US Army Corps
of Engineers
Honolulu District

Public Notice of Application for Permit

Regulatory Branch (1145b)
Building 230
Fort Shafter, Hawaii 96858-5440

Public Notice Date: April 30, 2010
Expiration Date: May 29, 2010
Permit File Number: POH-2009-0345

Interested parties are hereby notified that an application has been received for a Department of the Army permit for certain work in waters of the United States as described below and shown on the attached drawings.

APPLICANT: State of Hawaii Department of Land and Natural Resources, Attention: Ms. Laura Thielen, 1151 Punchbowl Street, Room 130, Honolulu, Hawaii 96813

AGENT: Sea Engineering, Attention: Mr. Scott Sullivan, Makai Research Pier, 41-305 Kalanianaole Highway, Waimanalo, Hawaii 96795

LOCATION: Mamala Bay, Pacific Ocean, at Royal Hawaiian Beach between Royal Hawaiian groin and Kuhio Beach groin, Waikiki, Honolulu, Hawaii. Shoreline seaward of TMK 2-6-002:005; -002:017; and -001:012.

PROPOSED WORK: Widen the existing beach by 10 to 50 feet, with an average width increase of 37 feet along 1,700 feet of shoreline. Project includes the following elements:

-Dredge up to 24,000 cubic yards of sand from up to two sites (sand recovery sites) that are 2-5 feet in sand thickness adjacent to the project area as shown on Sheet 2.
-Place 24,000 cubic yards of dredged sand along the shoreline as shown on Sheets 3 and 5, of which 8,075 cubic yards of sand will be placed waterward of Mean Higher High Water and within Corps jurisdiction. The beach fill footprint is 3.37 acres, of which 1.87 acres is waterward of Mean Higher High Water and within Corps jurisdiction.
-Construct berm-enclosed sand dewatering/stockpile area eastern basin of Kuhio Beach Park as shown on Sheet 4.
-Install a submerged pipeline of up to 12 inches in diameter from the sand recovery sites to the stockpile area as shown on Sheet 2.
-Project also proposes to remove two derelict groins that are ~57- and ~83 feet long as shown on Sheet 3.
-Work is proposed for winter/spring 2011 and will last ~90 days.
-Because beach nourishment is temporary, the applicant requests a 10-year authorization in order to re-nourish the beach in Year 10. It is proposed that 12,000 cubic yards will be dredged and placed, requiring half the project construction time. All other project details will remain the same.
-Details regarding primary project components are found in the "Additional Information" section below.

PURPOSE: Provide beach re-nourishment.

ADDITIONAL INFORMATION: The project area has been chronically eroding since 1985 at an average annual rate of 1.5 feet per year. Substrate in the sand placement and dewatering areas are almost entirely sand. Some hard-bottom substrate is present but likely fluctuates regularly between being exposed and covered with sand. Sand recovery sites are adjacent to hard substrate and outcroppings that do contain small quantities of small coral heads. These will be avoided to the maximum extent practicable during dredging. The pipeline itself will not directly impact coral but hard-bottom substrate is present. Small quantities of small coral are present within the pipeline corridor and may be impacted by installation. Impacts will be avoided and minimized to the maximum extent practicable through the implementation of Best Management Practices and potentially coral transplantation.

The entire project, including re-nourishment in 10 years, has an expected life of 20 years.

Primary Project Component Details

Dredging: The exact method of dredging has not been determined but the applicant has proposed three potential methods for Corps evaluation. These include submersible slurry pump, hydraulic suction dredge, and clamshell dredge.

Submersible Slurry Pump: A barge and crane would be necessary to position the pump, which can be powered by hydraulics or an electric generator. The crane can move the pump across a small area, dependent on the crane size and length of its boom; however, beyond that area the barge must be entirely repositioned. The positioning of the barge would normally be controlled by a combination of moorings and spuds (vertical piles dropped down onto/into the seafloor). Additionally, depending on the distance from shore and the size of the pump, a booster pump may be required. The pipeline and hydraulic or electric lines are attached to the pump and must be maneuvered with each repositioning.

Hydraulic Suction Dredge: It is functionally similar to a submersible pump, except that in this case the pump is above water on a surface platform (e.g., a boat or barge), and a rigid suction pipe is lowered from the surface platform down to the seafloor. Dredged material is typically discharged through a pipeline to shore. A mechanical cutter head can be attached to the front of the suction head to loosen and stir up the sand for more efficient pickup by the suction head.

Clamshell Dredge: A clamshell bucket would be lowered with a crane in the open position, upon reaching the bottom, the crane operator closes the clamshell jaws and lifts the material out of the water, and finally the operator rotates the crane and opens the bucket over a waiting barge. Buckets would either be sealed or open. A sealed bucket creates less turbidity at the dredge site; however, the recovered sand would include a large amount of water which then must be disposed of.

Pipeline: From the sand recovery vessel, the pipeline will be a combination of floating pipe in the vicinity of the sand source and dredge equipment to permit dredge mobility, and then submerged pipeline to shore. The submerged pipeline will be anchored in place to eliminate pipe dislocation and minimize impacts to the seafloor. The submerged pipeline will be placed upon sandy seafloor to the extent that it is practicable, in order to minimize damage to hard rock bottom habitat. As the pipeline nears shore, it will turn east and terminate at a dewatering area within the eastern Kuhio Beach crib.

Several options exist for anchoring the HDPE pipe onto the seafloor, depending on the composition of the bottom. Because the exact method has not been determined all potential methods will be evaluated by the Corps. Where the seafloor consists of a thick layer of sand, two commonly utilized anchors include helical screw piles and earth toggle anchors. Helical screw piles are literally "screwed" into sediment, utilizing a rotary impact tool such as a pneumatic or hydraulic hammer drill. Earth toggle anchors are driven into sediment using conventional pneumatic or hydraulic equipment such as a jackhammer. Once the specified depth is achieved, an attached tendon is pulled to rotate the anchor into place. Once the anchor fluke is in place, the anchor is pulled to set it at the desired holding capacity. Shoreward of the sand recovery area, the bottom consists of a thin veneer of sand, cobbles, or hard substrate. In these areas, penetrating anchors such as helical screw piles and earth toggle anchors are not advised, and the use of precast concrete collar weights or pipe saddles is recommended. Precast concrete collar anchors are made in half-circles, and are bolted together with stainless

steel bolts. Pipelines using this type of anchor are typically assembled on land or at least out of the water, floated into position, and then sunk. The project construction plans will require that the pipeline be located in a specific, defined corridor along the sea bottom, selected to avoid and minimize potential impacts to benthic biota as far as practicable. The contractor would be required to remove all anchoring materials upon completion of the project.

Beach nourishment area: Dewatered sand would initially be moved to a temporary above-water staging area along the west crib shore. The sand would then be moved and placed on the project area shoreline to the design cross-section and beach profile, starting at the east end and working west. A containment system/turbidity barrier would surround the area of active sand placement to reduce the potential for turbidity impacts to coastal waters during sand placement in the water. Sand will be transported to the beach by blowing it through a pipe with low-pressure air. The sand is initially loaded into a hopper at the upstream end of the pipe. A rotation is imparted upon the air/sand flow by the upstream pump. Sand would be "blown" up the shore with the pipe being incrementally lengthened as placement proceeded from east to west. Smaller equipment would be used to move the blown sand into the design beach profile.

Dewatering and Stockpiling area: The dredge slurry is proposed to be pumped into a dewatering basin 265 feet long (parallel to the shore) and 55 feet wide, constructed on the beach and partly in the water within the confines of the Kuhio Beach crib walls. The minimum required berm crest elevation will be +5 feet. The basin will be constructed with a stable containment berm placed inside the makai crib wall sill to provide a stable containment berm on the ocean side, with a minimum elevation of about +5 feet to permit piling sand above sea level. Geotextile filter fabric would be used to line the inside of the dewatering area as necessary to prevent the escape of turbid water. The east end of the dewatering area would be bound by a heavy duty turbidity barrier, which would retain fine material and permit non-turbid water to pass. A secondary silt screen 430 feet long and extending ~210 feet to the top of the beach above the high tide water level would be placed around the entire dewatering basin to contain any turbid water within the confines of the crib area. As the water drains from the basin, the dewatered sand can be removed and placed in a temporary holding site, and then the basin can be refilled with more sand slurry pumped from offshore.

MITIGATION: The applicant has stated that mitigation is not necessary because the project impacts will not result in a loss of aquatic resource functions or services.

WATER QUALITY CERTIFICATION: A permit for the described work will not be issued until a certification or waiver of certification as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the State of Hawai'i Department of Health.

COASTAL ZONE MANAGEMENT ACT CERTIFICATION: Section 307(c)(3) of the Coastal Zone Management Act of 1972 (Public Law 92-583), as amended by 16 U.S.C. 1456(c)(3), requires the applicant to certify that the described activity affecting land or water uses in the Coastal Zone complies with Hawai'i's Coastal Zone Management Program. A permit will not be issued until the Office of State Planning, Department of Business, Economic Development, and Tourism has concurred with the applicant's certification.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, clearly and concisely, the reasons and rationale for holding a public hearing.

CULTURAL RESOURCES: The Corps has determined that the proposed work has no potential to cause effect to any historic property listed, or eligible for listing, in the National Register of Historic Places because the Hawai'i and National Register of Historic Places do not list any historic properties within or in the vicinity of the area of potential effect (APE) for the project.

The Corps also requests consultation with Native Hawaiian organizations and individuals to gather information regarding historic properties as well as the ethnographic and historic uses in the proposed permit area.

ENDANGERED SPECIES: Section 7 of the Endangered Species Act (ESA) requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) on all actions that may affect a species listed (or proposed for listing) under the ESA as threatened or endangered or any designated critical habitat.

After receipt of comments from this public notice, the U.S. Army Corps of Engineers will evaluate the potential impacts to proposed and/or listed species and their designated critical habitat.

ESSENTIAL FISH HABITAT: The proposed work is being evaluated for possible effects to Essential Fish Habitat (EFH) pursuant to the Magnuson-Stevens Fishery Conservation and Management Act of 1996 (MSFCMA), 16 U.S.C. § 1801 et seq. and associated federal regulations found at 50 CFR 600 Subpart K.

After receipt of comments from this public notice, the U.S. Army Corps of Engineers will evaluate the potential impacts to EFH and consult with NMFS if the project is determined to adversely affect EFH.

SPECIAL AREA DESIGNATION: None.

AUTHORITY: This permit application will be reviewed under the following authorities:

(X) Perform work in or affecting navigable waters of the United States – Section 10 Rivers and Harbors Act 1899 (33 U.S.C. 403).

(X) Discharge dredged or fill material into waters of the United States – Section 404 Clean Water Act (33 U.S.C. 1344). The Corps' public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

( ) Transport dredged material for the purpose of dumping it into ocean waters - Section 103 Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413). The Corps' public interest review will consider the criteria established under authority of Section 102(a) of the Marine Protection, Research and Sanctuaries Act of 1972, as amended (40 CFR Parts 220 to 229), as appropriate.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts, 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 benefits, 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 U.S. Army 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 this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the work. 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 in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

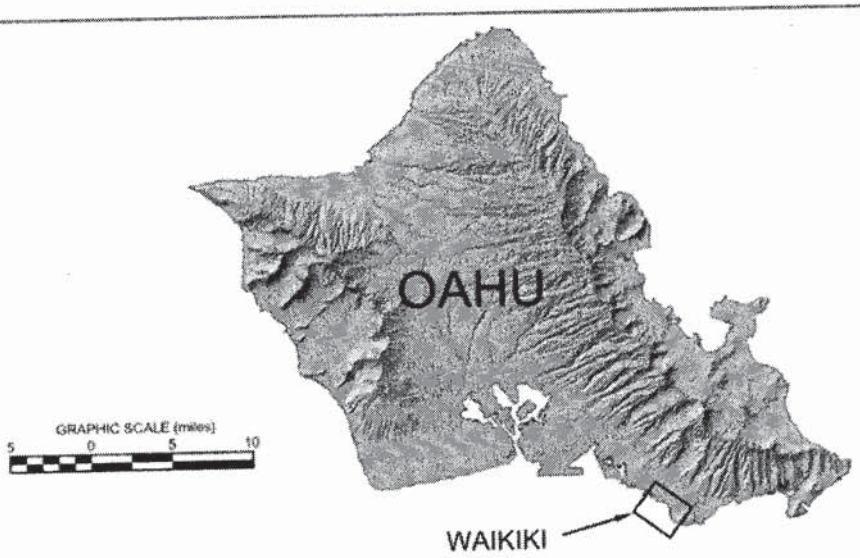
COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether it would be in the public interest to authorize this proposal. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. All e-mail comments should be sent to **Amy.S.Klein@usace.army.mil**. Conventional mail comments should be sent U.S. Army Corps of Engineers, Regulatory Branch, Building 230, Ft. Shafter, HI 96858-5440. Both conventional mail and e-mail comments must include the permit applicant's name and reference number, as shown below, and the commenter's name, address, and phone number. All comments, whether by conventional mail or e-mail, must reach this office no later than the expiration date of this public notice to ensure consideration. Please include the following name and reference number: **Royal Hawaiian Beach Nourishment, POH-2009-0345**.

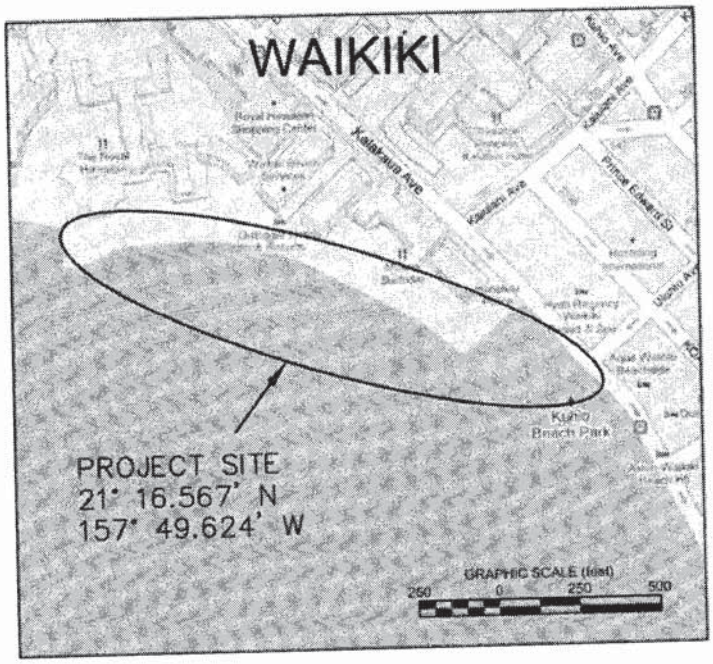
Comments on the described work, with the reference number, should reach this office no later than the expiration date of this Public Notice to become part of the record and be considered in the decision. Please contact Ms. Amy Klein at (808) 438-7023 if further information is desired concerning this notice.

Project Drawings (5) are attached to this Public Notice.

for Robert D. Clerodes
District Engineer
U.S. Army, Corps of Engineers

Attachments





Project: Waikiki Beach Maintenance Datum: NAD83, MSL	REF: POH-2009-00345 Waikiki Beach	Location: Waikiki Beach Honolulu, HI Sheet 1 of 5 Date: April 22, 2010

Figure 1. Project location

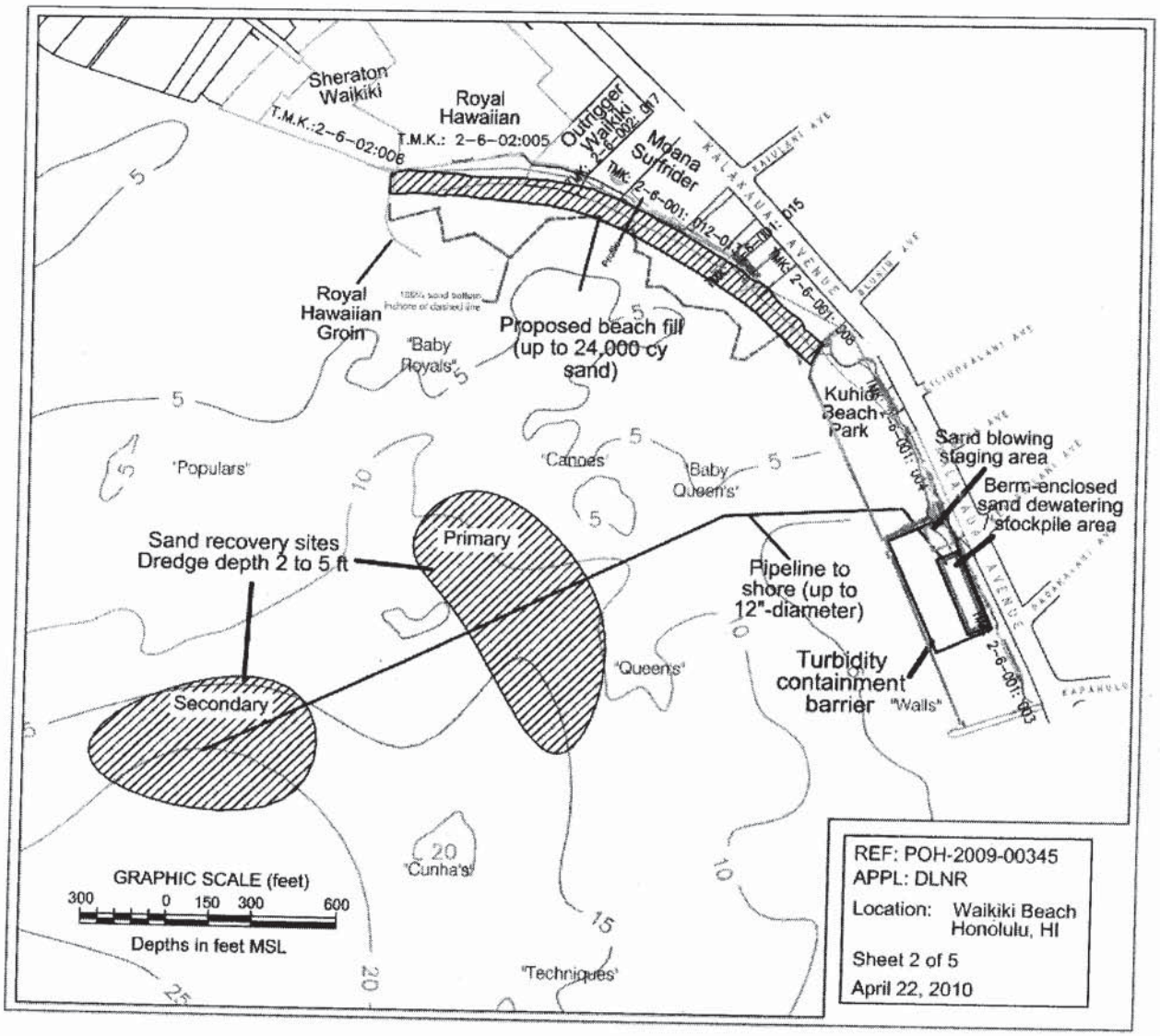


Figure 2. Project overview

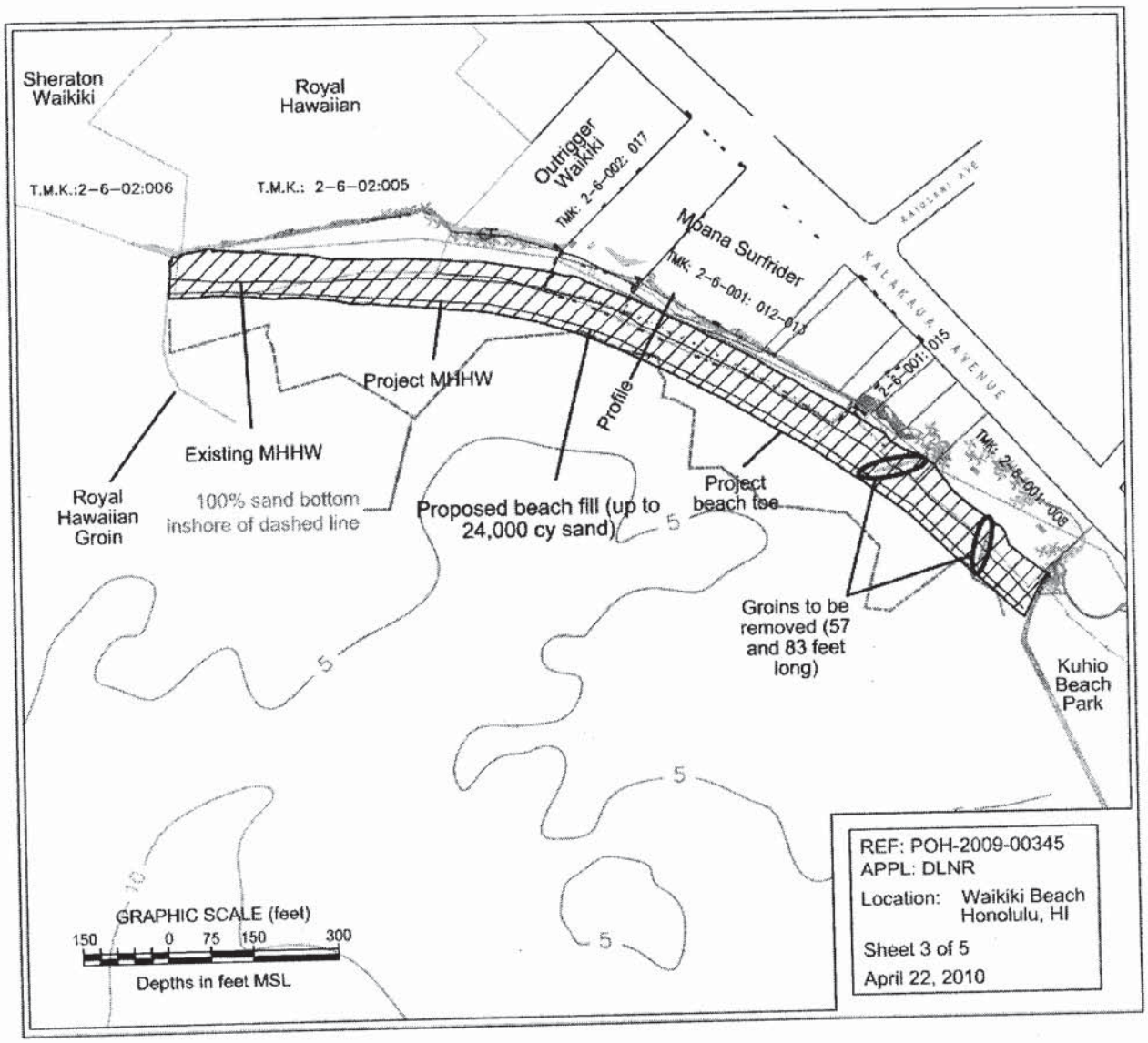


Figure 3. Beach maintenance vicinity and features

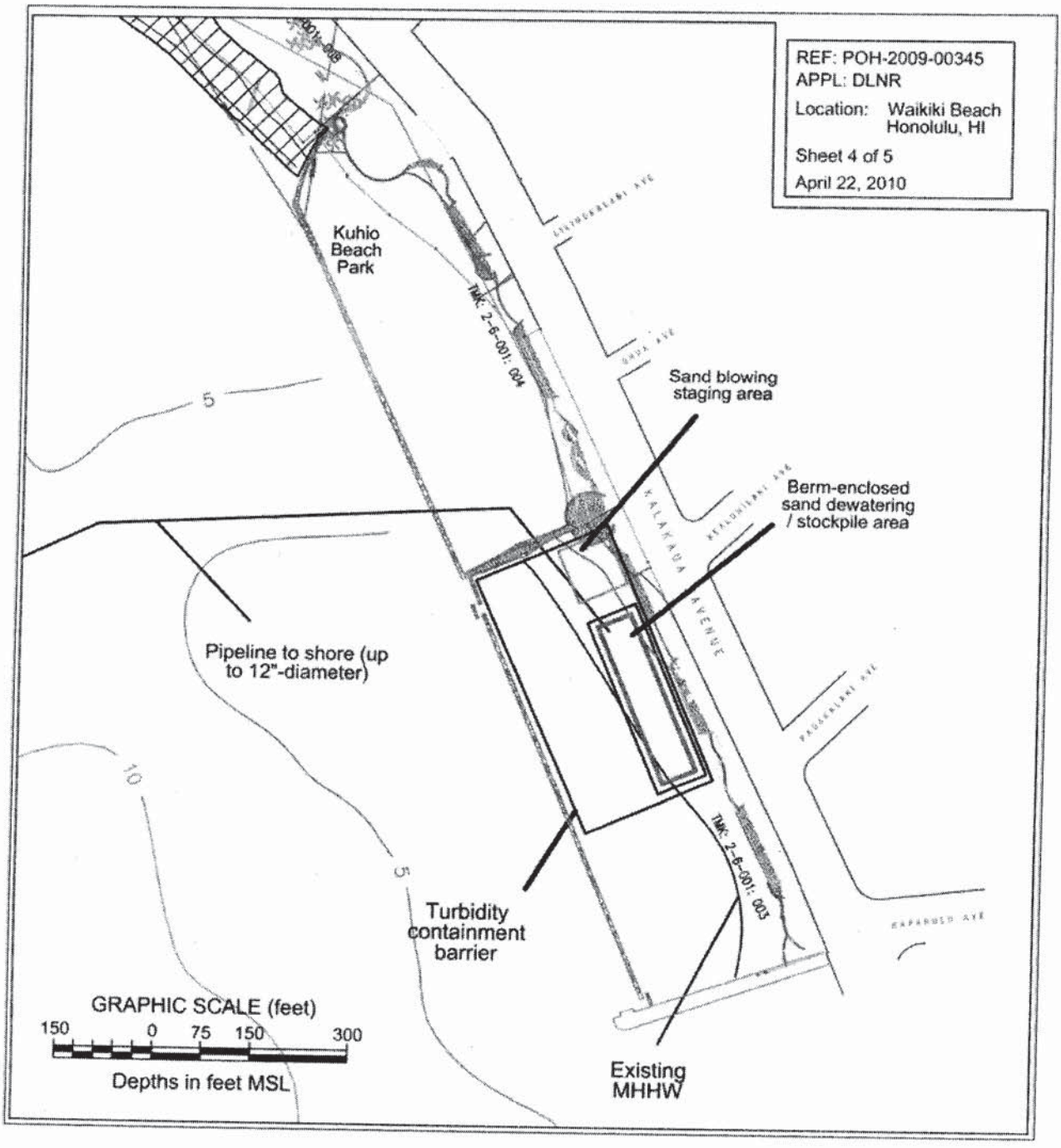


Figure 4. Dewatering site at Kuhio Beach Park

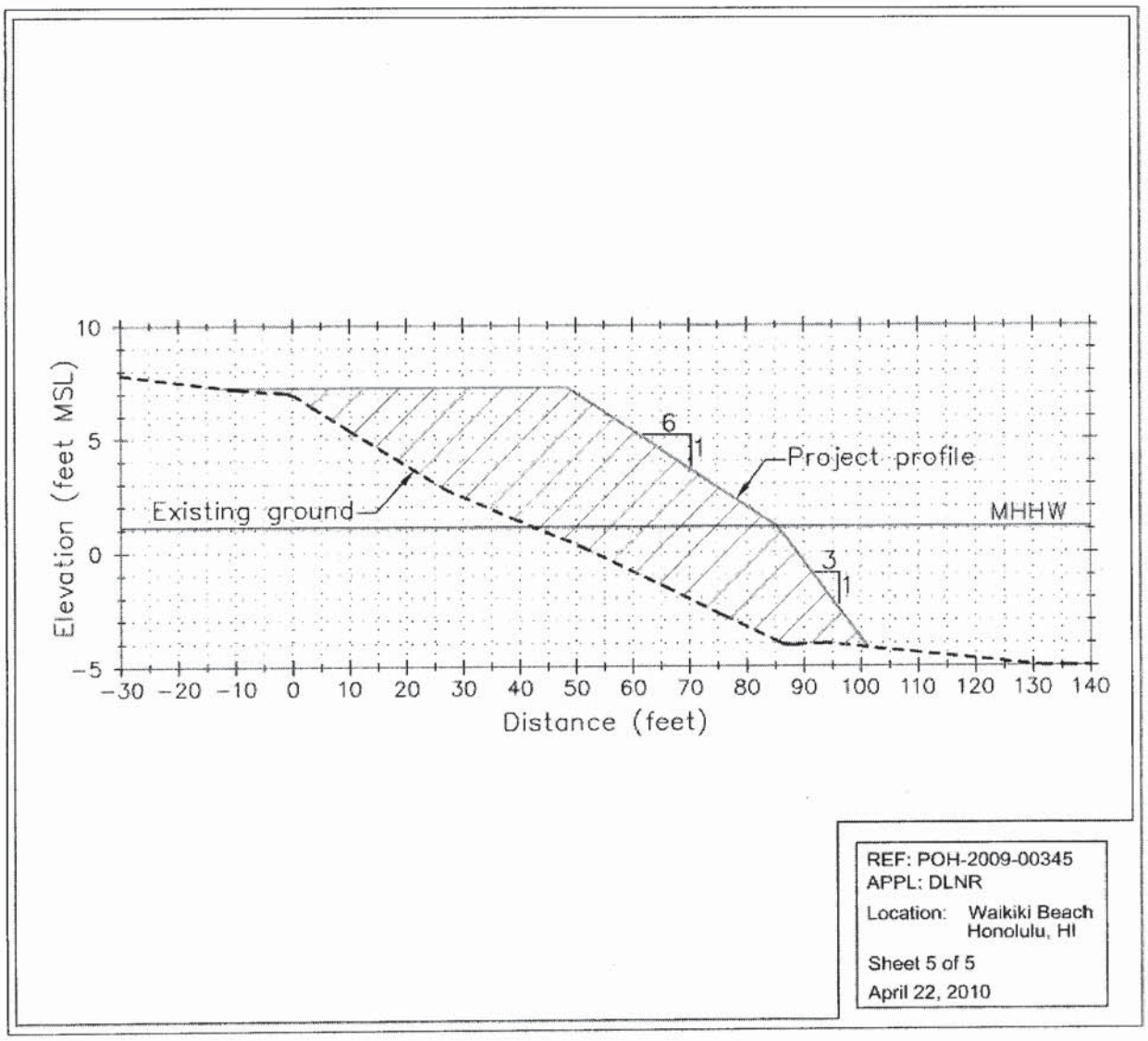


Figure 5. Representative project beach profile