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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

February 13, 2026

Ms. Mary Alice Evans, Director
Environmental Review Program
Office of Planning and Sustainable Development
Department of Business, Economic Development and Tourism
235 S. Beretania Street, Room 702
Honolulu, Hawaii 96813

Final Environmental Assessment and Finding of No Significant Impact (FEA-FONSI)
For the Proposed Honuʻapo Estuary Wetland Restoration Project
Honuʻapo Ahupuaʻa, Kaʻū District, Island of Hawaiʻi
TMK: (3) 9-5-014:007 (por.)

Dear Ms. Evans:

With this letter, we hereby submit the Final Environmental Assessment and Finding of No Significant Impact (FEA-FONSI) for the "Honuʻapo Estuary Wetland Restoration" project, to be published in the next available edition of *The Environmental Notice*. The proposed project involves a portion of Tax Map Key (3) 9-5-014:007 (por.) on the island of Hawaii.

The Draft Environmental Assessment was published in the October 8, 2025, edition of *The Environmental Notice*. Comments received during the public comment period and DLNR's responses are included in the FEA-FONSI. In accordance with the Board of Land & Natural Resources approval on July 25, 2025, Item L-1, authority was delegated to the Chairperson to approve an EA and issue a FONSI. Therefore, the FEA and FONSI determination has been approved by the Chairperson on February 3, 2026. The FEA-FONSI will be attached and submitted to the Environmental Review Program via the Office of Environmental Quality Control online submission platform.

Should you have any questions, please contact Ms. Afsheen Siddiqi of the Division of Forestry and Wildlife at afsheen.a.siddiqi@hawaii.gov.

Sincerely,

DGS

Ryan K.P. Kanakaʻole
Acting Chairperson

c: Engineering Division (valerie.s.suzuki@hawaii.gov)
Kahewai Environmental (wbow@kahewai.com)
Bow Engineering & Development, Inc. (etanitomi@bowengineering.com)

From: dbedt.opsd.erp@hawaii.gov
To: DBEDT OPSD Environmental Review Program
Subject: New online submission for The Environmental Notice
Date: Monday, March 9, 2026 2:58:58 PM

Action Name

Honuʻapo Estuary Wetland Restoration Project

Type of Document/Determination

Final environmental assessment and finding of no significant impact (FEA-FONSI)

HRS §343-5(a) Trigger(s)

- (3) Propose any use within a shoreline area

Judicial district

Kaʻū, Hawaiʻi

Tax Map Key(s) (TMK(s))

(3) 9-5-014:007

Action type

Agency

Other required permits and approvals

NEPA Compliance, Department of the Army Permit, NPDES, 6E, Loko I'a Permit, Special Management Area, Shoreline Setback Variance, Grading/Grubbing/Stockpiling Permits

Proposing/determining agency

State of Hawaiʻi, Department of Land and Natural Resources, Division of Forestry and Wildlife

Agency jurisdiction

State of Hawaiʻi

Agency contact name

David Smith

Agency contact email (for info about the action)

afsheen.a.siddiqi@hawaii.gov

Email address for receiving comments

afsheen.a.siddiqi@hawaii.gov

Agency contact phone

(808) 587-4181

Agency address

1151 Punchbowl St., Room 325
Honolulu, Hawaii 96813
United States
Map It

Is there a consultant for this action?

Yes

Consultant

Kahewai Environmental LLC

Consultant contact name

William Bow

Consultant contact email

wbow@kahewai.com

Consultant contact phone

(808) 371-0676

Consultant address

2855 E MANOA RD
Suite 105, Box No. 316
Honolulu, HI 96822
United States
Map It

Action summary

The proposed project includes the restoration of approximately 8 acres of estuary and wetland habitat at the Honu'apo Estuary Wetland. Improvements to be implemented under the plan include:
(1) removal of invasive vegetation to improve water quality and quantity as well as habitat function;
(2) creation of deepened water areas for improved habitat productivity and diversity;
(3) revegetation with native plant species to provide natural site conditions for native endemic species;
(4) installation of a predator proof fence;
(5) pedestrian gates and walkway with viewing platforms.

Reasons supporting determination

Refer to "Section 5: Findings and Determination" in the document for supporting reasons.

Attached documents (signed agency letter & EA/EIS)

- App-B-H-FEA-Honu-030326F.pdf
- App-A-2-DEA-Comments-Honu-030326.pdf
- App-A-1-Early-ADA-OCR-F.pdf
- Final-EA-Honuapo-Wetland-ADA2.pdf
- Final-EA-Honuapo_Wetland-FEA_FONSI-Letter-part-1-signed-ADA.pdf

Shapefile

- The location map for this Final EA is the same as the location map for the associated Draft EA.

Action location map

- Honuapo2.zip

Compliance certification (HRS §368-1.5):

The authorized individual listed below certifies that documents submitted are unlocked, searchable, and compliant with the Hawaii Electronic Information Technology Disability Access Standards (including, but

not limited to transcripts, captions, and other descriptions accompanying audio/video files). The individual acknowledges that the submitter retains the responsibility for compliance after documents have been published and any compliance queries will be directed back to the agency and/or applicant.

Authorized individual

William F Bow

Authorized individual email

wbow@kahewai.com

Authorized individual phone

(808) 371-0676

Authorization

- The above named authorized individual hereby certifies that he/she has the authority to make this submission.

FINAL ENVIRONMENTAL ASSESSMENT

HONUʻAPO ESTUARY WETLAND RESTORATION PROJECT

Kaʻū District, Hawaiʻi Island

State of Hawaiʻi
Department Land and Natural Resources
Division of Forestry and Wildlife

February 2026




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Final Environmental Assessment
Honuʻapo Estuary Wetland Restoration Project

Kaʻū District, Hawaiʻi Island

This environmental document has been prepared pursuant to
Hawaiʻi Revised Statutes, Chapter 343
and Hawaiʻi Administrative Rules, Title 11, Chapter 200.1

Prepared for:

State of Hawaiʻi
Department of Land and Natural Resources
Division of Forestry and Wildlife

Prepared by:

Bow Engineering & Development, Inc.
Civil Engineering *Planning*

Kahewai Environmental LLC
RJ Environmental Planning

February 2026

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PROJECT SUMMARY

Type of Document:	Final Environmental Assessment
Project Name:	Honuʻapo Estuary Wetland Restoration Project
Proposing/Approving Agency:	State of Hawaiʻi, Department of Land and Natural Resources Division of Forestry and Wildlife 1151 Punchbowl St., Room 325 Honolulu, Hawaiʻi 96813 Contact: David Smith (808) 587-4181
Location:	Whittington Beach Park, Honuʻapo Honuʻapo ahupuaʻa, Kaʻū District, southern Hawaiʻi Island
Tax Map Key:	Portion of TMK: (3) 9-5-014:007
Acreage:	Approximately 8 acres
Proposed Project:	The proposed project includes the restoration of approximately 8 acres of estuary and wetland habitat at the Honuʻapo Estuary Wetland. Improvements to be implemented under the plan include: (1) removal of invasive vegetation to improve water quality and quantity as well as habitat function; (2) creation of deepened water areas for improved habitat productivity and diversity; (3) revegetation with native plant species to provide natural site conditions for native endemic species; (4) installation of a predator proof fence; (5) pedestrian gates and walkway with viewing platforms.
State Land Use Designation:	Conservation District and Agriculture District
Existing Zoning:	A-20a, Agricultural District (minimum building site of 20 acres)
Special Management Area:	Within County of Hawaiʻi SMA
HRS Ch. 343 Trigger:	Shoreline Setback Variance
Determination:	Finding of No Significant Impact (FONSI)

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APPENDICES

Frequently Used Acronyms and Abbreviations

Acronym/Abbreviation	Definition
Acre	43,560 square feet
BMP	Best Management Practices
CFR	Code of Federal Regulations
Corps	United States Army Corps of Engineers
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DLNR	Department of Land and Natural Resources
DOFAW	Division of Forestry and Wildlife
DPR	Department of Parks and Recreation
EA	Environmental Assessment
ERP	Environmental Review Program
EPA	US Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Maps
FONSI	Finding of No Significant Impact
GHG	Greenhouse Gas
HAR	Hawai‘i Administrative Rules
HEPA	Hawai‘i Environmental Policy Act
HRS	Hawai‘i Revised Statutes
KOOH	Ka ‘Ohana O Honu‘apo
MBTA	Migratory Bird Treaty Act
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NOAA	National Oceanographic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service (formerly, Soil Conservation Service, USDA)
NWI	USFWS National Wetland Inventory
PM_{10}	Suspended Particulate Matter; Ten-micron Particulates
$PM_{2.5}$	Fine Particulate Matter
SMA	Shoreline Management Area
SR	State Route
TMDL	Total Maximum Daily Load
TMK	Tax Map Key
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1 INTRODUCTION

This Final Environmental Assessment (EA) has been processed as a Finding of No Significant Impact (FONSI) by the State of Hawai'i, Department of Land and Natural Resources, Division of Forestry and Wildlife. As a result, the preparation of an Environmental Impact Statement is not required.

Various places in the EA have been modified to reflect input received in the comments made on the Draft EA or during the public scoping meetings. To facilitate the readers' ability to distinguish revisions made to the Draft EA, additional or modified non-procedural text is underlined, as in this paragraph.

1.1 PROJECT INTRODUCTION AND PURPOSE AND NEED

The State of Hawai'i, Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW) is proposing to restore ±8-acres of the Honu'apo Estuary, located in the Honu'apo ahupua'a, Ka'ū District, on the Island of Hawai'i. The Honu'apo property was purchased by the State of Hawai'i in 2005 after the community group, Ka 'Ohana O Honu'apo (KOOH), came together with Trust for Public Lands to secure funding to acquire the property and preserve undeveloped open space along the coastline. The County of Hawai'i, Department of Parks and Recreation (DPR) provides management over use of Honu'apo lands, along with KOOH. Based on the detailed *Wetlands Habitat Restoration Plan for Honu'apo Estuary* (Restoration Plan) prepared in 2011, an updated restoration plan has been developed for the project. Funding for the proposed wetland restoration project will be provided by the U.S. Fish and Wildlife Service (USFWS) and the State of Hawai'i, in addition to other community partners, grants, and private donations.

The Honu'apo estuary is part of a unique coastal ecosystem of semi-sheltered near-shore pools, brackish ponds, and open ocean environments. Estuarine wetlands are relatively rare on Hawai'i Island, and the location of this system makes it of high value to both native and migratory birds using the southern portion of the island.

The primary objective of the project is the restoration and enhancement of the estuary to restore and enhance habitat form and function for the benefit of native plants and animals, with an emphasis on resident and migratory bird species. Secondary objectives include accommodating estimated sea level rise; improving aesthetics of the site; allowing for passive recreational and educational uses; and preserving cultural and historical values.

1.2 PURPOSE OF THE ENVIRONMENTAL ASSESSMENT

The evaluation of projects to determine their effects on the environment is required by the Hawai'i Revised Statutes (HRS) Chapter 343. An Environmental Assessment (EA) is a "written evaluation to determine whether an action may have a significant effect" (HRS Section 343-2). The agency with primary responsibility over the project (the proposing agency) is required to prepare an EA and make a final environmental determination according to the presence of significant impacts or the lack thereof as set forth in the EA. As stated in HRS Section 343-1:

> An environmental review process will integrate the review of environmental concerns with existing planning processes of the State and counties, and alert decision makers to

> significant environmental effects which may result from the implementation of certain actions. …The process of reviewing environmental effects is desirable because environmental consciousness is enhanced, cooperation and coordination are encouraged, and public participation during the review process benefits all parties involved and society as a whole.

As described above, the basic purpose of an EA is to provide information to the public and decision makers on proposed actions. The EA must also disclose potential significant adverse environmental impacts, the expected primary and secondary consequences, and the cumulative as well as the short- and long-term effects of the action.

1.3 FEDERAL AND STATE AUTHORITY

It is anticipated that funding for the restoration project will include both state and federal funding, making the project subject to environmental documentation requirements under both the Hawai'i Environmental Policy Act (HEPA) and the National Environmental Policy Act (NEPA).

STATE REGULATORY OVERVIEW

Environmental review procedures required by the State of Hawai'i include compliance with HRS Chapter 343 and Hawaii Administrative Rules (HAR) Title 11, Chapter 200.1, Department of Health, "Environmental Impact Statement Rules". The project site is located within the Hawai'i's land use district of "Conservation District," which is under the jurisdiction of the State Board of Land and Natural Resources (BLNR). Permitted uses are defined under HAR Title 13, Chapter 5. The project area is also located within the Hawai'i County's Special Management Area (SMA), as regulated under HRS Chapter 205A, Part II, and Hawai'i County Planning Commission Rules, Rule 9. In addition, the proposed action requires compliance with the Shoreline Setback Rules of the County of Hawai'i Planning Department (Planning Department Rule 11-5), and all work within the shoreline setback would need a variance. As a result, compliance with the State's environmental review process is required.

FEDERAL REGULATORY OVERVIEW

The following is a summary of the federal laws and consultations that may be relevant to implementing the restoration project.

National Environmental Policy Act

The proposed action may be subject to compliance with the National Environmental Policy Act (NEPA) of 1969, 42 United States Code (USC) §4321, as implemented by the Council on Environmental Quality regulations, 40 Code of Federal Regulations (CFR) Parts 1500-1508 (40 CFR §1500 *et seq.*). The USFWS would be required to complete the appropriate documentation for compliance with NEPA.

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966, as amended (16 USC §470) recognizes the Nation's historic heritage and establishes a national policy for the preservation of historic properties as well as the National Register of Historic Places. Section 106 of the NHPA requires federal agencies to consider the effects of federal undertakings on historic properties. The Section 106

process, as defined in 36 CFR §800, provides for the identification and evaluation of historic properties, for determining the effects of undertakings on such properties, and for developing ways to resolve adverse effects through the process of consultation.

Coastal Zone Management Act

The purpose of the Coastal Zone Management Act (CZMA) of 1972, as amended (16 USC §1451 *et seq.*) is to encourage states to manage and conserve coastal areas as a unique, irreplaceable resource. Federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner that is consistent to the maximum extent practicable with the enforceable policies of approved state management programs. HRS Chapter 205A implements this program for the State of Hawai'i, and Hawai'i County's Special Management Area (SMA) regulations under HRS Chapter 205A and Hawai'i County Planning Commission Rules, Rule 9 specifies the procedures for reviewing a project's consistency with coastal zone management objectives and policies.

Endangered Species Act

The Endangered Species Act (ESA) (16 USC §1531 *et seq.*) establishes a process for identifying and listing species. It requires all federal agencies to carry out programs for the conservation of federally listed endangered and threatened plants and animals, and prohibits actions by federal agencies that may adversely affect listed species or adversely modify designated critical habitat without formal consultation with the U.S. Fish and Wildlife Service or the National Oceanographic and Atmospheric Administration (NOAA). Section 7 of this Act specifies the consultation program conducted with these federal agencies.

Clean Water Act

The Clean Water Act (CWA) of 1972 is the primary federal law that protects the nation's waters, including lakes, rivers and coastal areas. The primary objective of the CWA is to restore and maintain the integrity of the nation's waters.

Section 401 of the CWA requires a Water Quality Certification (WQC) be obtained from the state (or territory) for actions that require a federal permit to conduct an activity, construction or operation that may result in a discharge into waters of the United States. The State of Hawai'i Department of Health, Clean Water Branch (DOH-CWB) implements this program issuing WQC permits for activities affecting jurisdictional waters.

Section 402 of the CWA establishes a National Pollution Discharge Elimination System (NPDES) general permit process for point and non-point source discharges such as storm water discharges associated with construction activities. Such a permit would be required if construction activities disturb a land area of one acre or more and discharge storm water from the construction site to waters of the U.S. The DOH-CWB implements this NPDES for the State.

Section 404 of the CWA requires a permit for the discharge of dredged or fill material into a wetland, navigable water, or jurisdictional waters of the United States. The U.S. Army Corps of Engineers (USACE) issues a permit under these regulations.

Executive Order 11988 Floodplain Management

Executive Order 11988 requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains. It also requires agencies to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. The Environmental Protection Agency (EPA) has policies and procedures for implementing this Order, and each federal agency is responsible for implementing these procedures.

Executive Order 11990 Protection of Wetlands

Executive Order 11990 was issued to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. This Order requires federal agencies, in their planning actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. The EPA has policies and procedures for implementing this Order, and each federal agency is responsible for implementing these procedures.

Executive Order 12898 Environmental Justice

Executive Order 12898 (Environmental Justice) issued in 1994 is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Federal agencies need to identify and address disproportionately high and adverse environmental effects from an action on minority and low-income populations.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act was enacted to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. The federal agency needs to take into consideration the effect that water-related projects would have on fish and wildlife resources, take action to prevent loss or damage to these resources, and provide for the development and improvement of these resources. This regulation is administered by the FWS and the National Marine Fisheries Service, as appropriate.

American with Disabilities Act

The Americans with Disabilities Act (ADA), signed into law in 1990 and later amended with changes in 2009, is a wide-ranging civil rights law intended to make American Society more accessible to people with disabilities, and prohibits discrimination based on disability under certain circumstances. The ADA is divided into five titles that cover: 1) employment; 2) public services; 3) public accommodations; 4) telecommunications; and 5) miscellaneous items. The State DOFAW would need to comply with these regulations by having new project improvements (e.g., pathways) meet the 2010 ADA standards for accessible design.

1.4 STEPS IN THE ENVIRONMENTAL REVIEW PROCESS

EARLY CONSULTATION AND DATA GATHERING

HAR Section 11-200.1-18 requires that an agency must consult with agencies and individuals that might have jurisdiction or expertise with respect to the proposed action. Early consultation is

considered an important part of the environmental review process – the goal is the gathering of information, data, and public concerns. Several meetings were held with community group Ka ʻOhana O Honuʻapo during review of the project to understand the evolution of the project and community context and knowledge. (Past restoration efforts and a summary of the work completed for the 2011 Restoration Plan are reviewed in Sections 2.1 and 6.2 of this EA.) A preliminary description of the project was circulated to agencies and individuals in April 2023, and phone consultations were conducted with permitting agencies as necessary. For a detailed description of the early consultation component of this project, see Chapter 6, *Individuals, Community Groups, and Agencies Consulted,* of this EA. Copies of the written comments are included in Appendix A.

Following preliminary consultation in April and May 2023, it appeared that environmental review of the proposed wetland restoration would be covered under the existing fishpond restoration and maintenance activities. However, after further review and consultation, it was determined that project activities within the shoreline setback area would require a variance, and the Shoreline Setback Variance would trigger the need for an EA (Hawaiʻi Planning Department Rule 11-10). While only those activities within the shoreline setback area trigger compliance with HRS Chapter 343, the entirety of the proposed action is evaluated in this EA (HAR Section 11-200.1-10).

CIRCULATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT

Following completion of the Draft EA, the environmental document was submitted to the State of Hawaiʻi, Office of Planning and Sustainable Development, Environmental Review Program (ERP).[1] Notification of the availability of the Draft EA was published in the October 8, 2025 bi-monthly bulletin called *The Environmental Notice*, and made available at the public library. In addition, community fliers and notifications were posted regarding issuance of this draft EA. Publication in *The Environmental Notice* marks the beginning of a 30-day comment period during which government agencies and the public can review and comment on the environmental document and its findings. For the proposed project, DLNR submitted a notice of the Draft EA to the ERP with an Anticipated Finding of No Significant Impact (AFONSI) (HAR Section 11-200.1-11).

During the 30-day public comment period ending November 7, 2025, agencies, organizations, and individuals were provided the opportunity to comment on the proposed project. Section 6.2 of this EA lists comments received on the Draft EA. Copies of all written comments received on the Draft EA and a summary of comments and responses are contained in Appendix A-2 of this document.

FINAL ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

After the 30-day review period for the Draft EA, the DLNR considered all comments and incorporated necessary changes into a Final EA. The purposes of the Final EA are to document agency and public consultation on the project and respond to the comments received during the comment period on the Draft EA. The Final EA also considers new issues and changes to the project since publication of the Draft EA, establishes that there are no significant impacts, and that a FONSI is appropriate so that the project can proceed. The publication of the notice of availability of the Final EA-FONSI in *The Environmental Notice* initiates a 30-day judicial challenge period under HRS Section 343-7(b).

[1] Previously named the Office of Environmental Quality (OEQC).

2 PROJECT DESCRIPTION

The proposed wetland restoration project improvements are based on the *Wetlands Habitat Restoration Plan for Honu'apo Estuary* (Restoration Plan), prepared by the Sustainable Resources Group International, Inc. in 2011. The 2011 Restoration Plan is a publication of the County of Hawai'i in partnership with Ka 'Ohana O Honu'apo, supported by the Hawai'i Office of Planning, Coastal Zone Management Program, and the National Oceanic and Atmospheric Administration (NOAA).

2.1 ENVIRONMENTAL SETTING

PROJECT LOCATION

The Honu'apo Estuary Wetland Restoration project site includes ±8-acres of estuary and marsh habitat located along the coast in the Honu'apo ahupua'a, Ka'ū District, on the Island of Hawai'i. The project site is located at County of Hawai'i Whittington Beach Park (aka Honu'apo Park) and expanded Honu'apo lands, an approximately 225-acre area (see Figure 1). The project site is located on a portion of Tax Map Key: (3) 9-5-014:007, one of several parcels that comprise the entirety of Honu'apo Park. There are five Land Commission Award parcels (kuleana lands[2]) and one school grant parcel within Honu'apo lands, which are excluded from the park property. There are several kuleana parcels located within or partially within the project site.[3] The project site parcel (and excluded parcels) is shown on Figure 2.

EXISTING SITE CONDITIONS

The Honu'apo estuary is a wetland complex with three distinct wetland types: subtidal, intertidal, and palustrine. In the subtidal estuary, water levels and the wetted surfaces vary with tides, as it is directly connected to the ocean via a natural channel cut into the lava. The intertidal wetlands are inundated by tides on a nearly daily basis by normal high tides. This wetland type contains small stretches of exposed mudflats, an area with dense low growing emergent grasses, and backwater areas with dense vegetative cover. The palustrine wetland is located above the intertidal zone and is not submerged except during wave run-up and following heavy rain events. Most of this wetland type is covered with dense, high growing, non-native plants.

There are no natural freshwater streams or channels that flow into the estuary. There are freshwater springs and seeps (punawai) that enter the wetland along its margins and in the estuary, creating small pockets of freshwater, with brackish water in the main body of the estuary, and sea water near its mouth at the ocean.

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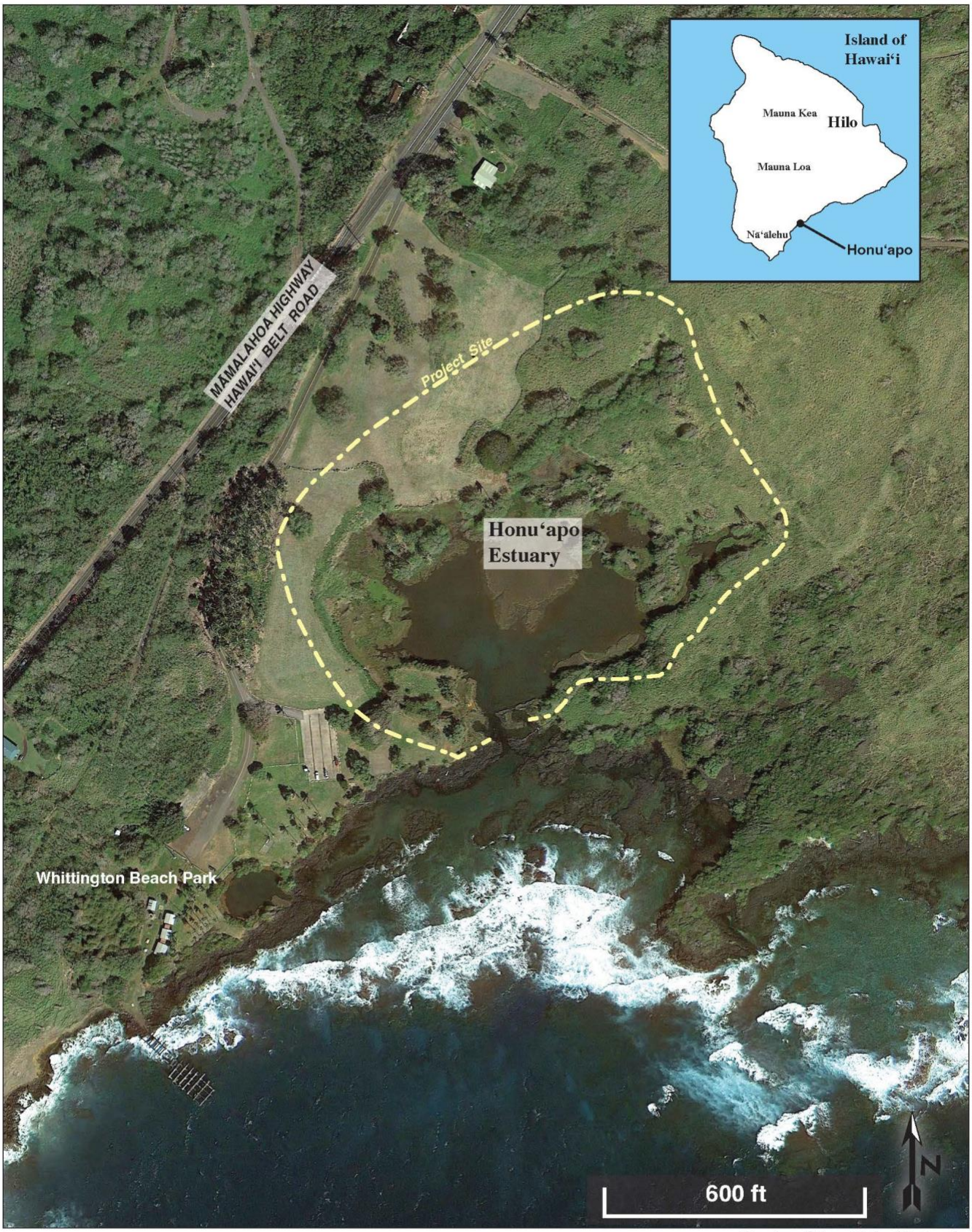
[2] Kuleana lands refer to small parcels of land granted to Native Hawaiians under the Kuleana Act of 1850. This act aimed to provide land ownership and rights to those who could prove their ancestral ties to the land and had actively cultivated it. These lands were typically small plots used for taro patches, house lots, and other subsistence activities. See Section 4.12 below for additional discussion.

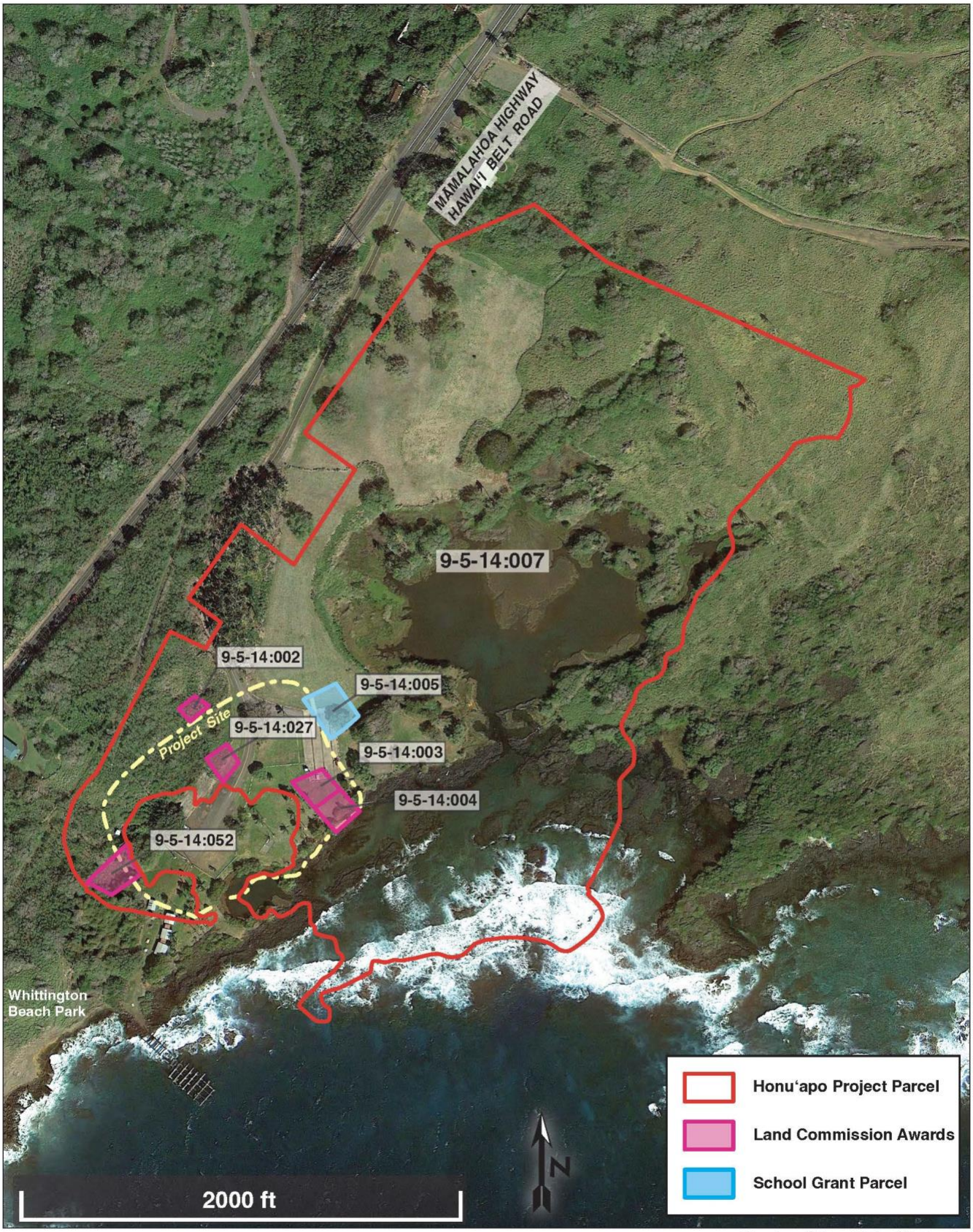
[3] Based on existing records, these kuleana lands are owned by the State of Hawai'i.



Honu'apo Estuary Wetland Restoration

SOURCE: Google Earth 2023

Figure 1
Project Location Map



Honu'apo Estuary Wetland Restoration

SOURCE: County of Hawai'i Geographic Information System Maps 2023;
County of Hawai'i Tax Map Key (TMK) Maps

Figure 2
Project Site Parcel

The wetland pond has historically been used as a fishpond (loko iʻa), and is currently functional. Portions of the wall (kuapā) were damaged by tidal currents and storms in the past, but were reconstructed over the past few years using traditional Hawaiian methods. Although the existing estuary wetland system supports a diversity of endemic species, altered hydrology, sedimentation, and invasion by non-native plants and animals has resulted in decreased wetland function and habitat for native resident and migratory birds and other native animal life. Further, the presence of feral cats and mongoose predators in the larger park area is believed to be a primary cause of the low number of native and migratory birds using the estuary. Existing predator control includes mongoose / rat traps installed by KOOH in 2022 around the estuary.

Project Site Access

Access to the project site wetland area is via the Whittington Beach Park access road off Māmalahoa Highway (Hawaiʻi Belt Road). There are two parking areas at Whittington Beach Park, and direct access to the wetland area is on foot.

Surrounding Land Uses

The project site is bounded by open space uses of Honuʻapo park lands to the north, east, and west, and the Pacific Ocean to the south. Whittington Beach Park facilities are southwest of the project site. The nearest town to Honuʻapo is Nāʻālehu, which is approximately 3 miles to the southwest.

SITE HISTORY AND RESTORATION PLANNING PROCESS

Honuʻapo was a coastal settlement dating back to at least the 1400-1500s. According to early accounts, the area featured a large village, fishpond, coconut grove, canoe landing, and heiau around the fishpond. The nearby slopes were farmed with sweet potato, dryland taro, bananas, wauke, arrowroot, and plantains. In 1870, the bay was deepened, and by 1881 a sugar plantation was established. A wharf built in 1910 made Honuʻapo a key port for Kaʻū's sugar exports. Though the plantation closed in 1973, sugarcane was grown until the Pahala Mill shut down in 1996. The plantation also maintained the pond and supported community camping. Afterward, the area was used for cattle grazing and became a dumping ground. Decades of using the area for sugar operations and cattle grazing caused the wetland complex and surrounding area to become impacted and overgrown with invasive species including seashore paspalum, California grass, and guinea grass. Cattle have trampled within the wetland, and a portion of the estuary was altered through landscaping and planting to create a Japanese garden, complete with walking bridge. The estuary and surrounding area also became a dumping ground for old car parts and trash.

In the early 2000s, the community learned that the owner/developer of the 225 acres surrounding the estuary had submitted plans to the County to build 18 luxury estates. Residents were concerned that the subdivision would limit access to the shoreline for local families and fishermen, endanger the remaining habitat, and spur further development. As a result, a group of committed local volunteers formed Ka ʻOhana O Honuʻapo to manage the park's expansion and restoration projects at Honuʻapo. In 2003–2004, volunteers spent numerous hours cleaning up the degraded wetlands and bay, including the removal of encroaching vegetation, which made the estuary wetland complex visible. In 2005, Hawaiʻi State and County governments, the non-profit community organization KOOH, the Trust for Public Land, the National Oceanic and Atmospheric Administration, the Kaʻū community, and other individual donors came together to protect the Honuʻapo property from development interests and purchased the site. It was set aside to the County of Hawaiʻi for

Estuarine Land Conservation and Public Recreation purposes by Executive Order No. 4164 on July 13, 2006, which provided conservation status to the property to ensure its long-term protection and the opportunity for restoration of the unique estuarine wetland (Hawai'i County 2010).

The County's Department of Parks and Recreation (DPR) signed a Memorandum of Understanding (MOU) with KOOH on August 14, 2008 for a pilot project at Whittington Beach Park and expanded Honu'apo lands. The MOU allows KOOH to assist the County in maintaining current park facilities, and to plan for additional restoration and conservation activities and community park improvements, provided that the proper approvals and permits are obtained (Hawai'i County 2010). In 2010, the *Honu'apo Park Resources Management Plan* was completed and the *Wetlands Habitat Restoration Plan for Honu'apo Estuary* was prepared in 2011 as a framework for the restoration project.

Restoration and Community Participation

The KOOH has completed restoration efforts in the Honu'apo wetland area since the 2011 Restoration Plan with the assistance of National Coastal Wetlands Conservations Grants, and small private grants from the National Environmental Education Foundation in 2021 and Ke Kai Ala Foundation in 2023. With the participation of KOOH Board and community members, the following summarizes restoration activities:

- KOOH Board and community volunteers donated over 600 hours to the park planning process related to the wetland restoration plan from 2013 - 2020.
- The KOOH obtained a Loko I'a permit[4] from the Office of Conservation and Coastal Lands (OCCL) in 2019 and started on-the-ground restoration efforts for the fishpond in March 2021. As of June 2025, KOOH and NGO[5] partner Hawai'i Wildlife Fund (HWF) had hosted 59 coastal restoration workdays (Loko I'a, wetlands, beach cleanups) including over 1,280 total participants (including 502 youth), for an estimated 5,000+ hours of effort on this project.
- KOOH also installed five mongoose / rat traps in 2022 around the estuary to help protect the native birds working with Birds of Hawai'i Past Present.

KOOH wetland / fishpond restoration workdays have been hosted regularly since March 2021, focusing on rebuilding the rock wall and clearing out sediment and invasive vegetation from around the freshwater springs.

[4] The Ho'āla Loko I'a program is a streamlined permitting process for the restoration and maintenance of traditional Hawaiian fishpond systems.

[5] An NGO, or non-governmental organization, is typically a nonprofit entity that operates independently of government, and focuses on humanitarian or social issues.

Photo 1: KOOH and HWF co-host a group of KUPU interns for the first wetland restoration workday to remove sediment and clear out a spring at the back of the Honu'apo estuary (March 19, 2025).

Federal Coastal and Estuarine Land Conservation Program

Since a large part of the funding for the purchase of park property came from NOAA under the Coastal and Estuarine Land Conservation Program (CELCP), any wetland restoration activities need to be consistent with the program's guidelines. The CELCP is a program designed to protect coastal and estuarine areas "with important conservation, recreation, ecological, historical, or aesthetic values, or that are threatened by conversion from their natural or recreational state to other use." As described in the Resources Management Plan, public access and activities consistent with the conservation purpose of the grant (e.g., resource protection, restoration and enhancement, recreational activities) are allowed (Hawai'i County 2010).

2.2 DESCRIPTION OF THE PROPOSED ACTION

As described previously, the proposed wetland improvements are based on the 2011 Restoration Plan. The purpose of the project is to restore and enhance the Honu'apo wetland's form and function within the cultural context of the restoration of the traditional Hawaiian fishpond. The proposed restoration project includes two phases, including the following improvements:

Phase I:

- removal of invasive vegetation to improve water quality and quantity as well as habitat function
- creation of deepened water areas for improved habitat productivity and diversity
- revegetation with native plant species to provide natural site conditions for native endemic species

Phase II:

- installation of a predator proof fence
- installation of pedestrian gates and walkway with viewing platforms, and vehicle access gate

WETLAND RESTORATION PLAN

There are three native endemic waterbirds that are listed under the Endangered Species Act (ESA) that may be found at Honu'apo estuary: ae'o (Hawaiian stilts), 'alae ke'oke'o (Hawaiian coot), and kōloa moali (Hawaiian duck). These waterbirds rely on diverse wetland habitats, including shallow water/mudflats for foraging, dense vegetation for nesting, and open water for loafing and safety (especially for coots). In general, dense ground cover with non-native grasses provides cover for predators and is an obstacle to birds walking and foraging. Invasive plants can degrade habitat quality by encroaching and choking wetlands. The proposed project would create additional areas of standing water or open water that could attract Hawaiian waterbirds to the project site. Native plant species proposed for revegetation can be used as nesting material and shelter by native waterfowl. Proposed wetland restoration details and benefits of restored habitat to native waterbird species are described below.

Earthwork and Grading

As shown in the conceptual development plan (see Figure 3), the topography of the intertidal zone would be graded to create two habitat types. The limits of ground disturbance, including clearing and grubbing and grading, would occur over a 5.25-acre area (228,565 square feet) (outlined on Figure 3). The grading would include approximately 9,475 cubic yards of cut and 1 cubic yard of fill over a 2.32-acre area of the estuary.[6] Mechanical dredging would be the preferred method to remove sediment from the pond. Manual dredging would occur with community events to clear the springs. Soil removed would be stockpiled for drying and taken to the appropriate county disposal site. Forage habitat for use by wading birds would be created on the mudflat areas that are currently covered with ground cover. The ground surface in these areas would be lowered to finished elevations that will result in frequent inundation by high tides. These modifications would be expected to increase productivity of food sources used by wading birds and prevent recruitment of invasive plants back onto the mudflats. Deep water pools would also be created by grading. These pools, which would remain perennial during all tides and are fed by fresh and sea water, would be expected to be favorable to the Hawaiian coot and other diving and dabbling birds (Hawai'i County 2011).

Removal of Invasive Plants and Revegetation with Native Species

The proposed restoration improvements would include the removal of invasive vegetation within the wetland area and restoring it with native vegetation. Removal of vegetation would occur using

[6] Volume and area of cut and fill and grading are estimates and may vary slightly across project permitting and resource documents.

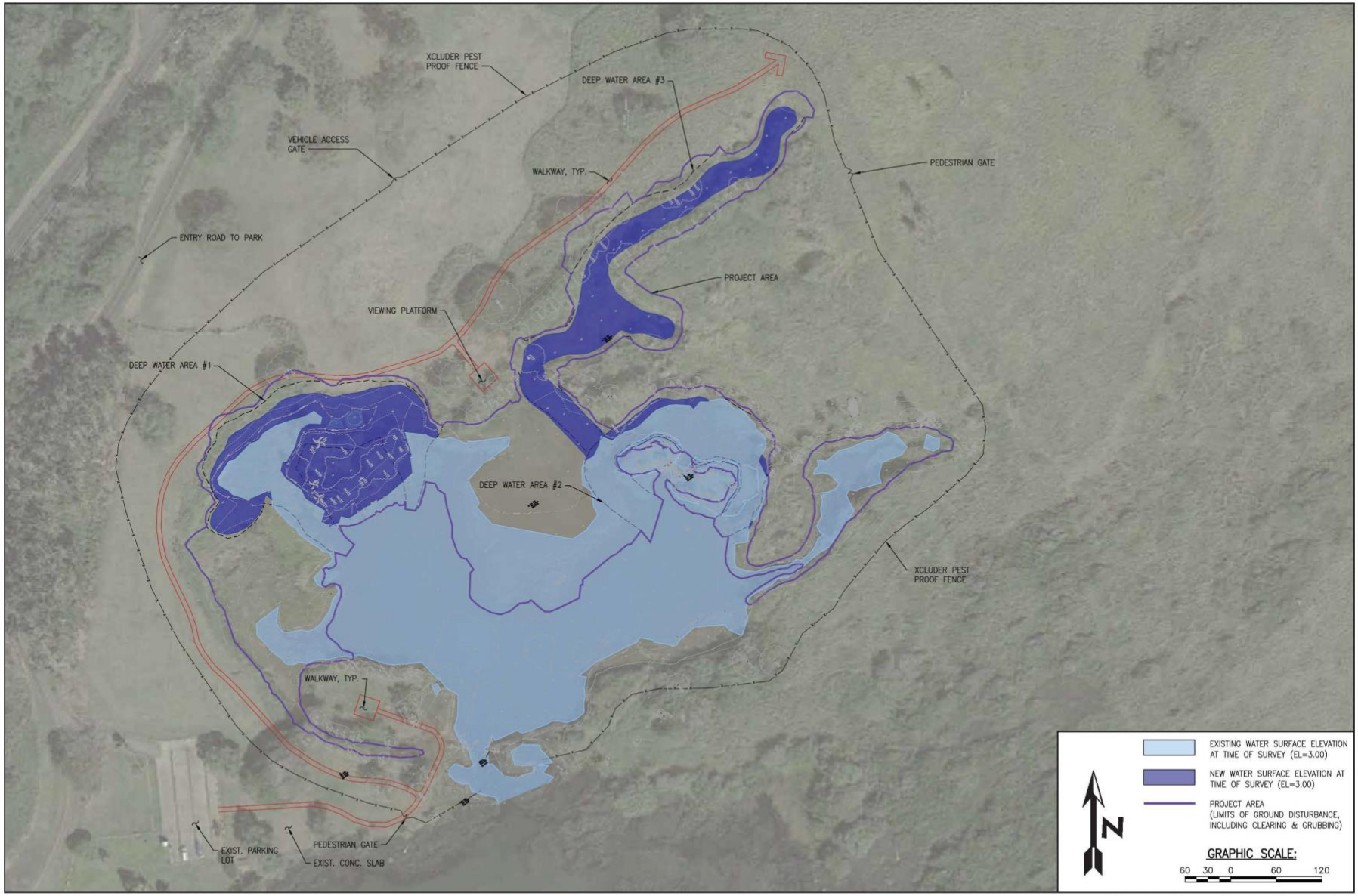
both manual and mechanical methods as necessary. Invasive plants can degrade habitat quality by encroaching and choking wetlands. Tall grass provides cover for predators in areas surrounding the wetland. Existing invasive vegetation, including non-native grass species such as California grass and seashore paspalum, would be removed to increase foraging habitat (see Figure 4). The invasive tree kiawe would be removed from the wetland margins in order to restore freshwater flow to the wetland. Removal of the kiawe would also reduce roosting sites for cattle egret that may prey on Hawaiian stilt eggs and chicks. Other invasive plants would be removed from the mudflats to increase foraging habitat. Invasive plants to be removed include the following, but not limited to:

- California grass
- Guinea grass
- Kiawe
- Koa haole
- Milo
- Java plum
- Sourbush
- Christmas berry

Native or endemic vegetation planned for the proposed wetland enhancement project includes species that are already on-site, those of short stature, and those wetland plants that are known to provide foraging and nesting resources for target bird species. Native plant species present within the wetland area include makaloa, and the native ʻakaʻakai or nānaku is found in the intertidal and palustrine zones near the freshwater seeps and springs. The ʻahuʻawa is a flood tolerant native plant that can be used along water banks to control erosion and is used as nesting material and shelter by native waterfowl (see Figure 5 for the re-vegetation plan). The selected species are suitable for soil and water salinity under wetland build out conditions, and once established, do not require long-term maintenance. Since tall plants provide cover for predators, removal or mowing of some native plants with tall stature may be necessary temporarily to help control the predator population.

Predator Control

Predation by feral cats, mongoose, and rats is a serious threat to all waterbirds and sea turtles, and especially to their nests; these animals prey on eggs and chicks. Ongoing predator control to protect the endangered endemic and migratory bird species using the wetland would continue in conjunction with the installation of a predator proof fence constructed using New Zealand's conservation design technology. The project site plan (see Figure 3) shows the general location for the fence. The actual location of the fence may vary, and would be determined based on site conditions and other factors.

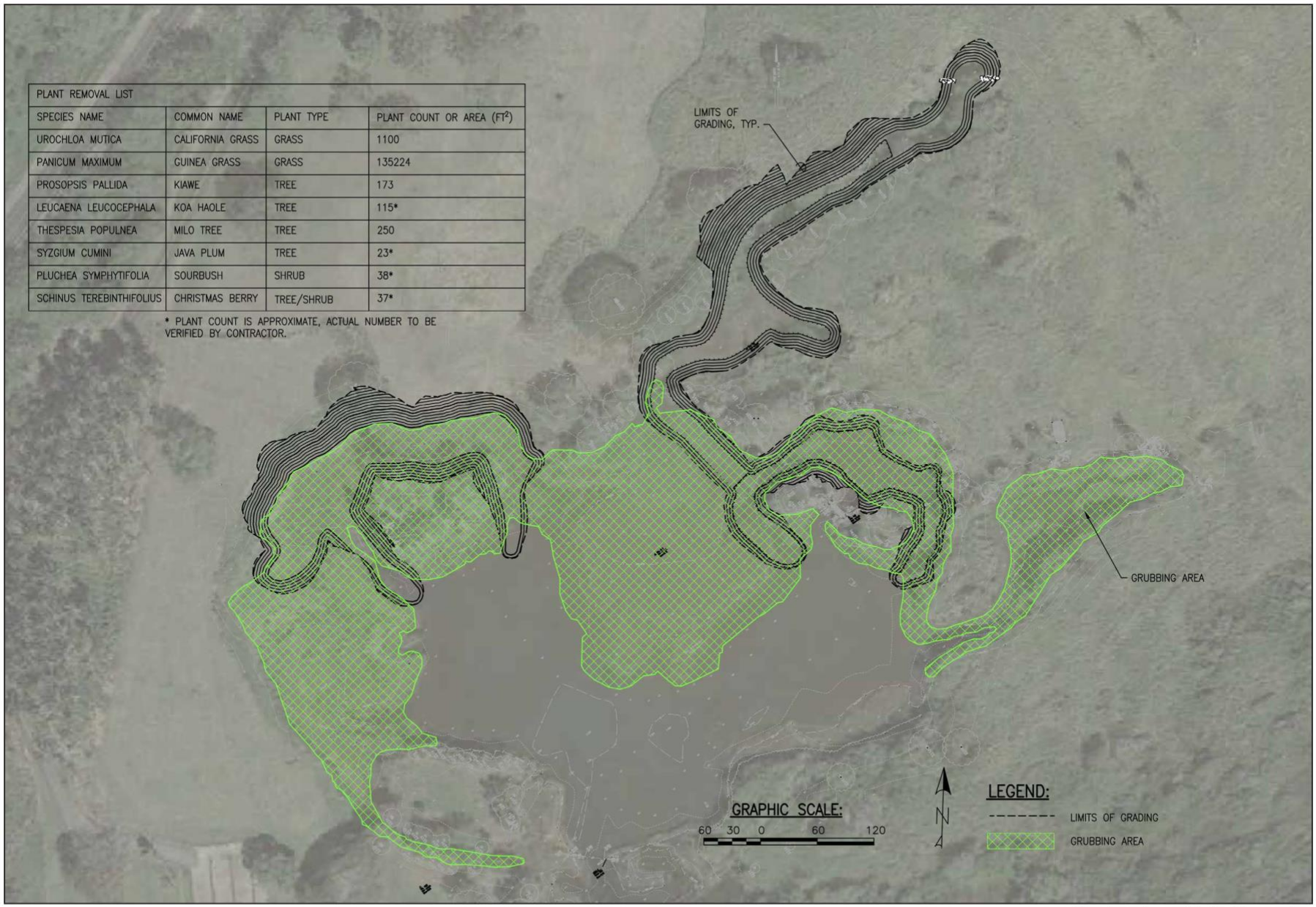


SOURCE: Bow Engineering 2023

Honu'apo Estuary Wetland Restoration

Figure 3

General Site Plan

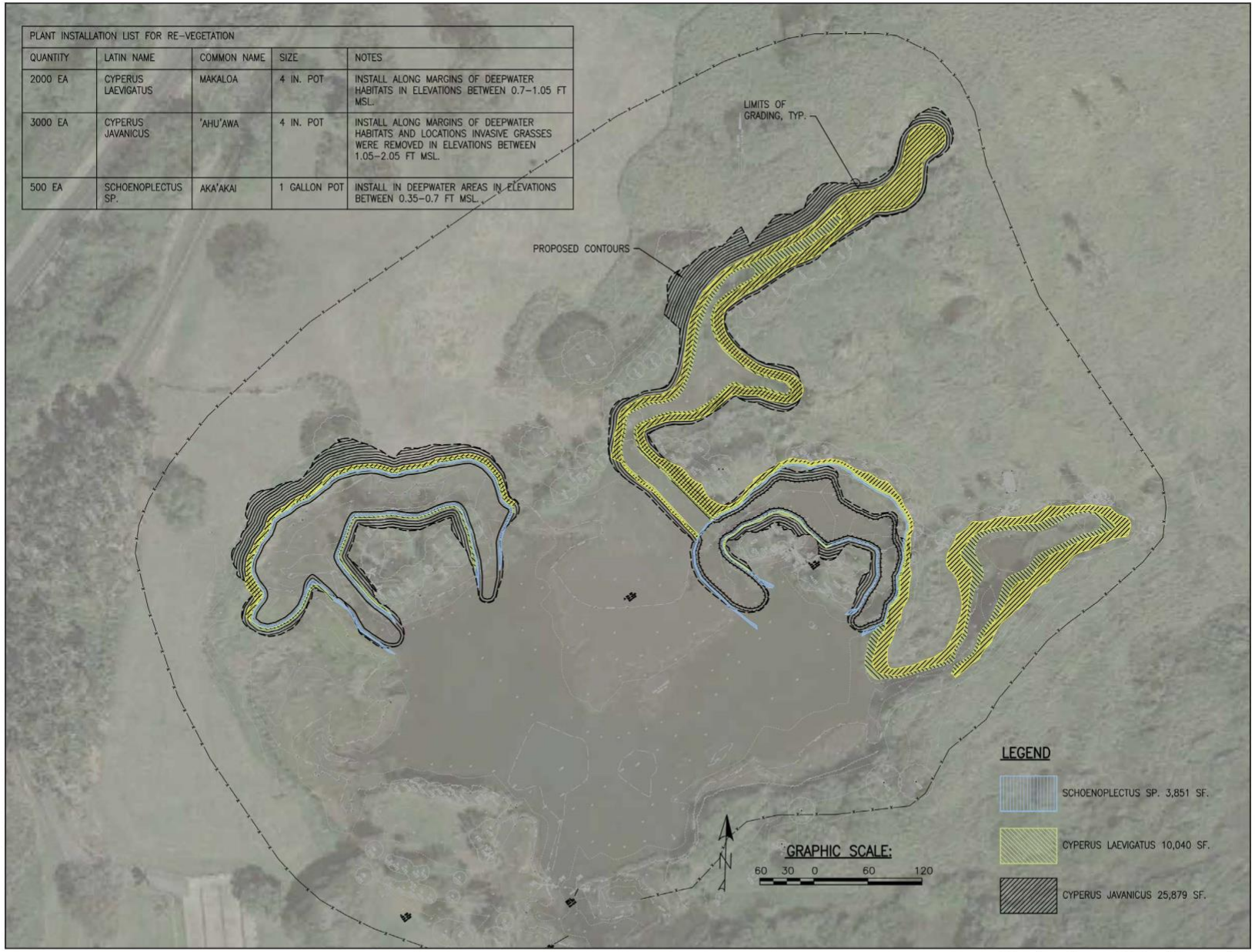


Honu'apo Estuary Wetland Restoration

SOURCE: Bow Engineering 2024

Figure 4

Vegetation Removal Plan



Honu'apo Estuary Wetland Restoration

SOURCE: Bow Engineering 2024

Figure 5
Re-Vegetation Plan

Based on the existing conceptual plan, it is estimated that there could be approximately 3,400 linear feet of fencing. The New Zealand conservation fence is typically 6 feet tall with a top angled metal hood and below-ground mesh to keep animals out. Listed below are typical design details of the predator proof fence, though actual design may vary:

- Fence height (~6 feet): Tall enough to prevent medium-sized predators—such as cats or mongoose—from jumping or climbing over the fence.
- Fine mesh (~2-inch mesh spacing): Small openings prevent rats or mongoose from squeezing through.
- Below-ground mesh (~4–8 inches): The fence mesh is buried 4–8 inches to stop animals from pushing under the fence.
- Horizontal anti-dig skirt (~16 inches): A 16-inch mesh "skirt" lying flat on the ground prevents predators from digging under the fence.
- Top hood/cap (varies, generally 6–12 inches wide): A curved or angled metal hood keeps climbing animals from getting enough grip to climb over.

Project plans are being updated to construct the fence up to the water's edge at the mouth of the estuary and into the water so predators cannot get around it and enter the wetland. Due to its location at the mouth of the estuary, the fence would not restrict overall access to the shoreline.

Public Use and Education

The proposed project includes a pedestrian gate through the predator proof fence, walkway, and viewing platforms that may be constructed in later phases of the project. It is anticipated that viewing platforms would be constructed on the north and southwest sides of the pond to encourage viewing from specific areas. The proposed walkway would likely consist of an approximate 4-foot wide path, 3,500 feet long, with possible materials including concrete/crushed stone/engineered wood product. Similar to the predator fence, the actual location of the walkway and viewing platforms could vary. Two gates would be installed to allow pedestrian access, with one at the southwest end of the pond, nearing the parking area, and another along the northeastern end of the enclosing fence. A gate for vehicular access would be located along the inland side of the fence. Currently, there is no specified access control or restriction. The proposed restoration project would provide increased opportunity for public education on coastal wetland ecosystems. Ka 'Ohana would have responsibility of designing interpretive and educational displays, and managing related educational or volunteer programs. Signage regarding hours of operation and access shall be installed at the entry and egress gates, and Coastal Hazard Warning signs shall be installed as determined appropriate.

Long-Term Management

Long-term adaptive management strategies for the wetland restoration project are designed to ensure on-going functionality following restoration and enhancement activities. As a partner in park management, a role of KOOH would be to liaison with the County and coordinate on-going community involvement to sustain the benefits of the wetland restoration project. Types of activities requiring long-term maintenance include vegetation management, invasive species control, and predator control. The use of native species as part of the revegetation component would not require post planting maintenance. As part of its regular park maintenance activities, the County Department of Parks and Recreation can provide vegetation control in the form of on-going kiawe removal and mowing of the upland vegetation. Predator control services may be contracted out to a private

company. When and if the predator proof fence is installed, it would require routine inspection, monitoring, and potential eradication of predators inside of the fence. Community members would continue to play a key role in the future of Honu'apo park lands, including the wetland. Volunteer participation would be needed for on-going wetland maintenance (e.g., work parties), monitoring, and education (County of Hawai'i 2011).

Site-Specific Best Management Practices

Due to the proximity of nearshore ocean waters, the project could present increased potential for water quality impacts during construction or as stockpiled materials are incrementally removed. The proposed project would include site-specific Best Management Practices (BMP) to be implemented during project construction and during removal of stockpiled material to minimize erosion and potential impacts to water quality. The BMPs would include but would not be limited to the USFWS recommended standard BMPs[7] regarding sedimentation and erosion in aquatic environments:

1. Authorized dredging and filling-related activities that may result in the temporary or permanent loss of aquatic habitats should be designed to avoid indirect, negative impacts to aquatic habitats beyond the planned project area.
2. Turbidity and siltation from project-related work should be minimized and contained within the project area by silt containment devices and curtailing work during flooding or adverse tidal and weather conditions. BMPs should be maintained for the life of the construction period until turbidity and siltation within the project area is stabilized. All project construction-related debris and sediment containment devices should be removed and disposed of at an approved site.
3. Mechanical sediment removal and dredging will be done in accordance with the construction plans, specifications, and shall follow all BMPs described in the plans. BMPs that may be used to prevent the spread of sediment and construction debris caused by in-water work include the use of turbidity/silt curtains, coffer dams, sandbags, floating booms, etc. Inspection of BMPs before in-water dredging shall be performed daily with periodic visual observations of water quality during active in-water work throughout each workday. All work shall be stopped if any turbidity plumes or failures in BMPs are discovered. Work may only resume after BMPs are restored and determined to be functional. In addition to BMPs, if in-water work can be performed during low, incoming tides, then that would help to minimize the impact to the surrounding waters of the estuary.
4. Mechanical vegetation removal and grubbing will be done in accordance with the construction plans, specifications, and shall follow all BMPs described in the plans. BMPs that may be used include sediment rolls, sediment fences, sandbags, and dust fences. During this work, BMPs will be installed in the surrounding down sloping areas to contain any erosion or sediment runoff due to disturbed and exposed areas. Invasive vegetation removal will not affect the health of the surrounding environment. Until revegetation of the area is established, BMPs shall remain in place to prevent any erosion or sediment runoff during storm events.
5. All project construction-related materials and equipment (dredges, vessels, backhoes, silt curtains, etc.) to be placed in an aquatic environment should be inspected for pollutants including but not limited to; marine fouling organisms, grease, oil, etc., and cleaned to remove pollutants prior to use. Project related activities should not

[7] Since no activities are proposed in the nearby marine environment, several BMPs from the USFWS standard recommendations were not included.

result in any debris disposal, non-native species introductions, or attraction of non-native pests to the affected or adjacent aquatic or terrestrial habitats. Implementing both a litter-control plan and a Hazard Analysis and Critical Control Point plan (HACCP - see http://www.haccp- nrm.org/Wizard/default.asp) can help to prevent attraction and introduction of non-native species.

6. Project construction-related materials (fill, revetment rock, pipe, etc.) should not be stockpiled in, or near aquatic habitats and should be protected from erosion (e.g., with filter fabric, etc.), to prevent materials from being carried into waters by wind, rain, or high surf.
7. Fueling of project-related vehicles and equipment should take place away from the aquatic environment and a contingency plan to control petroleum products accidentally spilled during the project should be developed. The plan should be retained on site with the person responsible for compliance with the plan. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of accidental petroleum releases.
8. All deliberately exposed soil or under-layer materials used in the project near water should be protected from erosion and stabilized as soon as possible with geotextile, filter fabric or native or non- invasive vegetation matting, hydroseeding, etc.

These BMPs will be refined in accordance with County of Hawai'i regulatory requirements as part of the permitting process.

Project Phasing and Construction Cost

The construction of the proposed project would require the following tasks: installation of erosion control BMPs, equipment mobilization and demobilization, vegetation removal, dredging, slope grading, loading of soil into trucks, and hauling soil for stockpiling or disposal. Project construction would include the use of heavy machinery such as excavators, bulldozers, backhoes, and skid steer loaders for mechanical grading around the pond edges and to deepen areas with accumulated sediment.

The project would be phased based on funding availability. Phase I includes removal of invasive vegetation, creation of deepened water areas in the estuary, and revegetation with native plant species. Phase I would begin following project approval, with a projected implementation timeline set forth below.

- Oct 2026: Predator control will expand on site immediately.
- By Feb 2027: Removal of 150 kiawe trees on wetland edge. Native outplanting begins.
- By June 2028: Removal of other invasive species (full 8 acres completed - mixed habitats).
- By Sep 2028: Topographic contouring to deepen pools (< 3 ft.) in backwater wetlands.
- Removal of sediment on mudflat to lower elevation.
- By Dec 2028: Removal of seashore paspalum from intertidal mudflats.
- By Sep 2029: Native outplanting completed.
- Oct 2026 to Sep 2029: Continue predator control activities, water quality and waterbird monitoring efforts community education / training events.

Phase II includes installation of a predator proof fence with pedestrian and vehicle gates, and a pedestrian walkway with viewing platforms. The timing of Phase II is not currently known. The estimated construction costs for completion of the wetland restoration project are approximately $2.5 million, including mobilization and contingency funds.

2.3 PERMITS AND APPROVALS REQUIRED OR POTENTIALLY REQUIRED

The regulatory permits and approvals necessary to implement the proposed action are listed below:

FEDERAL PERMITS

- NEPA – USFWS would be required to complete the appropriate documentation for compliance with NEPA
- Endangered Species Act, Section 7 Consultation – informal consultation completed with USFWS (January 2026)
- National Historic Preservation Act, Section 106 Consultation – initiated by the U.S. Army Corps of Engineers with the State Historic Preservation Division (May 2025)
- Department of the Army (DA) Permit, Clean Water Act, Section 404, and Rivers and Harbor Act, Section 10 – submitted to U.S. Army Corps of Engineers
- Clean Water Act, Section 401 – implemented by the State of Hawai‘i, Department of Health, Clean Water Branch

STATE OF HAWAI‘I

- HRS Chapter 343 – The DLNR, Division of Forestry and Wildlife is the accepting agency for the proposed action and has the authority to determine if the EA is adequate and whether a FONSI is appropriate
- HRS Chapter 6E, Historic Preservation Review – DLNR, Historic Preservation Division
- Conservation District Use Application (CDUA) – DLNR, Office of Conservation and Coastal Lands (OCCL), Statewide Programmatic General Permit and Programmatic Agreement for the restoration, repair, maintenance, and reconstruction of traditional Hawaiian fishpond systems across Hawai‘i; Loko I‘a Permit HA-19-02: Honu‘apo
- Coastal Zone Management Act Consistency Determination - Department of Business, Economic Development and Tourism, Office of Planning
- State Section 401 Clean Water Act – The project should be covered under the Blanket Section 401 Water Quality Certification (WQC) for certain DA Nationwide Permits (WQC1092)
- National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Stormwater Activities - Department of Health
- Grading/Grubbing/Stockpiling – Hawai‘i County Public Works Department – Engineering Division
- Building Permit - A building permit will be needed from the Hawai‘i County Public Works Department – Building Division if a predator control fence over six feet tall and/or a boardwalk is constructed as part of the wetland restoration.
- Noise Permit – State of Hawai‘i, Department of Health
- Special Management Area Permit (SMA) – Submittal to the Hawai‘i County Planning Department, approval by the County Planning Commission

- Shoreline Setback Variance – Some of the project activities (e.g., grubbing, grading, and portions of the fence line) would occur within the Shoreline Setback Area, which would require a Shoreline Setback Variance from the County of Hawai'i, Department of Planning and Permitting
- Flood Ordinance Compliance - approval by the Hawai'i County Public Works

2.4 JURISDICTION AND MANAGEMENT AUTHORITY

Multiple organizations and agencies have jurisdiction and management authority for activities related to the proposed wetland restoration project at Honu'apo Estuary (Hawai'i County 2011):

- *County of Hawai'i, Department of Parks and Recreation*: The County DPR is the managing entity of Honu'apo Park. The County DPR provides equipment, maintenance of existing park facilities, consultation, and advice.
- *County of Hawai'i, Planning Department*: The County Planning Department has adopted the Ka'ū Community Development Plan (2017), which guides county policy and actions in the project area. The Planning Department is also responsible for implementing the Coastal Zone Management program for the county (HRS Chapter 205A).
- *State of Hawai'i.* The State of Hawai'i, Board of Land and Natural Resources, approved purchase of Honu'apo park lands in 2005, and in 2006, the land was set aside to the County of Hawai'i for Estuarine Land Conservation and Public Recreation purposes by Executive Order No. 4164 (signed by the Governor on July 13, 2006). The State of Hawai'i has jurisdiction over submerged lands within its boundaries, including those beneath navigable waters and tidal waters. This includes Honu'apo Estuary.
- *U.S. Fish and Wildlife Service*: The Pacific Islands Fish and Wildlife Office (PIFWO), Fish Habitat Partnership, previously provided guidance and possibly financial assistance to KOOH for work at Honu'apo. In addition, the PIFWO, Coastal Project provided assistance clearing a small area of mangrove and out-planting native species at Honu'apo. There is no current USFWS funding for Honu'apo Estuary restoration work at this time.
- *National Oceanic and Atmospheric Administration*: NOAA provided technical and funding assistance to KOOH on wetlands restoration planning and management. Restoration activities need to be consistent with the terms of the Coastal and Estuarine Land Conservation Program, a NOAA program that provided funds to purchase the park property.
- *Ka 'Ohana O Honu'apo*: KOOH has a formal Memorandum of Understanding with the County DPR to care for, restore, and manage Honu'apo Park.

It is anticipated that wetland restoration work would be accomplished primarily by KOOH and partners including NOAA, USFWS, and State and County governments.

3 DESCRIPTION OF THE AFFECTED ENVIRONMENT, ANTICIPATED EFFECTS, AND PROPOSED MITIGATION MEASURES

The intent of this chapter is to describe the existing physical and social environment that is affected by the proposed action. As defined in HAR Section 11-200.1, Environmental Impact Statement Rules, potential project impacts or effects may include primary and secondary impacts, in addition to cumulative impacts:

- A "primary impact" or "direct impact" means impacts or effects that are caused by the action and occur at the same time and place.
- A "secondary impact" or "indirect impact" means an impact or effect that is caused by the action and occurs later in time, but is still reasonably foreseeable. An indirect effect may include a growth-inducing effect and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air, water, and other natural systems, including ecosystems.
- A "cumulative impact" means the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (HAR Section 11-200.1-2).

Potential impacts that may result from implementation of the proposed action and mitigation measures to minimize the adverse impacts are described below.

3.1 GEOLOGY, TOPOGRAPHY, AND SOILS

ENVIRONMENTAL SETTING

Geology

The Island of Hawai'i was formed by volcanic activity, with Honu'apo situated on relatively young lava flows from Mauna Loa. The coastal plain in this area is narrow and mostly flat, shaped by both 'a'ā and pāhoehoe lava, with pāhoehoe being more prevalent. 'A'ā lava features a solid core encased between two gravely clinker[8] layers, while pāhoehoe is distinguished by its smooth, ropy surface. Seismic activity and volcanic eruptions along the Ka'ū coast have caused both uplift and subsidence in various locations. The Honu'apo wetland likely developed as a depression caused by such subsidence. Archaeological findings suggest that early Hawaiians used the estuary as a fishpond, indicating that the natural depression formed by seismic events was later modified by human activity (Hawai'i County 2011).

Topography

The topography of the Honu'apo area is characterized by a rocky coastal plain. Honu'apo Park lies at a low point along the coast; approximately 1,000 feet inland, the terrain begins to rise, ascending into moderate to steep slopes up the flank of Mauna Loa (Hawai'i County 2011). The topography at

[8] Clinkers are the loose fragments that make up the surface of flows that are formed as pasty lava is pulled apart by shearing.

the project site is relatively level, with elevations on the project site ranging from near sea level up to approximately 19 feet Mean Sea Level (MSL) in the mauka (upland) portions of the site.

Soils

The Natural Resources Conservation Service (NRCS) classifies the soils at the project site as predominantly Kanohina-Lava flows complex, 2 to 10 percent slopes (Unit 734); with Lava flows, pāhoehoe, 2 to 20 percent slopes (Unit 12) along the mouth of the estuary and along the coast; and a small portion of Kanohina-Lava flows complex, 10 to 20 percent slopes (Unit 539) (NRCS 2024).

Soil layers on top of the ʻaʻā and pāhoehoe lava is intermittent across the project area. The depth of soil in the larger project area range from a few inches thick near the coast to several feet within a few isolated locations in the wetland complex. In pockets along the shoreline, organic and inorganic material deposited by wind and by vegetation fills in the depressions and acts as grow media for plants in the otherwise harsh coastal environment (Hawaiʻi County 2011).

Based on soil data collected for the 2011 Restoration Plan, soils in the wetland complex appear to be developed under hydric conditions and are classified as organic. An approximate 1.4-acre portion of this organic soil extends from the mauka (toward the mountain) side of the complex into the estuary proper, forming a delta-like feature. Approximately half of this zone is slightly submerged and/or saturated during high tides. Along the upper margins of the wetland, there is evidence of fill in the form of gravel and larger rock materials that appear to have been pushed, possibly during sugar cane activities. These fill areas are likely remnants of historic land use on the parcel and may have buried wetland soils or filled in open water pockets. The upland zone immediately surrounding the wetland is moderately sloped to near flat with numerous rocks extended above the soil layer (Hawaiʻi County 2011).

A soil screening was conducted for the Honuʻapo Estuary Restoration project on June 20, 2023, to determine what contaminants may be present in areas planned for grading and dredging. Soil was sampled and analyzed to identify the presence (if any) of contaminated soil remaining from the historic sugar plantation era (late 1800s to early 1900s), as well as more recent impacts caused by development in upland areas. Soil sample areas were chosen for soil collection based on the project scope and project area of the proposed excavation and dredging. Preconstruction soil sampling was conducted prior to any ground disturbing activities. In summary, volatiles, metals, and dioxins were detected in the soils from at least one sampled area; however, concentrations were well below the Department of Health (DOH) Tier 1 Environmental Action Levels (EALs) for reuse as unrestricted fill. PCBs and Organochlorine Pesticides were not detected in any of the sampled areas. For additional details regarding soil sampling results, see the Soil Sampling Characterization Report (August 2023) included as Appendix C.

Agricultural Soils

Based on soil suitability and extent, the State of Hawaiʻi, Department of Agriculture has established the Agricultural Lands of Importance to the State of Hawaiʻi (ALISH) system to identify areas of prime farmland. The ALISH system classifies three types of land suitable for agriculture: Prime Lands, Unique Lands, and Other Lands. While there are designated Prime Lands located on the southwestern portion of Whittington Beach Park, the project site is not located on designated agricultural lands of importance (Hawaiʻi Office of Planning 2024).

IMPACTS AND MITIGATION MEASURES

The project involves grading within the estuary, including approximately 9,475 cubic yards of cut and 1 cubic yard of fill over a 2.32-acre area of the estuary (see Appendix B, Drawings C-2.00 to 2.02 for grading plans). There would be a short-term increase in soil erosion during construction since soil excavation and slope grading associated with construction of the proposed project would result in the exposure of bare soil to potential erosion. All earthwork and grading operations would be conducted in compliance with dust and erosion control requirements of Hawai'i County Code Chapter 10, Erosion and Sedimentation Control. Because the project would include grading (cutting into the earth) of more than 100 cubic yards, grubbing (mechanical clearing of the surface without cutting into the ground) of more than one acre in a year, and stockpiling of material exceeding 500 cubic yards, a Grading / Grubbing / Stockpiling Permit would be required from the Hawai'i County Public Works Department, Engineering Division. The removal of the soil and stockpiling of the materials would include slope stabilization measures that would mitigate transport to the adjacent wetland areas.

The proposed action includes a site-specific Best Management Practices plan developed as part of the project to minimize erosion and sedimentation during construction, as outlined in Section 2.2 of this EA. Most of the areas are dry during low tides, so any excavation work can be planned to occur during these favorable tides, which would minimize the spread of sediment plumes in the water. During site grading and invasive vegetation removal, sediment rolls and dust fences would be used to contain any disturbed areas on land. In-water BMPs like turbidity curtains, sandbags, and booms would be used to isolate and contain in-water work areas, as necessary. No dredging would take place below the existing substrate; only accumulated sediment and soils would be removed. Even though the work would be most efficient using large excavators, volunteers and community work groups would also work without equipment and would work "by hand", which would minimize impacts due to turbidity and sedimentation. With implementation of these BMPs, and compliance with Hawai'i County regulations, the proposed project would not result in a significant impact due to soil erosion or off-site sediment transport. For a discussion of stormwater erosion and sedimentation, see Section 3.2, *Hydrology and Water Quality*.

While the Soil Sampling Characterization Report found that no contaminants of concern are present in the project site soils, it is recommended that additional samples be collected and analyzed from soil stockpiles during construction to further verify the results presented in the report to determine the appropriate soil disposal or re-use parameters. Following verification of soil sampling results, no significant impacts from mobilization of hazardous soil contaminants during construction would occur. The dredged material would be taken to a designated location on the larger Honu'apo property, outside of the Conservation District, for reuse, if approved by the County. Otherwise, the dredged materials would be transported to another property, landfill, or permitted recycling facility.

No long-term or cumulative adverse effects to geology, topography, or soils are anticipated with implementation of the proposed action.

3.2 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL SETTING

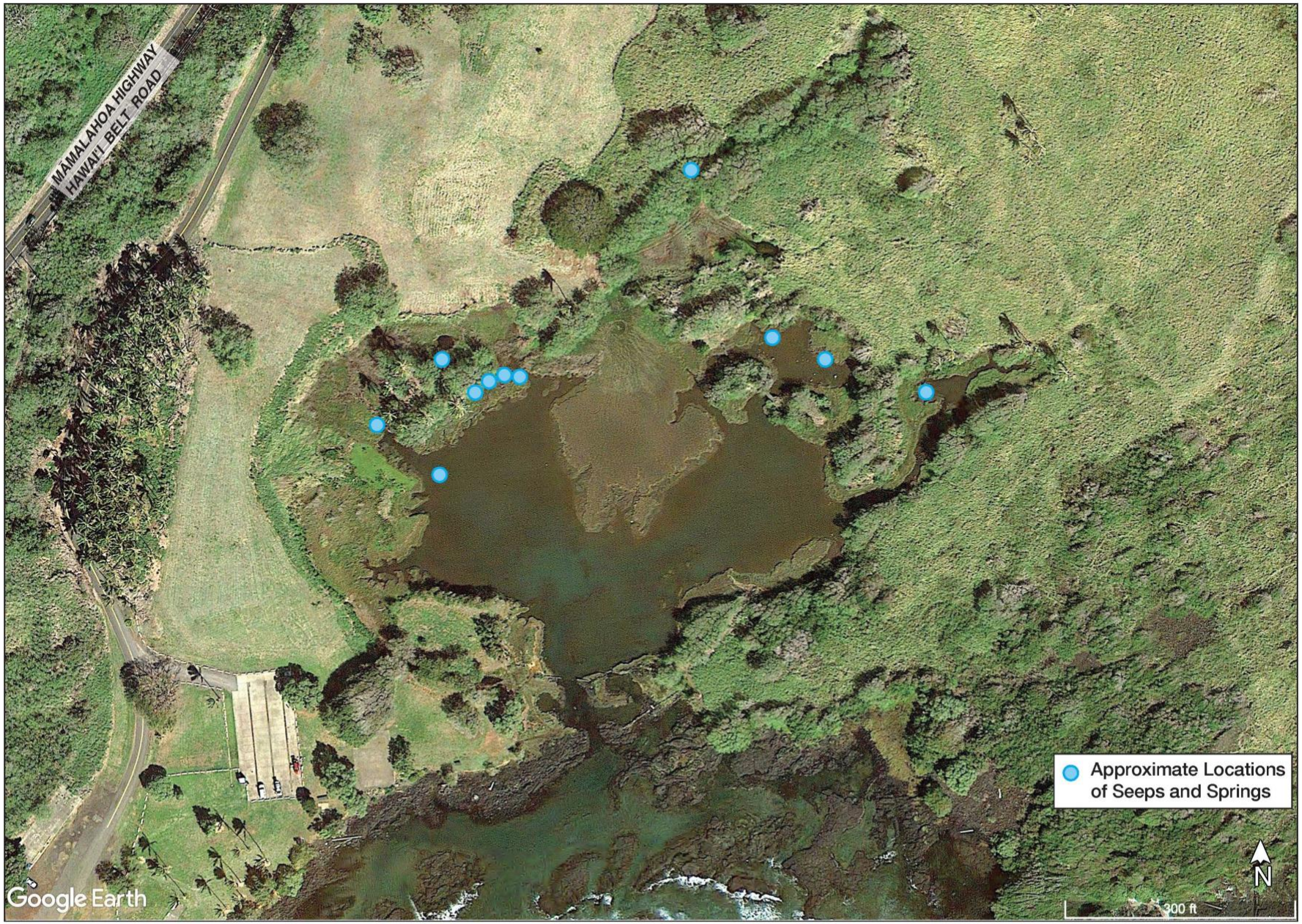
Hydrology, Surface Waters, and Drainage

Lava tubes, fractures, and contact zones between different lava flows are features of the geologic substrate that stretches from the crest of the Mauna Loa volcano down to the coast. These features give groundwater preferential flow paths. Higher rainfall levels in upland regions replenish groundwater, which then travels along these flow paths to coastal regions where it either emerges as springs and seeps at the ground surface or offshore in the ocean. The coastal zone of the Kaʻū District is home to anchialine pools, which are brackish water ecosystems located in coastal zones that fluctuate with the tide but do not have any visible connection to the sea (Hawaiʻi County 2011).

The Honuʻapo Estuary is situated within Hīlea Gulch watershed that spans roughly 49.2 square miles, from an upper elevation of 9,600 feet down to the watershed outlet at the estuary (DAR 2008). Runoff from the uplands does not seem to be directly transported to the estuary by a drainage channel. However, high-magnitude rainfall events have historically caused sheet flow runoff from the watershed's upper slopes, flooding the former town site and sugar mill as well as the estuary (Hawaiʻi County 2011). The project site Kanohina-Lava lava rock type is highly permeable, allowing for excellent drainage but also resulting in very high runoff potential.

Direct rainfall and tidal waters influence the water levels at the Honuʻapo Estuary, while seeps contribute another source of water. There are no natural surface water streams or channels that flow into the estuary. It has been noted that freshwater from seeps and springs enters the wetland along its edges and in the estuary, forming tiny freshwater pockets that swiftly change to brackish water in the estuary's main body and to seawater close to its mouth. Observations during field investigations for the 2011 Restoration Plan recorded eleven seeps and springs along the edge of the estuary and another three discharging from the bed of the estuary (see Figure 6). The existence of vegetation that needs steady fresh water along the estuary's edge suggests that there are additional freshwater seeps and springs releasing water into the intertidal zones (Hawaiʻi County 2011).

Daily tide fluxes raise and lower the water surface of the Honuʻapo wetland complex to elevations that correspond to the minimum and maximum tides. While the estuary is never entirely drained, surface water outflow happens when the tide is falling. The flow of water between the ocean and the estuary is limited to an opening in the rock wall at the estuary outlet. Because of the falling water level and the continuous inflow of fresh water, the salinity concentration at and near the springs is probably at its lowest during falling tides (Hawaiʻi County 2011).



Honu'apo Estuary Wetland Restoration

SOURCE: Sustainable Resources Group International, Inc., *Wetland Habitat Restoration Plan*, 2011

Figure 6
Project Site Seeps and Springs

Water Loss due to Evaporation and Transpiration.[9] The summer months of May through September are when Honu'apo experiences the highest evaporation losses. Because of the tide fluxes and the mixing effect they have on the estuary's main body of water, the salinity concentration in the estuary probably does not surpass that of sea water. During the summer, when evapotranspiration[10] rates are at their highest, salinity concentrations may surpass sea water salinity levels in the palustrine wetland areas that are flooded and submerged during high tides, where no freshwater springs are present, and that are left isolated during low tides. Over time, evaporation and transpiration losses are influenced by the kind, density, and cover of plants within a watershed. The growth of non-native tree species can either increase or decrease evapotranspiration losses, which are a dynamic process (Hawai'i County 2011).

It is unknown how much transpiration occurs from plants that grow in and near the edge of the Honu'apo Estuary complex. The many non-native kiawe trees that border the wetland's edges have likely dipped into the groundwater layer that supplies the freshwater springs and seeps that empty into the estuary. These trees can transpire a large amount of water and act as pumps. Basic water budgeting supports the notion that removing the kiawe and replacing it with native plants that can tolerate drought without depleting the groundwater zone would allow more fresh water to flow through the existing seeps and springs (Hawai'i County 2011).

Wetlands

A review of the USFWS National Wetland Inventory Map was completed to identify the presence of wetlands within the vicinity of the project. The Honu'apo Estuary is classified as Freshwater Emergent Wetland and Freshwater Pond, with the channel area classified as Riverine habitat (see Figure 7) (USFWS 2025).[11]

As characterized by the 2011 Restoration Plan, the Honu'apo estuary wetland complex contains three wetland types, including subtidal estuary, intertidal, and palustrine. Existing wetland types and acreages are depicted in Drawing C-1.02 of Appendix B. In the subtidal estuary, water levels and the wetted surfaces vary with tides, as it is directly connected to the ocean via a natural channel cut into the lava. The intertidal wetlands are inundated by tides on a nearly daily basis by normal high tides. This wetland type contains small stretches of exposed mudflats, an area with dense low growing emergent grasses, and backwater areas with dense vegetative cover. The palustrine wetland is located above the intertidal zone and is not submerged except during wave run-up and following heavy rain events. Most of this wetland type is covered with dense, high growing, non-native plants (Hawai'i County 2011). See Section 3.4, *Biological Resources* for a discussion of wetland habitat use by birds and aquatic species.

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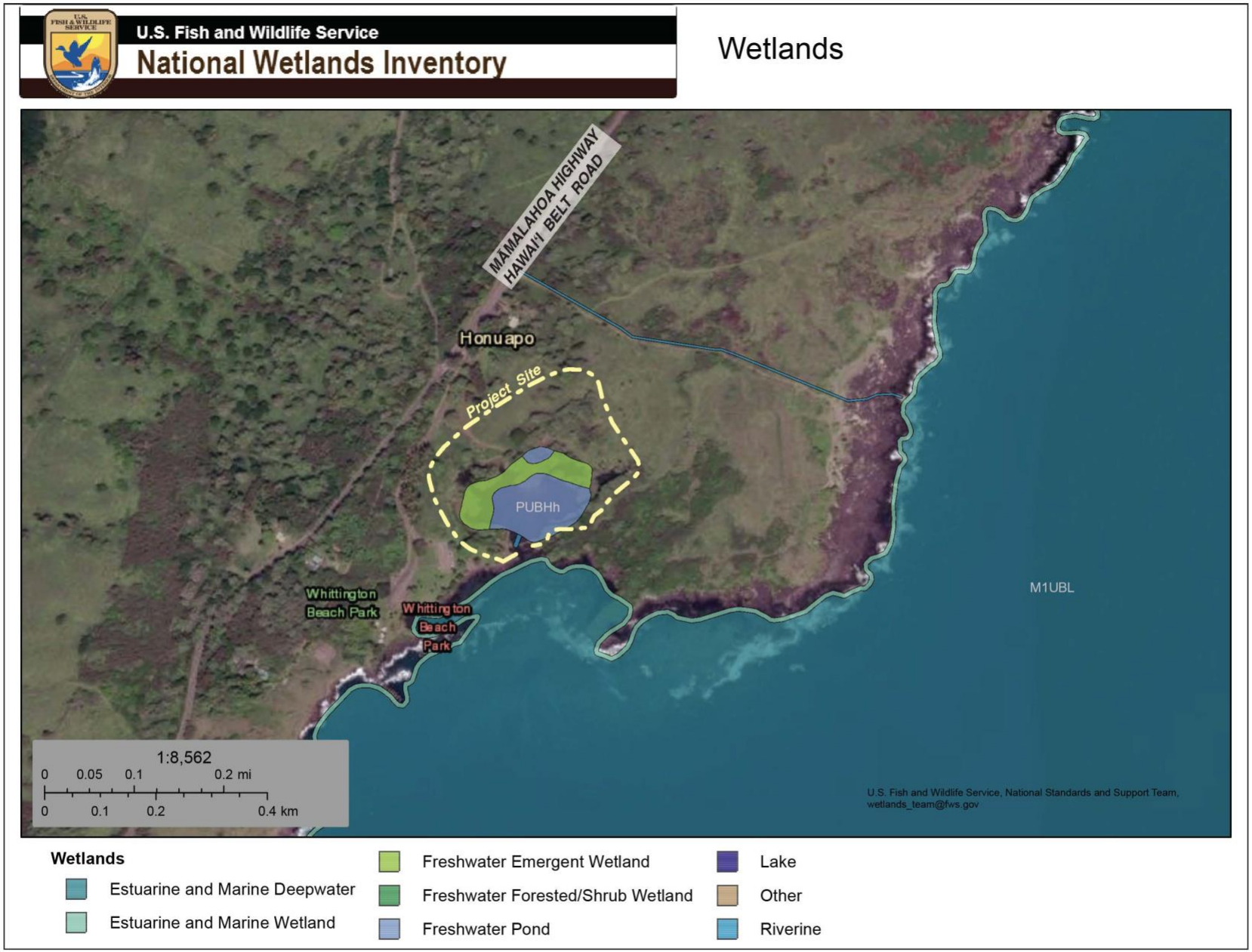
9 Evaporation is the process of turning from liquid into vapor. Transpiration is the process of water movement through a plant via its evaporation from the plant surface.

10 Evapotranspiration is the process by which water is transferred from the land to the atmosphere, by evaporation from the soil and other surfaces and by transpiration from plants.

11 The wetland inventory identifies 2.39 acres as Freshwater Emergent Wetlands (PEM1Ch), which is classified as Palustrine (P), Emergent (EM), Persistent (1), Seasonally Flooded (C), and Diked/Impounded (h). In addition, the 3.37 acres identified as Freshwater Pond (PUBHh) are classified as Palustrine (P), Unconsolidated Bottom (UB), Permanently Flooded (H), and Diked/Impounded (h). The 0.04-acre channel area identified as Riverine (R5UBH) habitat is classified as Riverine (R), Unknown Perennial (5), Unconsolidated Bottom (UB), and Permanently Flooded (H).



Honu'apo Estuary Wetland Restoration

SOURCE: U.S. Fish and Wildlife Service, National Wetlands Inventory 2023

Figure 7

National Wetlands Inventory Map

The estuary is brackish to saline, with the salinity concentration being a function of tide levels, rainfall inputs, and proximity to springs and seeps. Historically the surface area of the estuary was larger; reduction of its surface area is most likely due to vegetation encroachment, possible filling during sugar cane operations, and settling of organic debris from dead vegetation. It is estimated that there has been a two acre decrease in the amount of open water between historic photographs and circa 2010, as set forth in the 2011 Restoration Plan.

State Water Quality Standards

Waters in the Honu'apo Estuary are classified by the DOH as "Inland waters, Class 2" (DOH 2014). The objective for Class 2 Inland waters is "to protect their use for recreational purposes, the support and propagation of aquatic life, agricultural and industrial water supplies, shipping, and navigation" (HAR Section 11-54-3(b)(2). These waters shall not act as receiving waters for any discharge which has not received the best degree of treatment or control compatible with the criteria established for this class.

Coastal waters in the vicinity of Honu'apo Bay are classified by the State Department of Health (DOH) as "AA" (DOH 2014). The objective of Class AA waters is that their waters remain in their natural pristine state as nearly as possible. According to HAR Section 11-54-3(c)(1), Class AA waters shall encounter "an absolute minimum of pollution or alteration of water quality from any human-caused source or actions."

Water Quality and Marine Environment

The Clean Water Act (CWA), Section 303(d), requires states to submit a list of waters that do not attain or maintain applicable water quality numeric criteria, in addition to a priority ranking of impaired waters for Total Maximum Daily Loads (TMDL) development based on the severity of pollution and the uses of the waters. After the identification of water quality-limited waters is completed, states develop TMDLs at a level necessary to achieve the applicable state water quality standards. The CWA Section 305(b) requires states to describe the overall status of water quality statewide, and the extent to which water quality provides for the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allows recreational activities in and on the water. The State of Hawai'i's water quality report does not include Honu'apo Bay or Honu'apo Estuary on the Section 303(d) list (DOH CWB 2024).

Historic materials indicate that several water quality data collection and analysis efforts have been conducted on the estuary. A review of the results finds no anomalies and that quality of the various parameters sampled appears to be 'normal' and within expected concentrations and levels. In general, water quality is not degraded and the daily exchange between the ocean and estuary appears to keep ambient conditions in a condition to support healthy aquatic species. Water quality bacteria levels may be elevated intermittently due to feces from turtles or visiting/resident waterbirds. Turbidity in the estuary appears to be controlled by mixing induced by wind-generated turbulence, and turbidity is likely greatest during late afternoon under trade wind weather patterns (Hawai'i County 2011).

IMPACTS AND MITIGATION MEASURES

The proposed project would result in the removal of invasive non-native plant species, excavation of approximately 9,475 cubic yards of soil material, and recontouring the topography of the wetland to

improve the physical habitat. Additionally, native and endemic plants would be introduced to restore the ecological balance of the wetland. The total area disturbed area would be approximately 5.25 acres. Given that the project is proposing to dredge and deepen some areas of the estuary at Honu'apo, this action constitutes in-water construction and requires a USACE permit under their delegated Clean Water Act authority. The DOFAW has submitted permit application to USACE under the USACE Regulatory Program that administers and enforces Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.[12]

Construction activities disturbing one or more acres are regulated under the National Discharge Elimination System (NPDES) stormwater program and are required by the State to obtain a NPDES permit. Prior to the initiation of grading, the project applicant will prepare and implement a stormwater pollution prevention plan and BMPs designed to reduce potential impacts to water quality during construction of the project. The BMPs will identify the most effective erosion, sedimentation, and turbidity control measures to reduce the amount of soil and sediment accumulation in the coastal waters as a result of construction activities. The mitigation measures may include, but not be limited to, the onsite use of the Site-Specific Best Management Practices listed in Section 2.2 of this EA regarding sedimentation and erosion in aquatic environments. The BMPs will be developed in accordance with the County of Hawai'i regulatory requirements as part of the permitting process, including the prevailing soil erosion and stormwater quality standards ("Rules Relating to Water Quality"). With implementation of BMPs, the construction of the project would not result in a violation of water quality standards. For a discussion of impacts due to soil erosion and off-site sediment transport, see Section 3.1, *Geology, Topography, and Soils*. For a discussion of impacts due to flooding, see Section 3.3, *Natural Hazards*.

There would be no significant increase in impervious surface area, so the project would not result in a notable increase in stormwater. The proposed project would expand the volume of the existing wetland pond by approximately 9,475 cubic yards, enhancing its overall capacity to manage stormwater. The proposed drainage design would align with existing flow patterns, with the entire project area located within a single basin. Runoff within the drainage basin would continue to either infiltrate and/or flow to the pond. The proposed pond improvements would maintain the integrity of the current drainage system while improving its capacity to manage stormwater. There would be no anticipated increase in discharge of stormwater to Honu'apo Bay over existing conditions (see Appendix D).

The proposed wetland pond improvements would have a beneficial impact on water quality by providing increased wetland pond area that would act as a filter for pollutants and sediments in stormwater from upland areas. The proposed pond improvements would not be expected to cause an increase in sediment discharge from the project site to nearby surface waters. In addition, kiawe trees are tapping into the ground water and extracting fresh and brackish water that would otherwise flow into the estuary and dilute the seawater. Removal of kiawe trees should increase the volume of fresh water flowing into the estuary, which would enhance ecohydrological conditions favorable to native plants and animals (Hawai'i County 2011).

[12] The USACE has established permitting jurisdiction for the Honu'apo wetland pond. In accordance with 33 CFR 328.3(a)(4), the wetland pond is located adjacent to "territorial seas," and would be considered Waters of the United States.

Wetland restoration improvements planned under this project would have a positive beneficial impact on the Honu'apo estuary by increasing overall wetland pond area. Increased open water areas and intertidal mudflats created would provide better habitat for endangered waterbirds to breed and forage within Honu'apo estuary, as discussed in Section 3.4, *Biological Resources*.

Site-specific BMPs would be implemented during construction to prevent any wastewater, sediment, soil, and debris resulting from the proposed construction from adversely impacting the coastal ecosystem and State Waters in accordance with HAR Chapter 11-54. Compliance with BMPs for construction would minimize impacts to water quality. No long-term or cumulative adverse effects to hydrology or water quality are anticipated with implementation of the proposed action.

3.3 NATURAL HAZARDS AND CLIMATE CHANGE

ENVIRONMENTAL SETTING

Natural hazards in the project region include earthquakes, volcanic activity, waves and storms, flooding from hurricanes and tropical storms, and tsunamis. Climate change and the related sea level rise will also impact the Hawaiian Islands.

Earthquake and Volcanic Hazards

The seismic hazard and earthquake occurrence rates in Hawai'i are locally as high as that near the most hazardous faults elsewhere in the United States. Most of the earthquakes in Hawai'i are directly related to volcanic activity and are caused by magma moving beneath the earth's surface. Numerous small earthquakes are reported each year, mostly on Hawai'i Island. According to Federal Emergency Management Agency (FEMA) earthquake hazard maps, the project area is located within Seismic Design Category E, which means it is near major active faults capable of producing the most intense shaking and could result in considerable damage (FEMA 2020). A U.S. Geological Survey study indicates that the Hawaiian Islands, especially the Island of Hawai'i and neighboring islands with active volcanic activity, are likely to experience damaging ground shaking from an earthquake in the next century (Petersen et. al. 2021). Ground shaking is forecasted to be highest near the active volcanos of Kīlauea and Mauna Loa in the southernmost portion of the Island of Hawai'i.

The project area is located within the Nā'ālehu inundation zone of Mauna Loa (Trusdell and Zoeller, 2017). It is categorized as lava-flow hazard Zone 6, which is protected by topography. The zones, ranked from 1 through 9, represent a scale of decreasing hazard as the numbers increase, based on the probability of coverage by lava flows (Wright et. al. 1992).

Tsunami and Flood Hazards

The FEMA maps the project site as predominantly Zone VE, with peripheral areas in floodway areas designated as Zone AE and Zone X (see Figure 8). Zone VE includes coastal flood zone with velocity hazard (wave action). Flood Zone AE as defined for the project area applies to lands within the 100-year flood zone with Base Flood Elevations determined. Base flood elevations at the project site range from 22 feet closest to the shore to 15 feet further inland. Properties in Zone X are determined to be outside the 0.2 percent annual chance floodplain (HNFIP 2017). The project site is located within the tsunami evacuation zone (see Figure 9) (NOAA 2015).

Overland runoff from the hillsides above Honuʻapo historically caused flooding on the project site. An irrigation system of ditches developed and formerly maintained by the sugar plantations of Kaʻū has affected the surface hydrology of the area and, according to verbal accounts, decreased the number of flooding events at Honuʻapo. A ditch from the mill to the shoreline would periodically get clogged by debris and spill out the mill effluence, which would run overland to the estuary, likely causing some filling of the estuary. With the shutting down of the sugar industry in Kaʻū and the subdivision of plantation lands into smaller parcels, the irrigation system is no longer maintained (Hawaiʻi County 2010).

Hazardous Materials

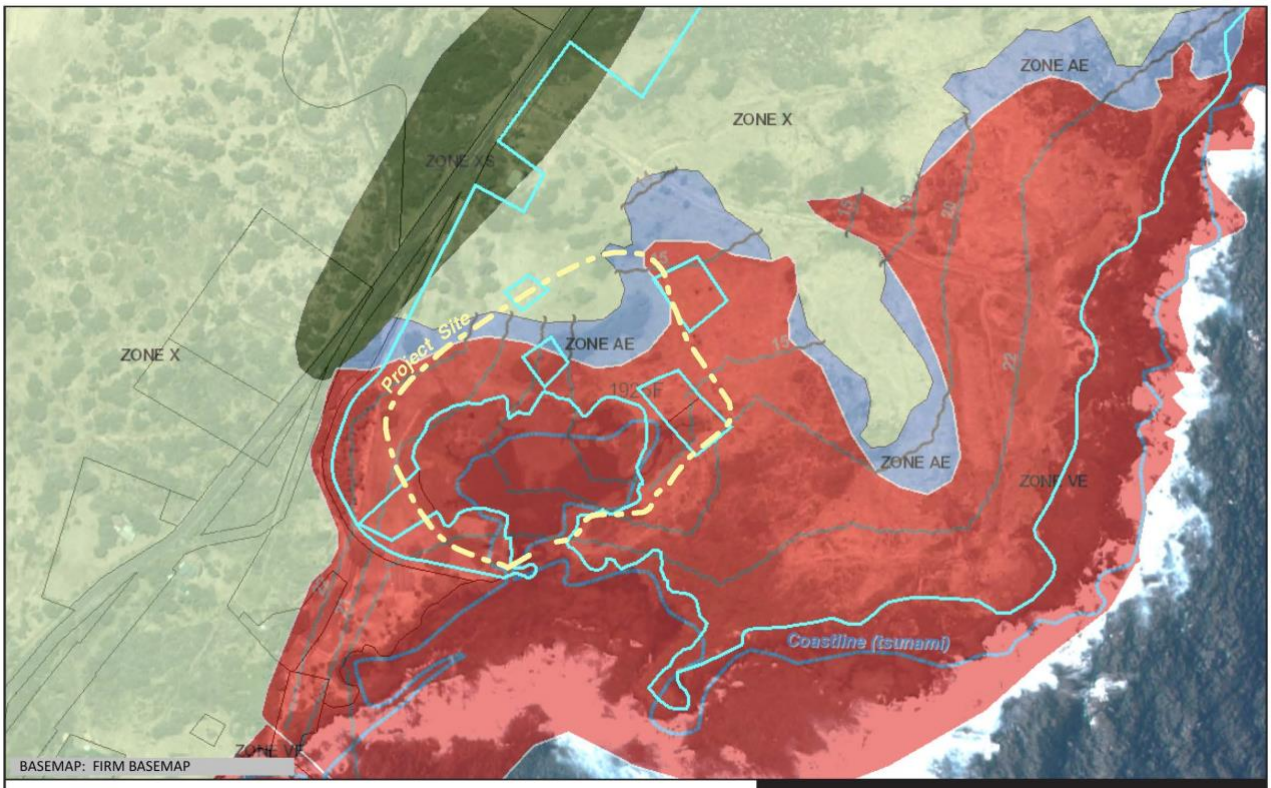
As discussed above in Section 3.1, *Geology, Topography, and Soils*, the soil screening conducted for the project found that no contaminants of concern are present in the project site soils, it is recommended that additional samples be collected and analyzed from soil stockpiles during construction to further verify the results presented in the report to determine the appropriate soil disposal or re-use parameters.

Climate Change and Sea Level Rise

Global Warming is a public health and environmental concern around the world. As global concentrations of atmospheric greenhouse gases increase, global temperatures increase, weather extremes increase, and air pollution concentrations increase. Global warming and climate change have been observed to contribute to poor air quality, rising sea levels, melting glaciers, stronger storms, more intense and longer droughts, more frequent heat waves, increases in the number of wildfires and their intensity, and other threats to human health (IPCC 2022). The year 2024 was the warmest year since global records began in 1850. The 10 warmest years in the 175-year record have all occurred during the last decade (2015–2024) (NOAA 2025).

The influences of climate change on global and local ecosystems are varied and often detrimental. In Hawaiʻi, the rate of warming air temperature has quadrupled in the last 40 years to over 0.3°F (0.17°C) per decade. Higher temperatures are projected to result in native plant and animal stress, an increase in heat-related illnesses and vector-borne diseases such as dengue fever, and a higher concentration of invasive species. Additional impacts are projected to include a decrease in trade winds and overall disruption of rainfall patterns; warmer oceans and higher ocean acidity, which could lead to coral bleaching; and a rise in sea levels. Hawaiʻi's coastal areas will see rapid increases in tidal flooding events beginning in the mid-2030s (University of Hawaiʻi 2014; State of Hawaiʻi 2023).

According to a report by the Hawaiʻi Climate Change Mitigation and Adaptation Commission (2017), sea level rise could result in low-lying coastal areas around the island to become chronically flooded within the mid- to latter-half of this century. This land will become submerged by coastal erosion, direct marine flooding from tides and waves, or become new wetlands behind the shoreline from rising water tables and reduced drainage.



Flood Hazard Assessment Report

www.hawaiinfip.org

Property Information

COUNTY:	HAWAII
TMK NO:	(3) 9-5-014:007
WATERSHED:	HILEA
PARCEL ADDRESS:	ADDRESS NOT FOUND PAHALA, HI 96777

Notes:

Flood Hazard Information

FIRM INDEX DATE:	SEPTEMBER 29, 2017
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL:	1551661925F
PANEL EFFECTIVE DATE:	SEPTEMBER 29, 2017

THIS PROPERTY IS WITHIN A TSUNAMI EVACUTION ZONE: YES
FOR MORE INFO, VISIT: http://www.scd.hawaii.gov/

THIS PROPERTY IS WITHIN A DAM EVACUATION ZONE: NO
FOR MORE INFO, VISIT: http://dlnreng.hawaii.gov/dam/

0 400 800 ft

Disclaimer: The Hawaii Department of Land and Natural Resources (DLNR) assumes no responsibility arising from the use, accuracy, completeness, and timeliness of any information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the DLNR, its officers, and employees from any liability which may arise from its use of its data or information.

If this map has been identified as 'PRELIMINARY', please note that it is being provided for informational purposes and is not to be used for flood insurance rating. Contact your county floodplain manager for flood zone determinations to be used for compliance with local floodplain management regulations.

FLOOD HAZARD ASSESSMENT TOOL LAYER LEGEND
(Note: legend does not correspond with NFHL)

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD - The 1% annual chance flood (100-year), also know as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. SFHAs include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

- **Zone A**: No BFE determined.
- **Zone AE**: BFE determined.
- **Zone AH**: Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
- **Zone AO**: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
- **Zone V**: Coastal flood zone with velocity hazard (wave action); no BFE determined.
- **Zone VE**: Coastal flood zone with velocity hazard (wave action); BFE determined.
- **Zone AEF**: Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA - An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

- **Zone XS (X shaded)**: Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- **Zone X**: Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

- **Zone D**: Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase apply, but coverage is available in participating communities.

Honu'apo Estuary Wetland Restoration

SOURCE: Hawai'i National Flood Insurance Program (HNFIP) 2017

Figure 8
Flood Hazard Map

Honu'apo Estuary Wetland Restoration

SOURCE: NOAA Office for Coastal Management 2015

Figure 9

Tsunami Evacuation Zone

The Hawai'i Sea Level Rise Report and Hawai'i Sea Level Rise Viewer document the modeled potential future exposure of each island to multiple coastal hazards as a result of sea level rise. [13] For the island of Hawai'i, the Sea Level Rise Exposure Area (SLR-XA) is the footprint of passive inundation, one of three flooding hazards with sea level rise, including passive inundation (flooding), coastal erosion, and annual high wave runup (Romine, et. al. 2020). These hazards were modeled for four future sea level rise scenarios, including 0.5 feet, 1.1 feet, 2.0 feet, and 3.2 feet. The 3.2-foot projection of sea level rise is considered an "intermediate" scenario by 2100 and an "extreme" scenario as soon as 2060 (Romine, et. al. 2020). Based on modeling predictions, areas around Honu'apo Bay and the project site would be vulnerable to chronic flooding with 3.2 feet of sea level rise (see Figure 10).

County of Hawai'i Integrated Climate Action Plan

The County of Hawai'i published the Integrated Climate Action Plan in June 2023, a comprehensive strategy that outlines the county's commitment to reducing its carbon footprint and ensuring the sustainability of its services and facilities. The goals of the plan are to: (1) Improve County capacity to implement climate action; (2) Reduce the County's contribution to global greenhouse (GHG) emissions; and (3) Increase the resilience of county infrastructure, assets, and services to climate change impacts. The county's plan identifies Hawai'i Island targets of 50 percent below 2005 GHG emission levels by 2030, and 100 percent carbon neutral by 2045. For Hawai'i County, the plan identifies targets of 100 percent renewable energy-powered County fleet by 2035, and 100 percent renewable energy-powered county facilities by 2040.

IMPACTS AND MITIGATION MEASURES

Natural Hazards

Establishment of the wetland pond would not result in increased flooding or hazards from flooding in surrounding areas. Storm runoff upland of the project site would either infiltrate and/or flow to the pond, maintaining the integrity of the current drainage system while improving its capacity to manage stormwater. Based on existing drainage and proposed drainage impacts, the proposed wetland restoration would not result in increased flooding that could adversely affect the project area (see Appendix D). For a discussion of stormwater erosion and sedimentation, see Section 3.2, *Hydrology and Water Quality*.

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high risk areas). State projects are required to comply with 44CFR regulations as stipulated in Section 60.12. Local community flood ordinances may stipulate higher standards that can be more restrictive and would take precedence over the minimum NFIP standards. The proposed improvements would be designed and constructed in conformance with the standards and requirements of the Hawai'i County Code, Chapter 27, *Floodplain Management*. In accordance with Section 27-23(1), all new construction in a coastal high hazard area must be constructed with materials and utility equipment resistant to flood damage and using methods and practices that minimize flood damage. The proposed improvements would be reviewed for consistency with the requirements of the Hawai'i County Code prior to approval.

[13] All sea level rise results from the hazard modeling and vulnerability assessment can be viewed on the Hawai'i Sea Level Rise Viewer (http://hawaiisealevelriseviewer.org/).

Honu'apo Estuary Wetland Restoration

SOURCE: Tetra Tech, Inc. and Sobis, Inc. 2017

Figure 10

Sea Level Rise Exposure Area (SLR-XA) 3.2 Feet Scenario

Prior to the initiation of construction, the County would review proposed grading and construction plans for consistency with county requirements and good engineering practice, which would minimize damage during tropical storm, hurricane, or strong wind events, and earthquake events. No significant environmental effects would result, and no mitigation would be necessary. No significant long-term or cumulative adverse environmental effects would result from natural hazards, and no mitigation would be necessary.

Climate Change and Sea Level Rise

Greenhouse gas emissions would be generated from the proposed wetland restoration project during construction and some maintenance activities. Temporary greenhouse gas emissions would occur during construction activities and during removal of stockpile materials, predominantly from vehicle and equipment exhaust. No regular operational greenhouse gas emissions are anticipated – limited emissions could occur from maintenance/work vehicles accessing the site and from visitors to the wetland. Greenhouse gas emissions would not be expected to be significant, and the project would not be expected to make a substantial contribution to the cumulatively significant impact of global warming and climate change.

The project site is located along the shoreline. Based on modeling predictions, areas of the Honu'apo Estuary Wetland project site would be permanently flooded with 3.2 feet of sea level rise (see Figure 10) (Hawai'i Climate Change 2021). However, the modeling does not consider the expanded volume of the existing wetland pond as a result of the project, enhancing its capacity to accommodate flooding. The wetland restoration project was designed to account for gradual and long-term increase in sea levels; the current protected status of the wetland and undeveloped open land surrounding the inland side of the wetland allows for future wetland migration as climatic changes resulting in sea level rise. New and expanded wetland areas may form, potentially improving wildlife habitat (Hawai'i Climate Change 2017). Lateral access along the shoreline is already constrained at the mouth of the estuary, and while it may prove more difficult with 3.2 feet of sea level rise, the proposed wetland restoration may minimize these effects. The 2017 report on sea level rise adaptation encourages the preservation and restoration of natural landscape features, such as streams, floodplains, and wetlands based on their inherent capacity to minimize the impacts of climate change. Therefore, the proposed wetland restoration project would have a beneficial effect on climate change (Hawai'i Climate Change 2017).

To minimize potential damage to the wetland restoration improvements during flooding, the pond improvements would be designed and constructed in conformance with applicable design standards. No significant long-term or cumulative adverse environmental effects would result from natural hazards, and no mitigation would be necessary.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL SETTING

The evaluation of biological resources set forth in this EA is summarized from the Biological Resources Update for Honu'apo Estuary, completed in July 2022 (see Appendix E). The survey updated information on ecological features of the project site set forth in the 2011 Restoration Plan (Hawai'i County 2011). Information from more recent surveys and observations of the wetland was included in the update (see Appendix E). For the following summary discussion, common names are

used for plant and wildlife species, except for special status species for which both common and scientific names are set forth. Scientific names for other species cited are set forth in the report noted above.

During the consultation and permitting process, the USFWS provided comments based on the 2022 Biological Resources Update for Honu'apo Estuary Final Report (see Appendix E), project engineering drawings (see Appendix B), and the IPaC Species list for Honu'apo Estuary Wetland Restoration Phase 1 project (dated 2/24/2025) as it pertains to listed species and designated critical habitat in accordance with Section 7 of the Endangered Species Act (ESA). Information in the USFWS letter, including recommended minimization measures, are set forth in this EA.

Under HRS Chapter 195D, the State, along with the federal government, provides for the conservation, protection, and propagation of unique and indigenous threatened and endangered species of Hawai'i. Often referred to as the Hawaii Endangered Species Act, this law is specifically designed to protect aquatic life, wildlife, and land plants. HAR Chapter 13-124 is a set of administrative rules created by the DLNR to implement and enforce Hawai'i's state wildlife protection laws, including HRS Chapter 195D. These rules list endangered and threatened species within the state and includes species beyond those listed under the Federal ESA.[14] These species as applicable to the project are set forth below.

Existing Habitat

The project site consists of ±8-acres of estuary and marsh habitat located along the Ka'ū coast. The influx of fresh water from springs and seeps (punawai) dilutes salt water and creates a brackish water environment in the Honu'apo estuary. Years of neglect and misuse have resulted in altered hydrology, sedimentation, and invasion by non-native plants and animals. This has contributed to impairment of wetland functions and decreased habitat for native resident and migratory birds and other native animals. For example, springs along the inland margin of the estuary are encroached on by invasive California grass and kiawe, resulting in decreased habitat and adverse impacts to the system's hydrology.

Numerous research projects and plans have included biological inventories of plants and animals in Honu'apo park lands. In the past, the DOFAW has conducted semi-annual avian surveys. Bird watchers and other visitors to the area have observed birds using Whittington Beach Park and the estuary. Based on these observations, the estuary is used by both migratory and native birds, and their presence indicates that the estuary is along flight paths and is used even in its degraded condition. According to resource managers and those with knowledge of the area, predators are the main cause of the restricted bird use at Honu'apo estuary (Hawai'i County 2011).

Predators can impact native waterbird populations directly and indirectly. In addition, they may carry diseases that can be transmitted to humans, monk seals, and other species. Feral cat colonies impact endangered and migratory bird health mainly through predation, competition, and transmission of disease. The main disease of concern is toxoplasmosis, which is caused by the parasite *Toxoplasma gondii*. Toxoplasmosis is carried by cats and is passed in their feces. The most dangerous form of the bacteria is the oocysts, the egg encapsulated form, which is not killed when exposed to air or water (fresh or salt). Eggs can be transmitted by exposure to cat feces in the soil, exposure to water

[14] https://dlnr.hawaii.gov/dofaw/files/2013/09/Chap124a-Ex.pdf

carrying the eggs, and ingestion of infected animals. Toxoplasmosis can spread to humans and other animals and has been linked to deaths of Hawaiian monk seals, spinner dolphins, and several species of birds. If toxoplasmosis does not kill animals outright, it can leave them in a weakened state that makes them more vulnerable to predation and other diseases. Although the cats at Honuʻapo are part of a managed trap/ neuter/ release / feed cat colony, the regular feeding of feral cats usually results in attracting more cats to the area as well as enhancing the populations of mongooses and rats. Like cats, mongoose and rats will eat eggs, chicks, and adults of some avian species. In addition, cats and mongoose host fleas, which can also pose a disease risk, especially to humans (Hawaiʻi County 2011).

Vegetation

There are three primary vegetation zones within the project area: wetland, coastal strand, and upland. Wetland vegetation includes emergent plants like reeds, sedges, grasses, and some trees; coastal strand plants are more low-lying and salt-tolerant, and mostly found between makai (ocean side) of the estuary and along the coastline; and the upland plant community includes grasses, shrubs, bushes and trees and is found mauka (mountain side) of the wetland (see Appendix E).

Wetland Plant Community

The dominant overstory plant species in the wetlands of Honuʻapo estuary are milo, a tree likely introduced by Polynesians, and the invasive tree, kiawe (mesquite). Grasses dominate the understory. These include the dominant native grass ʻakiʻaki and invasive seashore paspalum. Other prevalent non-native and invasive grass species within the wetland region include California grass and manienie (Bermuda grass), but these tend to be limited to areas above the higher high tide area. Within the wetland area, the native ʻākulikuli (sea purslane) is common, and in the intertidal and palustrine zones near the freshwater seeps and springs at the mauka side of the estuary, the native nānaku (giant bulrush) is thriving in large, clumping patches. Additionally, in these shallow backwater areas, there is now at least one type of marine limu (seaweed) species present, likely a *Cladophora* sp. that may have been introduced on the tabies / shoes of shoreline users or fishermen that also frequent other wetland habitats in Hawaiʻi. While this species is native and not invasive, per se, it can degrade the habitat for other native species.

Upland Plant Community

The uplands directly adjacent to the wetland area are dominated by non-native invasive species including: haole koa, Guinea grass, beach heliotrope, and kiawe, along with other dry shrubland species such as Christmas berry, java plum, and sourbush.

Coastal Strand Plant Community

The coastal strand vegetation community is located between the shoreline and estuary and is dominated by native plants adapted to an environment of sea spray including: naupaka kahakai, ʻakulikuli or sea purslane, and mauʻu ʻakiʻaki. It is likely that the coastal strand community was once more diverse and included other species commonly found along the Kaʻū coastline.

Fish and Wildlife

Honuʻapo Estuary is habitat for a diversity of native and endemic fish and wildlife. Species lists are found in Appendix E.

Terrestrial Mammals
Terrestrial mammals found in the park area include introduced wild and feral species, including feral cats, pigs, goats, mongoose, mice, and rats. There is at least one feral cat colony that is actively maintained by local residents. This area is also used frequently by local residents with dogs, though dogs are generally on leash and in control of the owner. Anecdotal evidence indicates that the federally listed endangered ʻōpeʻapeʻa, or Hawaiian hoary bat, may forage and roost in the vicinity of Honuʻapo.

Birds
There are three native endemic waterbirds that are listed under the Endangered Species Act (ESA) that may be found at Honuʻapo estuary: aeʻo (Hawaiian stilts*)*, ʻalae keʻokeʻo (Hawaiian coot), and kōloa moali (Hawaiian duck). Several migratory waterbirds, protected under the Migratory Bird Treaty Act (MBTA) and North American Wetland Conservation Act (NAWCA), may utilize either the land or marine environments near the estuary. These include hunakai (sanderling), kioea (bristle-thighed curlew) and ʻulili (wandering tattler). Kioea and ʻulili are designated by USFWS as Birds of Conservation Concern (BCC, USFWS 2021). Other non-wetland species included in the 2021 BCC update that may be found at Honuʻapo include the pueo (Hawaiian short-eared owl), the iʻo (Hawaiian hawk), the iwa (great frigatebird), the noio (Black Noddy) (USFWS 2021). Additionally, DOFAW biologists conducted 46 semi-annual surveys at Honuʻapo over the 33-year period between 1986 and 2019 and have confirmed observations of ʻakekeke (ruddy turnstone), kōlea (Pacific golden plover), an aeʻo, and nine other bird species (see Appendix E). The density and high stature vegetation present in most of the intertidal wetland type at Honuʻapo reduces its use by wading birds, since they are not able to walk over the vegetation or access the ground surface to reach food sources (Hawaiʻi County 2011).

KOOH volunteers have also routinely observed ʻulili utilizing the estuary and rocky shoreline, along with occasional threatened nēnē birds (Hawaiian goose) and the resident native ʻaukuʻu (black-crowned night heron) frequently noted around the estuary. The aeʻo are also frequently noted, as there are two that live at Honuʻapo and go to Pāhala to nest, then return every year. The seabird noio or black noddy is also commonly seen in flocks flying in and out of refuges in the rocky coastal cliffs of the area to the south of the wharf. Koaʻe kea (white-tailed tropic bird) and ʻio have also been observed at Honuʻapo. Non-native birds found at Honuʻapo include the northern cardinal, Japanese white-eye, spotted dove, zebra dove, the common barn owl, egrets, and the occasional domestic duck. It was also noted that a Harlequin Duck wintered at Honuʻapo in 2023. There are no native forest birds found near the wetland or that are known to travel through the surrounding areas.

Aquatic Species
The estuary provides important spawning and nursery habitat for many native fishes. A reef area located at the mouth of the estuary is naturally protected by a breakwall of pāhoehoe lava and provides prime habitat for juvenile fishes and other marine life. Local residents recall that the estuary used to provide good habitat for pāpio (juvenile trevally, ulua). Native fish species that have been recorded in Honuʻapo estuary include the endemic āholehole (Hawaiian flagtail), ʻamaʻama (striped mullet), halfspot goby, Hawaiian shrimp goby, the threatened ʻōʻopu naniha goby, ohua (juvenile manini, convict tang), the endemic ʻōʻopu akupa, wekeʻa (yellowstripe goatfish) and wekeʻula (yellowfin goatfish). Invasive fishes include livebearers (mosquitofish and guppies) and introduced kanda mullet and may also include small amounts of tilapia and introduced snappers.

Recorded crustaceans include snapping shrimp, ʻōpae huna (feeble shrimp) and aʻama (thin-shelled rock crab). Native mollusks include nahawale liʻi liʻi (Hawaiian mussel). The threatened honu (green sea turtle) is also known to frequent Honuʻapo Estuary and the name of the area has been translated to both "turtle poking its head above the water" or "caught turtle". In addition, the critically endangered honuʻea (hawksbill sea turtle) has been recorded in Honuʻapo Bay, and nearby nesting sites include Kamehame, Punaluʻu, Nīnole, and Kāwā. The endangered ʻilio holo i ka uaua or nā mea hulu (Hawaiian monk seal) is also occasionally observed using the bay and the beach near the estuary and was noted in December 2023.

Insects

The endangered, endemic orange-black Hawaiian damselfly (pinapinao) has been seen at Honuʻapo Estuary near freshwater seeps. Other insects include a wide variety of introduced dragonflies, and both native and non-native moths, beetles, and bees. Nearby coastal regions have also confirmed the presence of another endangered and endemic insect, nalo meli maoli (Hawaiian yellow-faced bee), so it is likely that this species is also an inhabitant of Honuʻapo and using some of the resident flora for nectar and driftwood to bore holes for their homes.

IMPACTS AND MITIGATION MEASURES

The proposed wetland restoration project is designed to bring Honuʻapo Estuary back into balance by removing invasive plants and animals and improving physical habitat structure and its associated ecological components for desired native species (see Figure 4 for the Vegetation Removal Plan and Figure 5 for the Re-Vegetation Plan). In general, dense ground cover with non-native grasses provides cover for predators and is an obstacle to birds walking and foraging. While predator control should reduce direct predation on resident and migratory bird species, the USFWS expressed concern that predators could circumvent the fence at the mouth of the estuary and enter the wetland. Further, the predator fence may be a hazard to animals, ʻōpeʻapeʻa, Hawaiian waterbirds, and Hawaiian seabirds that may collide with the fence. Project plans are being updated to construct the fence up to the water's edge and into the water so predators cannot get around it. Mitigation measures identified below would further minimize impacts from the fence to the extent feasible.

Recreational activities at Honuʻapo could result in a negative impact on the wetland area if not properly managed. The proposed walkway and pedestrian access would limit these activities to designated areas that would minimize disturbance to avian species using the site. Educational displays and managed educational or volunteer programs would also help to ensure that public use of the area does not compromise the restored habitat.

The proposed improvements and continued maintenance would promote native species, control or eliminate invasive species, and increase wetland function. However, the proposed project improvements and maintenance work around or in the pond could affect endangered waterbirds, their eggs, or habitat. The Honuʻapo Estuary Wetland Restoration project may affect, but is not likely to adversely affect the following federally and/or state listed species:[15]

Animals:

[15] These species were identified by the USFWS IpaC species list for the project area, or identifed by DLNR biologists as a species listed under HAR Chapter 13-124. Not all species listed are necessarily present at the project site, but have the potential to occur.

- ʻōpeʻapeʻa (Hawaiian hoary bat, *Lasiurus cinereus semotus*)
- nēnē (Hawaiian goose, *Branta sandvicensis*)
- Hawaiian waterbirds, including aeʻo (Hawaiian stilt, *Himantopus mexicanus knudseni*), ʻalae keʻokeʻo (Hawaiian coot, *Fulica alai*), and koloa maoli (Hawaiian duck, *Anas wyvilliana*)
- Hawaiian seabirds including ʻuaʻu (Hawaiian petrel, *Pterodroma sandwichensis*), ʻaʻo (Newell's shearwater, *Puffinus newelli*), short-tailed albatross (*Phoebastria albatrus*), and ʻakēʻakē (band-rumped storm petrel, *Oceanodroma castro*) (listed under HAR Chapter 13-124)
- ʻio (Hawaiian hawk, *Buteo solitarius*) (listed under HAR Chapter 13-124)

Insects:

- orangeblack Hawaiian damselfly (pinapinao, *Megalagrion xanthomelas*)
- Blackburn's sphinx moth (*Manduca blackburni*)

Reptiles:

- sea turtles, including honu (green sea turtle, *Chelonia mydas*) and honu ʻea (hawksbill sea turtle, *Eretmochelys imbricata)*

Plants:

- Carter's panic grass (*Panicum fauriei* var. *carteri*)
- ʻihi (*Portulaca villosa*)
- *Vigna o-wahuensis*
- loulu (*Pritchardia maideniana*)
- ʻōhai (*Sesbania tomentosa*)
- *Microlepia strigosa* var. *mauiensis*

In general, USFWS is supportive of wetland restoration efforts, but emphasizes that planned maintenance activities are conducted and scheduled so that it has minimal impact on endangered and native species. During the early consultation process, DLNR, Division of Aquatic Resources stated that DAR anticipates a measurable improvement in estuarine habitat conditions from the proposed project, and over time, expects increases in relative abundance and composition of native estuarine species as a result. This aligns with one of DAR's goals to improve and restore aquatic habitats and ecosystems to naturally thriving conditions (see Appendix A). As bird populations increase at Honuʻapo, planned maintenance activities must be conducted and scheduled so that it has minimal impact on endangered and native species. The following Best Management Practices shall be implemented during project activities to minimize impacts to endangered and native species:

- Prior to any work inside the estuary, all equipment, protective gear and shoes (e.g., felt tabies) should be decontaminated and checked for any dirt, mud or seeds to limit the spread of any new potential invasive species. Recommendations include rinsing all heavy equipment and smaller hand tools with a high-pressure hose or washer before and after field activities and drying all equipment and supplies before bringing them to the restoration site. A rinse station would be located at designated ingress and egress points to the estuary. In addition, tabies that have previously been used at any other location should be cleaned and rinsed in a 10 percent diluted bleach solution, and thoroughly dried prior to using them at Honuʻapo. It would also be best to transit within Honuʻapo lands with other shoes (and not tabies) as there are plenty of weed seeds of different

varieties in other sections of the property, and don tabies only when at the estuary.

- Volunteers, contractors and staff working in the area will be asked to refrain from using any chemical-based sunscreen or personal care products on skin surfaces that may be exposed to mudflats or estuarine waters. Likewise, all gloves will be cleaned and dried or new prior to use in the wetland. Volunteers will be briefed on these requests prior to conducting any restoration activities.
- To mitigate any potential negative impacts to wildlife, a 15 - 30 minute survey shall be conducted at the proposed restoration area and within the surrounding 500 feet radius prior to beginning work to ensure that no ESA species are present (e.g., pinao at seeps / freshwater springs, honu swimming or basking in / around the estuary, monk seals swimming in / hauled out around the estuary, or protected bird species, including nēnē, ʻūlili, aeʻo or kioea, utilizing the area where restoration is planned for the day). If a protected species is present, restoration activities will be shifted to another area or activities will be delayed until the native species departs. All restoration work will be conducted during daylight hours, and no additional lighting tools will be used (to prevent any disorientation by wildlife) after sunset or before sunrise. If biological surveys are conducted prior to dawn or after dusk, only red-light headlamps will be used.
- During construction, site-specific BMPs developed as part of the permitting process would minimize erosion and sedimentation and potential adverse effects to aquatic biota in the vicinity of the project site.
- The native nalo meli maoli or Hawaiian yellow-faced bees are adapted to a wide array of habitat types, one of which is coastal strand. They tend to nest in hollow stems, holes in trees, under tree bark or in crevices, or in burrows in the soil (https://dlnr.hawaii.gov/ecosystems/hip/species/nalo-meli-maoli/). As an extra precaution, all volunteers, staff, or residents using the shoreline shall be advised not to collect any driftwood or disturb native vegetation along the shoreline (where native yellow-faced bees may reside).

In their consultation comment letter, the USFWS provided the following information and recommended mitigation measures to minimize impacts to these federally listed species:

Listed Plants

USFWS records indicate the project's location occurs within the range of the following federally listed plants: Carter's panic grass, ihi, *Vigna o-wahuensis*, loulu, ʻohai, and *Microlepia strigose* var. *mauiensis*. Since surveys were completed within the project area, the USFWS recommends minimizing disturbance outside of existing developed or otherwise modified areas.

To avoid and minimize impacts to listed plant species, the USFWS recommended measure is included as mitigation:

- If work occurs outside these previously surveyed areas, we recommend conducting a survey for listed plants before starting work.

Orangeblack Hawaiian damselfly – Endangered pinapinao

Based on comments provided by USFWS during the consultation and permitting process, a site assessment survey was completed to determine whether the orangeblack Hawaiian damselfly is present at the Honuʻapo estuary (Olaʻa Environmental Services 2025). Visual surveys were conducted over three separate days in August 2025 during high and low tides, which allowed for

variation in salinity and resident species activity. While the presence of pinapinao was documented at the project site during a survey in June 1994, orangeblack Hawaiian damselfly adults, naiads, or eggs were not observed at the Honu'apo Estuary Wetland or at the adjacent Whittington Beach Park during the 2025 survey. Given the absence of the orangeblack Hawaiian damselfly during the 2025 survey, it appears that at some point between 1994 and 2025 pinapinao may have been extirpated from the Honu'apo estuary,[16] likely due to the cumulation of threats from invasive guppies and other non-native predators, and possibly water chemistry (Ola'a Environmental Services 2025).

Even though the orangeblack Hawaiian damselfly was not present during the 2025 survey, populations have been recently recorded within five miles of the project site (Ola'a Environmental Services 2025). The proposed estuary restoration project would improve habitat and ecosystem function for native species, including the orangeblack Hawaiian damselfly. The assessment report included additional recommendations that would benefit the pinapinao:

- Consult with the State of Hawai'i's Aquatic Invasive Species program on methods to remove non-native fish from the estuary. Restoration efforts focused on the management of invasive species, including control or eradication of predatory fish species, would improve the habitat and survivorship for the orangeblack Hawaiian damselfly.
- Conduct frequent monitoring of salinity levels throughout the estuary. Collecting baseline data on salinity in multiple areas throughout the estuary will determine whether specific areas of the estuary are within the orangeblack Hawaiian damselfly salinity tolerance threshold (2-15 parts per thousand).
- Conduct monitoring for invasive guppies (*Poecilia* spp.) at least 3 times a year. Monitoring invasive species guides management activities and will help to determine whether the estuary habitat is conducive to naiad survival.
- In collaboration with the Hawai'i Invertebrate Program and the Megalagrion Working Group, evaluate whether the re-introduction of orangeblack Hawaiian damselfly to Honu'apo Estuary would be feasible and suitable to help achieve species recovery (USFWS 2022). Similar orangeblack Hawaiian damselfly introduction efforts are currently underway on Lāna'i (USFWS 2025a).
- Clean and inspect all vehicles, equipment, and earth moving supplies or materials that will be used for restoration activities to reduce the impacts and spread of invasive plants and insects.
- Implement the following minimization and avoidance measures regarding the removal of vegetation, derived from the USFWS (2025) Conservation Agreement for the introduction of orangeblack Hawaiian damselfly to Lāna'i:

    - Plant material removed from at or below the waterline of the pond(s) will be placed in a small containment reservoir on site for thirty (30) days to allow for any eggs present within the plant material to hatch before permanent disposal of the material. Any vegetation or plant parts more than four (4) inches above the water line may be directly disposed of (safe to assume they do not contain eggs or naiads). While vegetation is being held, the containment reservoir will be covered with mesh to prevent Damselfly from laying additional eggs in it. After thirty (30) days, the vegetation and the cover will be removed to allow developing Damselfly to emerge,

[16] An extirpated plant or animal species means that it is now absent from an area that it had once occupied.

and remaining water will be returned to the pond.
- Aquatic vegetation removed from ponds will be placed in a small containment reservoir on site for thirty (30) days to allow for any eggs present within the plant material to hatch before permanent disposal of the material. While vegetation is being held, the containment reservoir will be covered with mesh to prevent Damselfly from laying additional eggs in it. After thirty (30) days, the vegetation and the cover will be removed to allow developing Damselfly to emerge, and remaining water will be returned to the pond.
- Before pond maintenance activities, survey of a fifty (50) foot buffer of the work to ensure avoidance and minimization of impact to Covered Species.

While there is no current plan to remove non-native, predatory fish species, KOOH may use fish nets to remove these fish during workdays on the fishpond.

Hawaiian hoary bat - Endangered ʻōpeʻapeʻa

The Hawaiian hoary bat roosts in both exotic and native woody vegetation across all islands and will leave young unattended in trees and shrubs when the adults forage. If trees or shrubs 15 feet or taller are cleared during the pupping season, there is a risk that young bats could inadvertently be harmed or killed since they are too young to fly or may not move away. Hawaiian hoary bats forage for insects from as low as 3 feet to higher than 500 feet above the ground and can become entangled in barbed wire used for fencing.

To avoid and minimize impacts to the endangered Hawaiian hoary bat, the USFWS recommended measure is included as mitigation:

- Woody plants greater than 15 feet tall shall not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15).
- Barbed wire shall not be used for fencing.

Threatened nēnē, Hawaiian goose

Nēnē are found on the islands of Hawaiʻi, Maui, Molokaʻi, and Kauaʻi. They are observed in a variety of habitats, but prefer open areas, such as pastures, golf courses, wetlands, natural grasslands and shrublands, and lava flows. Threats to the species include introduced mammalian and avian predators, wind facilities, and vehicle strikes.

To avoid and minimize impacts to nēnē, the USFWS recommended measures are included as mitigation:

- Do not approach, feed, or otherwise disturb nēnē.
- If nēnē are observed loafing or foraging within the project area during the Hawaiian goose breeding season (September through April), a biologist familiar with the nesting behavior of the nēnē shall survey for nests in and around the project area prior to the resumption of any work. Surveys shall be repeated after any subsequent delay of work of three or more days (during which the birds may attempt to nest).
    - Work shall cease immediately, and USFWS shall be contacted for further guidance if a nest is discovered within a radius of 150 feet of proposed work, or a previously undiscovered nest is found within said radius after work begins.

- In areas where nēnē are known to be present, reduced speed limits shall be posted and implemented, and project personnel and contractors shall be informed about the presence of endangered species on-site.

A 4(d) rule was established at the time the nēnē was downlisted to threatened status. Under the 4(d) rule, the following actions are not prohibited under the Act, provided the additional measures described in the downlisting rule are adhered to:

- Take by landowners, or their agents, conducting intentional harassment in the form of hazing or other deterrent measures not likely to cause direct injury or mortality, or nēnē surveys.
- Take that is incidental to conducting lawful control of introduced predators or habitat management activities for nēnē.
- Take by authorized law enforcement officers for the purpose of aiding or euthanizing sick, injured, or orphaned nēnē; disposing of dead specimens; and salvaging a dead specimen that may be used for scientific study.

However, nēnē are still listed as endangered under state law HAR Chapter 13-124, so these authorizations without a state permit would not apply.

Hawaiian waterbirds: ae‘o, (Hawaiian stilt), ‘alae ke‘oke‘o (Hawaiian coot), and koloa maoli (Hawaiian duck)

Hawaiian waterbirds are currently found in a variety of wetland habitats including freshwater marshes and ponds, coastal estuaries and ponds, artificial reservoirs, kalo or taro lo‘i or patches, irrigation ditches, sewage treatment ponds, and in the case of the Hawaiian duck, montane streams and marshlands. Hawaiian stilts may also be found wherever ephemeral or persistent standing water may occur. Threats to these species include nonnative predators, habitat loss, and habitat degradation. Hawaiian ducks are also subject to threats from hybridization with introduced mallards.

The proposed project may result in the creation of additional areas of standing water or open water that could attract Hawaiian waterbirds to the project site. In particular, the Hawaiian stilt is known to nest in sub-optimal locations (e.g., any ponding water), if water is present. Hawaiian waterbirds attracted to sub-optimal habitat may suffer adverse impacts, such as predation and reduced reproductive success, and thus the project may create an attractive nuisance. The proposed project includes additional features that would avoid impacts to listed species (e.g., fencing, vegetation control, predator management). Consultation with USFWS will continue during the permitting process to ensure project measures avoid impacts to listed species. Furthermore, KOOH plans to work with Birds of Hawai‘i Past Present to identify any ae‘o nests in the project area and avoid these sites as needed. Silt, sediment, or vegetation removal would not be conducted around any known ae‘o nest.

To avoid and minimize potential project impacts to Hawaiian waterbirds, the USFWS recommended measures are included as mitigation:

- In areas where waterbirds are known to be present, post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.

- If water resources are located within or adjacent to the project site, incorporate applicable best management practices regarding work in aquatic environments into the project design.
- Have a biological monitor that is familiar with the species' biology conduct Hawaiian waterbird nest surveys where appropriate habitat occurs within the vicinity of the proposed project site prior to project initiation. Repeat surveys again within three days of project initiation and after any subsequent delay of work of three or more days (during which the birds may attempt to nest). If a nest or active brood is found:
    - Contact the Service within 48 hours for further guidance.
    - Establish and maintain a 100-foot buffer around all active nests and/or broods until the chicks/ducklings have fledged. Do not conduct potentially disruptive activities or habitat alteration within this buffer.
    - Have a biological monitor that is familiar with the species' biology present on the project site during all construction or earth moving activities until the chicks/ducklings fledge to ensure that Hawaiian waterbirds and nests are not adversely impacted.

Hawaiian seabirds: Endangered ʻuaʻu (Hawaiian petrel), Threatened ʻaʻo, (Newell's shearwater), and Endangered Hawaiʻi Distinct Population Segment of the ʻakēʻakē (band-rumped storm-petrel):

Hawaiian seabirds may traverse the project area at night during the breeding, nesting and fledging seasons (March 1 to December 15). Outdoor lighting could result in seabird disorientation, fallout, and injury or mortality. Seabirds are attracted to lights and after circling the lights they may become exhausted and collide with nearby wires, buildings, or other structures or they may land on the ground. Downed seabirds are subject to increased mortality due to collision with automobiles, starvation, and predation by dogs, cats, and other predators. Young birds (fledglings) traversing the project area between September 15 and December 15, in their first flights from their mountain nests to the sea, are particularly vulnerable to light attraction.

To avoid and minimize potential project impacts to seabirds, the USFWS recommended measures are included as mitigation:

- Fully shield all outdoor lights so the bulb can only be seen from below.
- Install automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.
- Avoid nighttime construction during the seabird fledging period, September 15 through December 15.

Seabirds have been known to collide with fences, powerlines, and other structures near nesting colonies. To avoid and minimize the likelihood of collision, USFWS recommends the following measure as mitigation:

- Where fences extend above vegetation, integrate three strands of polytape into the fence to increase visibility.
- For powerlines, guy-wires and other cables, minimize exposure above vegetation height and vertical profile.

Endangered Blackburn's sphinx moth:

The adult Blackburn's sphinx moth feeds on nectar from native plants, including beach morning glory, ʻilieʻe, maiapilo, and others. Blackburn's sphinx moth larvae feed on non-native tree tobacco and native ʻaiea. To pupate, the larvae burrow into the soil and can remain in a state of torpor for a year or more before emerging from the soil. Soil disturbance can result in death of the pupae.

The USFWS recommends surveys to assess whether the Blackburn's sphinx moth occurs within the project area:

- A biologist familiar with the species should survey areas of proposed activities for Blackburn's sphinx moth and its larval host plants prior to work initiation.
    - Surveys should be conducted during the wettest portion of the year (usually November-April or several weeks after a significant rain) and within 4-6 weeks prior to construction.
    - Surveys should include searches for adults, eggs, larvae, and signs of larval feeding (chewed stems, frass, or leaf damage).
    - If moths, eggs, larvae, or native ʻaiea or tree tobacco over 3 feet tall, are found during the survey, please contact the Service for additional guidance to avoid impacts to this species.

If no Blackburn's sphinx moth, ʻaiea, or tree tobacco are found during surveys, measures shall be taken to avoid attraction of Blackburn's sphinx moth to the project location and prohibit tree tobacco from entering the site. Tree tobacco can grow greater than 3 feet tall in approximately 6 weeks. If it grows over 3 feet, the plants may become a host plant for Blackburn's sphinx moth. The USFWS recommends the following:

- Remove any tree tobacco less than 3 feet tall.
- Monitor the site every 4-6 weeks for new tree tobacco growth before, during, and after the proposed ground-disturbing activity.
    - Monitoring for tree tobacco can be completed by any staff, such as groundskeeper or regular maintenance crew, provided with picture placards of tree tobacco at different life stages.

Threatened (Central North Pacific DPS) (Hawaiʻi and Johnston Atoll) Green sea turtles (*Chelonia mydas*) and Endangered Hawksbill sea turtle (*Eretmochelys imbricata*) (collectively referred to as sea turtles):

The USFWS consults on sea turtles and their use of terrestrial habitats (beaches where nesting and/or basking is known to occur), whereas the NOAA Fisheries consults on sea turtles in aquatic habitats. USFWS recommends consultation with NOAA Fisheries regarding the potential impacts from the proposed project if it may affect offshore or open ocean habitats.

Green sea turtles may nest on any sandy beach area in the Pacific Islands. Hawksbill sea turtles exhibit a wide tolerance for nesting substrate (ranging from sandy beach to crushed coral) with nests typically placed under vegetation. Both species exhibit strong nesting site fidelity. Nesting occurs on beaches from May through September, peaking in June and July, with hatchlings emerging through

November and December. The green sea turtle has been observed passing into and out of the estuary, and the Hawksbill sea turtle has been recorded in Honu'apo Bay.

Construction on, or in the vicinity of, beaches can result in sand and sediment compaction, sea turtle nest destruction, beach erosion, contaminant and nutrient runoff, and an increase in direct and ambient light pollution which may disorient hatchlings or deter nesting females. Off-road vehicle traffic may result in direct impacts to sea turtles or nests and contributes to habitat degradation through erosion and compaction.

To avoid and minimize project impacts to sea turtles and their nests, the USFWS recommended measures are included as mitigation:

- No vehicle use on, or modification of the beach/dune environment during the sea turtle nesting or hatching season (May to December).
- Do not remove native dune vegetation.
- Incorporate applicable best management practices regarding Work in Aquatic Environments (see BMPs) into the project design. Have a biologist familiar with sea turtles conduct a visual survey of the project site to ensure no basking sea turtles are present.

    - If a basking sea turtle is found within the project area, cease all mechanical or construction activities within 100 feet until the animal voluntarily leaves the area.
    - Cease all activities between the basking turtle and the ocean.

- Remove any project-related debris, trash, or equipment from the beach or dune if not actively being used.
- Do not stockpile project-related materials in the intertidal zone, reef flats, sandy beach and adjacent vegetated areas, or stream channels.

    - tinting or using automatic window shades for exterior windows that face the beach;
    - reducing the height of exterior lighting to below 3 feet and pointed downward or away from the beach; and
    - minimizing light intensity to the lowest level feasible and, when possible, include timers and motion sensors.

Critical Habitat. There is no federally delineated Critical Habitat in the project area.

In January 2026, the USFWS responded to the informal consultation request for the proposed Honu'apo Estuary Wetland Restoration project. Based on the project description, implementation of the conservation measures, and because effects from the action are considered discountable, the USFWS provided written concurrence with the determination that the proposed project may affect, but is not likely to adversely affect federally listed species described above.

Conclusion

Wetland restoration improvements planned under this project would have a positive beneficial impact on the Honu'apo estuary by removing invasive vegetation, re-establishing native vegetation, and increasing overall wetland pond area. Increased open water areas and intertidal mudflats created would provide better habitat for endangered waterbirds to breed and forage within the wetland areas. Predator control included as part of the project would seek to minimize predation impacts to

native waterbird populations. Avoidance measures included in this section would minimize potential impacts to wildlife during construction and maintenance activities. No adverse long-term effects to biological resources would occur with implementation of minimization measures above.

3.5 HISTORIC, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

ENVIRONMENTAL SETTING

A Draft Archaeological Literature Review and a Draft Archaeological Site Preservation Plan were completed for the Honuʻapo Estuary Wetland Restoration project by Kulaiwi Archaeology, LLC (both dated March 2025). The reports were prepared in compliance with current historic preservation review requirements of Section 106 of the National Historic Preservation Act of 1996 and of the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD), contained within Hawaii Administrative Rules; Title 13, DLNR; Subtitle 13, State Historic Preservation Rules; Chapter 277, Rules Governing Standards for Archaeological Site Preservation and Development and Chapter 279 Rules Governing Standards for Archaeological Monitoring Studies and Reports. The report identified an 18.25-acre area surrounding the Honuʻapo estuary as the Area of Potential Effect (APE). The literature review was conducted to identify any previously identified historic properties within 0.5 miles of the APE and assess the potential for impacts to historic resources as a result of the proposed project. Appendix F includes detailed descriptions of previous archaeological work within the APE and historic resources identified.

Summary of Area History

Honuʻapo was an extensive coastal settlement that dates to at least the 1400-1500s; it was one of seven major landing sites along the Kaʻū coast for early Hawaiian voyagers and is well known for its fishpond estuary and village. According to early accounts, the area featured a large village, fishpond, coconut grove, canoe landing, and heiau around the fishpond. The nearby slopes were farmed with sweet potato, dryland taro, bananas, wauke, arrowroot, and plantains. Freshwater springs discharging into the estuary provided water for the residents of the village. The name of the area has been translated to both "turtle poking its head above the water" and "caught turtle".

In 1868 a massive earthquake and resulting tsunami destroyed the village and the surrounding area. Honuʻapo remained a well-used fishing and shoreline access point until Honuʻapo Bay was dredged and a wharf was constructed in 1883 to serve the needs of the Hutchinson Sugar Company. The Hutchinson Sugar Company was present at Honuʻapo from 1881 to 1973. In 1910, the wharf was built and Honuʻapo became the means of exporting most of the sugar cane in Kaʻū. The development of the sugar industry also led to the construction of a railroad network, connecting the mills and various buildings within the plantation area. Honuʻapo wharf served as a vital transportation hub for various communities, including Waiʻōhinu, Nāʻālehu, Hīlea, and Honuʻapo itself.

Use of the port declined in the late 1930s, and in 1946 another tsunami destroyed most of wharf and some of the remaining industrial buildings. After this, much of the area mauka (inland) of Honuʻapo Bay, including the estuary, was used for grazing cattle, although the sugar industry maintained a presence until the 1990s. The sugar company dumped industry effluent into the ocean from the adjacent Mill Ditch Road (just northeast of and next to Honuʻapo Bay) during a portion of its operation. Due to operational issues with the ditch, the effluent was later discharge on land mauka of the shoreline just north of the estuary. A third tsunami and earthquake in 1975 further destroyed

the shoreline, leaving only a few remnants of concrete foundations of the sugar cane and port facilities. The only other historic structure located within Honu'apo lands was a clubhouse and Japanese-style garden constructed in the 1950's on the northern side of Honu'apo Estuary. That building was also destroyed by a tsunami, but garden structures (bridge and debris) remain. Studies also indicated that waste fill disposal during the sugar plantation era likely covered many other archaeological sites, particularly around the estuary (Hawai'i County 2011).

Previous Archaeological Research and Cultural Practices

The results of the literature review indicate that there are 58 archaeological sites located within or within 0.5-miles of the APE. Of these sites, 17 sites have been recommended for preservation, one of which is located within the 18.25-acre APE. This consists of Site 50-10-74-22353, a complex of eight features documented during an Archaeological Inventory Survey (AIS) conducted by Haun & Associates (2004). The site is located within an around the project site fishpond. The features of the site include a concrete slab (Feature A), two bridges (Features B and C), two water control gates (Features D and E), a set of concrete walls (Feature F), a mortared stone wall (Feature G), and the fishpond itself (Feature H). Site 22353 has elements associated with both the pre-contact and historic use of this area. The Feature H fishpond originated as a pre-contact aquaculture feature. The walls and water control gates located within and adjacent to the fishpond were constructed historically as elements of this aquaculture system. The bridges and the concrete slab are interpreted as recreational facilities constructed and used by Hutchinson Sugar Plantation employees. Site 22353 is unaltered and in fair condition. It was assessed as significant pursuant to HAR Section 13-275-6(b) as an excellent example of a site type (Criterion "c") and for its information content (Criterion "d") by Haun et al. (2004) and was recommended for preservation.

The Honu'apo park lands are an important community resource. In the early 2000s, residents were concerned that a developer submitted plans for luxury estates in the area surrounding the estuary, and it would limit access to the shoreline for local families and fishermen, endanger the remaining habitat, and spur further development. As a result, a group of committed local volunteers formed KOOH to manage the park's expansion and restoration projects at Honu'apo. DOFAW scheduled several meetings with community group KOOH during review of the project to understand the evolution of the project and community context and knowledge. The park is used by the local community for a variety of recreational and cultural activities, including camping, picnicking, dog walking, snorkeling/swimming, fishing, and maintenance and use of the historic fishpond. In a socio-cultural monitoring survey designed to assess how local residents used resources at Honu'apo (completed from November 2008 to November 2009), of the total human-use observations documented, nearly half were for fishing using a variety of methods, including polefishing, shoreline gathering, thrownetting, spearfishing, and lay/gillnetting (Lamson 2010). The estuarine environment of Honu'apo serves as a safe place for many 'ohua (young fish) to grow with minimal predation. The project site is subject to a Loko I'a Program permit from the OCCL, which streamlines the permitting process for the restoration and maintenance of traditional Hawaiian fishpond systems, and improvement of conditions for native species and intentionally-raise species for continued use of this historic fishpond.

IMPACTS AND MITIGATION MEASURES

Implementation of the proposed wetland restoration project could result in impacts to the archaeological site complex of eight features located within an around the Honu'apo fishpond (Site

22353). The remaining 16 preservation sites within 0.5-miles of the APE would not be impacted by the proposed Honu'apo Estuary Wetland Restoration Project and would be avoided by all construction activity. Protective measures to ensure the preservation of the Site 22353 complex detailed in the Draft Archaeological Site Preservation Plan (ASPP) would ensure no impacts to archaeological sites would occur. The following Draft measures would be required:

Preservation Mitigation Measures:

The preservation of Site 22353 will require short-term and long-term protection measures. These measures provide for actions to ensure the site is protected in perpetuity and that damage does not occur through negligent or unintentional means and can be implemented as soon as feasible. On behalf of the County, the Ka 'Ohana O Honu'apo group would implement the preservation measures contained in the Draft ASPP and set forth below:[17]

1. Short-Term Conservation Measures
   Short-term conservation measures shall be implemented both prior to and during all phases of the proposed project. These measures shall consist of the installation of a physical barrier set five (5) feet from the sides of Features A through G of the Site 22353 complex (shown in Figure 21 of the ASPP). While no heavy equipment shall be allowed within the 5-foot buffers surrounding Feature A through Feature G, the buckets of the machines shall be permitted to excavate within the buffers to allow dredging. No impacts to the features will be permissible. Due to the nature of the proposed project, and the need to excavate within and adjacent to the fishpond, no temporary physical barrier is proposed for Feature H. The temporary buffer at Features A through G shall be comprised of fencing installed prior to the commencement of any ground altering activity. The fencing shall consist of orange safety fence that is ultraviolet ray resistant high-density polyethylene with diamond or square mesh, with a minimum weight of 20 pounds per 100 feet by 4 feet wide. The installation of the fencing shall be monitored by an archaeologist, and a letter with photographs shall be provided to SHPD after inspection. The fencing shall be removed following the completion of the wetland restoration project.
2. Long-Term Conservation Measures
   The form of preservation for the Site 22353 complex is rehabilitation and restoration. This will be accomplished by protecting the features during and after the proposed project. Long-term conservation measures shall consist of maintaining the current condition of these features. The condition of the site shall be monitored by the KOOH on behalf of the County of Hawai'i and any degradation or change shall be reported to SHPD. Site monitoring shall consist of annual or bi-annual inspections, during which photographs shall be taken to document site integrity. As specified in HAR Section 13-277-6 [1-3], site maintenance shall include the bi-annual removal of litter from the fishpond area. This will be the responsibility of the KOOH on behalf of the County and will be conducted on scheduled KOOH workdays. The project involves the revegetation of the APE with native plant species. The removal of invasive vegetation on or immediately adjacent to Feature A through Feature G shall be undertaken with small hand tools to prevent inadvertent damage to them.
3. Preservation buffer

[17] These measures may be revised following consultation with SHPD and completion of the Final ASPP.

A 5-foot permanent buffer shall be established around Feature A through Feature G, following the temporary buffer described above. No physical barrier shall mark these permanent buffers. A permanent buffer is also proposed for the rehabilitated Feature H pond. This buffer shall be defined by a predator proof fence that would be constructed approximately 50 to 320 feet from the pond edges to prevent predatory animals from impacting the area. Gates shall be installed in the fencing to allow pedestrian and vehicle access.

4. Access
   The Site 22353 complex is generally not accessed by the public unless accompanied by members of the KOOH. As indicated in HAR Section 13-277-6 [4], access to the site for cultural practices will be permitted following consultation with KOOH. The proposed project would be completed in phases and would consist of the construction of a walkway that would surround the rehabilitated and restored fishpond, beginning at the Whittington Park existing parking lot. Viewing platforms would be constructed on the north and southwest sides of the pond to encourage viewing from specific areas. A fence would also be constructed around the area to keep predatory animals from impacting the pond. Two gates would be installed to allow pedestrian access, with one at the southwest end of the pond, nearing the parking area, and another along the northeastern end of the enclosing fence. A gate for vehicular access would be located along the inland side of the fence. The SHPD may inspect the Site 22353 without prior notice.

5. Signage
   Warning signs of durable material shall be placed around the perimeter of the Feature H fishpond. General interpretive signs pursuant to HAR Section 13-277-7 shall also be displayed, with the text of the signs submitted to SHPD for review and approval. The signs shall be located to minimize visual impact to the site itself but located such that their visibility would be guaranteed from any approach. These signs would require maintenance and should be replaced if illegible as a result of defacement or extended wear. All violations shall be reported to SHPD and the Division of Conservation and Resources Enforcement as they are responsible for investigating and prosecuting HRS 6E-11 violations. Warning signs should be written in both Hawaiian and English. The following signage text is suggested:

   PROTECTED SITE: This is a culturally sensitive and significant Hawaiian ancestral site. Please respect barriers that are intended to protect these fragile resources. Violations can result in a $10,000 fine (Chapter 6E, as amended, Hawai‘i Revised Statutes)

   HE WAHI KAPU:
   He wahi kapu kēia.
   Mai hana ‘ino.
   Ho‘opa‘i ‘ia ka hana ‘ino i kēia wahi. (Chapter 6E, as amended, Hawai‘i Revised Statutes)

Because of the previous archaeological studies conducted in the area, there is low probability of encountering unidentified archaeological sites at the project site; however, all members of the project and construction teams should be informed of the possibility of inadvertent cultural finds. In the event any potential historic properties are identified during construction activities, all activities should cease in that area and the SHPD should be notified pursuant to Section 13-280-3, HAR. In the unlikely event that bones are encountered that could be iwi kūpuna (Native Hawaiian ancestral remains), all earth moving activities in the area should stop, the area be cordoned off, and the SHPD

notified pursuant to Section 13-300, HAR. In the event that iwi kūpuna and/or cultural finds are encountered during construction, 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. With implementation of the above conditions, no adverse effect to cultural, historic, or archaeological resources would occur.

The State of Hawai'i's environmental review process also requires consideration of the proposed project's potential effects on cultural practices and cultural features to "promote responsible decision making" (HRS Section 343). These cultural practices and features may include traditional cultural properties, which are designated significant historic properties that "have an important value to the native Hawaiian people or to another ethnic group of the [S]tate due to associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts—these associations being important to the group's history and cultural identity" (HAR Sections 13-275-6 and 13-284-6). The intent of the assessment is to "analyze the impact of a proposed action on cultural practices and features associated with the project area" (OEQC 1997). Cultural practices at the fishpond would continue following implementation of the wetland improvements. While the predator proof fence would limit entry to the fishpond at precise locations, public access to the site would be allowed via two gates for pedestrian access, one at the southwest end of the pond, nearing the parking area, and another along the northeastern end of the enclosing fence. Because the proposed project represents a continuation of existing uses and would improve conditions at the loko i'a, it is reasonable to conclude that, pursuant to Act 50, the exercise of Native Hawaiian rights, or any ethnic group, related to gathering, access, or other customary activities within the project area would not be negatively affected, and there would be no direct adverse effect upon cultural practices or beliefs.

3.6 AIR QUALITY AND CLIMATE

ENVIRONMENTAL SETTING

Hawai'i receives most of its precipitation during the winter months (October to April). Flooding is more likely during this wet period, and stream flows decrease during drier conditions from May to September. The temperature in the Na'alehu area ranges from 65 to 79 degrees Fahrenheit (F). Mean annual rainfall in the Na'alehu area is about 48 inches (U.S. Climate Data 2025).

In the Hawaiian Islands, the predominant wind direction is from the northeast (trade winds). As a result of the trade winds, air quality in Hawai'i is generally very good. Ongoing volcanic activity at the summit and East Rift Zone of Kīlauea Volcano, on the Island of Hawai'i, creates the potential for airborne health hazards from vog[18] to residents and visitors. Vog mostly affects the Kona coast on the west side of the island since the prevailing trade winds blow the vog to the southwest and southern winds, which then blow it north up the Kona coast toward Kohala. When the winds shift and blow towards the south (Kona winds), the vog plume moves over the Ka'ū District and may impact Honu'apo.

The Department of Health, Clean Air Branch (CAB), monitors the ambient air in the State of Hawai'i for various gaseous and particulate air pollutants. The U. S. Environmental Protection

[18] The term vog refers to the hazy air pollution caused by volcanic emissions, which are primarily water vapor, carbon dioxide, and sulfur dioxide gas.

Agency (EPA) has set national ambient air quality standards (NAAQS) for six criteria pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, ozone, and particulate matter (PM_{10} and $PM_{2.5}$). Hawai‘i has established state ambient air standards for all of these pollutants (except for $PM_{2.5}$) in addition to hydrogen sulfide, a product of volcanic emissions (CAB 2022). The primary purpose of the statewide monitoring network is to measure ambient air concentrations of these pollutants and ensure that these air quality standards are met.

In 2023, there were 10 air monitoring stations on the island of Hawai‘i. Most stations are located on the Island of Hawai‘i to measure air quality impacts from the volcano and geothermal energy production. There are monitoring stations located in Pāhala and Nā‘ālehu, in the general vicinity of the project site. According to the State of Hawai‘i Department of Health Annual Summary 2023 Air Quality Data, criteria pollutant levels in the State remained below all federal and state ambient air quality standards (excluding exceedances due to volcanic activity since they are considered natural events) (CAB 2024).

IMPACTS AND MITIGATION MEASURES

Construction of the proposed project could result in temporary air quality effects, including exhaust emissions from construction vehicles and dust generated by short-term construction related activities. Components of construction emissions include employee trips, exhaust emissions from construction equipment, and fugitive dust emissions. Excavation and grading within the project area could generate airborne dust particulates.

Dust control measures such as watering and sprinkling will be implemented as needed to minimize wind-blown dust. To minimize construction-related exhaust emissions, project contractors will ensure that all internal combustion engines are maintained in proper working order. All construction work will be in conformance with the air pollution control standards contained in HAR Title 11, Chapter 59, “Ambient Air Quality Standards,” and Chapter 60, “Air Pollution Control,” which would minimize air quality emissions.

Once completed, the proposed wetland restoration project would not result in any new air emissions, since vehicle trips from park staff and volunteers would continue with project implementation. There would be no long-term adverse air quality impacts associated with the proposed action. Other than passing vehicles on nearby roadways, there are no air contaminant sources in the immediate project area.

3.7 NOISE

ENVIRONMENTAL SETTING

Surrounding noise levels in the vicinity of the project site are considered relatively low. Existing noise sources include the sound of waves washing up on the shoreline, wind blowing, occasional vehicular traffic entering and leaving the park, and human conversations and radio music from park visitors. County DPR maintenance staff periodically mow the grass in park areas and use heavy equipment; however, the noise occurs infrequently.

IMPACTS AND MITIGATION MEASURES

Noise impacts from a project can be categorized as those resulting from construction and those from operational activities. Construction noise would have a short-term effect; operational noise would continue throughout the lifetime of the project. Implementation of the proposed wetland improvements could temporarily increase noise levels during construction. Noise from construction activities is regulated under Title 11, Chapter 46 (Community Noise Control) of the State DOH's Administrative Rules. The zoning district classification and maximum permissible sound levels are outlined in HAR Section 11-46-4. The project falls under the Class C zoning district category that applies to properties zoned for agriculture, country, industrial, or similar types of land uses. The maximum permissible noise level for this site under Class C is 70 dBA at the property line during daytime and 70 dBA during nighttime. Typical ranges of construction equipment noise vary between 70 and 95 dBA. Therefore, earthmoving activities could temporarily increase noise levels during construction above maximum allowable limits that would impact nearby existing public uses.

A Community Noise Permit for construction activities may be required by the State DOH. Prior to construction, consultation with the State DOH will occur to determine permitting requirements. Should the permit be required, allowable construction conditions will be specified. Construction will be confined to 7 a.m. to 6 p.m., Monday through Friday, and 9 a.m. to 6 p.m. on Saturday. No construction activities exceeding maximum allowable noise levels will occur on Sundays and holidays without prior notice. Construction activities will comply with HAR Chapter 11-46, "Community Noise Control."

There would be no long-term increase in noise during project operations since the project includes restoration of an existing wetland pond at the Honuʻapo estuary. Further, the project would not generate additional traffic and associated noise.

3.8 VISUAL RESOURCES

ENVIRONMENTAL SETTING

The project area includes wetland marsh, including vegetated areas surrounding the wetlands and the uplands directly adjacent to the wetland area. Due to the relatively level topography of the project site and the low-level vegetation near the shoreline, views of the Kaʻū coastline and uplands are visible. These views provide a striking panorama of the rugged and wild beauty of Kaʻū (County of Hawaiʻi 2011).

IMPACTS AND MITIGATION MEASURES

During construction, workers, materials, and equipment would be visible from Whittington Beach Park to the southwest and from motorists on the park road entrance. Visual impacts during construction would be temporary and intermittent.

The majority of the proposed wetland restoration project improvements would not significantly change the scenic and visual character of the surrounding area and would improve the aesthetics of the estuary. However, the predator proof fence and pedestrian walkway and viewing platforms would result in a visual addition to the existing landscape. Given the height of the proposed fence, the predator fence would create a significant visual change; however, the exclusion fencing would would create a predator-free haven for native birds and plants, which would have a beneficial impact

and improve the estuary as a scenic resource. To minimize the visual impact of the fence, the use of natural colors or materials that complement the wetland should be considered.

3.9 SOCIAL AND ECONOMIC CHARACTERISTICS

ENVIRONMENTAL SETTING

In both urban and rural areas, the County of Hawai‘i has relatively low population density, though there has been a marked growth in population. From 2020 to 2023, the Hawai‘i County population increased from 200,629 to 207,615 persons, which represents an estimated 1.1 percent annual growth rate. In comparison, within the Nā‘ālehu Census Data Place (CDP), the population decreased from 890 persons in 2020 to 837 in 2023, about a 2 percent decrease.

While historically the primary industry for Hawai‘i County was agriculture (sugar), the more recent major economic activities for Hawai‘i County include government, accommodation and food services, and retail trade, similar to the State (DBEDT 2023). Honu‘apo is a protected area, emphasizing conservation and restricted agriculture.

The Honu‘apo lands are an important recreational resource for residents in the area. The Honu‘apo estuary provides opportunities for sustainable recreational and subsistence fishing, and for upholding cultural traditions as a loko i‘a. Through KOOH and other organizations, community members have participated as volunteers in the restoration of the fishpond at Honu‘apo.

Photo 2: KOOH Vice President, Daniel Dierking, teaches his daughters about fishpond restoration and kuapā rock wall setting.

IMPACTS AND MITIGATION MEASURES

The proposed project is not anticipated to have significant, adverse impacts on the social and economic characteristics of the area. The proposed improvements would enhance the Honu'apo estuary and provide additional wetland habitat for Hawaiian waterbirds. The proposed restoration activities would not generate any new permanent full-time jobs; however, KOOH anticipates hiring a local part-time contractor to support wetland restoration, site caretaking, environmental education, and maintenance efforts beginning in early 2026. Therefore, the primary economic effects would be associated with short-term construction jobs and a part-time maintenance job that would generate a small minor positive economic impact.

Implementation of the proposed action would not displace any residents or businesses since project improvements would occur in an open space area. Improvements planned under the proposed wetland restoration would not impact the number of housing units in the surrounding area and surrounding communities because no housing units are included under this project.

The proposed restoration improvements would enhance Honu'apo estuary's value as a wetland habitat for Hawaiian waterbirds, and the cultural significance as a historic fishpond. The involvement of KOOH and community volunteers as covered under the loko i'a program provides a community-based management and protection system that incorporates traditional cultural values and management techniques.

3.10 PUBLIC FACILITIES AND SERVICES

ENVIRONMENTAL SETTING

The Honu‘apo Estuary Wetland is a natural resource and is not served by any utility services. The project site is not served by public water or wastewater services or connected to stormwater facilities. There is no electrical, telecommunications, or solid waste service provided to the project site since it is a wetland and wildlife area. Electricity is provided at Whittington Beach Park for lighting of the existing pavilions and restrooms.

IMPACTS AND MITIGATION MEASURES

The proposed project includes the restoration of a wetland pond within the Honu‘apo park lands. Guinea grass dominates the inland disturbed areas of Honu‘apo lands and is targeted for control in the Resources Management Plan in part to reduce wildfire risk. No feature of the project would result in the need for new or altered services for fire or police protection, schools, libraries, parks, or health services. Because no new residences would be constructed on site, and any new employee would be likely drawn from the local labor pool, no increase in population would result from the proposed project. Therefore, no increases in the demands for public services such as schools, libraries, parks, health services, police, or fire protection would be expected, and no additional public facilities would need to be constructed. Further, activities at the proposed wetland restoration project site would not affect the provision of utilities and public services to adjacent land uses. Restoration improvements planned are expected to have no negative long-term impact on utilities and public services.

For information regarding storm drainage, see Section 3.2, *Hydrology and Water Quality*.

3.11 TRAFFIC AND TRANSPORTATION

ENVIRONMENTAL SETTING

Vehicle access to the project area is via Māmalahoa Highway (Hawai‘i Belt Road). The paved park roadway provides access to Whittington Beach Park and two parking areas for the park lands. Māmalahoa Highway (Hawai‘i Belt Road) provides regional access to the area.

IMPACTS AND MITIGATION MEASURES

Construction of the proposed project could result in short-term increases in traffic. During restoration of the pond and again during soil hauling for disposal, there would be work vehicles using area roadways. However, this short-term increase in roadway use would not adversely impact traffic flow or levels of service for project area roadways.

There would be no direct increase in operational traffic due to implementation of the proposed project, and no long-term adverse effects to transportation and traffic would occur.

For a discussion of project consistency with alternative transportation plans, see Section 3.12, *Conformance with State and Local Plans, Policies, and Land Use Controls*.

3.12 CONFORMANCE WITH STATE AND LOCAL PLANS, POLICIES, AND LAND USE CONTROLS

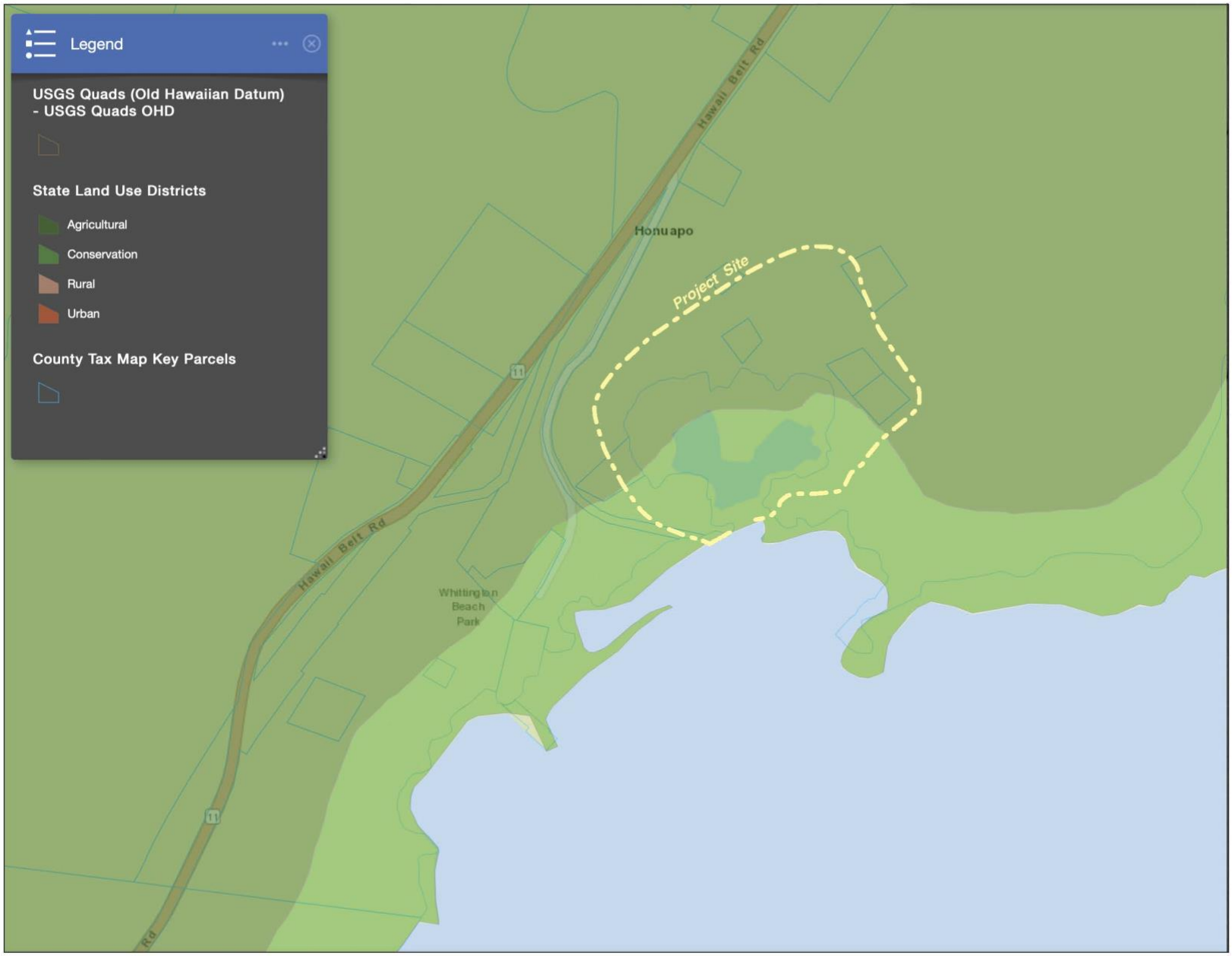
State and county policy, and land use and community plans and controls are established to address the long-term physical, social, economic, and environmental needs in Hawai'i. Pertinent land use controls for the Honu'apo Estuary Wetland Restoration project are described below.

STATE OF HAWAI'I

State of Hawai'i, Land Use Commission – State Land Use Districts

HRS Chapter 205 establishes four major land use districts in which all lands in the State are placed. These districts include urban, rural, agricultural, and conservation. The Conservation District has five subzones: Protective, Limited, Resource, General, and Special. Excluding the Special subzone, the four subzones are arranged in a hierarchy of environmental sensitivity, ranging from the most environmentally sensitive (Protective) to the least sensitive (General). These subzones define a set of identified land uses that may be allowed by discretionary permit as regulated by HAR Chapter 13-5 "Conservation District" and HRS Chapter 183C.

The wetland and surrounding area are within the Agricultural District and the Conservation District, with portions of the project site within a Resource Subzone designation (see Figure 11). The objective of the resource subzone is to ensure the sustainable use of the natural resources of those areas, and in the case of the project site, encompass submerged lands owned by the State of Hawai'i and lands used for county parks (HAR Section 13-5-13). Permitted land uses and activities within Conservation District zones are restricted and generally require a Conservation District Use Permit or Site Plan Approval from the DLNR or the Board of Land and Natural Resources (BLNR).



Honu'apo Estuary Wetland Restoration

SOURCE: State of Hawai'i Land Use District Boundaries Map, 2018; Hawaii State GIS Program

Figure 11

State Land Use District Map

The limits of project area ground disturbance, including clearing and grubbing and grading, would occur over a 5.25-acre area (228,565 square feet) (outlined on Figure 3 and Appendix H of this EA). Approximately 1.71 acres (74,462 square feet) of this area are within the Conservation District (approximately 32.6 percent of the project area ground disturbance).

As provided by the Office of Conservation and Coastal Lands (OCCL) in their early comment letter (see Appendix A), the creation or "sculpting of deepened water areas" in the fishpond at Honu'apo would trigger the need for a Conservation District Use Permit from the BLNR pursuant to HAR Section 13-5-25 R-5 Marine construction (D-1) *Dredging, filling, or construction on submerged lands, including construction of harbors, piers, marinas, and artificial reefs*. However, it appears that some of the proposed work is consistent with work that was approved by the existing KOOH Loko I'a permit HA: 19:02, while the proposed predator proof fence, pedestrian gate, walkway with viewing platforms, and grading of deepened water areas within the pond on submerged lands would require additional review and potentially authorization from the Department or BLNR. Since applications for proposed land uses require signature of the landowners, the creation of deepend water areas on State submerged lands may require a land disposition and/or lease for DOFAW, the County of Hawai'i, and KOOH to co-manage the fishpond area. These agreements are currently in process. Application has been made for a Tier 3 Loko I'a permit (in addition to the existing Tier 1 permit issued in 2019) for the mechanical removal of invasive vegetation around the pond and the dredging of sediment-accumulated areas within the pond, and a Pollution and Erosion Control Plan is required as part of the application.

Tree removal in the Conservation District requires replacement with trees that are appropriate to the site with preference to endemic or indigenous trees to Hawai'i. The proposed project would remove invasive plant species in the project area and replace them with native vegetation. Plant types appropriate to the area include native sedges and bulrush, including makaloa, 'aka'akai or nānaku, and 'ahu'awa. The selected species are suitable for soil and water salinity under wetland build out conditions, and once established, do not require long-term maintenance. DOFAW will work with the OCCL during the permitting process to finalize replacement native plantings in the Conservation District appropriate to the estuary project site.

The fishpond restoration at Honu'apo under the Loko I'a permit would be considered compatible with the proposed wetland restoration activities. As stated above, the removal of invasive vegetation and revegetation with native plants species, and the creation of deepened water areas in the pond is consistent with activities approved with the existing KOOH Loko I'a permit. While the proposed predator fence may not be within the scope of the Loko I'a program, predation at Honu'apo has been identified as one of primary threats to birds and wildlife at the estuary. The proposed walkway and pedestrian access would limit recreation activities to designated areas that would minimize disturbance to avian species using the site. By protecting species in the wetland, the proposed project in conjunction with the fishpond restoration would benefit biological diversity, promote sustainable recreational and subsistence fishing, and preserve cultural traditions.

Hawaii State Planning Act, HRS Chapter 226, Hawai'i Revised Statutes

The Hawaii State Planning Act (HRS Chapter 226) is a broad policy document that forms a basis for all activities, programs, and decisions made by local and state agencies. The Act sets forth the Hawaii State Plan, which is a long-range comprehensive plan that identifies the goals, objectives, policies, and priorities for the State, and provides a basis for determining priorities and allocating limited

resources. The objectives and policies focus on general topic areas, including population, economy, physical environment, facility systems, and socio-cultural advancement. Applicable sections of HRS Chapter 226 to the proposed project are discussed in Table 1 below.

Table 1. Consistency with Hawaii State Planning Act, HRS Chapter 226

Section	Policy	Consistency	Discussion
§226-5: Population	3. Promote increased opportunities for Hawaii's people to pursue their socio-economic aspirations throughout the islands.	Yes	The proposed wetland restoration project would provide an opportunity for employment during the construction phase of the project.
§226-6: Economy—in general	9. Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.	Yes	The proposed wetland restoration project would provide economic stimulus and opportunity for employment during the construction phase of the project.
§226-6: Economy—in general	19. Promote and protect intangible resources in Hawaii, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.	Yes	The proposed project would also continue to provide a community resource that would engender aloha spirit within the community and protect and enhance the scenic resources of the estuary.
§226-7: Economy—agriculture	17. Perpetuate, promote, and increase use of traditional Hawaiian farming systems, such as the use of loko iʻa, māla, and irrigated loʻi, and growth of traditional Hawaiian crops, such as kalo, ʻuala, and ʻulu.	Yes	The proposed project includes restoration activities that would support continued use of the historic loko iʻa. The management of the loko iʻa / estuary will serve as an example of how best community-based management practices of cultural resource and natural resource co-exist.
§226-8: Economy—visitor industry	N/A	–	–
§226-9: Economy—federal expenditures	N/A	–	–
§226-10: Economy—potential growth and innovative activities	N/A	–	–
§226-10.5: Economy—information industry	N/A	–	–
§226-11: Physical environment—land-based, shoreline, and marine resources	1. Exercise an overall conservation ethic in the use of Hawaii's natural resources.	Yes	The proposed project would restore a wetland and loko iʻa that would continue to provide for a variety of activities. The project would create improved wetland habitat for Hawaiian waterbirds and other native species, include construction BMPs to minimize impacts to water resources, and protect rare or endangered species. Restoration would also provide opportunities for public education on coastal wetland ecosystems.

Section	Policy	Consistency	Discussion
§226-11: Physical environment—land-based, shoreline, and marine resources	2. Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.	Yes	See above.
§226-11: Physical environment—land-based, shoreline, and marine resources	3. Take into account the physical attributes of areas when planning and designing activities and facilities.	Yes	See above.
§226-11: Physical environment—land-based, shoreline, and marine resources	4. Manage natural resources and environs to encourage beneficial and multiple use without generating costly or irreparable damage.	Yes	See above.
§226-11: Physical environment—land-based, shoreline, and marine resources	5. Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.	Yes	See above.
§226-11: Physical environment—land-based, shoreline, and marine resources	6. Encourage the protection of rare or endangered plant and animal species and habitats native to Hawaii.	Yes	See above.
§226-11: Physical environment—land-based, shoreline, and marine resources	8. Pursue compatible relationships among activities, facilities, and natural resources.	Yes	See above.
§226-11: Physical environment—land-based, shoreline, and marine resources	9. Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.	Yes	See above.
§226-12: Physical environment—scenic, natural beauty, and historic resources	1. Promote the preservation and restoration of significant natural and historic resources.	Yes	The proposed project includes preservation and protection of historic resources and cultural practices at the loko iʻa. An Archaeological Literature Review was completed to ensure no adverse impact to historic and cultural resources.
§226-12: Physical environment—scenic, natural beauty, and historic resources	4. Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.	Yes	See above.
§226-12: Physical environment—scenic, natural beauty, and historic resources	5. Encourage the design of developments and activities that complement the natural beauty of the islands.	Yes	See above.

Section	Policy	Consistency	Discussion
§226-13: Physical environment—land, air, and water quality	1. Foster educational activities that promote a better understanding of Hawaii's limited environmental resources.	Yes	The proposed wetland restoration project would provide additional habitat for study and would allow for compatible environmental education programs and opportunities.
§226-13: Physical environment—land, air, and water quality	2. Promote the proper management of Hawaii's land and water resources.	Yes	See above.
§226-13: Physical environment—land, air, and water quality	3. Promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters.	Yes	The project includes BMPs to be implemented during project construction to minimize erosion and potential impacts to water quality.
§226-13: Physical environment—land, air, and water quality	4. Encourage actions to maintain or improve aural and air quality levels.	Yes	All construction work will be in conformance with the air pollution control standards.
§226-13: Physical environment—land, air, and water quality	5. Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other hazards.	Yes	As described in Section 3.3, *Natural Hazards and Climate Change*, of this EA, implementation of the proposed project would not result in increased flooding or hazards from flooding in surrounding areas.
§226-13: Physical environment—land, air, and water quality	6. Encourage design and construction practices that enhance the physical qualities of Hawaii's communities.	Yes	The project includes restoration of an existing wetland resource.
§226-13: Physical environment—land, air, and water quality	8. Foster recognition of the importance and value of the land, air, and water resources to Hawaii's people, their cultures, and visitors.	Yes	See above.
§226-14 through §226-22 (various)	N/A	–	–
§226-23: Socio-cultural advancement—leisure	2. Provide a wide range of activities and facilities to fulfill the cultural, artistic, and recreational needs of diverse groups.	Yes	The proposed wetland restoration project would provide additional habitat for native species and an improved loko i'a, which would support increased public awareness and appreciation of Honu'apo Estuary Wetland as an important natural resource. The proposed project would provide for a continued variety of activities and cultural practices.
§226-23: Socio-cultural advancement—leisure	3. Enhance the enjoyment of recreational experiences through safety, education, and improved facility design.	Yes	See above.
§226-23: Socio-cultural advancement—leisure	4. Promote the recreational and educational potential of natural resources while preserving their inherent values.	Yes	See above.

Section	Policy	Consistency	Discussion
§226-23: Socio-cultural advancement—leisure	5. Ensure opportunities for everyone to use and enjoy Hawaii's recreational resources.	Yes	See above.
§226-23: Socio-cultural advancement—leisure	10. Assure adequate access to significant natural and cultural resources in public ownership.	Yes	See above.
§226-24: Socio-cultural advancement—individual rights	N/A	–	–
§226-25: Socio-cultural advancement—culture	1. Foster increased knowledge and understanding of Hawaii's ethnic and cultural heritages and history.	Yes	An Archaeological Literature Review and analysis was completed to ensure implementation of the proposed project would not adversely impact historic and cultural resources at the site. The proposed project would include preservation and protection of historic resources and cultural practices at the loko i'a.
§226-26: Socio-cultural advancement—public safety	N/A	–	–
§226-27: Socio-cultural advancement—government	2. Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.	Yes	There are multiple opportunities for public participation, including community meetings, the EA process, and the public hearing for the Special Management Area permitting process.
§226-27: Socio-cultural advancement—government	5. Assure that government attitudes, actions, and services are sensitive to community needs and concerns.	Yes	The proposed wetland restoration is intended to improve and protect natural resources for the community.

Coastal Zone Management Program

In October 1972, Congress passed the Coastal Zone Management Act for the purpose of establishing a national program for the management, beneficial use, protection, and development of land and water resources of the coastal areas of the United States. The Hawai'i Coastal Zone Management (CZM) Program (HRS Chapter 205A) was promulgated in 1977 in response to the Federal Coastal Zone Management Act of 1972. The objectives and policies of the CZM Program are to provide recreational resources; protect historic, scenic, and coastal ecosystem resources; provide economic uses; reduce coastal hazards; and manage development in the coastal zone. All lands in the State of Hawai'i are located within the coastal zone management area.

When Honu'apo was acquired by the State of Hawai'i, NOAA committed funds for the purchase through the Coastal and Estuarine Land Conservation Program. The specifications for planned uses on lands purchased with a CELCP grant as set forth in the RMP would apply to the proposed project:

- The general public should be allowed access to the property. For this purpose, user fees should not be charged, or if so, the amount of the fee should comply with the local state standard. All revenues accumulated from the fees shall only be used for maintenance or management of the property.
- Activities that are considered consistent with the conservation purposes of the grant include: resource protection, restoration and enhancement, such as vegetative erosion control; recreational activities, such as hiking, hunting and fishing; access for swimming, kayaking and canoeing; research and educational activities. Small scale construction, such as restrooms or boardwalks for the purpose of facilitating activities is allowed.
- Activities generally considered to be inconsistent include: active agricultural or aquaculture production, shoreline armoring or other hard erosion control structures, expansion of roads, facilities for active recreation such as sport facilities, water parks, playgrounds, etc.
- Pre-existing uses on the property should not be expanded or converted to other uses without prior approval of NOAA.

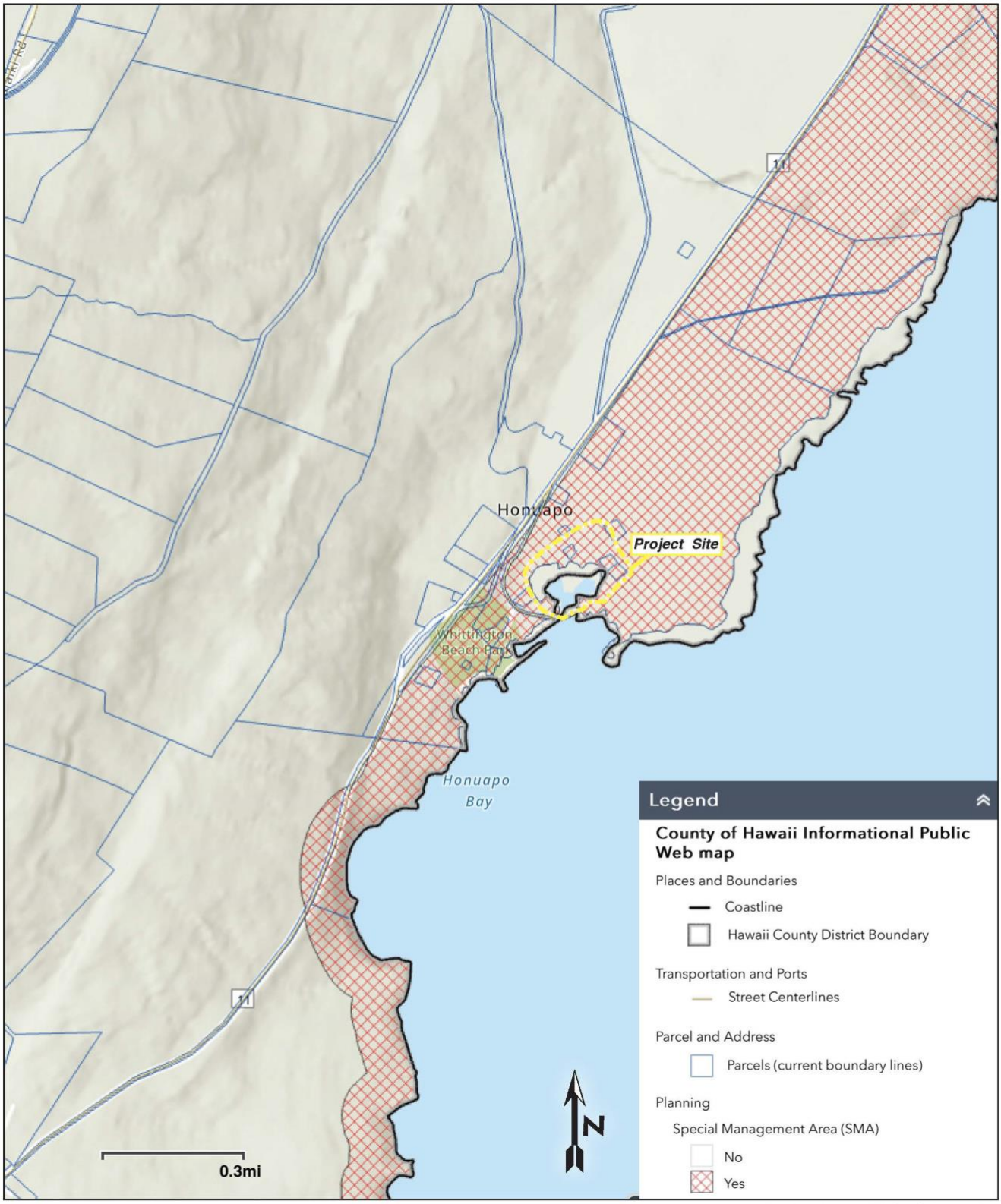
Consultation with the State of Hawai'i Office of Planning will occur during the permitting process with the U.S. Army Corps of Engineers for CZM federal consistency review.

Special Management Area Designation and Shoreline Setback Rules

The CZM Program outlines controls and policies within an area along the shoreline called the Special Management Area (SMA). The objectives of the SMA are "the maintenance, restoration, and enhancement of the overall quality of the coastal zone environment, including, but not limited to, its amenities and aesthetic values, and to provide adequate public access to publicly owned or used beaches, recreation areas and national reserves." The purpose of the SMA Permit is to regulate any use, activity or operation that qualifies as a "development" and is administered at the county level – the permit is a management tool to ensure activities within the SMA are carried out in compliance with the CZM objectives and policies, and SMA guidelines.

The project site is located within the SMA boundary (see Figure 12). Consultation with the County of Hawai'i Planning Department was initiated at the time of early consultation and EA preparation. It is anticipated that an SMA Major permit would be necessary, based on the project valuation and preliminary understanding of the project scope. After issuance of the Final Environmental Assessment and FONSI, a SMA permit application will be submitted.

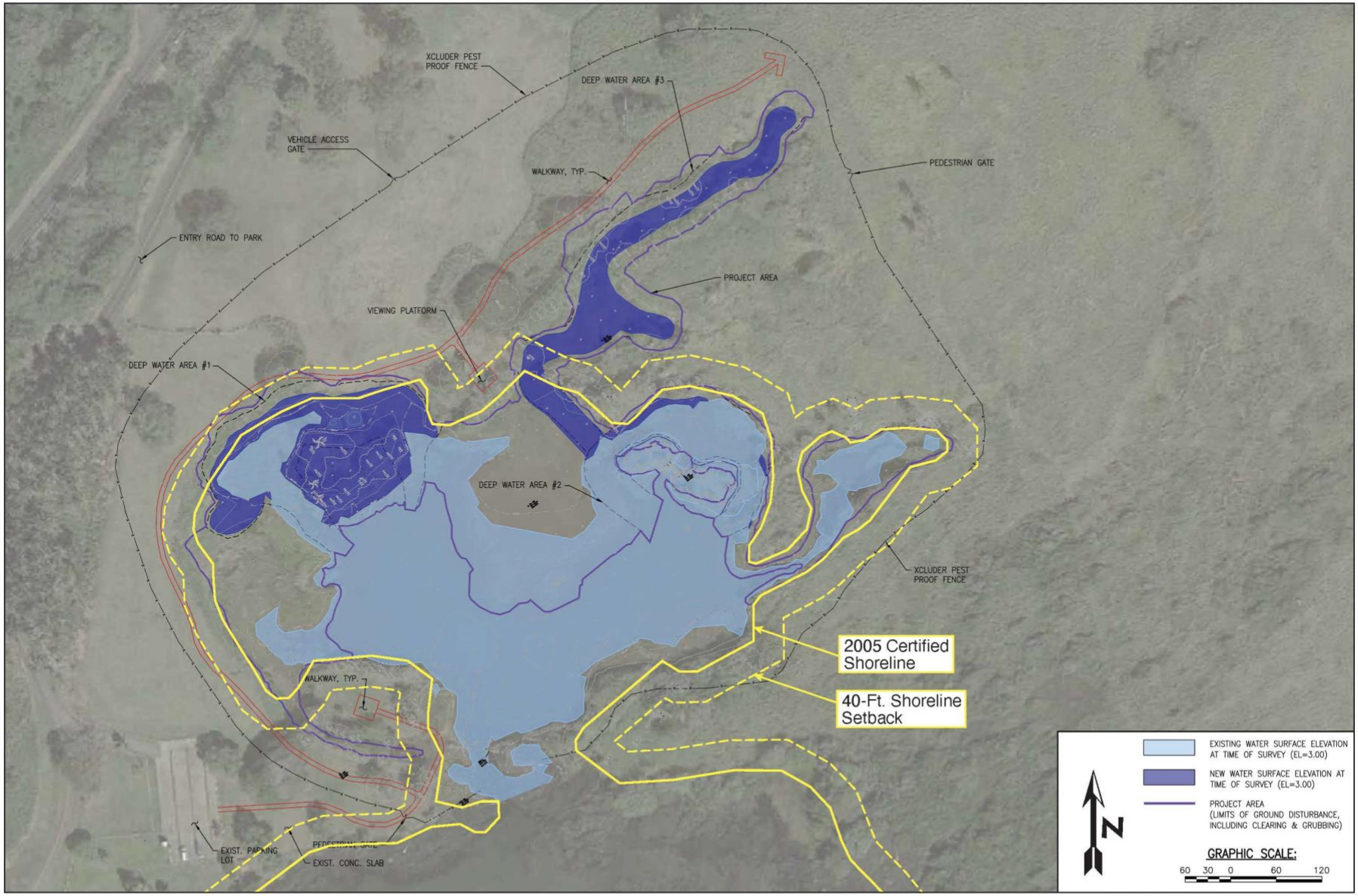
The proposed action requires compliance with the Shoreline Setback Rules of the County of Hawai'i Planning Department (Planning Department Rule 11-5). The Shoreline Setback area is the area between the shoreline and the 40-foot shoreline setback line established by the County. Structures or portions of a structure are not permitted in the shoreline setback area without a variance, and conditions must be imposed to maintain safe lateral access to and along the shoreline or adequately compensate for its loss; to minimize risk of adverse impacts on beach processes; to minimize risk of structures failing and becoming loose rocks or rubble on public property; and to minimize adverse impacts on public views to, from, and along the shoreline.



Honu'apo Estuary Wetland Restoration

SOURCE: County of Hawai'i Geographic Information System Maps 2023

Figure 12
Special Management Area Map



SOURCE: Bow Engineering 2025

Honu'apo Estuary Wetland Restoration

Figure 13

Shoreline Setback Area

The shoreline at the project site was certified on February 18, 2005, and follows along in some sections the debris line, top of pond bank, and along the highwater mark (Appendix G for a copy of the 2005 certified shoreline survey). Following consultation with the County of Hawai'i Planning Department during circulation of the Draft EA, it was concluded that an updated certified shoreline would be required to determine if there are any shoreline changes due to the fishpond wall installation. A new certified shoreline will be completed prior to submittal of the SMA permit and Shoreline Setback Variance application. Some of the proposed project activities would occur within the shoreline setback area, including grading, and placement of portions of the walkway and fencing (see Figure 13).[19] Following completion of the new certified shoreline, the site plan will be revised to show all proposed work within the shoreline setback area. A Shoreline Setback Variance would be required for activities in the shoreline setback area (e.g., grubbing, grading, and portions of the fence line). The Shoreline Setback Variance would trigger the need for an EA (Hawai'i Planning Department Rule 11-10). While only those activities within the shoreline setback area trigger compliance with HRS Chapter 343, the entirety of the proposed action is evaluated in this EA (HAR Section 11-200.1-10).

The following discussion evaluates the consistency of the proposed Honu'apo Estuary Wetland Restoration project with the applicable objectives and policies of HRS Chapter 205A. The policies of HRS Chapter 205A, the consistency of the proposed wetland improvements with those policies, and the reasoning for the conclusion are set forth in the table below.

Policy compliance is often a matter of interpretation. The County Council is the ultimate arbiter of public policy for the project, and their judgment regarding the project and a specific policy may be different from that set forth in this report. Therefore, the following policy evaluation should be viewed as preliminary, with the ultimate decision to be made by the appropriate appointed and elected officials.

Table 2. Consistency with Coastal Zone Management Program, HRS Chapter 205A-2

Objective/Policy	Objective or Policy Text	Consistency	Discussion
Objective (1)(A)	Provide coastal recreational opportunities accessible to the public.	Yes	The Honu'apo Estuary Wetland allows for passive recreational and educational uses, predominantly through its use as a loko i'a. The proposed project would have a beneficial impact to these passive uses while minimizing impacts to the wetland since it would provide installation of a pedestrian walkway and viewing platforms.
Policy (1)(B)(iii)	Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by: Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value.	Yes	See above.

[19] Figure 13 is for illustrative purposes only, since it shows the 2005 certified shoreline and shoreline setback area. It is anticipated that the new certified shoreline to be completed for SMA and Shoreline Setback permitting would be similar to the 2005 certified shoreline.

Objective/Policy	Objective or Policy Text	Consistency	Discussion
Policy (1)(B)(v)	Ensure public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources.	Yes	See above.
Objective (2)(A)	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.	Yes	As set forth in Section 3.5, *Historic, Archaeological, and Cultural Resources*, an Archaeological Literature Review and Archaeological Site Preservation Plan was completed for the project site. The archaeological review identified one historic complex of eight features. Mitigation measures to preserve historic resources have been included in Section 3.5 above.
Policy (2)(A)	Identify and analyze significant archaeological resources.	Yes	See above.
Policy (2)(B)	Maximize information retention through preservation of remains and artifacts or salvage operations.	Yes	See above.
Policy (2)(C)	Support state goals for protection, restoration, interpretation, and display of historic resources.	Yes	See above.
Objective (3)(A)	Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.	Yes	The construction of the proposed wetland would improve the overall visual character of the project site and would be consistent with the existing wetland uses of the area.
Policy (3)(B)	Ensure 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.	Yes	See above.
Policy (3)(C)	Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources.	Yes	See above.
Objective (4)(A)	Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.	Yes	The objective for the proposed project is to restore habitat for native Hawaiian waterbirds within the Honu'apo Estuary Wetland. The proposed action is required to obtain a NPDES permit to reduce potential impacts to water quality during construction of the project. Adverse effects to water quality from stormwater flows would be minimized by site-specific BMPs (see Section 3.2 above).

Objective/Policy	Objective or Policy Text	Consistency	Discussion
Policy (4)(A)	Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources.	Yes	See above.
Policy (4)(E)	Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.	Yes	See above.
Objective (5)(A)	Provide public or private facilities and improvements important to the State's economy in suitable locations.	Yes	The Honu'apo estuary is an important wetland feature for residents of the area. As evaluated in this EA, adverse environmental impacts from implementation of the proposed action would be minimized through project design and mitigation measures contained in this document.
Objective (6)(A)	Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.	Yes	As described in Section 3.3, *Natural Hazards and Climate Change*, of this EA, the project site is in a tsunami evacuation zone. The proposed improvements would be designed and constructed in conformance with the standards and requirements of the Hawai'i County Code, Chapter 27, *Floodplain Management*, as applicable. In addition, the project includes BMPs to be implemented during project construction to minimize erosion and potential impacts to water quality.
Policy (6)(B)	Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards.	Yes	See above.
Policy (6)(C)	Ensure that developments comply with requirements of the Federal Flood Insurance Program.	Yes	See above.
Objective (7)(A)	Improve the development review process, communication, and public participation in the management of coastal resources and hazards.	Yes	Early consultation with agencies, organizations, and individuals was conducted during preparation of the Draft EA for the proposed project. Additional public review will occur during the public comment period for the EA, and during the public hearing before the County of Hawai'i Planning Commission during the SMA permit process.
Objective (8)(A)	Stimulate public awareness, education, and participation in coastal management.	Yes	See above.

Objective/Policy	Objective or Policy Text	Consistency	Discussion
Policy (8)(A)	Promote public involvement in coastal zone management processes.	Yes	See above.
Objective (9)(A)	Protect beaches for public use and recreation.	Yes	The proposed project would not have a direct impact on public beaches; the project area would continue to be protected as a wetland with project implementation.
Objective (10)(A)	Promote the protection, use, and development of marine and coastal resources to assure their sustainability.	Yes	As evaluated in this EA, adverse environmental impacts from implementation of the proposed action would be minimized through project design and mitigation measures contained in this document.
Policy (10)(A)	Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial.	Yes	See above.

COUNTY LAND USE PLANS AND POLICIES

County of Hawaii General Plan

The *County of Hawaii General Plan* (2005) is a long range, generalized planning policy document to guide development of the county. It serves as a basis for an implementation program to effectuate desired changes and improvements in the social, economic, and environmental atmosphere of the county. Topics addressed in the General Plan include goals and policies regarding population, land use, the environment, cultural resources, economic activity, housing and urban design, transportation, social infrastructure, and government. As set forth by the General Plan 2005: "Through the Zoning and Subdivision codes, and the Special Management Area and shoreline setback regulations, the County of Hawaii has the means to protect the island's natural and scenic beauty as an integral part of the living environment of the island." These land use regulations and how they apply to the proposed project are described throughout this section of the EA.

A Draft General Plan 2040 was released in August 2019. Following public input, the Planning Department issued a revised Draft General Plan 2045 in September 2023, and the Final Draft of the Hawai'i County General Plan 2045 was transmitted to the County Council for its review and decision-making in July 2024. The Leeward Planning Commission and Windward Planning Commission have finished reviewing the Draft General Plan 2045. This update of the General Plan incorporates emerging issues that were not addressed in the 2005 General Plan, such as climate change, healthy communities, integrated water resource management, renewable energy, food security, equitable housing and a place-based economy. Since the County of Hawai'i has not yet adopted this document, the 2005 General Plan is the current adopted policy of the county.

The following discussion evaluates the consistency of the proposed project with applicable objectives and policies of the current General Plan.

Table 3. Consistency with Hawai'i County 2005 General Plan, Goals and Polices

Goal or Policy	Consistency	Discussion
Flooding and Other Natural Hazards 5.2 Goals (a) Protect human life. (b) Prevent damage to man-made improvements. (c) Control pollution. (d) Prevent damage from inundation. (e) Reduce surface water and sediment runoff. (f) Maximize soil and water conservation. 5.3 Policies (d) Any development within the Federal Emergency Management Agency designated flood plain must be in compliance with Chapter 27. (g) Development-generated runoff shall be disposed of in a manner acceptable to the Department of Public Works and in compliance with all state and federal laws. (q) Consider natural hazards in all land use planning and permitting.	Yes	As described in Section 3.3, *Natural Hazards*, the project site is in the tsunami inundation zone. The proposed improvements would be designed and constructed in conformance with the standards and requirements of the Hawai'i County Code, Chapter 27, *Floodplain Management*, as applicable. The proposed action includes site-specific BMPs to be implemented during construction to prevent any wastewater, sediment, soil, and debris resulting from the proposed construction from adversely impacting the coastal ecosystem. Compliance with BMPs for construction would minimize impacts to water quality. Further, all earthwork grading operations would be conducted in compliance with dust and erosion control requirements of Hawaii County Code Chapter 10, *Erosion and Sedimentation Control.*
Historic Sites 6.2 Goals (a) Protect, restore, and enhance the sites, buildings, and objects of significant historical and cultural importance to Hawaii. 6.3 Policies (c) Require both public and private developers of land to provide historical and archaeological surveys and cultural assessments, where appropriate, prior to the clearing or development of land when there are indications that the land under consideration has historical significance.	Yes	As set forth in Section 3.5, *Historic, Archaeological, and Cultural Resources*, an Archaeological Literature Review and Archaeological Site Preservation Plan was completed for the project site. The archaeological review identified one historic complex of eight features. Mitigation measures to preserve historic resources have been included in Section 3.6 above.
Natural Beauty 7.2 Goals (a) Protect, preserve and enhance the quality of areas endowed with natural beauty, including the quality of coastal scenic resources. h) Protect the views of areas endowed with natural beauty by carefully considering the effects of proposed construction during all land use reviews.	Yes	The Honu'apo area is identified as a "Natural Beauty Site" in the District of Ka'u (General Plan 2005 Table 7-14). The proposed project would improve the estuary wetland habitat for native birds. <u>While the proposed predator fence may not enhance the quality of coastal scenic resources, predation at Honu'apo has been identified as one of primary threats to birds and wildlife at the estuary (see Section 3.8, *Visual Resources*, of this EA for additional discussion).</u>

Goal or Policy	Consistency	Discussion
Natural Resources and Shoreline 8.2 Goals (e) Protect and effectively manage Hawaii's open space, watersheds, shoreline, and natural areas. (f) Ensure that alterations to existing land forms, vegetation, and construction of structures cause minimum adverse effect to water resources, and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation, or failure in the event of an earthquake. 8.3 Policies (c) Maintain the shoreline for recreational, cultural, educational, and/or scientific uses in a manner that is protective of resources and is of the maximum benefit to the general public. (r) Ensure public access is provided to the shoreline, public trails and hunting areas, including free public parking where appropriate.	Yes	The proposed project includes restoration of wetland habitat at an existing wetland feature. The proposed project improvements would improve water quality and habitat function. While a predator proof fence would be installed, public access would be provided via pedestrian gates and a walkway with viewing platforms. The proposed restoration project would provide increased opportunity for public education on coastal wetland ecosystems. Community participation in restoration and use as a loko i'a would continue with project implementation.
Recreation 12.2 Goals (b) Maintain the natural beauty of recreation areas. 12.3 Policies (b) Improve existing public facilities for optimum usage. (h) Provide facilities and a broad recreational program for all age groups, with special considerations for the handicapped, the elderly, and young children.	Yes	See above.

Honu'apo Estuary Wetland Restoration

SOURCE: County of Hawai'i Geographic Information System Maps 2023

Figure 14
County of Hawai'i Zoning Designation

County of Hawai'i General Plan Land Use and Zoning Designation

The County of Hawai'i land use ordinance, or zoning code (Hawai'i County Code Chapter 25), regulates land use and overall future development on Hawai'i Island within the framework of the Hawai'i General Plan (Hawai'i County Code, Section 25-1-2(a)). The General Plan Land Use Pattern Allocation Guide designates the project area as primarily Open, with a smaller area designated as Extensive Agriculture (ea). The project area is zoned as Agricultural District (A-20a) (20-ac minimum lot size) under the Hawai'i County Zoning Code (see Figure 14). The primary purpose of A (agricultural) district is to maintain open land, protect agricultural resources, and prevent urban encroachment on agricultural areas (Hawai'i County Code, Section 25-5-70). No feature of the proposed wetland improvements project at Honu'apo would conflict with existing zoning.

There are five Land Commission Award parcels (kuleana lands) and one school grant parcel within Honu'apo lands, which are excluded from the park property. These kuleana parcels are located within or partially within the project site (see Figure 2 above). The uses of the five awards were as follows:

- Hoolapa's award (LCAw. 9212:1) was for a 0.29-acre house lot.
- Kaulukoa's award (LCAw. 9564B) consisted of 0.44 acres that included a house lot and perhaps two salt beds.
- Lilikalani's award (LCAw. 9955B) included a portion of the fishpond at Honu'apo and three salt cellars.
- Lepoloa's award (LCAw. 10008:2) of 0.3 acres appears to have been for 4 kihapai (wauke fields).
- Nahakuelua's award (LCAw.10516:1) was for a salt basin, and two house lots.

Based on existing records, these kuleana lands are owned by the State of Hawai'i. Access to kuleana parcels near the estuary would be maintained with implementation of the proposed wetland restoration project.

Ka'ū Community Development Plan

Community Development Plans (CDPs) translate broad goals, policies and standards from the Hawai'i County General Plan into implementation actions as they apply to specific geographical regions around Hawai'i Island. The CDPs serve as the forum for community input into establishing county policy at the regional level and coordinating the delivery of county services to the community. The CDPs direct physical development and public improvements and may contain detailed land use and zoning guide maps, plans for roadways, parks, other infrastructure and public facilities, planning for watersheds and natural resources, and any other land use matters relating to the planning area (Hawai'i County Planning Department 2023b). The Ka'ū CDP (October 2017) includes the areas of Pāhala, Punalu'u, Nā'ālehu, Discovery Harbour, and Ocean View.

The Ka'ū CDP sets forth strategies that focus on protecting and enhancing the natural and cultural resources of Ka'ū, including coastal areas, agricultural land, mauka forests, scenic resources, ecosystems, historic and cultural features, and public access and trails. Specific Ka'ū CDP objectives and policies most applicable to the project are as follows:

Objective 2: Preserve prime and other viable agricultural lands and preserve and enhance viewscapes that exemplify Ka'ū's rural character.

Objective 3: Protect, restore, and enhance ecosystems, including mauka forests and the shorelines, while assuring responsible access for residents and for visitors.

Objective 4: Protect, restore, and enhance Kaʻū's unique cultural assets, including archeological and historic sites and historic buildings.

Policy 24 Maintain the shoreline for recreational, cultural, education, and/or scientific uses in a manner that is protective of resources and is of the maximum benefit to the general public.

Policy 25 Protect and conserve forest and coastal areas with native wildlife, natural ecosystems, and wilderness.

Policy 29 No development, including subdivision, shall be approved in the SMA unless the development will not have any substantial adverse environmental or ecological effect. (HRS 205A-22(3) & 205A-26(2)(A))

Policy 62 Protect, preserve, and effectively manage forests, watersheds, shoreline areas, natural areas, and rare or endangered species and their habitats.

Policy 65 Actively implement the Honuʻapo Park Resources Management Plan.

Policy 68 Encourage the use of Hawaiian plants (indigenous and Polynesian-introduced plants) by state, county, and private landowners in order to support a Hawaiian sense of place, to ensure that our cultural heritage is reflected in landscaping, and to help reverse the displacement and decline of Hawaiian plants.

Policy 69 Protect, restore, and enhance the sites, buildings, and objects of significant historical and cultural importance to Hawaiʻi.

Policy 71 Review and comment by DLNR's State Historic Preservation Division (SHPD) shall be requested for any permit or entitlement for use which may affect any building, structure, object, district, area, or site that is over fifty years old, except as provided in HRS section 6E-42.2. (HRS 6E-42)

Policy 79 Ensure appropriate public access to the shoreline, public trails, hunting areas, scenic places and vistas, and significant historic sites, buildings, and objects of public interest. Additionally, ensure access for cultural practitioners.

Policy 80 Appropriate public access to and along the shoreline shall be ensured as a condition of SMA exemptions and permits. (HRS 205A-26)

The proposed project includes restoration of wetland habitat at an existing wetland feature. Public access would be provided via pedestrian gates and a walkway with viewing platforms, which would also limit use to designated areas that would minimize disturbance to avian species using the site. The proposed project includes preservation and protection of historic resources and cultural practices at the loko iʻa. The management of the loko iʻa / estuary will serve as an example of how best community-based management practices of cultural resource and natural resource co-exist. Therefore, the proposed project would be considered consistent with the Kaʻū CDP objectives, strategies, and policies related to cultural resource restoration and public access.

4 ALTERNATIVES TO THE PROPOSED ACTION

4.1 PROPOSED ALTERNATIVES

This chapter considers alternatives to the proposed action, including the No Action Alternative. The *Wetlands Habitat Restoration Plan for Honu'apo Estuary* (2011) considered four alternative plans for restoration. Full restoration under the proposed project is the desired alternative to meet all objectives of the Restoration Plan.

NO ACTION ALTERNATIVE

The No Action Alternative identifies the expected environmental impacts in the future if existing conditions were left as is with no action taken by the approving agency. Under the No Action Alternative, restoration improvements to the wetland pond described in Section 2.2 would not occur. As a result, the present conditions within the project area would predominantly continue – stressors to biological habitat would not be remediated, which would likely result in the continued degradation of habitat for native plants and animals and continued predation on birds using the site. This alternative would not meet any of the identified project objectives.

ALTERNATIVE 1: PROPOSED PROJECT

Under this alternative, the restoration improvements described in Section 2.2 would be implemented as the Proposed Project. This alternative includes actions to restore and enhance habitat form and structure and includes options for the control of avian predators. Under this alternative the full potential of the site would be realized. This alternative was developed so that components could be phased in over time as funding became available. Each phase would increase habitat productivity and result in incremental increases in habitat quality.

ALTERNATIVE 2: PREDATOR CONTROL

Under this alternative, the only action proposed is the control of avian predators. This alternative would result in continuation of the status quo with respect to physical and biological habitat components. Predator control, especially of feral cats and mongoose, needs to be conducted. At present it is believed that avian species using the wetland are subjected to constant predation, and the site maybe a biologic sink, meaning birds using it are preyed on, killed, resulting in their depletion from the larger region populations and genetic pool. As a standalone action, the control of predators would be significant in protecting avian species using the wetland habitat. Although an option, Alternative 2 is not recommended, since it would not result in the full potential use of the site and would likely not support large populations of avian species due to the degraded physical and biologic components of the habitat.

ALTERNATIVE 3: MODERATE RESTORATION

This alternative includes actions to restore and enhance habitat form and structure but does not include the control of avian predators. This alternative would enhance the physical and biological habitat components. However, without predator control, birds attracted to the site would be vulnerable to predation, creating a potential for an ecologic sink of avian species. This would be contrary to the objective of increasing resident and migratory bird populations.

5 FINDINGS AND DETERMINATION

As set forth in HAR Section 11-200.1-12, in considering the significance of potential environmental effects, an agency must "consider every phase of a proposed action, the expected consequences, both primary and secondary, and the cumulative as well as the short-term and long-term effects of the action." The proposed action is not expected to have a significant effect on the environment. The recommended determination for the Honu'apo Estuary Wetland Restoration project is a Finding of No Significant Impact (FONSI). The findings supporting this determination are discussed below.

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

The project site at Honu'apo Estuary Wetland is a wetlands complex that has been altered by previous activities, resulting in sedimentation and invasion by non-native plants and animals. Wetland restoration and revegetation plans would restore the natural environment by removing non-native invasive vegetation and re-planting with native vegetation. The wetland was historically used as a fishpond, and archaeological remains of the fishpond are still present at the project site. Protective measures to ensure the preservation of the archaeological site complex detailed in the Archaeological Site Preservation Plan would ensure no impacts to archaeological sites would occur.

(2) Curtails the range of beneficial uses of the environment.

The proposed improvements would not curtail the range of beneficial uses at the project site. The project would increase the range of beneficial uses of the environment by increasing wetland habitat for use by endangered Hawaiian waterbirds and migratory shorebirds, and installation of predator proof fence to minimize predation on native bird species.

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

The proposed project is consistent with the environmental goals, policies, and guidelines established in HRS Chapter 344. The following guidelines (HRS Section 344-4) from the State Environmental Policy apply to the proposed project:

(2) Land, water, mineral, visual, air, and other natural resources.

(A) Encourage management practices which conserve and fully utilize all natural resources.

(D) Encourage management practices which conserve and protect watersheds and water sources, forest, and open space areas.

(3) Flora and fauna.

(A) Protect endangered species of indigenous plants and animals and introduce new plants or animals only upon assurance of negligible ecological hazard.

(B) Foster the planting of native as well as other trees, shrubs, and flowering plants compatible to the enhancement of our environment.

(4) Parks, recreation, and open space.

(A) Establish, preserve and maintain scenic, historic, cultural, park and recreation areas, including the shorelines, for public recreational, educational, and scientific uses.

(9) Education and culture.

(B) Encourage both formal and informal environmental education to all age groups.

The purpose of the project is to restore and enhance the Honu'apo wetland's form and function within the cultural context of the restoration of the traditional Hawaiian fishpond. Wetland restoration would provide a naturally functioning ecosystem with suitable habitat for endangered Hawaiian waterbirds. Removal of invasive plans and revegetation with native species would provide natural site conditions for native species. The project also includes ongoing predator control to protect the endangered endemic and migratory bird species visiting the wetland. The proposed restoration project would include pedestrian gates through the predator proof fence, in addition to walkways and viewing platforms, which would provide increased opportunity for public education on coastal wetland ecosystems.

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

The proposed action would have a short-term positive effect on the economic welfare of the island resulting from hiring construction workers. This project is not expected to significantly adversely affect traditional native Hawaiian cultural practices or other traditional cultural practices occurring in the surrounding area. Mitigation requiring archaeological preservation would minimize any impacts on identified historic resources. The proposed action would not have a substantial long-term effect on the economic and social welfare of the community or the state. The proposed project is in accordance with land use plans and regulations as set forth in Section 3.12, *Conformance with State and County Plans, Policies, and Land Use Controls.*

(5) Substantially affects public health.

The project would not substantially affect public health as discussed in various sections of this document. Construction activities may temporarily increase fugitive dust and noise levels in the project vicinity. Short-term construction-related effects would be minimized by complying with pertinent state or county regulations and conditions of permits required. Further, these impacts would cease upon completion of construction. No long-term negative impact on public health is anticipated with implementation of the proposed action.

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

The proposed action would not generate population or create secondary demands and impacts on public facilities and services. Once completed, the project site may provide for educational viewing of wildlife resources.

(7) Involves a substantial degradation of environmental quality.

There would be no long-term, adverse environmental impacts associated with the proposed action. Construction activities may temporarily increase dust and noise in the project vicinity. However, these impacts would cease upon completion of construction. The proposed project will also include site-specific BMPs to minimize erosion and sedimentation effects to water quality. Additional mitigation measures included in Chapter 3 would minimize potential construction-related impacts. The proposed wetland restoration would have a beneficial effect on the environmental quality of Honu'apo Estuary Wetland.

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

Cumulative impacts are typically defined as the effects on the environment that result from the incremental impact of a project when added to past, present, and reasonably foreseeable future actions. The proposed Honu'apo Estuary Wetland Restoration project should not have significant cumulative impacts on the surrounding environment; most of the effects of the wetland pond restoration are limited to the project site. The project would not require off-site infrastructure improvements, nor does it commit to larger actions. As discussed in the EA, the project would result in short-term construction effects. With implementation of BMPs and mitigation measures contained in this document, impacts would be considered less-than-significant. In a regional context, the project would not have cumulatively significant impacts.

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

The Honu'apo wetland is vital to these endemic and migratory bird species, and given its estuarine nature, with a direct marine connection, acts as an important refuge for numerous endemic fish and threatened sea turtles. Further, the proposed project would enhance and establish additional habitat for Hawaiian waterbirds. With implementation of mitigation and BMPs described in Section 3.4 of this document, no substantial adverse effects would occur to rare, threatened, or endangered species, or their habitats.

(10) Detrimentally affects air or water quality or ambient noise levels.

Construction activities would have a short-term effect on air quality, water quality, and ambient noise levels. Mitigation included in Chapter 3 would minimize these potential impacts. Construction activities would also be subject to applicable state and county regulations and permit conditions. No additional long-term impacts would occur.

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

Wetland restoration activities would not result in increased flooding or hazards from flooding in surrounding areas. Portions of the project site are located within a flood plain, though wetland restoration activities would support the flood protection function of Honu'apo Estuary Wetland. Prior to the initiation of construction, the County would review proposed grading and construction plans for consistency with county requirements and good engineering practice, which would minimize damage during tropical storm, hurricane, or strong wind events, and earthquake events.

(12) Substantially affects scenic vistas and viewplanes identified in county or state plans or studies.

The proposed restoration of a wetland pond would improve the visual aesthetics of Honu'apo Estuary Wetland by increasing wetland habitat and removing invasive vegetation. The proposed improvements would not obstruct views from any recognized view corridor or scenic roadway.

(13) Requires substantial energy consumption.

There would be energy consumption associated with construction of the proposed project. The amount of energy that would be consumed with project implementation is not considered substantial.

6 INDIVIDUALS, COMMUNITY GROUPS, AND AGENCIES CONSULTED

6.1 EARLY CONSULTATION

Early consultation was conducted from April 2023 to June 2023, prior to preparation of the Draft EA for the proposed project. This is part of the scoping process for the Draft EA, and is intended to identify environmental issues and concerns to be addressed in the Draft EA. The following agencies, organizations, and individuals were sent a preliminary project description for comments or questions. *Those that provided written comments (either by hard copy or electronically) are highlighted in italics.* Copies of the written comments are included in Appendix A-1.

FEDERAL AGENCIES

*U.S. Fish and Wildlife Service **

Department of Army Corps of Engineers

Environmental Protection Agency

U.S. National Oceanic Atmospheric Administration, National Marine Fisheries Service

STATE AGENCIES

Department of Health, Environmental Health Administration

Department of Transportation

Department of Business, Economic Development and Tourism (DBEDT) – Office of Planning

*Office of Planning & Sustainable Development **

University of Hawai'i Water Resources Research Center

Office of Hawaiian Affairs

*Department of Hawaiian Home Lands **

*Department of Land and Natural Resources – Division of Aquatic Resources **

*Department of Land and Natural Resources – Engineering Division **

*Department of Land and Natural Resources – Office of Conservation and Coastal Lands **

Department of Land and Natural Resources - Historic Preservation Division

COUNTY OF HAWAI'I

Department of Environmental Management

Planning Department

Fire Department

Department of Parks and Recreation

*Police Department **

Department of Public Works

Department of Research and Development

*Department of Water Supply **

ELECTED OFFICIALS

County Council Representative Michelle Galimba

COMMUNITY

Hana Laulima Lahui o Ka'ū (Neighborhood Board)

Hawaiian Civic Club of Ka'ū (Neighborhood Board)

Ala Kahakai Trails Association (Neighborhood Board)

Na Mamo o Kāwā
Ka ʻOhana O Honuʻapo
O Kaʻū Kākou

OTHER
The Kaʻū Calendar (now ʻAlemanaka Kaʻū)

During preparation of the 2011 Restoration Plan, KOOH held a series of meetings with agency partners and community members to discuss the Restoration Plan and obtain their feedback. Additional gatherings were held following issuance of the Draft Restoration Plan, including a community presentation and informational meetings on the Plan. As part of the EA process, several meetings were held with community group Ka ʻOhana O Honuʻapo during review of the project to understand the evolution of the project and community context and knowledge.

6.2 COMMENTS AND RESPONSES ON THE DRAFT ENVIRONMENTAL ASSESSMENT

Notification of the availability of the Draft EA was published in the October 8, 2025, *The Environmental Notice*. During the 30-day public comment period ending November 7, 2025, agencies, organizations, and individuals were provided the opportunity to comment on the proposed project. Those that provided written comments (either by hard copy or electronically) are listed below. This Final EA has incorporated additional information in response to comments on the Draft EA. The comment letters and a summary of the comments and responses are included in Appendix A-2.

STATE AGENCIES
Department of Health, Clean Air Branch
Office of Planning & Sustainable Development
Department of Land and Natural Resources – Division of Aquatic Resources
Department of Land and Natural Resources – Engineering Division
Department of Land and Natural Resources – Office of Conservation and Coastal Lands
Department of Land and Natural Resources - Historic Preservation Division

COUNTY OF HAWAIʻI
Planning Department

COMMUNITY
Richard Oba

6.3 ENVIRONMENTAL ASSESSMENT PREPARATION

This Environmental Assessment (EA) was prepared for DLNR by Kahewai Environmental LLC, RJ Environmental Planning, and Bow Engineering & Development, Inc. The following consultants were involved in the preparation of this document:

William F. Bow, Principal Investigator / Kahewai Environmental LLC

Raadha M. B. Jacobstein, Lead Planner, RJ Environmental Planning

Dale Nutley, Graphic Artist, RJ Environmental Planning

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DBEDT. See Hawai‘i, State of, Department of Business, Economic Development & Tourism.

DLNR. See Department of Land and Natural Resources, Division of State Parks.

DOH. See Hawai‘i, State of, Department of Health.

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APPENDIX A

Consultation and Comment Letters

APPENDIX A-1

Early Consultation Comment Letters

APPENDIX A-2

Draft EA Comment Letters

APPENDIX A-1

EARLY CONSULTATION COMMENT LETTERS

Early consultation is considered an important part of the environmental review process – the goal is the gathering of information, data, and public concerns. A preliminary description of the project was circulated to agencies and individuals in April 2023, and phone consultations were conducted with permitting agencies as necessary. This Draft EA has incorporated additional information in response to early consultation comments.

Letters were received from the following agencies:

FEDERAL AGENCIES	
U.S. Fish and Wildlife Service	undated
STATE AGENCIES	
Office of Planning & Sustainable Development	May 18, 2023
Department of Hawaiian Home Lands	April 27, 2023
Department of Land and Natural Resources – Division of Aquatic Resources	May 23, 2023
Department of Land and Natural Resources – Engineering Division	May 16, 2023
Department of Land and Natural Resources – Office of Conservation and Coastal Lands	May 23, 2023
COUNTY OF HAWAIʻI	
Police Department	April 28, 2023
Department of Water Supply	May 5, 2023

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawai‘i 96850

Subject: IPaC generated official species list for the Pacific Islands Fish and Wildlife Office

Dear Action Agency or Applicant:

The Pacific Islands Fish and Wildlife Office (PIFWO) is transitioning to the Information for Planning and Consultation (IPaC) online portal, https://ipac.ecosphere.fws.gov/ for federal action agencies and non-federal agencies or individuals to obtain official species lists, including threatened and endangered species, designated critical habitat, and avoidance and minimization measures to consider in your general project design. IPaC has been used by continental USFWS offices to provide official species lists and avoidance and minimization guidance since 2017. Using IPaC expedites the process for species list distribution. Obtaining a species list in IPaC is relatively straightforward and takes minimal time to complete. Step by step instructions are included below.

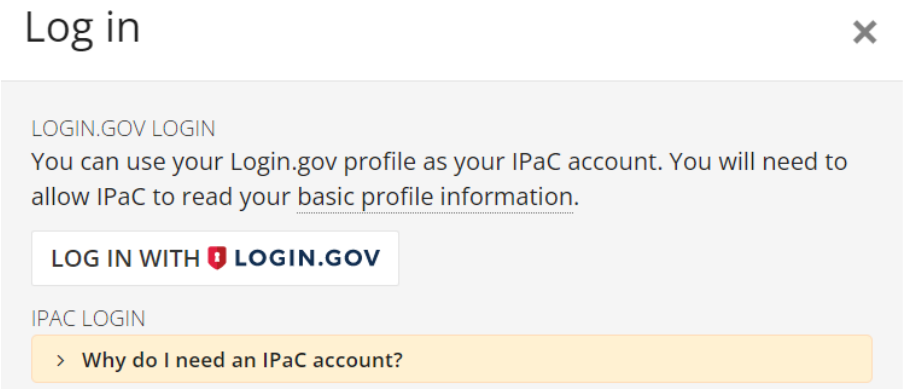
Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of your species list should be verified after 90 days. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change the species list. Verification can be completed by visiting the IPaC website at regular intervals during project planning and implementation. An updated list may be requested through the IPaC system by completing the same process used to obtain the initial species list.

We hope this process provides efficiencies to our partners in obtaining a species list. For federal action agencies, it also opens additional IPaC functionality that the PIFWO office is still working on, such as the use of Determination Keys for informal section 7 programmatic consultations. We will let our agency partners know when that functionality becomes available.

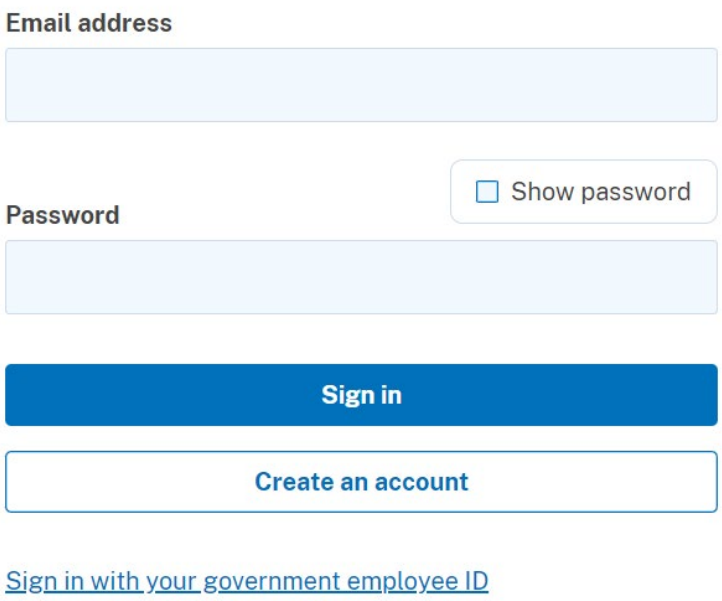
If you have questions about a species list obtained through the IPaC system or need assistance in completing an IPaC species list request, please contact the Service at 808-792-9400 or via email at pifwo_admin@fws.gov. We appreciate your efforts to conserve listed species across the Pacific Islands.

Instructions for Action Agencies and partners to obtain an official species list in IPaC

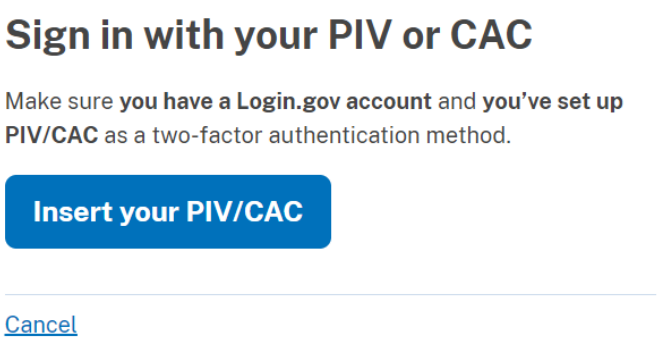
- Navigate to https://ipac.ecosphere.fws.gov/
- You can get an unofficial species list without logging in. However, if you want an official species list you will need to log in first using your Login.gov account. If you don't have an IPaC account, they are easy to create.



Select Log in with Login.gov and sign in using your email and password.

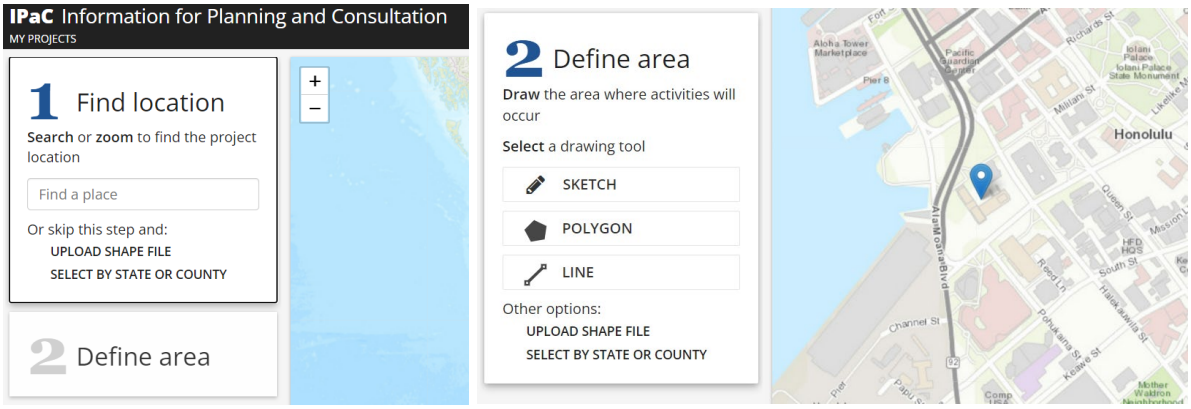


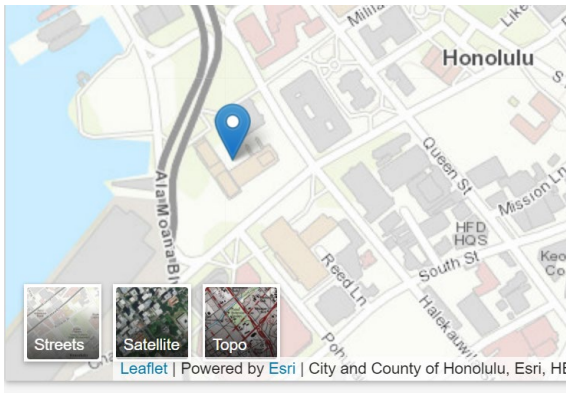
If you have a PIV or CAC card, you can sign in using that method as well.



- Once you log in, select "Get Started".

- Define the action area: Identify the location of the proposed action by uploading an existing shapefile or by entering an address or coordinates of the action area. Once identified on the map, you can manually draw the action area using the drawing tools.





To help identify your action area you can choose between multiple base maps available.

Press continue when you have finished drawing or uploading the action area location.

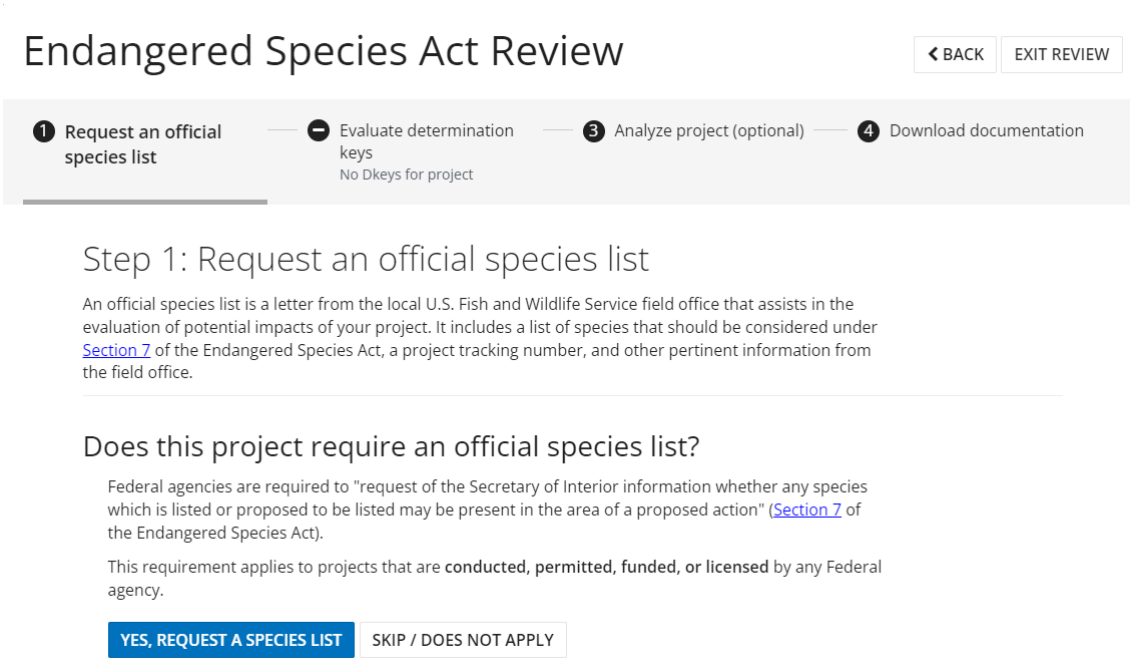
- The species information on the page that follows is not official. However, it identifies the project County, local Fish and Wildlife Field Office, species covered under NOAA Fisheries as well as Migratory Bird Treaty Act species. The list can be viewed in Thumbnail or List format.
- Once the species list populates you will see images of the species that may occur on, near, or transgress across your project. Click on SPECIES GUIDELINES on your top right to see Avoidance and Minimization measures to incorporate into your General Project Design Guidelines.

- Continue with the following steps to comply with the requirements of ESA section 7 to obtain an **official species list**.
- Select Define Project

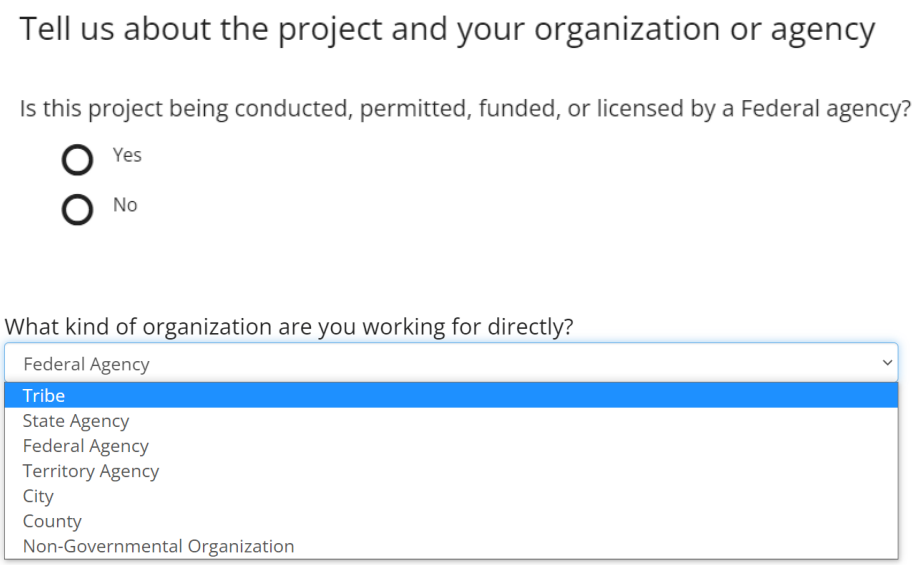
Enter the Project Name and a brief description of the project (a description is not mandatory, but recommended for future coordination with the Service). Click SAVE at bottom of page.

- At the bottom of the What's next box on the right, click Request Species List

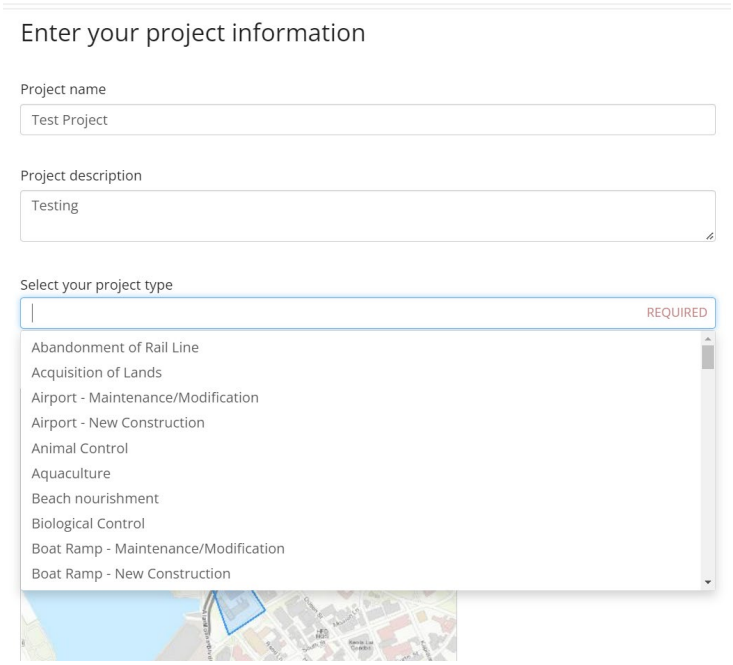
- on the following screen, click Yes, Request Species List



- Fill out the contact information for yourself or your agency. Contractors, state partners, and any other project proponents may request a species list and should be covered using the dropdown menus.



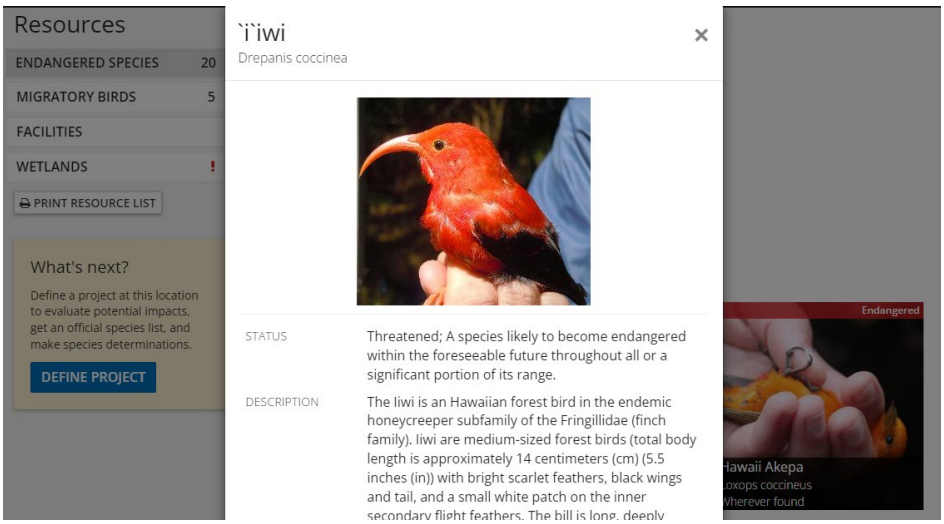
- From the pull-down menu for Classify Type of Project, select the project type that best fits the proposed action.



- Once all required sections are filled out, press SUBMIT OFFICIAL SPECIES LIST REQUEST

- An Official Species List should be generated and available for download in a couple of seconds.

- If you need additional information on a species, click on their name that is hot-linked to their species information page. A brief overview of the species' status, description and critical habitat will appear as well as a link to their ECOS species profile.



STATE OF HAWAIʻI
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT

235 South Beretania Street, 6th Floor, Honolulu, Hawaiʻi 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaiʻi 96804

JOSH GREEN, M.D.
GOVERNOR

MARY ALICE EVANS
ACTING DIRECTOR

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: https://planning.hawaii.gov/

DTS 202304251627NA

May 18, 2023

MEMORANDUM

TO: David Smith, Branch Chief
Division of Forestry and Wildlife
Department of Land and Natural Resources

FROM: Mary Alice Evans, Acting Director Mary Alice Evans

SUBJECT: Honuʻapo Estuary Wetland Restoration Project, Island of Hawaiʻi, Hawaii Scoping and Early Consultation, Honuʻapo Park, Kaʻū District, Southern Hawaiʻi Island; Tax Map Key: (3) 9-5-014: Portion of 007

Thank you for the opportunity to provide early comments on the Honuʻapo Estuary Wetland Restoration Project at the Honuʻapo Park, Kaʻū District, Southern Hawaiʻi Island, via memorandum, received April 25, 2023.

According to the request for early consultation for the preparation of an Environmental Assessment (EA), the State of Hawaii Department of Land and Natural Resources, Division of Forestry and Wildlife proposes to restore the existing approximately 8-acre Honuʻapo Estuary Wetland pond in the Kaʻū District. The proposed project is located within the State Conservation District and Agricultural District, and within the County designated Special Management Area (SMA) under Hawaii Revised Statutes (HRS) Chapter 205A. Use of State lands and State funds are the triggers for the requirement of an EA pursuant to HRS Chapter 343.

The proposed wetland restoration project, which is based on the Wetland Habitat Restoration Plan for Honuʻapo Estuary, includes the following improvements:

- removal of invasive vegetation to improve water quality and quantity as well as habitat function
- creation of deepened water areas by grading for improved habitat productivity and diversity
- revegetation with native plant species to provide natural site conditions for native endemic species
- installation of a predator proof fence
- pedestrian gate and walkway with viewing platforms

The grading from the proposed project would include approximately 9,270 cubic yards of cut and 0.5 cubic yards of fill over a 2.23-acre area of the estuary.

The estimated construction costs for completion of the wetland restoration project are approximately $1.5 million. The project would be phased based on funding availability.

The Office of Planning and Sustainable Development (OPSD) has reviewed the subject early EA consultation request, and has the following comments to offer:

1. The Hawaii Coastal Zone Management (CZM) Law, HRS Chapter 205A, requires all state and county agencies to enforce the CZM objectives and policies. The subject EA should include an assessment with mitigation measures, if needed, as to how the proposed wetland restoration project conforms to each of the CZM objectives and supporting policies set forth in HRS Chapter 205A-2, as amended.

2. The OPSD recommends that the EA specifically discuss the compliance with the requirements of SMA use under County of Hawaii SMA Rules, as amended, for the proposed wetland restoration project by consulting with the County of Hawaii Department of Planning.

3. If the proposed action disturbs one acre or more of land, or involves dewatering discharge activities, the applicant should consult with the Clean Water Branch, State of Hawaii Department of Health, for the requirement of a National Pollutant Discharge Elimination System (NPDES) Permit for the associated construction activities.

4. The OPSD recommends that site-specific erosion control measures shall be implemented to prevent any runoff, sediment, soil and debris potentially resulting from the proposed construction activities, including grading, filling and staging, from adversely impacting the coastal ecosystem and the State waters as specified in Hawaii Administrative Rules Chapter 11-54.

5. Pursuant to Code of Federal Regulations (CFR), 15 CFR 930, if a federal permit or approval, such as an Army Corps of Engineers Permit, is required for the proposed wetland restoration project, a federal consistency review may be required from the OPSD, the Hawaii CZM Program. Please consult with our office on the policies and procedures applicable to CZMA federal consistency reviews, if it is deemed that this proposed action requires federal permitting.

If you have any questions regarding this comment letter, please contact Shichao Li of our office at (808) 587-2841 or by email at shichao.li@hawaii.gov or Debra Mendes at (808) 587-2840 or Debra.L.Mendes@hawaii.gov on CZMA federal consistency matters.

JOSH GREEN, M.D.
GOVERNOR
STATE OF HAWAII
Ke Kia'āina o ka Moku'āina 'o Hawai'i

SYLVIA J. LUKE
LT. GOVERNOR
STATE OF HAWAII
Ka Hope Kia'āina o ka Moku'āina 'o Hawai'i

KALI WATSON
CHAIRMAN, HHC
Ka Luna Ho'okele

KATIE L. DUCATT
DEPUTY TO THE CHAIRMAN
Ka Hope Luna Ho'okele

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
Ka 'Oihana 'Āina Ho'opulapula Hawai'i
P. O. BOX 1879
HONOLULU, HAWAII 96805

April 27, 2023

Refer: PO-23-076

sent electronically to: wbow@bowengineering.com
William Bow
Bow Engineering & Development, Inc.
1953 So. Beretania St., PH-A
Honolulu, HI 96826

Aloha:

Subject: Honu'apo Estuary Wetland Restoration Project, Island of Hawaii
Hawaii Scoping and Early Consultation

The Department of Hawaiian Home Lands acknowledges receiving the request for comments on the above-cited project. After reviewing the materials submitted, due to its lack of proximity to Hawaiian Home Lands, we do not anticipate any impacts to our lands or beneficiaries from the project. However, DHHL recommends consultation with Hawaiian Homestead community associations located within the moku of Puna, district of Ka'u and with other (N)native Hawaiian organizations, to better assess potential impacts to cultural and natural resources, and other rights of Native Hawaiians. A list of DHHL homestead associations can be found at https://dhhl.hawaii.gov/homestead-associations/

Mahalo for the opportunity to provide comments. If you have any questions, please call the Planning Office, at (808) 620-9480 or contact via email at dhhl.planning@hawaii.gov.

Aloha,

Andrew H. Choy
Planning Program Manager

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

May 24, 2023

Bow Engineering & Development, Inc.
Attn: Mr. William Bow
1953 S. Beretania Street, PH-A
Honolulu, Hawaii 96826

via email: wbow@bowengineering.com

Dear Mr. Bow:

SUBJECT: Scoping and Early Consultation for an Environmental Assessment for the Proposed **Honu'apo Estuary Wetland Restoration Project** located at Honu'apo Park, Ka'u District, Island of Hawaii; TMK: (3) 9-5-014:007 on behalf of the Division of Forestry and Wildlife

Thank you for the opportunity to review and comment on the subject matter. The Land Division of the Department of Land and Natural Resources (DLNR) distributed or made available a copy of your request pertaining to the subject matter to DLNR's Divisions for their review and comments.

At this time, enclosed are comments from the (a) Division of Aquatic Resources, (b) Engineering Division, and (c) Land Division-Hawaii District on the subject matter. Should you have any questions, please feel free to contact Darlene Nakamura at (808) 587-0417 or email: darlene.k.nakamura@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Enclosures
cc: Central Files

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

April 26, 2023

MEMORANDUM

TO: **DLNR Agencies:**
X Div. of Aquatic Resources (glenn.r.higashi@hawaii.gov)
__Div. of Boating & Ocean Recreation
X Engineering Division (DLNR.ENGR@hawaii.gov)
__Div. of Forestry & Wildlife
__Div. of State Parks
X Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
X Office of Conservation & Coastal Lands (sharleen.k.kuba@hawaii.gov)
X Land Division – Hawaii District (gordon.c.heit@hawaii.gov)
__Aha Moku Advisory Committee

FROM: Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Scoping and Early Consultation for an Environmental Assessment for the Proposed **Honu'apo Estuary Wetland Restoration Project**
LOCATION: Honu'apo Park, Ka'u District, Island of Hawaii; TMK: (3) 9-5-014:007
APPLICANT: Department of Land and Natural Resources, Division of Forestry and Wildlife

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments by **May 24, 2023.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(☑) Comments are included/attached.

Signed: _____
Print Name: Brian Neilson
Division: State of Hawaii
Date: May 23, 2023

Attachments
cc: Central Files

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL
RESOURCES DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 330
HONOLULU, HAWAII 96813

Date: 05/23/23
DAR # AR6398

MEMORANDUM

TO: Brian J. Neilson
DAR Administrator

FROM: Troy Sakihara TSS, Aquatic Biologist

SUBJECT: Early Consultation for an Environmental Assessment for the proposed Honu'apo Estuary Wetland Restoration Project

Request Submitted by: Russell Y. Tsuji, Land Administrator

Location of Project: Honu'apo Park, Ka'ū District, Hawai'i Island; TMK: (3) 9-5-014:007

Brief Description of Project:

The DLNR Division of Forestry and Wildlife is proposing a restoration project within Honu'apo Park, including County of Hawai'i Whittington Beach Park, in Ka'ū to rehabilitate an existing estuarine and marsh habitat approximately 8 acres in area. The location of the project is within the State Conservation District and Agriculture District. The project area consists of a wetland complex comprised of subtidal, intertidal and palustrine wetland types, the latter of which is mostly covered by dense non-native plants. No surface flowing freshwater streams are located in the area. However, there is measurable groundwater discharging within the estuary and wetland habitat.

Comments:

☐ No Comments ☒ Comments Attached

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the project plan, DAR requests the opportunity to review and comment on those changes.

Comments Approved: _____ Date: May 23, 2023

Brian J. Neilson
DAR Administrator

DAR# AR6398

Brief Description of Project

The main activities of the proposed project include the removal of invasive vegetation to improve water circulation, water quality and habitat function, create deepened water areas to improve habitat for native plants and animals, out-planting of native species to provide natural conditions for native species, installation of a predator-proof fence, and construction of a pedestrian gate and walkway with viewing platforms. These objectives are based on the Wetlands Habitat Restoration Plan for Honu'apo Estuary.

Based on the conceptual plan, two habitat types are to be created and enhanced by modifications made to the topography in the intertidal zone. This includes 9,270 cubic yards that are to be cut and 0.5 cubic yards filled over 2.23 acres in the estuary. This is intended to result in frequent inundation over mudflat areas across diurnal tidal cycles to improve foraging and grazing areas for native birds. Further, these actions should mitigate the recruitment and re-establishment of invasive vegetation in these areas. Grading is also expected to create deeper water pools that are to be perennial, creating more brackish water habitat for native estuarine species and native water fowl.

The primary objective of the project is to rehabilitate the estuarine and wetland habitat to improve and restore natural function of said habitat for native plants and animals, particularly migratory bird species. The project also aims to enhance aquatic habitat for native fish, turtles and other native aquatic flora and fauna, while considering estimated sea level rise. In addition, educational and recreational use of the area are to be improved, and cultural and historical values of the area are to be preserved through this project.

Various Federal, State and County permits may be required for this project.

DAR# AR6398

Comments

In 2007, the DAR conducted a series of estuary cast net samples in the Honu'apo estuary as part of a broader statewide estuarine habitat characterization project. A total of 21 fish and invertebrate species were recorded, consisting of a mix of native and non-native invasive species. However, the relative abundance of invasive species comprised 79% of all samples with poeciliids (topminnows) being the dominant species (67%). Invasive Kanda, Osteomugil engeli, and non-native snails Melanoides tuberculata, were also common and consistently recorded. The most abundant native species was 'ōpae huna, Palaemon debilis. All estuarine species that were recorded in the Honu'apo estuary are not uncommon in Hawaiian estuarine or brackish habitats. Further, the dominance of invasive estuarine species is consistent with species compositions in other impacted estuaries surveyed by DAR. Benthic composition within the estuary consisted almost entirely of sediment and boulder.

Estuarine habitats dominated by non-native and invasive vegetation, or those that have been significantly altered from natural conditions, have shown to support non-native estuarine species at other estuarine sites. In contrast, native and naturally functioning estuaries with unimpeded or unaffected freshwater/saltwater connection, circulation, flow and water quality facilitate the recruitment and survival of native species. Accordingly, despite the Honu'apo estuarine species composition being described from 2007 by DAR, it is unlikely the species composition has significantly changed since then given the persistent dominance of invasive vegetation in and around the area. However, the DAR anticipates a measurable improvement in estuarine habitat conditions from the proposed project, and over time, expect increases in relative abundance and composition of native estuarine species as a result. This aligns with one of DAR's goals to improve and restore aquatic habitats and ecosystems to naturally thriving conditions.

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

April 26, 2023

MEMORANDUM

FROM: ~~TO:~~

DLNR Agencies:
X Div. of Aquatic Resources (glenn.r.higashi@hawaii.gov)
___Div. of Boating & Ocean Recreation
X Engineering Division (DLNR.ENGR@hawaii.gov)
___Div. of Forestry & Wildlife
___Div. of State Parks
X Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
X Office of Conservation & Coastal Lands (sharleen.k.kuba@hawaii.gov)
X Land Division – Hawaii District (gordon.c.heit@hawaii.gov)
___Aha Moku Advisory Committee

TO: ~~FROM:~~ Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Scoping and Early Consultation for an Environmental Assessment for the Proposed **Honu'apo Estuary Wetland Restoration Project**
LOCATION: Honu'apo Park, Ka'u District, Island of Hawaii; TMK: (3) 9-5-014:007
APPLICANT: Department of Land and Natural Resources, Division of Forestry and Wildlife

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments by **May 24, 2023.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(✓) Comments are included/attached.

Signed: *[signature]*
Print Name: Carty S. Chang, Chief Engineer
Division: Engineering Division
Date: May 16, 2023

Attachments
cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Y. Tsuji

Ref: Scoping and Early Consultation for an Environmental Assessment for the Proposed Honu'apo Estuary Wetland Restoration Project
Location: Honu'apo Park, Ka'u District, Island of Hawaii
TMK(s): (3) 9-5-014:007
Applicant: Department of Land and Natural Resources, Division of Forestry and Wildlife

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high-risk areas). State projects are required to comply with 44CFR regulations as stipulated in Section 60.12. Be advised that 44CFR, Chapter 1, Subchapter B, part 60 reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may stipulate higher standards that can be more restrictive and would take precedence over the minimum NFIP standards.

The owner of the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood Hazard Zones are designated on FEMA's Flood Insurance Rate Maps (FIRM). The official FIRMs can be accessed through FEMA's Map Service Center (msc.fema.gov). Our Flood Hazard Assessment Tool (FHAT) (http://gis.hawaiinfip.org/FHAT) could also be used to research flood hazard information.

If there are questions regarding the local flood ordinances, please contact the applicable County NFIP coordinating agency below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7139.
- Kauai: County of Kauai, Department of Public Works (808) 241-4896.

Signed: 
CARTY S. CHANG, CHIEF ENGINEER

Date: May 16, 2023

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
Office of Conservation and Coastal Lands
P.O. BOX 621
HONOLULU, HAWAII 96809

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

LAURA H.E. KAAKUA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

REF: OCCL: TF

COR: HA 23-178

May 23, 2023

William Bow
Bow Engineering & Development, Inc.
1953 South Beretania Street, PH-A
Honolulu, HI 96826

SUBJECT: Scoping and Early Consultation for an Environmental Assessment for the Proposed Honuapo Estuary Wetland Restoration Project
Located at Honuapo Park
Por. of Hionaa - Honuapo, Kau, Island of Hawaii
Tax Map Key (TMK): (3) 9-5-014:007

Dear William Bow:

The Office of Conservation and Coastal Lands (OCCL) has reviewed the Division of Forestry and Wildlife's (DOFAW) memo and attachments regarding the subject matter. According to the memo, DOFAW is proposing to rehabilitate ±8-acres of Honuapu Estuary Wetland Pond at the Honuapo Park. The memo states that the subject parcel is owned by the State of Hawaii and managed by the County of Hawaii Department of Parks and Recreation as part of the Honuapo Park along with Ka Ohana O Honuapo, a non-profit community group. The memo notes that the proposed wetland restoration project improvements are based on the County of Hawaii's 2011 conceptual restoration plan *Wetlands Habitat Restoration Plan for Honuapo Estuary* and includes the following proposed work:

- Removal of invasive vegetation to improve water quality and quantity as well as habitat function
- Creation of deepened water areas for improved habitat productivity and diversity
- Revegetation with native plants species to provide natural site conditions for native endemic species
- Installation of a predator proof fence
- Pedestrian gate and walkway with viewing platforms

The memo states that the creation of deepened water areas will involve the altering of the topography of the intertidal zone by grading. The proposed grading would include approximately 9,270 cubic yards of cut and 0.5 yards of fill over a 2.23-acre area of the estuary/pond. The ground surface in these areas would be lowered to finished elevations that will result in frequent inundation by high tides. Forage habitat would also be created on the mudflat areas that are currently covered with ground cover. The memo notes that these proposed modifications are expected to increase productivity of food sources used by

wading birds such as the Hawaiian coot and other diving and dabbling birds and help prevent recruitment of invasive plants back onto the mudflats.

A Draft Environmental Assessment (DEA) is being prepared for the proposed Honuapo Estuary Wetland Restoration Project pursuant to Hawaii Revised Statutes (HRS) Chapter 343 to comply with state environmental laws and regulations. On behalf of DOFAW, you are requesting comments on the proposed project in advance of preparing its DEA.

The OCCL regulates land uses in the State Land Use Conservation District through the issuance of Conservation District Use Permits and Site Plan Approvals to help conserve, protect, and preserve important natural and cultural resources. In this particular area, it appears that the approximate State Land Use Agricultural/Conservation District boundary follows the fishpond as it existed in 1969 and is subject to a valid certified shoreline according to Land Use Commission (LUC) Boundary Interpretation (BI) HA 00-44. A cursory review of the Department of Accounting and General Services (DAGS) Land Survey's website and certified shoreline maps (https://ags.hawaii.gov/survey/certified-shoreline-maps/) appears to indicate that the shoreline in this area was certified on February 18, 2005, and follows along in some sections the debris line; top of pond bank; and along the highwater mark as evidenced by the edge of vegetation and/or edge of sand as located on July, 6, 2004. The 2005 certified shoreline places the fishpond at Honuapo on submerged lands owned by the State of Hawaii. Based on the above, the OCCL notes that it appears portions of the subject parcel and project area lie in the Resource Subzone of the State Land Use Conservation District.

DOFAW may want to consider consulting with the LUC ((808) 587-3822) regarding the need to obtain a certified shoreline and more accurate BI. A more precise BI may help establish jurisdictional authority for the proposed project area.

According to OCCL files, staff provided DOFAW via an email, noted as COR: HA 15-105, a summary of potential Conservation District authorization processes for the proposed Wetlands Habitat Restoration Plan for Honuapo Estuary on December 18, 2014. It was noted that the project could be applied for through either the Loko Ia (fishpond) application or a Conservation District Use Application (CDUA). The correspondence stated that both potential applications processes would appear to require consultation with the LUC to determine the boundaries of the Conservation District and Land Division regarding the need for a land disposition.

On July 26, 2019, the OCCL approved Loko Ia permit HA: 19-02 under the state-wide Hoala Loko Ia Conservation District Use Permit (CDUP) ST-3703 for restoration work on the fishpond at Honuapo by the non-profit hui of Ka Ohana O Honuapo. Approved restoration work included the manual removal of sediment and vegetation overgrowth, the planting of native plant species, water quality monitoring, the repair and reconstruction of the kuapa (seawall(s)), and the manual removal of invasive fish species with nets.

Additionally, correspondence letter CORR: HA 19-197 was sent to Engineering Division (ENG) regarding ENG's memo and request for advice on Conservation District permitting requirements regarding DOFAW's proposed Honuapo Estuary Wetland Restoration project on July 26, 2019. The response stated that the creation or "sculpting of deepened water areas" in the fishpond at Honuapo would trigger the need for a Conservation District Use Permit from the Board of Land and Natural Resources (BLNR) pursuant to Hawaii Administrative Rules (HAR) §13-5-24 R-5 MARINE CONSTRUCTION (D-1) *Dredging, filling, or construction on submerged lands, including construction of harbors, piers, marinas, and artificial reefs*. The letter noted that the local community group Ka Ohana O Honuapo had recently secured a permit through the Hoala Loko Ia program for restoration work on the pond which included the manual restoration of the kuapa (interior pond walls), manual removal of invasive vegetation and planting of native species, and the manual removal of sediment. The possibility of DOFAW to consider working with Ka

Ohana O Honuapo regarding DOFAW's Honuapo Estuary Wetland Restoration project and associated work was also put forward in OCCL's response to ENG's memo.

Based on this history outlined above and the information you have provided, OCCL stands by our previous application guidance regarding DOFAW's proposed Honuapo Estuary Wetland Restoration Project. It appears that some of the proposed work is consistent with work that was approved by the existing Loko Ia permit HA: 19-02 while the proposed predator proof fence, pedestrian gate, walkway with viewing platforms, and grading/creation of deepened water areas within the pond on submerged lands will require additional information, review, and potentially authorization from the Department or BLNR. The current rules and regulations of the Conservation District, noted as Hawaii Administrative Rules (HAR) Chapter 13-5, as well as proposed amendments can be found at https://dlnr.hawaii.gov/occl/rules/ .

Applications for proposed land uses require the signature of the landowner(s). It appears DOFAW may want to consider consulting with Land Division regarding the creation of deepened water areas on State submerged lands and the need for a land disposition and/or lease for DOFAW, the County of Hawaii, and Ka Ohana O Honuapo to co-manage the fishpond area.

The OCCL requests that DEA discuss fishpond restoration at Honuapo and its compatibility with DOFAW's proposed Honuapo Estuary Wetland Restoration Project. Additionally, there is the appearance that there may be the potential for conflict between existing and proposed users and uses at the site. It also appears that traditional and cultural practices may be conducted in the area. The DEA should contain a section discussing the proposed project's potential impacts to the existing users and uses of the area and potential mitigation measures that shall be implemented.

The letter notes that one of the secondary objectives of the Honuapo Estuary Wetland Restoration Project is to accommodate sea level rise. The DEA should contain projections for sea level rise in relation to the project area and describe how lateral access along the shoreline will be maintained.

Should you have any questions, feel free to contact Trevor Fitzpatrick of the Office of Conservation and Coastal Lands at (808) 798-6660 or trevor.j.fitzpatrick@hawaii.gov .

Sincerely,

(for)
Michael Cain, Administrator
Office of Conservation and Coastal Lands

CC: *Hawaii Division Land Office*
Land Use Commission
County of Hawaii Planning Department

Mitchell D. Roth
Mayor

Benjamin T. Moszkowicz
Police Chief

County of Hawai`i

POLICE DEPARTMENT
349 Kapi'olani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-2389

April 28, 2023

Mr. David Smith
Branch Chief
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 325
Honolulu, HI 96813

Dear Mr. Smith:

SUBJECT: HONU'APO ESTUARY WETLAND RESTORATION PROJECT, ISLAND OF HAWAII, HAWAII SCOPING AND EARLY CONSULTATION

This is in response to your memorandum regarding the Honu'apo Estuary Wetland restoration project. The preliminary project description and figures have been reviewed and we offer no comments at this time.

Should you have questions, please contact Captain Akira Edmoundson, Commander of the Ka'u District, at (808) 939-2520, or via email at akira.edmoundson@hawaiicounty.gov.

Sincerely,

BENJAMIN T. MOSZKOWICZ
POLICE CHIEF

for

CHAD BASQUE
ASSISTANT POLICE CHIEF
AREA II OPERATIONS

AE/jaj
23HQ0545

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

May 5, 2023

Mr. William Bow
Bow Engineering and Development, Inc.
1953 South Beretania Street, PH-A
Honolulu, HI 96826

Dear Mr. Bow:

Subject: Pre-Environmental Assessment Consultation for Honu'apo Estuary Wetland Restoration Project Tax Map Key (3) 9-5-014:007

We have reviewed your Pre-Environmental Assessment Consultation letter, dated April 25, 2023.

We have no comments or objections as there are no Department of Water Supply facilities in the area.

Should there be any questions, please contact Mr. Ryan Quitoriano of our Water Resources and Planning Branch at (808) 961-8070, extension 256.

Sincerely yours,

Keith K. Okamoto, P.E.
Manager-Chief Engineer

RQ:dfg

copy – State of Hawai'i , Department of Land and Natural Resources,
Division of Forestry and Wildlife

From: Galimba, Michelle M.
To: William Bow
Cc: Loa, DeEtte (Kea); Pedro, Shayamae; afsheen.a.siddiqi@hawaii.gov; Megan Lamson Leatherman
Subject: Re: External: Honu'apo Wetland Restoration
Date: Monday, May 8, 2023 7:05:11 AM

Hi William,

Thanks for this. I'm adding Megan Lamson so she can be in the loop.

Another org that I would also suggest to send a letter to is O Ka'u Kakou, which is a local service organization. Also the Ka'u Community Development Plan Action Committee, which is administered by the County's Planning Department.

I would suggest that you schedule a community meeting as soon as possible and to very carefully design the meeting in consultation with KOOH to make sure you can explain the project in ways that are meaningful to the community. I think it's important to have something scheduled even if it isn't until next month or later, just so that people know that there will be a meeting.

Even before the public community meeting I would suggest having small group meetings with the groups you have listed, in person if possible or by Zoom so that you can get some feedback from the community at a smaller scale.

An FYI - Ka'u is the district rather than a town, so I think you mean that you will plan to do a meeting in Pahala and Na'alehu - those are the two closest towns.

Michelle M. Galimba
Councilmember, District Six
Hawai'i County Council

From: William Bow <WBow@bowengineering.com>
Sent: Friday, May 5, 2023 10:54 AM
To: Galimba, Michelle M.
Cc: Loa, DeEtte (Kea); Pedro, Shayamae; afsheen.a.siddiqi@hawaii.gov
Subject: RE: External: Honu'apo Wetland Restoration

Hi Michelle,

Thanks for giving me a call to discuss the project. As discussed, this first mailout was for early-consultation. We are moving into writing the draft EA which involves a lot of research to analyze various potential impacts. I do agree with you, that the more involvement the community has, the more likely the project will proceed smoothly.

We are looking at doing 1-2 days of community meetings (Ka'u and Na'alehu) and having opportunities for extended comment periods before and after the Draft EA is published. If you have any suggestions, then please let us know.

The early consultations were sent out to the following groups:

- Hana Laulima Lahui o Kaʻu (Neighborhood Board)
- Hawaiian Civic Club of Kaʻu (Neighborhood Board)
- Ala Kahakai Trails Association (Neighborhood Board)
- Na Mamo o Kawa

I believe these were suggestions that came from Ka 'Ohana O Honu'apo. If you have any other groups that should be included in our correspondence list, then please let me know. You are also able to share the contents of the mailout with whomever you wish. We approach these projects with the intention of having no secrets and open-communication that meets or exceeds the required public engagement.

Thanks,

William F. Bow, M.S.
Vice President
Environmental Director / Chemist

Bow Engineering & Development, Inc.
1953 S. Beretania Street, PH-A
Honolulu, HI 96826

Office: 808-941-8853 x117
Direct: 808-369-8217
Cell: 808-371-0676
www.bowengineering.com

From: William Bow
Sent: Thursday, May 4, 2023 2:21 PM
To: Galimba, Michelle M. <Michelle.Galimba@hawaiicounty.gov>
Cc: Loa, DeEtte (Kea) <Kea.Loa@hawaiicounty.gov>; Pedro, Shayamae <Shayamae.Pedro@hawaiicounty.gov>; afsheen.a.siddiqi@hawaii.gov

Subject: RE: External: Honu'apo Wetland Restoration

Good afternoon Ms. Galimba,

I just left you a voicemail and am looking forward to connecting with you. We definitely want as much feedback as possible in the early stages of the project so we can best communicate the objectives of the project with the community.

Please feel free to call my cell (below). If I am in a meeting or out in the field, then there is a better chance that I can step away to receive your call.

Thanks,

William F. Bow, M.S.
Vice President
Environmental Director / Chemist

Bow Engineering & Development, Inc.
1953 S. Beretania Street, PH-A
Honolulu, HI 96826

Office: 808-941-8853 x117
Direct: 808-369-8217
Cell: 808-371-0676
www.bowengineering.com

From: Galimba, Michelle M. <Michelle.Galimba@hawaiicounty.gov>
Sent: Thursday, May 4, 2023 10:19 AM
To: afsheen.a.siddiqi@hawaii.gov; William Bow <WBow@bowengineering.com>
Cc: Loa, DeEtte (Kea) <Kea.Loa@hawaiicounty.gov>; Pedro, Shayamae <Shayamae.Pedro@hawaiicounty.gov>
Subject: External: Honu'apo Wetland Restoration

Aloha Mr. Siddiqi,

I am reaching out in regard to the early consultation letter for the EA for the Honu'apo Wetland Restoration Project. I have some questions concerning the project and especially the community engagement planned as this will certainly be a controversial project. If you would like you could give me a call at your convenience on my cell at 808 430- 4927 or we could set up a time for a call or Zoom with Mr. Bow as well.

Mahalo,
Michelle M. Galimba
Councilmember, District Six
Hawai‘i County Council

APPENDIX A

Consultation and Comment Letters

APPENDIX A-1

Early Consultation Comment Letters

APPENDIX A-2

Draft EA Comment Letters

APPENDIX A-1

EARLY CONSULTATION COMMENT LETTERS

Early consultation is considered an important part of the environmental review process – the goal is the gathering of information, data, and public concerns. A preliminary description of the project was circulated to agencies and individuals in April 2023, and phone consultations were conducted with permitting agencies as necessary. This Draft EA has incorporated additional information in response to early consultation comments.

Letters were received from the following agencies:

FEDERAL AGENCIES	
U.S. Fish and Wildlife Service	undated
STATE AGENCIES	
Office of Planning & Sustainable Development	May 18, 2023
Department of Hawaiian Home Lands	April 27, 2023
Department of Land and Natural Resources – Division of Aquatic Resources	May 23, 2023
Department of Land and Natural Resources – Engineering Division	May 16, 2023
Department of Land and Natural Resources – Office of Conservation and Coastal Lands	May 23, 2023
COUNTY OF HAWAIʻI	
Police Department	April 28, 2023
Department of Water Supply	May 5, 2023

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawai‘i 96850

Subject: IPaC generated official species list for the Pacific Islands Fish and Wildlife Office

Dear Action Agency or Applicant:

The Pacific Islands Fish and Wildlife Office (PIFWO) is transitioning to the Information for Planning and Consultation (IPaC) online portal, https://ipac.ecosphere.fws.gov/ for federal action agencies and non-federal agencies or individuals to obtain official species lists, including threatened and endangered species, designated critical habitat, and avoidance and minimization measures to consider in your general project design. IPaC has been used by continental USFWS offices to provide official species lists and avoidance and minimization guidance since 2017. Using IPaC expedites the process for species list distribution. Obtaining a species list in IPaC is relatively straightforward and takes minimal time to complete. Step by step instructions are included below.

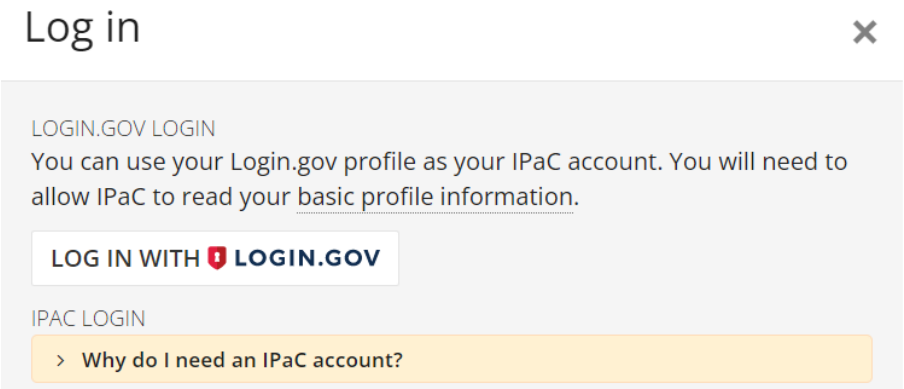
Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of your species list should be verified after 90 days. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change the species list. Verification can be completed by visiting the IPaC website at regular intervals during project planning and implementation. An updated list may be requested through the IPaC system by completing the same process used to obtain the initial species list.

We hope this process provides efficiencies to our partners in obtaining a species list. For federal action agencies, it also opens additional IPaC functionality that the PIFWO office is still working on, such as the use of Determination Keys for informal section 7 programmatic consultations. We will let our agency partners know when that functionality becomes available.

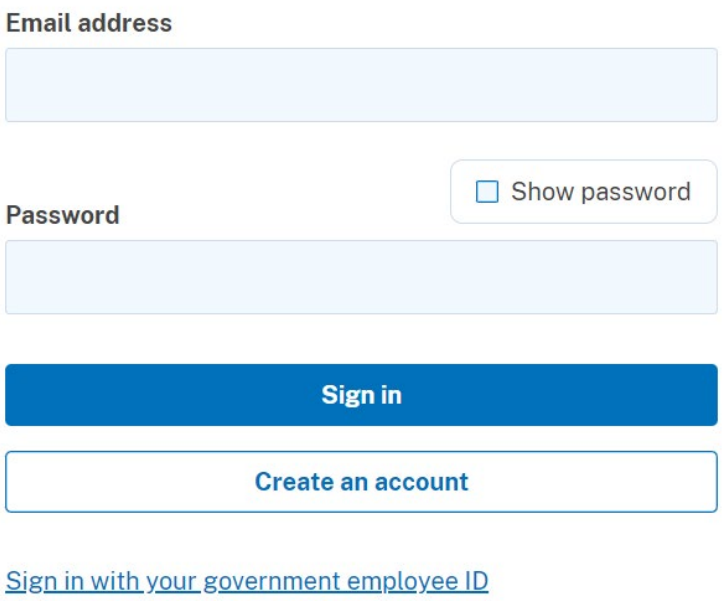
If you have questions about a species list obtained through the IPaC system or need assistance in completing an IPaC species list request, please contact the Service at 808-792-9400 or via email at pifwo_admin@fws.gov. We appreciate your efforts to conserve listed species across the Pacific Islands.

Instructions for Action Agencies and partners to obtain an official species list in IPaC

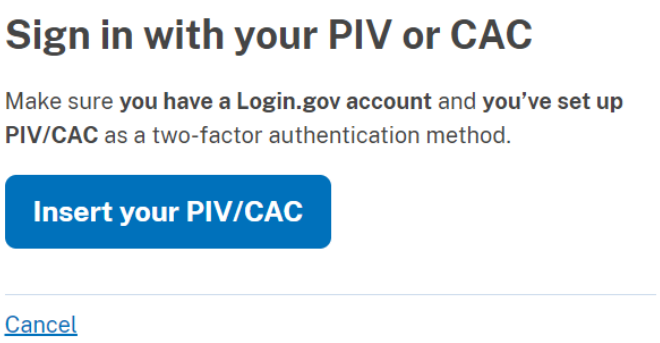
- Navigate to https://ipac.ecosphere.fws.gov/
- You can get an unofficial species list without logging in. However, if you want an official species list you will need to log in first using your Login.gov account. If you don't have an IPaC account, they are easy to create.



Select Log in with Login.gov and sign in using your email and password.

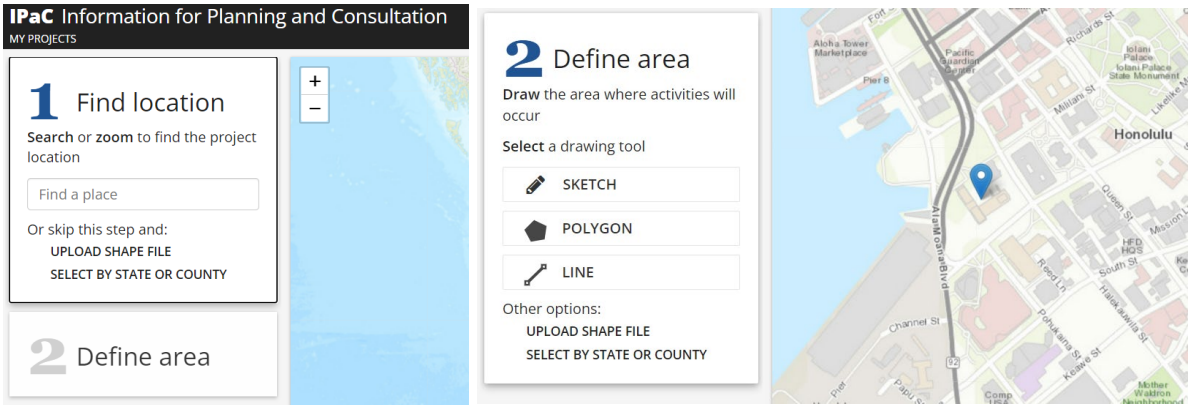


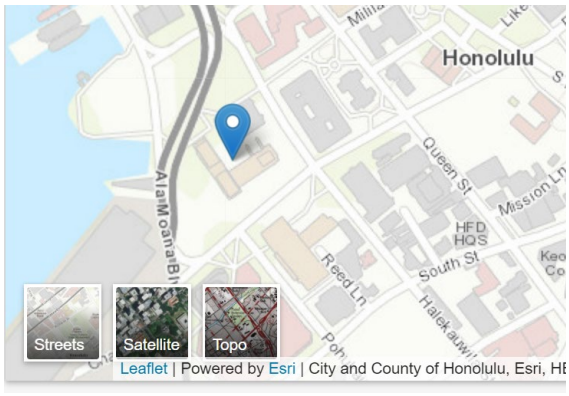
If you have a PIV or CAC card, you can sign in using that method as well.



- Once you log in, select "Get Started".

- Define the action area: Identify the location of the proposed action by uploading an existing shapefile or by entering an address or coordinates of the action area. Once identified on the map, you can manually draw the action area using the drawing tools.





To help identify your action area you can choose between multiple base maps available.

Press continue when you have finished drawing or uploading the action area location.

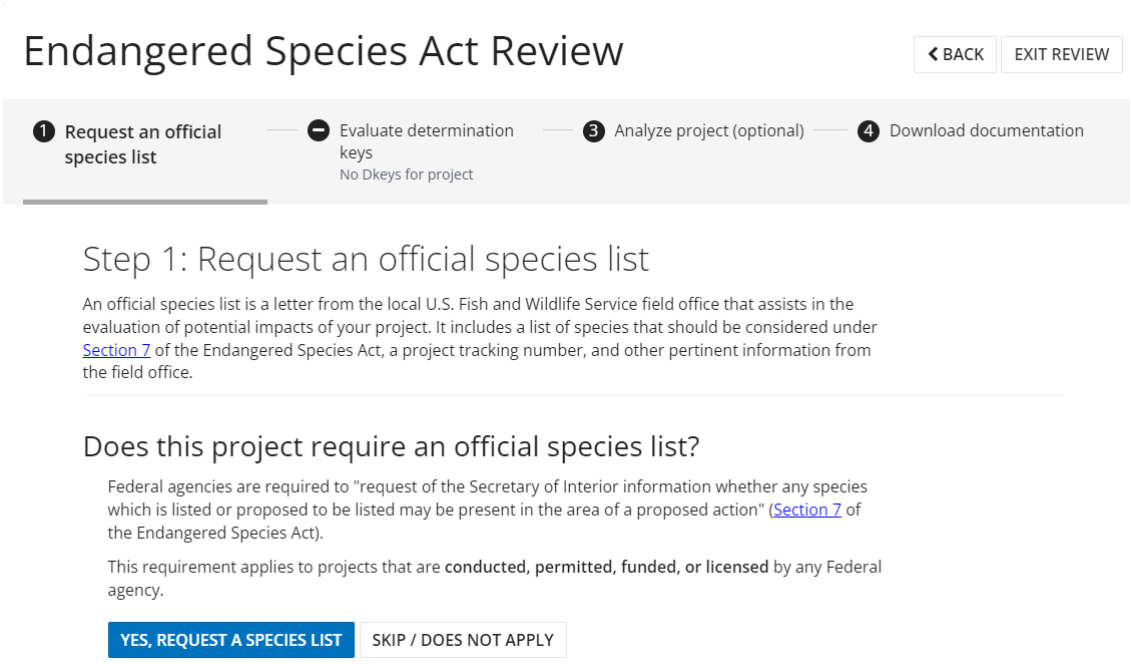
- The species information on the page that follows is not official. However, it identifies the project County, local Fish and Wildlife Field Office, species covered under NOAA Fisheries as well as Migratory Bird Treaty Act species. The list can be viewed in Thumbnail or List format.
- Once the species list populates you will see images of the species that may occur on, near, or transgress across your project. Click on SPECIES GUIDELINES on your top right to see Avoidance and Minimization measures to incorporate into your General Project Design Guidelines.

- Continue with the following steps to comply with the requirements of ESA section 7 to obtain an **official species list**.
- Select Define Project

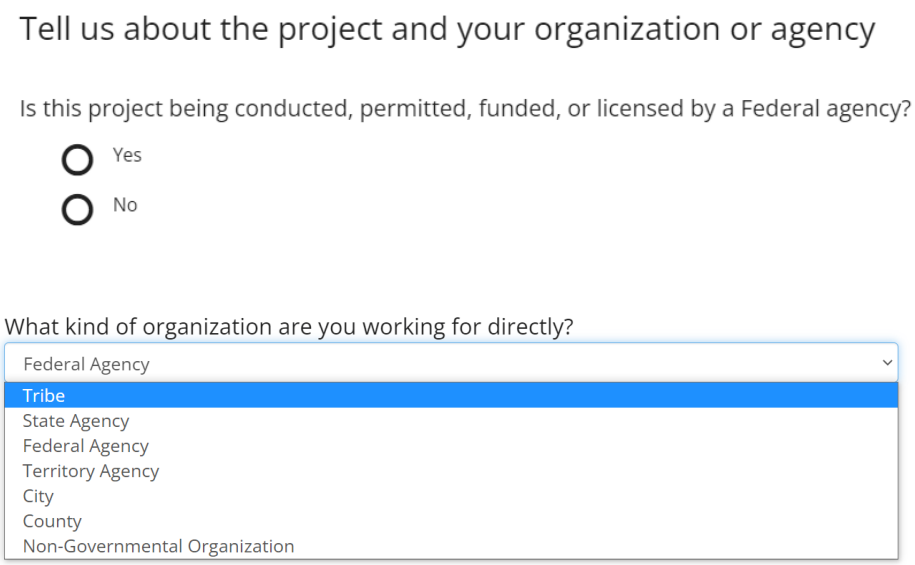
Enter the Project Name and a brief description of the project (a description is not mandatory, but recommended for future coordination with the Service). Click SAVE at bottom of page.

- At the bottom of the What's next box on the right, click Request Species List

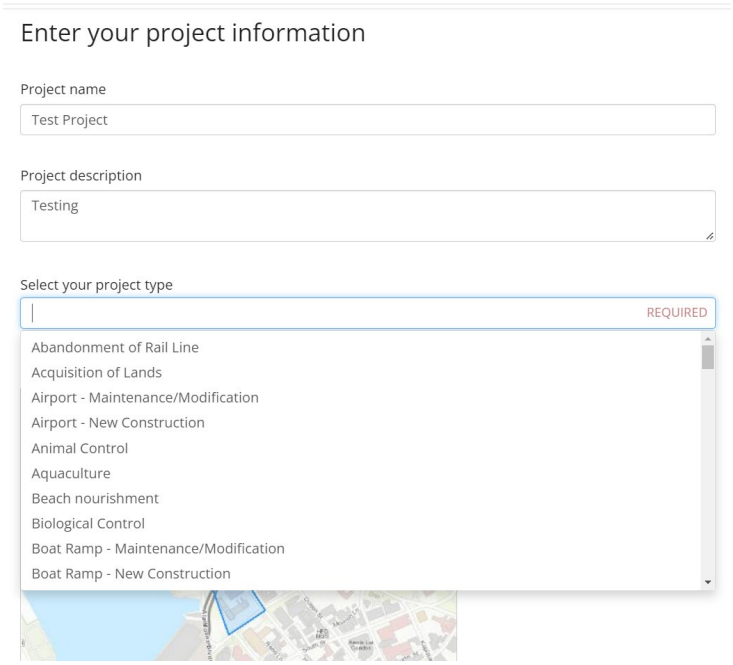
- on the following screen, click Yes, Request Species List



- Fill out the contact information for yourself or your agency. Contractors, state partners, and any other project proponents may request a species list and should be covered using the dropdown menus.



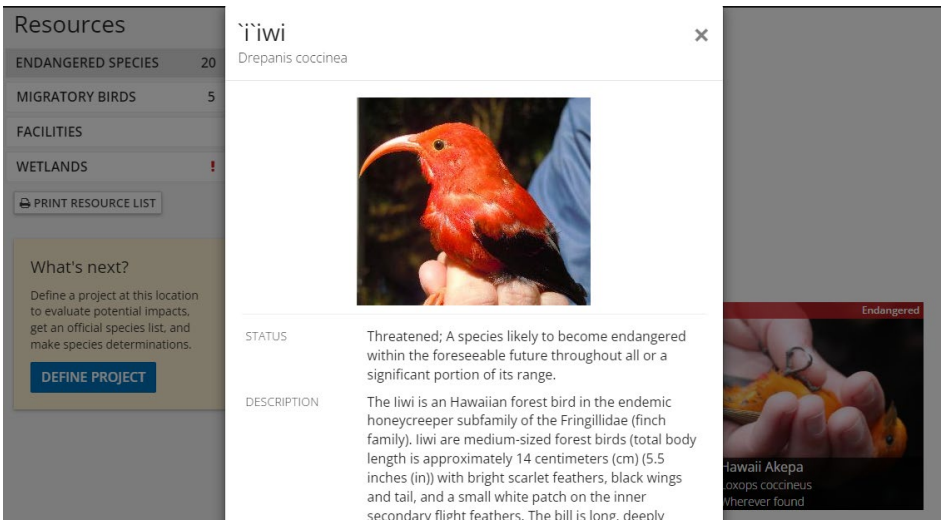
- From the pull-down menu for Classify Type of Project, select the project type that best fits the proposed action.



- Once all required sections are filled out, press SUBMIT OFFICIAL SPECIES LIST REQUEST

- An Official Species List should be generated and available for download in a couple of seconds.

- If you need additional information on a species, click on their name that is hot-linked to their species information page. A brief overview of the species' status, description and critical habitat will appear as well as a link to their ECOS species profile.



STATE OF HAWAIʻI
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT

235 South Beretania Street, 6th Floor, Honolulu, Hawaiʻi 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaiʻi 96804

JOSH GREEN, M.D.
GOVERNOR

MARY ALICE EVANS
ACTING DIRECTOR

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: https://planning.hawaii.gov/

DTS 202304251627NA

May 18, 2023

MEMORANDUM

TO: David Smith, Branch Chief
Division of Forestry and Wildlife
Department of Land and Natural Resources

FROM: Mary Alice Evans, Acting Director Mary Alice Evans

SUBJECT: Honuʻapo Estuary Wetland Restoration Project, Island of Hawaiʻi, Hawaii Scoping and Early Consultation, Honuʻapo Park, Kaʻū District, Southern Hawaiʻi Island; Tax Map Key: (3) 9-5-014: Portion of 007

Thank you for the opportunity to provide early comments on the Honuʻapo Estuary Wetland Restoration Project at the Honuʻapo Park, Kaʻū District, Southern Hawaiʻi Island, via memorandum, received April 25, 2023.

According to the request for early consultation for the preparation of an Environmental Assessment (EA), the State of Hawaii Department of Land and Natural Resources, Division of Forestry and Wildlife proposes to restore the existing approximately 8-acre Honuʻapo Estuary Wetland pond in the Kaʻū District. The proposed project is located within the State Conservation District and Agricultural District, and within the County designated Special Management Area (SMA) under Hawaii Revised Statutes (HRS) Chapter 205A. Use of State lands and State funds are the triggers for the requirement of an EA pursuant to HRS Chapter 343.

The proposed wetland restoration project, which is based on the Wetland Habitat Restoration Plan for Honuʻapo Estuary, includes the following improvements:

- removal of invasive vegetation to improve water quality and quantity as well as habitat function
- creation of deepened water areas by grading for improved habitat productivity and diversity
- revegetation with native plant species to provide natural site conditions for native endemic species
- installation of a predator proof fence
- pedestrian gate and walkway with viewing platforms

The grading from the proposed project would include approximately 9,270 cubic yards of cut and 0.5 cubic yards of fill over a 2.23-acre area of the estuary.

The estimated construction costs for completion of the wetland restoration project are approximately $1.5 million. The project would be phased based on funding availability.

The Office of Planning and Sustainable Development (OPSD) has reviewed the subject early EA consultation request, and has the following comments to offer:

1. The Hawaii Coastal Zone Management (CZM) Law, HRS Chapter 205A, requires all state and county agencies to enforce the CZM objectives and policies. The subject EA should include an assessment with mitigation measures, if needed, as to how the proposed wetland restoration project conforms to each of the CZM objectives and supporting policies set forth in HRS Chapter 205A-2, as amended.

2. The OPSD recommends that the EA specifically discuss the compliance with the requirements of SMA use under County of Hawaii SMA Rules, as amended, for the proposed wetland restoration project by consulting with the County of Hawaii Department of Planning.

3. If the proposed action disturbs one acre or more of land, or involves dewatering discharge activities, the applicant should consult with the Clean Water Branch, State of Hawaii Department of Health, for the requirement of a National Pollutant Discharge Elimination System (NPDES) Permit for the associated construction activities.

4. The OPSD recommends that site-specific erosion control measures shall be implemented to prevent any runoff, sediment, soil and debris potentially resulting from the proposed construction activities, including grading, filling and staging, from adversely impacting the coastal ecosystem and the State waters as specified in Hawaii Administrative Rules Chapter 11-54.

5. Pursuant to Code of Federal Regulations (CFR), 15 CFR 930, if a federal permit or approval, such as an Army Corps of Engineers Permit, is required for the proposed wetland restoration project, a federal consistency review may be required from the OPSD, the Hawaii CZM Program. Please consult with our office on the policies and procedures applicable to CZMA federal consistency reviews, if it is deemed that this proposed action requires federal permitting.

If you have any questions regarding this comment letter, please contact Shichao Li of our office at (808) 587-2841 or by email at shichao.li@hawaii.gov or Debra Mendes at (808) 587-2840 or Debra.L.Mendes@hawaii.gov on CZMA federal consistency matters.

JOSH GREEN, M.D.
GOVERNOR
STATE OF HAWAII
Ke Kia'āina o ka Moku'āina 'o Hawai'i

SYLVIA J. LUKE
LT. GOVERNOR
STATE OF HAWAII
Ka Hope Kia'āina o ka Moku'āina 'o Hawai'i

KALI WATSON
CHAIRMAN, HHC
Ka Luna Ho'okele

KATIE L. DUCATT
DEPUTY TO THE CHAIRMAN
Ka Hope Luna Ho'okele

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
Ka 'Oihana 'Āina Ho'opulapula Hawai'i
P. O. BOX 1879
HONOLULU, HAWAII 96805

April 27, 2023

Refer: PO-23-076

sent electronically to: wbow@bowengineering.com
William Bow
Bow Engineering & Development, Inc.
1953 So. Beretania St., PH-A
Honolulu, HI 96826

Aloha:

Subject: Honu'apo Estuary Wetland Restoration Project, Island of Hawaii
Hawaii Scoping and Early Consultation

The Department of Hawaiian Home Lands acknowledges receiving the request for comments on the above-cited project. After reviewing the materials submitted, due to its lack of proximity to Hawaiian Home Lands, we do not anticipate any impacts to our lands or beneficiaries from the project. However, DHHL recommends consultation with Hawaiian Homestead community associations located within the moku of Puna, district of Ka'u and with other (N)native Hawaiian organizations, to better assess potential impacts to cultural and natural resources, and other rights of Native Hawaiians. A list of DHHL homestead associations can be found at https://dhhl.hawaii.gov/homestead-associations/

Mahalo for the opportunity to provide comments. If you have any questions, please call the Planning Office, at (808) 620-9480 or contact via email at dhhl.planning@hawaii.gov.

Aloha,

Andrew H. Choy
Planning Program Manager

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

May 24, 2023

Bow Engineering & Development, Inc.
Attn: Mr. William Bow
1953 S. Beretania Street, PH-A
Honolulu, Hawaii 96826

via email: wbow@bowengineering.com

Dear Mr. Bow:

SUBJECT: Scoping and Early Consultation for an Environmental Assessment for the Proposed **Honu'apo Estuary Wetland Restoration Project** located at Honu'apo Park, Ka'u District, Island of Hawaii; TMK: (3) 9-5-014:007 on behalf of the Division of Forestry and Wildlife

Thank you for the opportunity to review and comment on the subject matter. The Land Division of the Department of Land and Natural Resources (DLNR) distributed or made available a copy of your request pertaining to the subject matter to DLNR's Divisions for their review and comments.

At this time, enclosed are comments from the (a) Division of Aquatic Resources, (b) Engineering Division, and (c) Land Division-Hawaii District on the subject matter. Should you have any questions, please feel free to contact Darlene Nakamura at (808) 587-0417 or email: darlene.k.nakamura@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Enclosures
cc: Central Files

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

April 26, 2023

MEMORANDUM

TO: **DLNR Agencies:**
X Div. of Aquatic Resources (glenn.r.higashi@hawaii.gov)
__Div. of Boating & Ocean Recreation
X Engineering Division (DLNR.ENGR@hawaii.gov)
__Div. of Forestry & Wildlife
__Div. of State Parks
X Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
X Office of Conservation & Coastal Lands (sharleen.k.kuba@hawaii.gov)
X Land Division – Hawaii District (gordon.c.heit@hawaii.gov)
__Aha Moku Advisory Committee

FROM: Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Scoping and Early Consultation for an Environmental Assessment for the Proposed **Honu'apo Estuary Wetland Restoration Project**
LOCATION: Honu'apo Park, Ka'u District, Island of Hawaii; TMK: (3) 9-5-014:007
APPLICANT: Department of Land and Natural Resources, Division of Forestry and Wildlife

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments by **May 24, 2023.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(☑) Comments are included/attached.

Signed: _____
Print Name: Brian Neilson
Division: State of Hawaii
Date: May 23, 2023

Attachments
cc: Central Files

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL
RESOURCES DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 330
HONOLULU, HAWAII 96813

Date: 05/23/23
DAR # AR6398

MEMORANDUM

TO: Brian J. Neilson
DAR Administrator

FROM: Troy Sakihara TSS, Aquatic Biologist

SUBJECT: Early Consultation for an Environmental Assessment for the proposed Honu'apo Estuary Wetland Restoration Project

Request Submitted by: Russell Y. Tsuji, Land Administrator

Location of Project: Honu'apo Park, Ka'ū District, Hawai'i Island; TMK: (3) 9-5-014:007

Brief Description of Project:

The DLNR Division of Forestry and Wildlife is proposing a restoration project within Honu'apo Park, including County of Hawai'i Whittington Beach Park, in Ka'ū to rehabilitate an existing estuarine and marsh habitat approximately 8 acres in area. The location of the project is within the State Conservation District and Agriculture District. The project area consists of a wetland complex comprised of subtidal, intertidal and palustrine wetland types, the latter of which is mostly covered by dense non-native plants. No surface flowing freshwater streams are located in the area. However, there is measurable groundwater discharging within the estuary and wetland habitat.

Comments:

☐ No Comments ☒ Comments Attached

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the project plan, DAR requests the opportunity to review and comment on those changes.

Comments Approved: _____ Date: May 23, 2023

Brian J. Neilson
DAR Administrator

DAR# AR6398

Brief Description of Project

The main activities of the proposed project include the removal of invasive vegetation to improve water circulation, water quality and habitat function, create deepened water areas to improve habitat for native plants and animals, out-planting of native species to provide natural conditions for native species, installation of a predator-proof fence, and construction of a pedestrian gate and walkway with viewing platforms. These objectives are based on the Wetlands Habitat Restoration Plan for Honu'apo Estuary.

Based on the conceptual plan, two habitat types are to be created and enhanced by modifications made to the topography in the intertidal zone. This includes 9,270 cubic yards that are to be cut and 0.5 cubic yards filled over 2.23 acres in the estuary. This is intended to result in frequent inundation over mudflat areas across diurnal tidal cycles to improve foraging and grazing areas for native birds. Further, these actions should mitigate the recruitment and re-establishment of invasive vegetation in these areas. Grading is also expected to create deeper water pools that are to be perennial, creating more brackish water habitat for native estuarine species and native water fowl.

The primary objective of the project is to rehabilitate the estuarine and wetland habitat to improve and restore natural function of said habitat for native plants and animals, particularly migratory bird species. The project also aims to enhance aquatic habitat for native fish, turtles and other native aquatic flora and fauna, while considering estimated sea level rise. In addition, educational and recreational use of the area are to be improved, and cultural and historical values of the area are to be preserved through this project.

Various Federal, State and County permits may be required for this project.

DAR# AR6398

Comments

In 2007, the DAR conducted a series of estuary cast net samples in the Honu'apo estuary as part of a broader statewide estuarine habitat characterization project. A total of 21 fish and invertebrate species were recorded, consisting of a mix of native and non-native invasive species. However, the relative abundance of invasive species comprised 79% of all samples with poeciliids (topminnows) being the dominant species (67%). Invasive Kanda, Osteomugil engeli, and non-native snails Melanoides tuberculata, were also common and consistently recorded. The most abundant native species was 'ōpae huna, Palaemon debilis. All estuarine species that were recorded in the Honu'apo estuary are not uncommon in Hawaiian estuarine or brackish habitats. Further, the dominance of invasive estuarine species is consistent with species compositions in other impacted estuaries surveyed by DAR. Benthic composition within the estuary consisted almost entirely of sediment and boulder.

Estuarine habitats dominated by non-native and invasive vegetation, or those that have been significantly altered from natural conditions, have shown to support non-native estuarine species at other estuarine sites. In contrast, native and naturally functioning estuaries with unimpeded or unaffected freshwater/saltwater connection, circulation, flow and water quality facilitate the recruitment and survival of native species. Accordingly, despite the Honu'apo estuarine species composition being described from 2007 by DAR, it is unlikely the species composition has significantly changed since then given the persistent dominance of invasive vegetation in and around the area. However, the DAR anticipates a measurable improvement in estuarine habitat conditions from the proposed project, and over time, expect increases in relative abundance and composition of native estuarine species as a result. This aligns with one of DAR's goals to improve and restore aquatic habitats and ecosystems to naturally thriving conditions.

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

April 26, 2023

MEMORANDUM

FROM: ~~TO:~~

DLNR Agencies:
X Div. of Aquatic Resources (glenn.r.higashi@hawaii.gov)
___Div. of Boating & Ocean Recreation
X Engineering Division (DLNR.ENGR@hawaii.gov)
___Div. of Forestry & Wildlife
___Div. of State Parks
X Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
X Office of Conservation & Coastal Lands (sharleen.k.kuba@hawaii.gov)
X Land Division – Hawaii District (gordon.c.heit@hawaii.gov)
___Aha Moku Advisory Committee

TO: ~~FROM:~~ Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Scoping and Early Consultation for an Environmental Assessment for the Proposed **Honu'apo Estuary Wetland Restoration Project**
LOCATION: Honu'apo Park, Ka'u District, Island of Hawaii; TMK: (3) 9-5-014:007
APPLICANT: Department of Land and Natural Resources, Division of Forestry and Wildlife

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments by **May 24, 2023.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(✓) Comments are included/attached.

Signed: *[signature]*
Print Name: Carty S. Chang, Chief Engineer
Division: Engineering Division
Date: May 16, 2023

Attachments
cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Y. Tsuji

Ref: Scoping and Early Consultation for an Environmental Assessment for the Proposed Honu'apo Estuary Wetland Restoration Project
Location: Honu'apo Park, Ka'u District, Island of Hawaii
TMK(s): (3) 9-5-014:007
Applicant: Department of Land and Natural Resources, Division of Forestry and Wildlife

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high-risk areas). State projects are required to comply with 44CFR regulations as stipulated in Section 60.12. Be advised that 44CFR, Chapter 1, Subchapter B, part 60 reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may stipulate higher standards that can be more restrictive and would take precedence over the minimum NFIP standards.

The owner of the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood Hazard Zones are designated on FEMA's Flood Insurance Rate Maps (FIRM). The official FIRMs can be accessed through FEMA's Map Service Center (msc.fema.gov). Our Flood Hazard Assessment Tool (FHAT) (http://gis.hawaiinfip.org/FHAT) could also be used to research flood hazard information.

If there are questions regarding the local flood ordinances, please contact the applicable County NFIP coordinating agency below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7139.
- Kauai: County of Kauai, Department of Public Works (808) 241-4896.

Signed: 
CARTY S. CHANG, CHIEF ENGINEER

Date: May 16, 2023

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
Office of Conservation and Coastal Lands
P.O. BOX 621
HONOLULU, HAWAII 96809

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

LAURA H.E. KAAKUA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

REF: OCCL: TF

COR: HA 23-178

May 23, 2023

William Bow
Bow Engineering & Development, Inc.
1953 South Beretania Street, PH-A
Honolulu, HI 96826

SUBJECT: Scoping and Early Consultation for an Environmental Assessment for the Proposed Honuapo Estuary Wetland Restoration Project
Located at Honuapo Park
Por. of Hionaa - Honuapo, Kau, Island of Hawaii
Tax Map Key (TMK): (3) 9-5-014:007

Dear William Bow:

The Office of Conservation and Coastal Lands (OCCL) has reviewed the Division of Forestry and Wildlife's (DOFAW) memo and attachments regarding the subject matter. According to the memo, DOFAW is proposing to rehabilitate ±8-acres of Honuapu Estuary Wetland Pond at the Honuapo Park. The memo states that the subject parcel is owned by the State of Hawaii and managed by the County of Hawaii Department of Parks and Recreation as part of the Honuapo Park along with Ka Ohana O Honuapo, a non-profit community group. The memo notes that the proposed wetland restoration project improvements are based on the County of Hawaii's 2011 conceptual restoration plan *Wetlands Habitat Restoration Plan for Honuapo Estuary* and includes the following proposed work:

- Removal of invasive vegetation to improve water quality and quantity as well as habitat function
- Creation of deepened water areas for improved habitat productivity and diversity
- Revegetation with native plants species to provide natural site conditions for native endemic species
- Installation of a predator proof fence
- Pedestrian gate and walkway with viewing platforms

The memo states that the creation of deepened water areas will involve the altering of the topography of the intertidal zone by grading. The proposed grading would include approximately 9,270 cubic yards of cut and 0.5 yards of fill over a 2.23-acre area of the estuary/pond. The ground surface in these areas would be lowered to finished elevations that will result in frequent inundation by high tides. Forage habitat would also be created on the mudflat areas that are currently covered with ground cover. The memo notes that these proposed modifications are expected to increase productivity of food sources used by

wading birds such as the Hawaiian coot and other diving and dabbling birds and help prevent recruitment of invasive plants back onto the mudflats.

A Draft Environmental Assessment (DEA) is being prepared for the proposed Honuapo Estuary Wetland Restoration Project pursuant to Hawaii Revised Statutes (HRS) Chapter 343 to comply with state environmental laws and regulations. On behalf of DOFAW, you are requesting comments on the proposed project in advance of preparing its DEA.

The OCCL regulates land uses in the State Land Use Conservation District through the issuance of Conservation District Use Permits and Site Plan Approvals to help conserve, protect, and preserve important natural and cultural resources. In this particular area, it appears that the approximate State Land Use Agricultural/Conservation District boundary follows the fishpond as it existed in 1969 and is subject to a valid certified shoreline according to Land Use Commission (LUC) Boundary Interpretation (BI) HA 00-44. A cursory review of the Department of Accounting and General Services (DAGS) Land Survey's website and certified shoreline maps (https://ags.hawaii.gov/survey/certified-shoreline-maps/) appears to indicate that the shoreline in this area was certified on February 18, 2005, and follows along in some sections the debris line; top of pond bank; and along the highwater mark as evidenced by the edge of vegetation and/or edge of sand as located on July, 6, 2004. The 2005 certified shoreline places the fishpond at Honuapo on submerged lands owned by the State of Hawaii. Based on the above, the OCCL notes that it appears portions of the subject parcel and project area lie in the Resource Subzone of the State Land Use Conservation District.

DOFAW may want to consider consulting with the LUC ((808) 587-3822) regarding the need to obtain a certified shoreline and more accurate BI. A more precise BI may help establish jurisdictional authority for the proposed project area.

According to OCCL files, staff provided DOFAW via an email, noted as COR: HA 15-105, a summary of potential Conservation District authorization processes for the proposed Wetlands Habitat Restoration Plan for Honuapo Estuary on December 18, 2014. It was noted that the project could be applied for through either the Loko Ia (fishpond) application or a Conservation District Use Application (CDUA). The correspondence stated that both potential applications processes would appear to require consultation with the LUC to determine the boundaries of the Conservation District and Land Division regarding the need for a land disposition.

On July 26, 2019, the OCCL approved Loko Ia permit HA: 19-02 under the state-wide Hoala Loko Ia Conservation District Use Permit (CDUP) ST-3703 for restoration work on the fishpond at Honuapo by the non-profit hui of Ka Ohana O Honuapo. Approved restoration work included the manual removal of sediment and vegetation overgrowth, the planting of native plant species, water quality monitoring, the repair and reconstruction of the kuapa (seawall(s)), and the manual removal of invasive fish species with nets.

Additionally, correspondence letter CORR: HA 19-197 was sent to Engineering Division (ENG) regarding ENG's memo and request for advice on Conservation District permitting requirements regarding DOFAW's proposed Honuapo Estuary Wetland Restoration project on July 26, 2019. The response stated that the creation or "sculpting of deepened water areas" in the fishpond at Honuapo would trigger the need for a Conservation District Use Permit from the Board of Land and Natural Resources (BLNR) pursuant to Hawaii Administrative Rules (HAR) §13-5-24 R-5 MARINE CONSTRUCTION (D-1) *Dredging, filling, or construction on submerged lands, including construction of harbors, piers, marinas, and artificial reefs*. The letter noted that the local community group Ka Ohana O Honuapo had recently secured a permit through the Hoala Loko Ia program for restoration work on the pond which included the manual restoration of the kuapa (interior pond walls), manual removal of invasive vegetation and planting of native species, and the manual removal of sediment. The possibility of DOFAW to consider working with Ka

Ohana O Honuapo regarding DOFAW's Honuapo Estuary Wetland Restoration project and associated work was also put forward in OCCL's response to ENG's memo.

Based on this history outlined above and the information you have provided, OCCL stands by our previous application guidance regarding DOFAW's proposed Honuapo Estuary Wetland Restoration Project. It appears that some of the proposed work is consistent with work that was approved by the existing Loko Ia permit HA: 19-02 while the proposed predator proof fence, pedestrian gate, walkway with viewing platforms, and grading/creation of deepened water areas within the pond on submerged lands will require additional information, review, and potentially authorization from the Department or BLNR. The current rules and regulations of the Conservation District, noted as Hawaii Administrative Rules (HAR) Chapter 13-5, as well as proposed amendments can be found at https://dlnr.hawaii.gov/occl/rules/ .

Applications for proposed land uses require the signature of the landowner(s). It appears DOFAW may want to consider consulting with Land Division regarding the creation of deepened water areas on State submerged lands and the need for a land disposition and/or lease for DOFAW, the County of Hawaii, and Ka Ohana O Honuapo to co-manage the fishpond area.

The OCCL requests that DEA discuss fishpond restoration at Honuapo and its compatibility with DOFAW's proposed Honuapo Estuary Wetland Restoration Project. Additionally, there is the appearance that there may be the potential for conflict between existing and proposed users and uses at the site. It also appears that traditional and cultural practices may be conducted in the area. The DEA should contain a section discussing the proposed project's potential impacts to the existing users and uses of the area and potential mitigation measures that shall be implemented.

The letter notes that one of the secondary objectives of the Honuapo Estuary Wetland Restoration Project is to accommodate sea level rise. The DEA should contain projections for sea level rise in relation to the project area and describe how lateral access along the shoreline will be maintained.

Should you have any questions, feel free to contact Trevor Fitzpatrick of the Office of Conservation and Coastal Lands at (808) 798-6660 or trevor.j.fitzpatrick@hawaii.gov .

Sincerely,

(for)
Michael Cain, Administrator
Office of Conservation and Coastal Lands

CC: *Hawaii Division Land Office*
Land Use Commission
County of Hawaii Planning Department

Mitchell D. Roth
Mayor

Benjamin T. Moszkowicz
Police Chief

County of Hawai`i

POLICE DEPARTMENT
349 Kapi'olani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-2389

April 28, 2023

Mr. David Smith
Branch Chief
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 325
Honolulu, HI 96813

Dear Mr. Smith:

SUBJECT: HONU'APO ESTUARY WETLAND RESTORATION PROJECT, ISLAND OF HAWAII, HAWAII SCOPING AND EARLY CONSULTATION

This is in response to your memorandum regarding the Honu'apo Estuary Wetland restoration project. The preliminary project description and figures have been reviewed and we offer no comments at this time.

Should you have questions, please contact Captain Akira Edmoundson, Commander of the Ka'u District, at (808) 939-2520, or via email at akira.edmoundson@hawaiicounty.gov.

Sincerely,

BENJAMIN T. MOSZKOWICZ
POLICE CHIEF

for

CHAD BASQUE
ASSISTANT POLICE CHIEF
AREA II OPERATIONS

AE/jaj
23HQ0545

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

May 5, 2023

Mr. William Bow
Bow Engineering and Development, Inc.
1953 South Beretania Street, PH-A
Honolulu, HI 96826

Dear Mr. Bow:

Subject: Pre-Environmental Assessment Consultation for Honu'apo Estuary Wetland Restoration Project Tax Map Key (3) 9-5-014:007

We have reviewed your Pre-Environmental Assessment Consultation letter, dated April 25, 2023.

We have no comments or objections as there are no Department of Water Supply facilities in the area.

Should there be any questions, please contact Mr. Ryan Quitoriano of our Water Resources and Planning Branch at (808) 961-8070, extension 256.

Sincerely yours,

Keith K. Okamoto, P.E.
Manager-Chief Engineer

RQ:dfg

copy – State of Hawai'i , Department of Land and Natural Resources,
Division of Forestry and Wildlife

From: Galimba, Michelle M.
To: William Bow
Cc: Loa, DeEtte (Kea); Pedro, Shayamae; afsheen.a.siddiqi@hawaii.gov; Megan Lamson Leatherman
Subject: Re: External: Honu'apo Wetland Restoration
Date: Monday, May 8, 2023 7:05:11 AM

Hi William,

Thanks for this. I'm adding Megan Lamson so she can be in the loop.

Another org that I would also suggest to send a letter to is O Ka'u Kakou, which is a local service organization. Also the Ka'u Community Development Plan Action Committee, which is administered by the County's Planning Department.

I would suggest that you schedule a community meeting as soon as possible and to very carefully design the meeting in consultation with KOOH to make sure you can explain the project in ways that are meaningful to the community. I think it's important to have something scheduled even if it isn't until next month or later, just so that people know that there will be a meeting.

Even before the public community meeting I would suggest having small group meetings with the groups you have listed, in person if possible or by Zoom so that you can get some feedback from the community at a smaller scale.

An FYI - Ka'u is the district rather than a town, so I think you mean that you will plan to do a meeting in Pahala and Na'alehu - those are the two closest towns.

Michelle M. Galimba
Councilmember, District Six
Hawai'i County Council

From: William Bow <WBow@bowengineering.com>
Sent: Friday, May 5, 2023 10:54 AM
To: Galimba, Michelle M.
Cc: Loa, DeEtte (Kea); Pedro, Shayamae; afsheen.a.siddiqi@hawaii.gov
Subject: RE: External: Honu'apo Wetland Restoration

Hi Michelle,

Thanks for giving me a call to discuss the project. As discussed, this first mailout was for early-consultation. We are moving into writing the draft EA which involves a lot of research to analyze various potential impacts. I do agree with you, that the more involvement the community has, the more likely the project will proceed smoothly.

We are looking at doing 1-2 days of community meetings (Ka'u and Na'alehu) and having opportunities for extended comment periods before and after the Draft EA is published. If you have any suggestions, then please let us know.

The early consultations were sent out to the following groups:

- Hana Laulima Lahui o Kaʻu (Neighborhood Board)
- Hawaiian Civic Club of Kaʻu (Neighborhood Board)
- Ala Kahakai Trails Association (Neighborhood Board)
- Na Mamo o Kawa

I believe these were suggestions that came from Ka 'Ohana O Honu'apo. If you have any other groups that should be included in our correspondence list, then please let me know. You are also able to share the contents of the mailout with whomever you wish. We approach these projects with the intention of having no secrets and open-communication that meets or exceeds the required public engagement.

Thanks,

William F. Bow, M.S.
Vice President
Environmental Director / Chemist

Bow Engineering & Development, Inc.
1953 S. Beretania Street, PH-A
Honolulu, HI 96826

Office: 808-941-8853 x117
Direct: 808-369-8217
Cell: 808-371-0676
www.bowengineering.com

From: William Bow
Sent: Thursday, May 4, 2023 2:21 PM
To: Galimba, Michelle M. <Michelle.Galimba@hawaiicounty.gov>
Cc: Loa, DeEtte (Kea) <Kea.Loa@hawaiicounty.gov>; Pedro, Shayamae <Shayamae.Pedro@hawaiicounty.gov>; afsheen.a.siddiqi@hawaii.gov

Subject: RE: External: Honu'apo Wetland Restoration

Good afternoon Ms. Galimba,

I just left you a voicemail and am looking forward to connecting with you. We definitely want as much feedback as possible in the early stages of the project so we can best communicate the objectives of the project with the community.

Please feel free to call my cell (below). If I am in a meeting or out in the field, then there is a better chance that I can step away to receive your call.

Thanks,

William F. Bow, M.S.
Vice President
Environmental Director / Chemist

Bow Engineering & Development, Inc.
1953 S. Beretania Street, PH-A
Honolulu, HI 96826

Office: 808-941-8853 x117
Direct: 808-369-8217
Cell: 808-371-0676
www.bowengineering.com

From: Galimba, Michelle M. <Michelle.Galimba@hawaiicounty.gov>
Sent: Thursday, May 4, 2023 10:19 AM
To: afsheen.a.siddiqi@hawaii.gov; William Bow <WBow@bowengineering.com>
Cc: Loa, DeEtte (Kea) <Kea.Loa@hawaiicounty.gov>; Pedro, Shayamae <Shayamae.Pedro@hawaiicounty.gov>
Subject: External: Honu'apo Wetland Restoration

Aloha Mr. Siddiqi,

I am reaching out in regard to the early consultation letter for the EA for the Honu'apo Wetland Restoration Project. I have some questions concerning the project and especially the community engagement planned as this will certainly be a controversial project. If you would like you could give me a call at your convenience on my cell at 808 430- 4927 or we could set up a time for a call or Zoom with Mr. Bow as well.

Mahalo,
Michelle M. Galimba
Councilmember, District Six
Hawai‘i County Council

APPENDIX A-2

Draft EA Comment Letters

APPENDIX A-2

DRAFT ENVIRONMENTAL ASSESSMENT COMMENT LETTERS

Notification of the availability of the Draft EA was published in the October 8, 2025, *The Environmental Notice*. During the 30-day public comment period ending November 7, 2025, agencies, organizations, and individuals were provided the opportunity to comment on the proposed project. Those that provided written comments (either by hard copy or electronically) are listed below. This Final EA has incorporated additional information in response to comments on the Draft EA.

STATE AGENCIES

Department of Health, Clean Air Branch

Office of Planning & Sustainable Development

Department of Land and Natural Resources – Division of Aquatic Resources

Department of Land and Natural Resources – Engineering Division

Department of Land and Natural Resources – Office of Conservation and Coastal Lands

Department of Land and Natural Resources – Historic Preservation Division

COUNTY OF HAWAIʻI

Planning Department

COMMUNITY

Richard Oba

The comment letters and a summary of the comments and responses are included below.

Table A-2.1. Summary Draft EA Comments and Responses

Comment #	Date	Agency	Discussion
Comment A	12/8/2025	U.S. Department of the Interior, Fish and Wildlife Service	
A-1		The comment states that NEPA compliance requirements have not been determined, and recommends that a sentence in the EA should be deleted.	The sentence has been deleted in the Final EA as recommended.
A-2		The comment clarifies that while there was USFWS funding previously, there is no current funding from the Pacific Office for the restoration project.	The Final EA has been revised to reflect this information.
A-3		The comment notes some discrepancies among the descriptions in the Draft EA regarding connectivity between the Honuʻapo Estuary and the ocean.	The Final EA has been revised to adddress these discrepancies.
A-4		The comment notes that there is no mention of a plan to remove non-native fish species. The comment recommends including a plan to remove these species, and avoidance measures to protect native species.	In the EA Section 3.4, *Biological Resources*, a management recommendations for the the orangeblack Hawaiian damselfly includes consultation with the State of Hawaiʻi's Aquatic Invasive Species program on methods to remove non-native fish from the estuary. While there is no current plan to remove non-native, predatory fish species, KOOH may use fish nets to remove these fish during work days on the fishpond.
A-5		The comment asks for clarification regarding vegetation removal and native plantings.	The identified paragraph has been revised and reorganized in the Final EA to clarify the description. As stated in the Draft and Final EA, native plant species present within the wetland area include makaloa, and the native ʻakaʻakai or nānaku is found in the intertidal and palustrine zones near the freshwater seeps and springs. The ʻahuʻawa is a flood tolerant native plant that can be used along water banks to control erosion and is used as nesting material and shelter by native waterfowl.
A-6		The comment requests additional discussion of the habitat requirements of the different species of waterbirds and how they will be improved with the project. The comment requests identification of existing native vegetation and that to be used in the restoration process.	The Final EA Section 2.2, *Description of the Proposed Action*, has been revised to include an introductory discussion of the benefits of restoration to native waterbirds.

Comment #	Date	Agency	Discussion
Comment B	11/6/2025	Hawai'i Office of Planning & Sustainable Development	
B-1		OPSD recommends that the EA specifically discuss the compliance with the requirements of SMA use and shoreline setbacks by consulting with the County of Hawai'i Planning Department. The Final EA should confirm whether a new certified shoreline will be required for the project.	Following consultation with the County of Hawai'i Planning Department during circulation of the Draft EA, it was concluded that an updated certified shoreline would be required to determine if there are any shoreline changes due to the fishpond wall installation. A new certified shoreline will be completed prior to submittal of the SMA permit and Shoreline Setback Variance application. Compliance with the SMA and shoreline setback requirements are discussed in the Final EA Section 3.12, *Conformance with State and Local Plans, Policies, and Land Use Controls*.
B-2		A federal consistency review may be required from the Hawai'i CZM Program. Please consult with OPSD on the policies and procedures applicable to CZM Act federal consistency reviews.	Comment noted. Consultation with the State of Hawai'i Office of Planning will occur during the permitting process with the U.S. Army Corps of Engineers for CZM federal consistency review.
Comment C	7/3/2024	Hawai'i Department of Health, Clean Air Branch	
C-1		The letter provides Standard Comments for Land Use Reviews relating to: a required Air Pollution Control Permit; construction or demolition activities that involve asbestos; and whether the project has the potential to generate fugitive dust.	As set forth in Section 3.6, *Air Quality and Climate*, dust control measures to minimize fugitive dust during construction will be implemented, and all construction work will be in conformance with the air pollution control standards contained in Title 11, Chapter 59, HAR, "Ambient Air Quality Standards," and Chapter 60, "Air Pollution Control," which would minimize air quality emissions. No changes to the EA are necessary.
Comment D	10/17/2025	Hawai'i DLNR, Division of Aquatic Resources	
D-1		The letter states that DAR anticipates the project will benefit aquatic resources in addition to waterbirds. DAR has initiated a similar project, and states that they look forward to working with DOFAW in the shared interest of restoring wetlands.	Comment noted.
Comment E	10/17/2025	Hawai'i DLNR, Engineering Division	
E-1		No comment.	No response necessary.

Comment #	Date	Agency	Discussion
Comment F	11/04/2025	Hawai‘i DLNR, State Historic Preservation Division	
F-1		The comment states that SHPD has previously received information from community members that there are burials somewhere at Honu‘apo, but that SHPD is unaware of where the burials may be.	Comment noted. As included in the EA Section 3.5, *Historic, Archaeological, and Cultural Resources*, the unlikely event that during project implementation bones are encountered that could be iwi kūpuna (Native Hawaiian ancestral remains), all earth moving activities in the area should stop, the area be cordoned off, and the SHPD notified pursuant to Section 13-300, HAR.
Comment G	11/06/2025	Hawai‘i DLNR, Office of Conservation and Coastal Lands	
G-1		The comment letter states that it appears portions of the project area lie within the Resource Subzone of the State Land Use Conservation District.	Comment noted. This information is included in the Final EA, Section 3.12, *Conformance with State and Local Plans, Policies, and Land Use Controls*.
G-2		The comment states that the proposed restoration work is consistent with the Loko I‘a Conservation District Use Permit. Work as part of the project would require filing a Loko I‘a application, and a Pollution and Erosion Control Plan since the project includes mechanical dredging and mechanical removal of vegetation.	Comment noted. This information is included in the Final EA, Section 3.12, *Conformance with State and Local Plans, Policies, and Land Use Controls*.
G-3		The comment states that the construction of the predator proof fence, pedestrian gate, and walkway with viewing platforms would require additional review and potential authorization from the Department or the BLNR.	Comment noted. This information is included in the Final EA, Section 3.12, *Conformance with State and Local Plans, Policies, and Land Use Controls*.
G-4		The comment requests the Final EA include the acreage of the proposed use in the Conservation District.	Comment noted. This information is included in the Final EA, Section 3.12, *Conformance with State and Local Plans, Policies, and Land Use Controls*.
G-5		The comment asks what the percent change of the dimensions of the historic fishpond that is being proposed with the grading and grubbing activities.	There would be no substantive change in the boundaries of the historic fishpond. Grading at the fishpond would allow for frequent inundation by high tides and would remove sediment from the pond to create areas of different habitat types.
G-6		The comment requests that the landowners of the nearby Kuleana parcels are contacted regarding the proposal.	Based on existing records, DLNR has determined that the subject five (5) kuleana lands and former School Grant 5, Apana 8, included in the Honu‘apo Estuary Wetlands set aside under Executive Order No. 4164 are owned by the State of Hawai‘i.

Comment #	Date	Agency	Discussion
G-7		The comment notes that tree removal in the Conservation District requires replacement with trees that are appropriate to the site with preference to endemic or indigenous trees to Hawai‘i.	The proposed project would remove invasive plant species in the project area and replace them with native vegetation. DOFAW will work with the OCCL to finalize replacement native plantings in the Conservation District appropriate to the estuary project site.
G-8		The comment requests additional information regarding the dimensions of predator fencing, pedestrian walkway, gate, and viewing platforms to determine what permits will be required.	Additional information regarding estimated dimensions and typical features of the predator fencing, pedestrian walkway, and viewing platforms have been included in Section 2.2, Description of the Proposed Action.
G-9		The comment asks what predator control methods are currently being used.	Existing predator control includes mongoose / rat traps as installed by KOOH. See Section 2.1 Environmental Setting, Restoration and Community Participation of the Final EA.
G-10		The comment asks what was said during consultation with various community groups.	As described in the EA Section 1.4, several meetings were held with community group Ka ‘Ohana O Honu‘apo. These meetings included a review of past restoration efforts and current work under the loko i‘a permit. KOOH also described monthly outreach and work events. A summary of the work completed for the 2011 Restoration Plan are reviewed in Sections 2.1 and 6.2 of the EA.
G-11		The comment states that if the predator fence is constructed up to the water’s edge, the project must include provisions to ensure that beach transit corridors abutting their lands shall be kept passable.	As noted in the EA, project plans are being updated to construct the fence up to the water’s edge at the mouth of the estuary and into the water so predators cannot get around it and enter the wetland. Due to its location at the mouth of the estuary, the fence would not restrict overall access to the shoreline.
Comment H	11/07/2025	County of Hawai‘i Planning Department	
H-1		The comment summarizes land use information included in the Draft EA.	Comment noted.
H-2		The comment states that the Draft EA references an outdated shoreline survey that will need to be updated and submitted with the SMA.	As noted in the Final EA, a new certified shoreline will be completed prior to submittal of the SMA permit and Shoreline Setback Variance application.
H-3		The comment states that once the shoreline is re-certified, a detailed site plan showing all proposed work within the shoreline setback area would be required.	Following completion of the new certified shoreline, the site plan would be revised to show all proposed work within the shoreline setback area.

Comment #	Date	Agency	Discussion
H-4		The comment requests clarification on the exact location for rinsing and decontaminating heavy equipment, tools, and footwear, and whether decontamination will occur at all ingress/egress points.	The rinse station would be located at designated ingress and egress points to the estuary.
H-5		The comment notes that the project site is within the boundaries of the Kaʻū Community Development Plan, and requests a discussion of how the project aligns with the goals and policies addressing cultural resource restoration and public access.	Additional discussion has been included in Final EA Section 3.12, *Conformance with State and Local Plans, Policies, and Land Use Controls*, regarding consistency with the Kaʻū Community Development Plan.
H-6		The comment requests additional detail regarding dimensions, finished elevations, materials, and construction methods for the proposed walkways and viewing platforms. The comment requests this to allow assessment of potential visual, environmental, and access impacts.	Additional information regarding estimated dimensions and typical features of the predator fencing, pedestrian walkway, and viewing platforms have been included in Section 2.2, *Description of the Proposed Action*.
H-7		The comment requests that the Draft EA provide a clear schedule and description of each project phase, including anticipated start and completion dates.	Information regarding phasing and project start dates has been added to the Final EA.
H-8		The comment requests information regarding access control of the predator fence pedestrian and vehicle gates. Open or locked during certain times, who will have access.	Two gates would be installed to allow pedestrian access, with one at the southwest end of the pond, nearing the parking area, and another along the northeastern end of the enclosing fence. A gate for vehicular access would be located along the inland side of the fence. Currently, there is no specified access control or restriction.
H-9		The comment requests signage at each entrance.	Signage regarding hours of operation and access shall be installed at the entry and egress gates.
H-10		The comment requests Shoreline Access and Coastal Hazard Warning signs installed, and indication of where the signage would occur.	Coastal Hazard Warning signs shall be installed as determined appropriate.
H-11		The comment requests clarification of the types of dredging that would occur, including manual dredging and mechanical dredging, and under what circumstances.	Once permits are issued, mechanical dredging would be the preferred method to remove sediment from the pond. Manual dredging would occur with community events to clear the springs.
H-12		The comments requests additional information regarding consultation with the United States Army Corps of Engineers (USACE) and whether the pond is considered "waters of the US".	The USACE has established permitting jurisdiction for the Honuʻapo wetland pond. In accordance with 33 CFR 328.3(a)(4), the wetland pond is located adjacent to "territorial seas", and would be considered Waters of the United States. The DOFAW has submitted permit application to USACE, and they are currently in process.

Comment #	Date	Agency	Discussion
H-13		The comment requests confirmation that ownership issues have been fully resolved, and provide documentation if available, including maintenance responsibilities for project features.	The agreement document between DLNR, County Parks, and KOOH is not fully executed and is still pending approval.
I	11/9/2020	Richard Oba	
I-1		The comment requests public access to the estuary be built as part of the restoration, and the addition of a pier or access for watercraft would be a good addition.	Comment is noted. Public access to the site would be allowed via two gates for pedestrian access, one at the southwest end of the pond, nearing the parking area, and another along the northeastern end of the enclosing fence. The State DLNR will consider the views expressed in these comments in their review and actions on the proposed wetland improvements project. Because the comment does not raise any concerns regarding the content or environmental conclusions of the Draft EA, no changes to the EA are necessary.

APPENDIX B

Grading and Construction Plans

(Available upon Request)

APPENDIX C

Soil Sampling Characterization Report

(Available upon Request)

APPENDIX D

Storm Drainage Analysis

(Available upon Request)

APPENDIX E

2022 Biological Resources Update for Honu‘apo Estuary

(Available upon Request)

APPENDIX F

Draft Archaeological Literature Review

(Available upon Request)

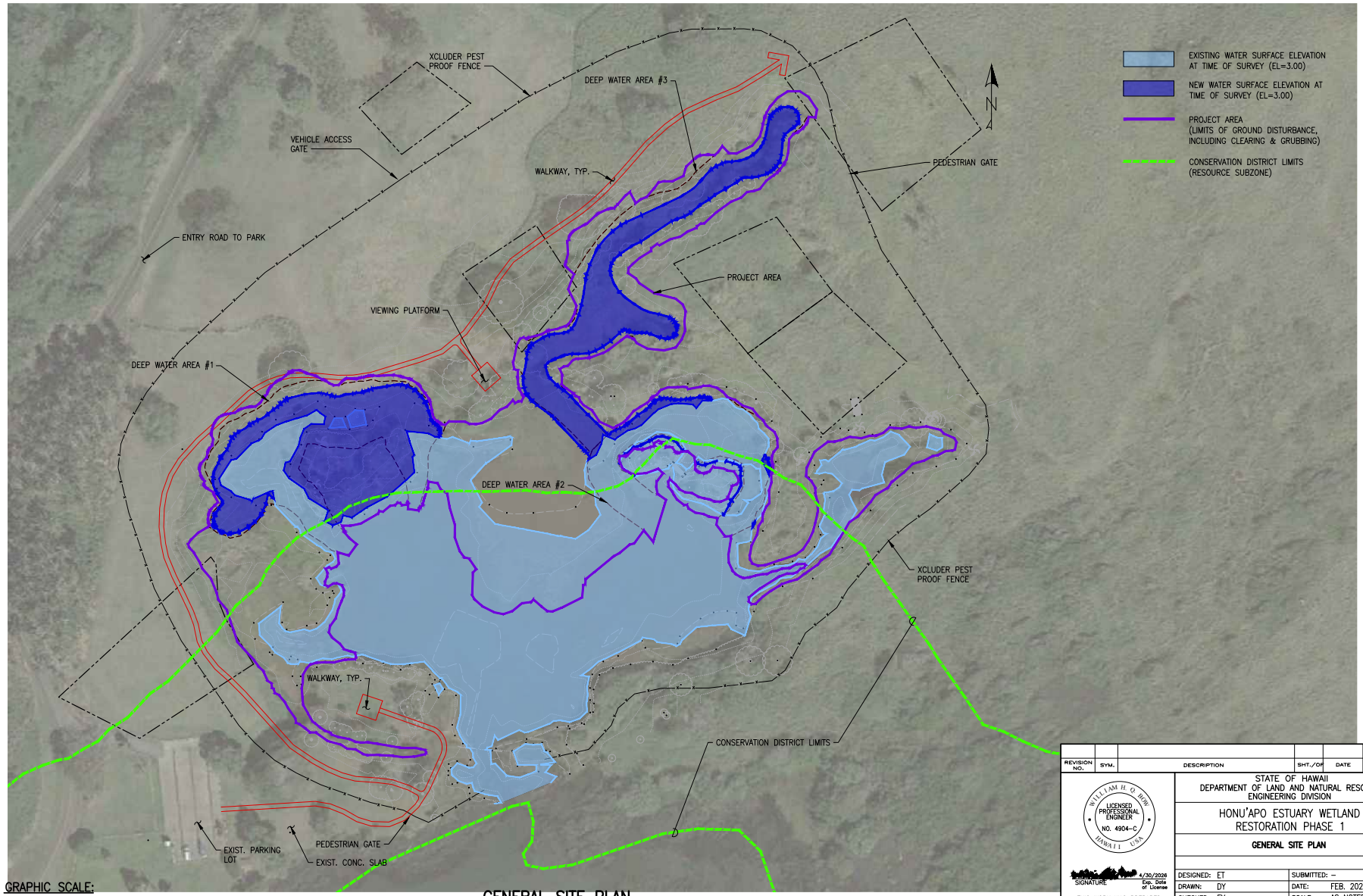
APPENDIX G

Certified Shoreline Survey

(Available upon Request)

APPENDIX H

Project Area in the Conservation District



GRAPHIC SCALE:

60 30 0 60 120

1" = 60'

GENERAL SITE PLAN

SCALE: 1" = 60'

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED

WILLIAM H. O. HOW LICENSED PROFESSIONAL ENGINEER NO. 4904-C HAWAII, USA

SIGNATURE 4/30/2026 Exp. Date of License

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

HONU'APO ESTUARY WETLAND RESTORATION PHASE 1

GENERAL SITE PLAN

DESIGNED: ET	SUBMITTED: –
DRAWN: DY	DATE: FEB. 2025
CHECKED: EY	SCALE: AS NOTED

APPROVED: _____ _____
CHIEF ENGINEER DATE

DRAWING NO. G-3

JOB NO. D0OPH60A SHEET NO. ---- OF 12 SHEETS

Plotted: Wed, 26 Nov 2025 - 1:29pm By: ETAKITAMI
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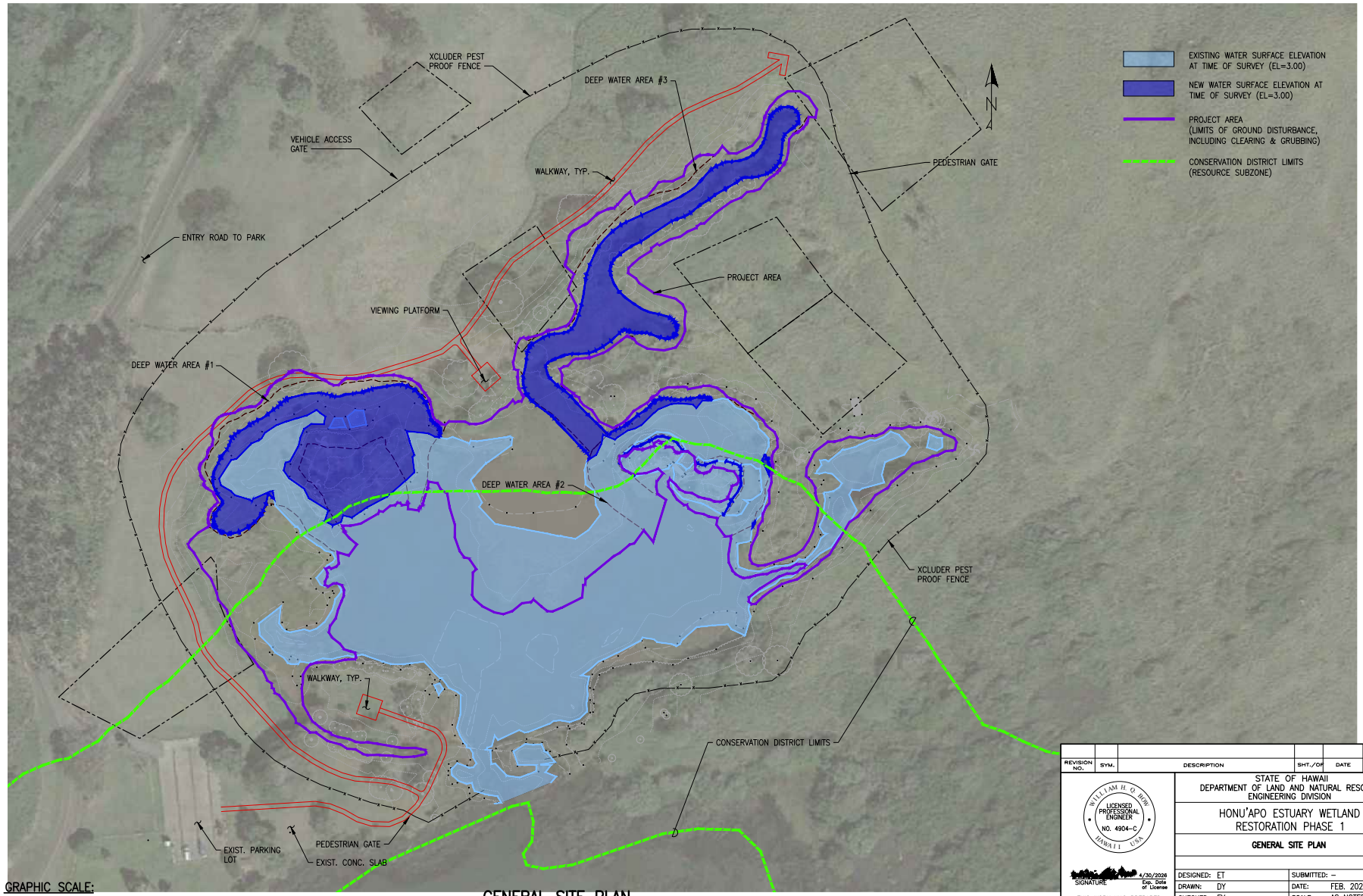

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