



## CONSERVATION DISTRICT USE APPLICATION (CDUA)

All permit applications shall be prepared pursuant to HAR 13-5-31

File No.:

Acceptance Date:

180-Day Expiration Date:

Assigned Planner:

for DLNR Use

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### PROJECT NAME

 Pohoiki Boat Ramp Dredging of Volcanic Debris

Conservation District Subzone: Resource, R-5

Identified Land Use: D-1, Dredging, filling, or construction on submerged lands

*(Identified Land Uses are found in Hawai'i Administrative Rules (HAR) §13-5-22 through §13-5-25)*

Project Address: Puna District, Island of Hawai'i, Hawai'i

Tax Map Key(s): (3) 1-3-008:014 por. and unencumbered land

Ahupua'a: Pohoiki

District: Puna

County: Hawai'i

Island: Hawai'i

Proposed Commencement Date:

Proposed Completion Date:

Estimated Project Cost:

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**TYPE OF PERMIT SOUGHT**     **Board Permit**     **Departmental Permit**

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### ATTACHMENTS

\$ \_\_\_\_\_ Application Fee. 2.5% of project cost for Board Permits, but no less than \$250, up to a maximum of \$2500; \$250 for Departmental Permits (*ref §13-5-32 through 34*).

\$ \_\_\_\_\_ Public Hearing Fee (*\$250 plus publication costs; ref §13-5-40*)

- 20 copies of CDUA (*5 hard + 15 hard or digital copies*)
- Draft / Final Environmental Assessment (EA) or Draft / Final Environmental Impact Statement (EIS) or Statement of Exemption
- State Historic Preservation Division HRS 6E Submittal Form ([dlnr.hawaii.gov/shpd/review-compliance/forms](http://dlnr.hawaii.gov/shpd/review-compliance/forms))
- Management Plan or Comprehensive Management Plan (*ref §13-5-39*) if required
- Special Management Area Determination (*ref Hawai'i Revised Statutes 205A*)
- Shoreline Certification (*ref §13-5-31(a)(8)*) if land use is subject to coastal hazards.
- Kuleana documentation (*ref §13-5-31(f)*) if applying for a non-conforming kuleana use.
- Boundary Determination (*ref §13-5-17*) if land use lies within 50 feet of a subzone boundary.

## REQUIRED SIGNATURES

### Applicant

Name: Edward R. Underwood

Title; Agency: Administrator, DLNR Division of Boating and Ocean Recreation

Mailing Address: 4 Sand Island Access Road  
Honolulu, HI 96819

Contact Person & Title: Finn McCall

Phone: (808) 587-3250

Email: finn.d.mccall@hawaii.gov

Interest in Property: Landowner

Signature:  \_\_\_\_\_ Date: Oct 4, 2023

*Signed by an authorized officer if for a Corporation, Partnership, Agency or Organization*

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### Landowner (if different than the applicant)

Name:

Title; Agency:

Mailing Address:

Phone:

Email:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

*For State and public lands, the State of Hawai'i or government entity with management control over the parcel shall sign as landowner.*

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### Agent or Consultant


Agency: The Limtiaco Consulting Group

Contact Person & Title: Trevor Vagay

Mailing Address: 1622 Kananui Street  
Honolulu HI 96817

Phone: (808) 596-7790

Email: trevor@tlcgohawaii.com

Signature:  \_\_\_\_\_ Date: Oct 4, 2023

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### For DLNR Managed Lands

#### State of Hawai'i

Chairperson, Board of Land and Natural Resources

State of Hawai'i

Department of Land and Natural Resources

P.O. Box 621

Honolulu, Hawai'i 96809-0621

Signature:  \_\_\_\_\_ Date: Oct 4, 2023

## PROPOSED USE

Total size/area of proposed use (indicate in acres or sq. ft.): 17.54 acres

Please provide a detailed description of the proposed land use(s) in its entirety. Information should describe what the proposed use is; the need and purpose for the proposed use; the size of the proposed use (provide dimensions and quantities of materials); and how the work for the proposed use will be done (methodology). If there are multiple components to a project, please answer the above for each component. Also include information regarding secondary improvements including, but not limited to, grading and grubbing, placement of accessory equipment, installation of utilities, roads, driveways, fences, landscaping, etc.

Attach any and all associated plans such as a location map, site plan, floor plan, elevations, and landscaping plans drawn to scale (*ref §13-5-31*).

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR - DOBOR) is proposing to undertake the Pohoiki Boat Ramp Dredging of Volcanic Debris Project in the Puna District, Hawai'i Island. DOBOR's project involves dragline dredging and on-land excavation for the purpose of removing volcanic material that has accumulated at Pohoiki Bay. The existing Pohoiki Boat Ramp facility is located at Pohoiki Bay on the southeast coastline of Hawai'i Island and adjacent to Isaac Kepo'okalani Hale Beach Park, which is a Hawai'i County facility. The landlocked boat ramp facility is located on a portion of Tax Map Key (TMK): (3)1-3-008:014, which is a state-owned parcel.

DOBOR's existing boat ramp facility at Pohoiki Bay has been landlocked since the 2018 eruption of the Kīlauea Volcano (see Figure 1: PRE AND POST ERUPTION CONDITIONS). Molten lava that contacted the Pacific Ocean was chilled and shattered by surf. Wave action on the nearby and newly formed lava area created sand, rock and cobble that was transported by wave currents to Pohoiki Bay. Ocean rescue services, commercial fishing, ocean/volcano tours, recreational opportunities, and food sustainability practices of the Puna community are negatively affected by the closure of the concrete boat ramp facility, which is undamaged. The project will reestablish pre-eruption navigational access to the Pacific Ocean and return the existing Pohoiki Boat Ramp facility to productive use.

Proposed dredging and excavation activities would occur in areas that were previously disturbed. Dredged material that is expected to consist of loose sand, cobbles, and boulders would be placed in areas that are at least 50 feet away from the ocean. Most of the dredged volcanic material will be placed upon the jagged area of newly formed lava land to the east of DOBOR's boat ramp facility and beyond the reach of tidal activity. The new lava flow seaward of TMK: (3)1-3-008:014 is unencumbered land. If the dredged material is found to be suitable as fill material, it may be directed towards a beneficial use that is not known at this time. Dredged material will also be placed along the backshore area at Pohoiki Bay, which will result in the backfilling of newly created ponds located makai (or seaward) of the vegetation line.

The Final Environmental Assessment (EA) for the Pohoiki Boat Ramp Dredging of Volcanic Debris identified the preferred action as the restoration of Pohoiki Bay to its pre-eruption shape and depth. The dredging effort was reduced to a wide channel after the Final EA was published due to limited funding for DOBOR's project; therefore, Pohoiki Bay will not be dredged to its pre-eruption shape and depth, and more black

sand beach at Pohoiki Bay will be retained. The project as envisioned with a reduced scope is expected to allow the undamaged boat launch ramp to be utilized by fisherfolk and emergency rescue teams, which represents a return of pre-eruption functions. The Federal Emergency Management Agency (FEMA) has obligated disaster funding to Hawai'i County that will be utilized for its projects (e.g., repairs to Pohoiki Road, water infrastructure, and park facilities). DOBOR's proposed project will not utilize funding that Hawai'i County receives for its projects.

DOBOR's jurisdiction from the Final EA - Project Summary (p. viii) is hereby summarized. DLNR - DOBOR is responsible for small boat harbors, launching ramps, jetties, wharves, and landings that were previously under the jurisdiction of the State of Hawai'i Department of Transportation (DOT). The Pohoiki Boat Ramp facility is owned and maintained by DLNR-DOBOR whereas the U.S. Army Corps of Engineers (USACE) is responsible for maintaining the 90-foot-long breakwater structure adjacent to the boat ramp. DOT functions that DLNR inherited are identified in Hawai'i Revised Statutes (HRS) §200-3 Ocean recreation and coastal areas programs. The list includes assisting in abating air, water, and noise pollution; and removing nonnatural obstructions and public safety hazards from the shoreline, navigable streams, harbors, channels, and coastal areas of the State.

Additional background from the Final EA - Section 1.1. Introduction and Background (p. 1-1) is hereby summarized. In 2018, lava from the Kīlauea Volcano, Lower East Rift Zone eruption flowed across vast areas of the lower Puna district (South of Hilo, North of Ka'ū) and reached the southeast coastline of Hawai'i Island. Lava entered the Pacific Ocean approximately 0.9 miles northeast from Pohoiki Bay at 'Ahalanui Beach Park on July 12, 2018. By August 6, 2018, the lava flow had advanced to approximately 230 feet southeast of the Pohoiki Boat Ramp facility. Although the existing concrete boat ramp was spared from lava inundation and damage, the facility remains landlocked and inoperable. Volcanic material that has accumulated since 2018 now encompasses an area of approximately 11.6 acres and blocks navigational access from the Pohoiki Boat Ramp facility to the Pacific Ocean. The Puna coastline is almost entirely rocky sea cliffs, with deep water close to shore and relatively high nearshore ground elevations. The coast is directly exposed to the persistent and prevailing trade winds generated by the seas, and summer season south swell. Tropical storms and hurricanes passing south of the island generate large waves that can batter the coast. Other than what used to be Pohoiki Bay, there are no shallow water embayments (a recess along a coastline) or significant headlands (such as bluffs or mounds) to provide natural wave protection.

The following discussion is from the Final EA - Section 1.2. Project Need and Objectives (p. 1-7). No new boat launch areas have been developed along the Puna coastline to replace the now-inoperable facility at Pohoiki Bay. The next closest operable boat ramp facility is at Wailoa Sampan Basin and Boat Harbor in Hilo, which is approximately 40 miles away. The return of the Pohoiki Boat Ramp facility to productive use addresses the expressed local needs of the Puna community as it continues to recover from the 2018 eruption. The project will restore navigational access between Pohoiki Bay and the Pacific Ocean, which supports the resumption of ocean rescue services, commercial fishing, ocean/volcano tours, food sustainability practices of the Puna community, and recreational opportunities. The main continuous cultural practice within the project area is subsistence fishing, which is curtailed while the boat ramp remains inoperable. As a result of the project, fisherfolk would provide fresh fish for the local community

to purchase and consume, earn income, and feed their families with their catch. The government would receive tax revenue from commerce.

The discussion of methodology is from the Final EA - Sections 1.1. Introduction and Background (p. 1-5), 1.5. Technical Considerations (p. 1-18), 2.1.3. Geology and Geomorphology (p. 2-5), and 4.2.2. Wide Channel (p. 4-6). Anticipated activities that will occur in the Pohoiki Bay area include dragline dredging and on-land excavation with mechanical equipment (e.g., crane and clamshell or hydraulic excavator). Truck hauling of volcanic material to nearby locations will also occur (see Figure 2: MATERIAL PLACEMENT LOCATIONS). Dredged material will be used to eliminate identified hazards or nuisances such as ponds in the backshore area. Heavy equipment utilized for the project will avoid traveling and working on or near the USACE's existing breakwater structure, which is intact but partially covered by accumulated volcanic material. The breakwater structure has a crest elevation of +12 feet Mean Lower Low Water (MLLW). Volcanic material has accumulated to a volume such that the material covers a portion of the breakwater structure. Settled sand and cobbles on the breakwater may be manually removed with the use of hand tools to ensure that the breakwater structure is not damaged.

A wide channel approximately 325 feet long will have an initial bottom width of 15 feet near the boat ramp that widens to approximately 160 feet at the mouth of Pohoiki Bay to allow for easier entry from the ocean (see Figure 3: PLAN VIEW). The west bank of the channel would have a 4H:1V slope while the east bank would start with a 2H:1V slope as it curves around the breakwater structure whereafter it would transition into a 4H:1V slope. The channel bottom would match the existing ocean floor varying in elevation from approximately -5 feet MLLW at the boat ramp to approximately -13 feet MLLW at the mouth of the channel.

The wide channel layout will result in approximately 31,000 cubic yards of excavated material which will be distributed across approximately 11 acres to level areas of the surrounding debris, neighboring properties, and the lava land mass and accretion land to the east (see Figure 4: TYPICAL SECTIONS). Backfill on the lava land mass and accretion land will be in 1- to 2-foot-thick layers and will maintain a consistent top elevation with slopes to match surrounding elevations. A 50-foot buffer would be maintained along the ocean side of the backfill area to ensure excavated material does not erode into the ocean. Temporary paths constructed from the backfill would also be implemented to facilitate access to the flattened areas. The path would range from 100 to 340 feet in length and have a slope no greater than 10 percent.



## EXISTING CONDITIONS

Please describe the following, and attach maps, site plans, topo maps, colored photos, and biological or archaeological surveys as appropriate:

### Existing access to site:

Construction vehicles will traverse usable roadways to access the Pohoiki Bay area. As stated in the Final EA - Section 2.11. Site Access, Circulation and Traffic (p. 2-37), existing roadways that provide access to DOBOR's boat ramp facility at Pohoiki Bay include Kalapana-Kapoho Beach Road (Route 137) and Pohoiki Road (see Figure 5 SITE AND VICINITY MAP). Residents and tourists who currently travel to the Pohoiki Bay area are utilizing undamaged sections of Pohoiki Road and Kalapana-Kapoho Beach Road. DOBOR is not proposing roadway improvements as part of its project. Hawai'i County is expected to repair the damaged sections of Pohoiki Road as a separate action.

TMK 1-3-008:013 is a privately owned parcel along the pre-eruption Pohoiki Bay shoreline. A 16-foot-wide easement in favor of TMK 1-3-008:013 contains an unimproved, two-track dirt driveway that provides site access from Kalapana-Kapoho Beach Road. The unimproved driveway crosses through the larger, surrounding county-owned parcel (TMK 1-3-008:097) to the privately owned parcel. DOBOR will acquire easements with affected landowners to utilize the unimproved driveway for temporary construction site access as part of the project if necessary.

### Existing buildings/structures:

DOBOR's boat ramp facility at Pohoiki Bay has an 18-foot-wide, single-lane concrete ramp. Prior to the 2018 eruption, the boat ramp facility was available for recreational and commercial use. The existing Pohoiki Boat Ramp facility is currently closed, which is severely impacting Puna's fishing community. The USACE maintains the 90-foot-long breakwater structure adjacent to the boat ramp.

The following discussion is from the Final EA - Section 2.2.1. Pohoiki Boat Ramp Facility (p. 2-18 and 2-19). A wharf at Pohoiki Bay was constructed in the mid-1880s to support Robert Rycroft's commercial endeavors. The wharf facilities were abandoned by the 1940s, and around this time, Pohoiki Park was established nearby. Pohoiki Park was later renamed in honor of the Korean War casualty Private Isaac Kepookani Hale of Kapoho. In 1963, USACE constructed a boat ramp at the site of the former wharf. DOBOR is the non-Federal sponsor that owns and maintains the Pohoiki Boat Ramp facility. In 1979, the USACE constructed the 90-foot-long breakwater structure at Pohoiki Bay. Maintenance dredging at Pohoiki Bay was undertaken in 2001. In 2008, DOBOR essentially replaced the entire boat ramp facility. A new concrete ramp was constructed along with a new loading dock and pedestrian walkway. Other improvements included a new concrete approach ramp, asphalt paving, and a new rock rip rap revetment to protect the adjacent shoreline.

### Existing utilities (electrical, communication, gas, drainage, water & wastewater):

As stated in the Final EA - Section 2.12. Utilities (p. 2-38), the Pohoiki Boat Ramp facility does not receive utility services. No potable water, wastewater disposal, gas, electrical power, or communications services to the boat ramp facility will be requested as part of DOBOR's project.

FEMA has obligated disaster funding to Hawai'i County that will be utilized to repair or replace damaged public infrastructure including waterlines. The restoration of water service to Isaac Hale Beach Park would be accomplished by the County's Department of Water Supply as a separate action.

#### Physiography (geology, topography, & soils):

The following discussion is from the Final EA - Section 2.1.3. Geology and Geomorphology (p. 2-5). The project area was formed from basaltic lava flows from the Kīlauea Volcano, which is one of the most active volcanoes on Earth. Lava flows from the 2018 eruption of Kīlauea Volcano inundated several areas along the coastline and formed new land approximately 230 feet from the Pohoiki Boat Ramp facility. The new lava landmass drops off steeply into the Pacific Ocean. Constant wave action against structurally weak and friable (easily crumbled) lava flows produces sand and cobbles which are transported along the coast, especially during large wave events.

The topography is hereby summarized from the Final EA - Section 2.1.2. Soils and Topography (p. 2-5). The newly created beach area is fairly level and slopes down near the existing boat ramp facility and at the coastline. The existing ground surface elevations at the fairly level area range from about +10 to +15 feet mean sea level (msl).

The discussion of soil types for the Pohoiki Bay area is summarized from the Final EA - Section 2.1.2. Soils and Topography (p. 2-1) and depicted in Figure 6 SOILS. The project area contains sand beaches, 0 to 6 percent slopes and lava flows, 2 to 20 percent slopes. The sand beaches soil type is somewhat excessively drained. The lava flows soil type is characterized as excessively drained with low to moderately low saturated hydraulic conductivity and very low runoff quality. The soil type for the area behind the beach including at Isaac Hale Beach Park is classified as Malama Extremely Cobbly Highly Decomposed Plant Material, 2 to 40 percent slopes. This map unit is characterized as well drained with low to moderately low saturated hydraulic conductivity and low runoff quality.

As stated in the Final EA - Section 2.1.2. Soils and Topography (p. 2-3 and 2-5), an exploratory boring at Pohoiki Bay that extended to a depth of 27 feet was taken in May 2022. The boring through accumulated volcanic material in Pohoiki Bay revealed a beach deposit surface layer about 18 feet thick consisting of loose to very dense sandy gravel with some cobbles, and a medium dense silty sand layer to a depth of approximately 20.5 feet. Below the silty sand is an approximately 4 feet thick layer of very dense sandy gravel and an underlying layer of hard basalt rock formation. Laboratory test results for one bulk sample of the near-surface soils indicate that the beach deposit material may be suitable as fill material.

#### Hydrology (surface water, groundwater, coastal waters, & wetlands):

DOBOR's project does not involve alterations to or activities near the Pohoiki Warm Springs, which are located mauka (or upland) of the beach and vegetation line at Pohoiki Bay. The designated Pohoiki Warm Springs site is located approximately 400 feet northwest of the Pohoiki Boat Ramp facility. The accumulation of volcanic material from the 2018 eruption severed the connection to the Pacific Ocean and reduced Pohoiki Bay to a few areas of trapped water. There are no streams or other water resources (e.g., rivers, wetlands, bogs, etc.) in the vicinity of the boat ramp facility. Consultation with the USACE is on-going for the permit to restore the connection to the Pacific Ocean.



The following discussion is from the Final EA - Section 2.3. Water Quality (p. 2-21 through 2-23). The nearshore marine environment at Pohoiki Bay was drastically altered by the accumulation of volcanic material from the 2018 eruption. Geological activity in the project area contributes to heated water discharges along the shoreline. On October 18, 2022, the measured temperatures of the deeper and shallower ponds along the vegetation line were 105 and 107 degrees Fahrenheit, respectively. Many individuals submitted comments during the EA process that indicate adults and children are utilizing ponds of trapped water for activities such as swimming and soaking while the boat ramp facility is closed. *Vibrio vulnificus* is a naturally occurring pathogen that thrives in warmer water temperatures. Vibriosis is an illness caused by vibrio bacteria. Symptoms of vibriosis can include staph-like infections. Some people will become very seriously ill and others will have minor infections.

Coastal waters in the project area are designated as Class AA by the Hawai'i Department of Health (DOH). The stated objective for Class AA is that these marine waters "remain in their natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from human-caused source or actions." The Hawai'i Cesspool Hazard Assessment and Prioritization Tool (Shuler et al, 2021) depicts one cesspool located near Pohoiki Bay and the input dataset (Ibid.) depicts several cesspools located further upland and along Pohoiki Road. Discharges of pollutants from cesspools may contribute to harmful environmental impacts that may be noticeable in the nearshore environment. DOH uses Environmental Protection Agency (EPA)-approved tests for water quality testing under the Clean Water Act. Testing undertaken by DOH can detect the fecal indicator organism, enterococci; however, there are also natural causes for the presence of enterococci. None of the EPA-approved tests utilized by DOH would detect *Vibrio*, which is a naturally occurring pathogen, in water. Vibriosis is diagnosed when the *Vibrio* bacteria is detected in the blood, stool, or wound of a symptomatic patient.

Dredged material that is placed along the backshore area at Pohoiki Bay will eliminate the small ponds of trapped water located makai (or seaward) of the vegetation line. Nearby property owners appear to support this aspect of the project. The ponds in the backshore area are viewed favorably by some community members and viewed as an unsanitary nuisance by some community members. DOBOR does not support the viewpoint of utilizing ponds of trapped water for a safe swim area due to concerns pertaining to Vibriosis and discharges from cesspools. DOH suspended its water quality testing at Pohoiki when the connection with the Pacific Ocean was severed. Water quality testing by DOH is expected to resume after the connection between Pohoiki Bay and the Pacific Ocean is restored. The public is expected to benefit from the resumption of water quality testing by DOH since it notifies the public when there are indicators of public health concerns.

Construction activities at the project site will comply with applicable Federal, State and County erosion control rules and regulations including but not limited to the National Pollutant Discharge Elimination System (NPDES) Permit for discharges of pollutants, including storm water runoff. The construction contractor will be responsible for implementing a storm water management plan to minimize erosion and sediment loss where site work occurs in accordance with State and County regulations. Erosion control measures (e.g., the use of berms, cut-off ditches and silt fences) and Best Management Practices (BMPs) will mitigate stormwater runoff from entering State waters. Any silt fences erected during construction will be continuously inspected and repaired to prevent silt runoff from construction.

Flora & fauna (indicate if rare or endangered plants and/or animals are present):

The Pohoiki Bay area contains native plant habitat that was intentionally modified to allow for human activities, and terrain that was recently affected by natural land formation processes. As stated in the Final EA - Section 2.6. Floral and Faunal Resources (p. 2-25 through 2-26), there is no federally designated critical habitat in the project area, and no plant species observed in the project area are listed as endangered or threatened under federal or State of Hawai'i endangered species statutes

Federally protected species that are known to occur, or could reasonably be expected to occur in or transit through the project area include one mammal and three Hawaiian seabirds: Hawaiian hoary bat (*Lasurus cinereus semotus*) or 'ōpe'ape'a, Hawaiian petrel (*Pterodroma sandwichensis*) or 'ua'u, Newell's shearwater (*Puffinus auricularis newelli*) or 'a'o, and Band-rumped storm-petrel (*Hydrobates castro*) or 'akē'akē. The Hawai'i Distinct Population Segment of green sea turtle (*Chelonia mydas agassizi*) is federally-listed as a threatened species and as a threatened subspecies under state regulations. The hawksbill sea turtle (*Eretmochelys imbricata*) is federally-listed as endangered and much less common than the green sea turtle in Hawaiian waters. No evidence of sea turtle usage of the beach was observed during the survey; however, the newly formed beach and shoreline area are suitable for green sea turtle and hawksbill turtle nesting.

DLNR's Division of Aquatic Resources (DAR) is not opposed to the filling of the ponds at the backshore area in part because the water temperatures increased to over 45 degrees Celsius (or 113 degrees Fahrenheit) and extirpated native anchialine shrimp species from that habitat. The filling of anchialine ponds habitats would typically be discouraged by DAR based on its efforts to protect these unique habitats; however, the proposed project in this instance is not expected to have measurable impacts to native anchialine species or nearby anchialine or other aquatic habitats.

Commercial, recreational, and food subsistence activities, and emergency rescue services are expected to continue to influence the natural environment in the Pohoiki Bay area for the foreseeable future. The U.S. Fish and Wildlife Service provided its list of recommended standard BMPs for avoiding or minimizing impacts to fish and wildlife resources. Measures that pertain to protected species have been recommended by DAR. DOBOR's contractor will be responsible for implementing measures that avoid or reduce the impacts to aquatic habitats from construction-related activities.

Natural hazards (erosion, flooding, tsunami, seismic, etc.):

The following discussion is summarized from the Final EA - Section 2.7. Natural Hazards (p. 2-28 through 2-31). Recent lava flows from the active Kīlauea volcano destroyed built structures and covered roads. The area of Puna that contains the project site has a high volcanic hazard designation as assessed by the United States Geological Survey. The high hazard risk assigned to Puna is due to the presence of Kīlauea, which is an active volcano. The shoreline in the project area is characterized by a moderate to high coastal hazard due to wave and tsunami exposure. The beach and nearshore areas at Pohoiki Bay including the boat ramp facility would be impacted by 3.2 feet of sea level rise. Climate change and sea level rise that brings groundwater closer to the surface may exacerbate the pollutant impacts from cesspools.

The threats to humans and property from unpredictable natural events such as volcanic eruptions, tropical cyclones, earthquakes, and flooding will always be present. There are no apparent rockfall

hazards in the project vicinity due to terrain and topography. Threats from wildfires are unlikely but possible. Drought conditions and high winds could exacerbate the fire hazard. The proposed project does not add new infrastructure at Pohoiki Bay and is not likely to influence the probable occurrence of naturally occurring hazards. Higher ocean levels or coastal inundation may be addressed with future improvements to DOBOR's Pohoiki Boat Ramp facility as necessary.

#### Historic & cultural resources:

The following discussion is summarized from the Final EA - Section 2.8. Archaeological and Cultural Resources (p. 2-31 through 2-35). Cultural Surveys Hawai'i, Inc. (CSH) conducted its field inspection of the project area on November 21, 2022. No historic properties are known to exist within the volcanic material that has accumulated at Pohoiki Bay and new lava land that formed as a result of the 2018 eruption. The archaeological literature review and field inspection (LRFI) report prepared by CSH (Wilkinson et al. 2023) for DOBOR's project identifies seven archaeological and/or cultural sites that are within the project area but away from the infilled Pohoiki Bay and new lava land. Five sites documented by CSH are less likely to be directly impacted by project activities. DOBOR will require its contractor to avoid these five sites during construction activities. Two sites are located along the proposed secondary access route that traverses the privately-owned parcel along Pohoiki Bay. The field inspection by CSH was conducted with representatives of the Kuamo'o 'Ohana, which owns TMK: (3) 1-3-008:013. DOBOR will execute an easement for temporary construction access as part of the project if necessary.

Barricade fencing may be utilized to delineate areas beyond the dredging site that should be avoided during construction such that no historic properties are expected to be adversely affected by DOBOR's project. In addition to the avoidance of historic properties, DOBOR will require its contractor to prevent heavy equipment from traveling and working on or near the existing breakwater structure per USACE's recommendation. DOBOR proposes no archaeological inventory survey or archaeological monitoring due to the implementation of avoidance measures during the dredging of Pohoiki Bay and placement of the material on newly formed lava land. In the event of an inadvertent discovery of sites or human remains, DOBOR's contractor will be required to halt construction activities and immediately notify SHPD.

The cultural impact assessment (CIA) effort was initiated in 2023 by CSH. The main continuous cultural practice within the project area is subsistence fishing. Local fishermen who have fished in the waters off of Pohoiki for generations would launch their boats from Pohoiki Bay. The cultural importance of Pohoiki Bay is not expected to be diminished by the project, which supports ocean rescue services, commercial and recreational activities, food subsistence, and cultural practices. Dredged material that is placed in the backshore area as a result of DOBOR's project may help to ameliorate the concerns about imperiled historic sites and erosion. Individuals consulted during the surveys conducted by CSH expressed the importance of the project for the Pohoiki community. The main sentiment expressed to elected officials during several community discussions that occurred separately from the LRFI and CIA efforts was that the boat ramp needs to reopen as soon as possible.

## EVALUATION CRITERIA

The Department or Board will evaluate the merits of a proposed land use based upon the following eight criteria (*ref §13-5-30(c)*)

1. The purpose of the Conservation District is to conserve, protect, and preserve the important natural and cultural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare. (*ref §13-5-1*) How is the proposed land use consistent with the purpose of the conservation district?

Public access to beaches and the ocean is a right that is preserved by the State of Hawai'i constitution. The operable Pohoiki Boat Ramp facility supported local life, commercial activities including tourism, food subsistence, recreational activities, and emergency rescue services. The return of the Pohoiki Boat Ramp facility to productive use is expected to restore economic activities (e.g., commercial fishing and ocean/volcano tours) and fishing for subsistence. DOBOR's project is expected to benefit the Puna community as it continues to recover from the 2018 eruption.

2. How is the proposed use consistent with the objectives of the subzone of the land on which the land use will occur? (*ref §13-5-11 through §13-5-15*)

The Pohoiki Boat Ramp facility serves a public purpose. The restoration of navigational access at Pohoiki Bay represents the utilization of state-owned land and funds to address the expressed needs of the local community. The project does not involve new coastal development and will return the existing Pohoiki Boat Ramp facility to productive use.

3. Describe how the proposed land use complies with the provisions and guidelines contained in chapter 205A, HRS, entitled "Coastal Zone Management" (*see 205A objectives on p. 9*).

Recreational resources: Coastal recreational opportunities are currently curtailed as a result of the 2018 volcanic eruption and inoperable boat ramp facility. The proposed project restores navigational access and returns the Pohoiki Boat Ramp facility to productive use. Coastal water quality will be protected since appropriate erosion control BMPs will be implemented during construction.

Historic resources: No known historic resources would be endangered by the project. DOBOR shall require its contractor to comply with all State and County rules and laws pertaining to historic preservation. Construction activities will be halted and SHPD will be notified in the event any unanticipated archaeological or historic sites are encountered.

Scenic and open space resources: The project involves dredging and is not expected to diminish coastal scenic view areas or open space resources.

Coastal ecosystems: The project is not expected to disrupt or degrade coastal water ecosystems. DOBOR's construction contractor will be responsible for implementing a storm water management plan and controlling runoff that can transport loose soil, excess nutrients, and other pollutants. A NPDES permit will be required to ensure compliance with BMPs during construction.

Economic uses: The project involves dredging and does not involve new coastal development; therefore, the policies pertaining to coastal economic development do not apply.

Coastal hazards: Coastal hazards are not expected to be exacerbated by the project. The construction contractor must implement BMPs that address the quality and quantity of stormwater leaving the affected area, which would help to reduce nonpoint source pollution into streams.

Managing development: The project does not impact or influence the development review process. The environmental review process includes opportunities for public participation and comments pertaining to a variety of issues and topics including coastal resources and hazards.

Public participation: The environmental review process provided public participation opportunities.

Beach protection: Public access to beach areas will remain as a result of the project, which allows the Pohoiki Boat Ramp facility to return to productive use. The project does not involve the construction of erosion-protection structures seaward of the shoreline.

Marine resources: The project involves dredging to restore navigational access. The Pohoiki Boat Ramp facility would return to productive use, which is expected to benefit the Puna community.

4. Describe how the proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region.

The proposed project will restore the connection between the Pacific Ocean and Pohoiki Bay, and does not involve new coastal development. The productive use of DOBOR's facility (which is built infrastructure) is expected to benefit the Puna community as it continues to recover from the 2018 eruption.

5. Describe how the proposed land use, including buildings, structures and facilities, is compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.

The proposed project represents a long-term commitment by DOBOR to provide ocean access at Pohoiki Bay. The project is designed to restore navigational access (which previously existed) from the Pohoiki Boat Ramp facility (which is permanent infrastructure) to the Pacific Ocean.

The existing Pohoiki Boat Ramp facility is consistent with the surrounding low density development that reflects an outdoor recreation area. The surrounding project area at Pohoiki is influenced by intentional alterations for commercial, recreational and food subsistence activities. The area around the boat ramp facility contains structures, visible public facilities, parking, roadways, and other landforms associated with previous commercial endeavors and outdoor recreation. No new buildings or structures are proposed as part of DOBOR's project.

6. Describe how the existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon.

As a result of the 2018 eruption, the nearshore waters of Pohoiki Bay have been replaced with a wide expanse of black sand beach. The proposed project does not add new urban structures to the

landscape and is not expected to diminish coastal scenic view areas or open space resources. Dredging that removes the accumulated volcanic material from Pohoiki Bay is expected to improve the visual landscape for people who value the aesthetics of more nearshore marine waters against the distant Pacific Ocean.

7. If applicable, describe how subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.

The proposed project involves no subdivision of land.

8. Describe how the proposed land use will not be materially detrimental to the public health, safety and welfare.

The proposed action would return the Pohoiki Boat Ramp facility to productive use whereas the existing facility is currently landlocked and inoperable, which curtails emergency rescue services and commercial, recreational, and food subsistence activities. The placement of dredged material in the backshore area will eliminate areas of trapped water. DOBOR does not consider the ponds to be a safe swim area given the considerations pertaining to Vibrosis and pollutant discharge from cesspools. Hawai'i County envisions a different location for a safe swim area that would be close to an existing parking area near the boat ramp. The improvements to Isaac Hale Beach Park would be accomplished by the County as a separate action.

Water quality testing by DOH is expected resume after the connection between Pohoiki Bay and the Pacific Ocean is restored. The public is expected to benefit from the resumption of water quality testing by DOH since it notifies the public when there are indicators of public health concerns.

## **CULTURAL IMPACTS**

Articles IX and XII of the State Constitution, other state laws, and the courts of the State, require government agencies to promote and preserve cultural beliefs, practices, and resources of Native Hawaiians and other ethnic groups.

Please provide the identity and scope of cultural, historical, and natural resources in which traditional and customary native Hawaiian rights are exercised in the area.

The first specific written mention of Pohoiki is from a report by Chester Lyman that describes a trip with Rev. Coan to Puna in 1846. Lyman describes the natural setting of Pohoiki Bay and the people in attendance at the church service. Other available documentation indicates there was a school located at Pohoiki in 1848. Several commercial ventures were undertaken in Puna and the Pohoiki vicinity including the harvesting of pulu (soft yellow material from the base of the tree fern), which was used for stuffing mattresses and pillows. Shipments of pulu were first sent to California in 1847, and the industry had declined significantly by the mid-1880s.

Proposed dredging and excavation activities would occur in areas that were previously disturbed. A wharf at Pohoiki Bay was constructed in the mid-1880s to support Robert Rycroft's commercial endeavors. The wharf facilities were abandoned by the 1940s, and around this time, Pohoiki Park was established nearby. Pohoiki Park was later renamed in honor of the Korean War casualty Private Isaac Kepookani Hale of Kapoho. The old courthouse property was deeded to Moses Kuamo'o in 1941. Around this time, John Hale was actively maintaining the site of the old Rycroft coffee mill.

In 1963, USACE constructed a boat ramp at the site of the former wharf. In 1979, the USACE constructed the 90-foot-long breakwater structure at Pohoiki Bay. Maintenance dredging at Pohoiki Bay was undertaken in 2001. In 2008, DOBOR essentially replaced the entire boat ramp facility. A new concrete ramp was constructed along with a new loading dock and pedestrian walkway. Other improvements included a new concrete approach ramp, asphalt paving, and a new rock rip rap revetment to protect the adjacent shoreline.

The fisherfolk of the Puna community have fished and utilized Pohoiki Bay for generations. The black sand beach, which formed as a result of the 2018 eruption, completely blocks navigational access such that the boat ramp is inoperable; the nearest accessible boat launch facility is 40 miles away. Local fishermen have had to (1) stop fishing altogether, which greatly impacts their livelihood and food subsistence activities; (2) launch from Hilo harbor, which increases expenses such as gas; and (3) adjust profit goals in order to compensate for rising expenses.

Identify the extent to which those resources, including traditional and customary Native Hawaiian rights, will be affected or impaired by the proposed action.

The main continuous cultural practice within the project area is subsistence fishing. The cultural importance of Pohoiki Bay is not expected to be diminished by the project, which supports ocean rescue services, commercial and recreational activities, food subsistence, and cultural practices.

Dredged material placed on newly formed accretion land is not expected to have any effect on traditional and customary Native Hawaiian rights. DOBOR will require its contractor to avoid parking or staging within the privately-owned parcel, and anticipates no impacts to the enclosure or any features therein such as remnants of the Pohoiki courthouse and/or jail.

What feasible action, if any, could be taken by the Board of Land and Natural Resources in regards to your application to reasonably protect Native Hawai'i rights?

The proposed project serves a public purpose and will be designed to avoid important historic resources to the extent possible. Barricade fencing may be utilized to delineate areas beyond the dredging site that should be avoided during construction. DOBOR will consult with the State Historic Preservation Division (SHPD) for its determination of historic preservation requirements. Unanticipated discoveries of historic resources may occur during the various phases of construction. DOBOR is expected to ensure that its contractor will halt construction activities and immediately notify SHPD in the event of a discovery of sites or human remains.

The following recommendations pertain to an inadvertent discovery of historic remains or other potentially significant subsurface resources: (1) the contractor will be required to halt construction activities and to immediately notify SHPD of the discovery pursuant to HAR §12-280-3; and (2) DOBOR will prevent the disturbance or taking of any discovered archaeological, historic, or cultural resources to the extent possible by instituting the described mitigation measures (i.e., halt construction and immediately notify SHPD) and enforcing their implementation by its contractors.

In the event that iwi kūpuna (ancestral remains) are identified, all earth moving activities in the area will stop and the area will be cordoned off. SHPD and the County's Police Department will be notified pursuant to HAR §13-300-40. In the event that iwi kūpuna and/or cultural finds are encountered during construction, the cultural and lineal descendants of the area should be consulted to develop a reinterment plan and cultural preservation plan for proper cultural protocol, curation, and long-term maintenance.



## OTHER IMPACTS

Does the proposed land use have an effect (positive/negative) on public access to and along the shoreline or along any public trail?

The proposed project is consistent with providing public access to and along the shoreline. The dredged material will be placed on newly formed accretion land, not on any established public trails.

Does the proposed use have an effect (positive/negative) on beach processes?

Dredging accumulated volcanic material from the inundated Pohoiki Bay is not expected to affect land formation processes, wave action, tides or tidal currents, wind or wind currents, or sea level because these natural forces are mostly beyond human influence. The coastline in the project area is characterized as dynamic and energetic with mostly rocky sea cliffs, deep water close to shore, and relatively high nearshore ground elevations. The dynamic and energetic coastline conditions are likely to prevail for the foreseeable future. The pre-eruption Pohoiki Bay was one of the few areas of coastline with natural wave protection.

Will the proposed use cause increased sedimentation?

Temporary impacts to water quality are anticipated during the construction period due to turbidity resulting from excavation and dredging activities. The turbidity effects are expected to be temporary, limited to the duration of construction, and less than significant.

A NPDES Permit for discharges of pollutants, including storm water runoff is required for the disturbance of one acre or more of total land area pursuant to HAR §11-55, "Water Pollution Control" effective January 15, 2022. Construction activities at the project site will comply with applicable Federal, State and County erosion control rules and regulations.

Will the proposed use cause any visual impact on any individual or community?

The proposed project, which will occur in a public outdoor recreation area, is not expected to result in visual impacts on any individual or community. The project consists of dredging accumulated volcanic material and depositing it on newly formed accretion land.

Please describe any sustainable design elements that will be incorporated into the proposed land use (e.g. *the use of efficient ventilation and cooling systems; renewable energy generation; sustainable building materials; permeable paving materials; efficient energy and water systems; efficient waste management systems; etc.*).

The project does not involve the addition of new facilities or structures that incorporate sustainable design elements (e.g., efficient ventilation and cooling, renewable energy generation, etc.).

If the project involves landscaping, please describe how the landscaping is appropriate to the Conservation District (e.g. *use of indigenous and endemic species; xeriscaping in dry areas; minimizing ground disturbance; maintenance or restoration of the canopy; removal of invasive species; habitat preservation and restoration; etc.*)

DOBOR's project does not include landscaping unless it is necessary to stabilize disturbed areas.

Please describe Best Management Practices that will be used during construction and implementation of the proposed land use.

The construction contractor will be responsible for implementing a storm water management plan to minimize erosion and sediment loss where site work occurs in accordance with State and County regulations. Erosion control measures (e.g., the use of berms, cut-off ditches and silt fences) and BMPs will mitigate stormwater runoff from entering State waters. Any silt fences erected during construction will be continuously inspected and repaired to prevent silt runoff from construction.

Please describe the measures that will be taken to mitigate the proposed land use's environmental and cultural impacts.

Temporary impacts to water quality are anticipated during the construction period due to turbidity resulting from excavation and dredging activities. The turbidity effects are expected to be temporary, limited to the duration of construction, and less than significant. Construction activities at the project site will comply with applicable Federal, State and County erosion control rules and regulations including but not limited to the NPDES permit. The construction contractor will be responsible for implementing a storm water management plan to minimize erosion and sediment loss where site work occurs in accordance with State and County regulations. Dredged material will be placed on newly formed accretion land, and away from the reach of ocean waves. The placement of the dredged material is not expected to adversely impact the environment.

Commercial activities including tourism, food subsistence, recreational activities, and emergency rescue services are currently curtailed as a result of the 2018 volcanic eruption and inoperable boat ramp facility. The return of the Pohoiki Boat Ramp facility to productive use is expected to restore economic activities (e.g., commercial fishing and ocean/volcano tours) and fishing for subsistence.

**SINGLE FAMILY RESIDENTIAL STANDARDS**

Single Family Residences must comply with the standards outlined in HAR Chapter 13-5, Exhibit 4. Please provide preliminary architectural renderings (e.g. building foot print, exterior plan view, elevation drawings; floor plan, etc.) drawn to scale.

SIZE OF LOT

	Existing	Proposed	Total
Proposed building footprint			
Paved areas/ impermeable surfaces			
Landscaped areas			
Unimproved areas			

SETBACKS      Front:    Side:    Back:

SHORELINE PROPERTIES

Average Lot Depth (ALD):    Average annual coastal erosion rate:  
 Minimum shoreline setback based on Exhibit 4:  
 Actual shoreline setback or proposed structure:

MAXIMUM DEVELOPABLE AREA

The Maximum Developable Area includes all floor areas under roof, including first, second, and third stories, decks, pools, saunas, garage or carport, and other above ground structures.

Maximum Developable Area based on Exhibit 4:  
 Actual Developable Area of proposed residence:  
 Actual height of the proposed building envelope as defined in Exhibit 4:

COMPATIBILITY

Provide justification for any propose deviation from the established residential standards.

How is the design of the residence compatible with the surrounding area?

If grading is proposed, include a grading plan which provides the amount of cut and fill. Has grading or contouring been kept to a minimum?



## CHAPTER 205A – COASTAL ZONE MANAGEMENT

Land uses are required to comply with the provisions and guidelines contained in Chapter 205A, Hawai'i Revised Statutes (HRS), entitled "Coastal Zone Management," as described below:

- **Recreational resources:** Provide coastal recreational opportunities accessible to the public.
- **Historic resources:** Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.
- **Scenic and open space resources:** Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.
- **Coastal ecosystems:** Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.
- **Economic uses:** Provide public or private facilities and improvements important to the State's economy in suitable locations.
- **Coastal hazards:** Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.
- **Managing development:** Improve the development review process, communication, and public participation in the management of coastal resources and hazards.
- **Public participation:** Stimulate public awareness, education, and participation in coastal management.
- **Beach protection:** Protect beaches for public use and recreation.
- **Marine resources:** Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

CERTIFICATION

I hereby certify that I have read this completed application and that, to the best of my knowledge, the information in this application and all attachments and exhibits is complete and correct. I understand that the failure to provide any requested information or misstatements submitted in support of the application shall be grounds for either refusing to accept this application, for denying the permit, or for suspending or revoking a permit issued on the basis of such misrepresentations, or for seeking of such further relief as may seem proper to the Land Board.

I hereby authorize representatives of the Department of Land and Natural Resources to conduct site inspections on my property. Unless arranged otherwise, these site inspections shall take place between the hours of 8:00 a.m. and 4:30 p.m.



Oct 4, 2023

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*Signature of authorized agent(s) or if no agent, signature of applicant*

AUTHORIZATION OF AGENT

I hereby authorize \_\_\_\_\_The Limtiaco Consulting Group, Inc. \_\_\_\_\_to act as my representative and to bind me in all matters concerning this application.



Oct 4, 2023

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*Signature of applicant(s)*