	APPROX. EXCAV. (CY)
A	-1.0	1.31	9,000
B	0.0	1.10	6,000
C	+1.0	0.81	3,000



KAUNAKAKAI STREAM FLOOD CONTROL STUDY, MOLOKAI, HAWAII

STUDY AREA FIGURE 3

U.S. ARMY ENGINEER DISTRICT, HONOLULU

S:\MECH\KAUNAKAKAI\ 1135VFIGR05.DGN

...\kaunakakai\1135\figr05.dgn Aug 18, 1999 09:38:48

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. The contractor will be required to conform with 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 which includes the creation of ponds and mudflats.

The discharge of fill material will involve construction of berms and other earthmoving and grading. Evaluation of the proposed discharge of existing on site material using Clean Water Act Section 404(b) (1) guidelines has determined that the proposed action will not likely violate any applicable state water quality criteria, with the exception of turbidity. Elevation in turbidity levels may result primarily from re-suspension of existing on-site sediments during excavation and is not avoidable. The proposed project will begin approximately 1,700 feet upstream of the shoreline which is undeveloped marsh land.

The proposed discharge would not have any significant effect on water chemistry, salinity, odor, taste, dissolved gas levels, temperature, nutrients, or eutrophication. No adverse long-term effects on water quality or human use of the aquatic environment are expected to result from implementation of the proposed action.

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 causing the excessive turbidity levels 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 improvement will restore intertidal mudflats and shallow ponds 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) to determine 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 Wetland Conservation Plan.*

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

8. COASTAL ZONE MANAGEMENT AND WATER QUALITY CERTIFICATIONS:

a. A Federal Coastal Zone consistency determination was sent for concurrence to the State of Hawaii, Office of State Planning, Coastal Zone Management (CZM) Office.

b. A Section 401 Water Quality Certification (WQC) from the State of Hawaii Department of Health, Clean Water Branch (DOH) will be applied for.

9. OTHER GOVERNMENT AUTHORIZATIONS: The authorization to discharge fill does not obviate the need for the Government and local sponsor, respectively, to obtain other federal, state, or local authorization required by federal, state, or local laws.

10. EVALUATION FACTORS: The decision whether or not to discharge fill will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. The evaluation will apply the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b)(1) of the Clean Water Act (40 CFR Part 230).

11. COMMENTS AND INQUIRIES: The Corps of Engineers is soliciting comments from the public, Federal, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of the proposed activity on water quality and the public interest. The Corps will consider comments received to determine whether to discharge or to modify or condition the discharge for the proposed project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used to determine the need for a public hearing and to determine the overall public interest in the proposed activity and the impacts on water quality. 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:

Mr. Russell Iwamura
Regional Economist
U.S. Army Engineer District, Honolulu
Building 230
Fort Shafter, Hawaii 96858-5440
Telephone: (808) 438-8859 Telefacsimile: (808) 438-1307
Email: Russell.K.Iwamura@poh01.usace.army.mil

12. 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 to consider the discharge effect on water quality or other factors of public interest. Requests for public hearings shall state clearly, and concisely, the reasons and rationale for such requests.