



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES | KA 'OIHANA KUMUWAIWAI 'ĀINA
COMMISSION ON WATER RESOURCE MANAGEMENT | KE KAHUWAI PONO
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STAFF SUBMITTAL

COMMISSION ON WATER RESOURCE MANAGEMENT

January 30, 2024
Honolulu, Hawai'i

Approval of Stream Diversion Works Permit Application (SDWP.6001.2) and Special Conditions
Kaua'i Island Utility Cooperative
Kōke'e Ditch Diversion Modifications at Waiakōali (Div. 620),
Kawaikōi (Div. 616), and Kōke'e (Div. 622) Streams, in Accordance with the
Mediation Agreement for the Waimea Watershed Area dated April 18, 2017
Waiakōali, Kawaikōi, Kōke'e Streams, Waimea, Kaua'i, TMK: (4) 1-4-001:003 and 013

APPLICANT

David Bissell, CEO
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LANDOWNER

State of Hawai'i
Department of Land and Natural Resources
Division of State Parks

Department of Business, Economic Development
& Tourism
Agribusiness Development Corporation

SUMMARY OF REQUEST

Approve the Stream Diversion Works Permit (SDWP.6001.2) Application that proposes the following:

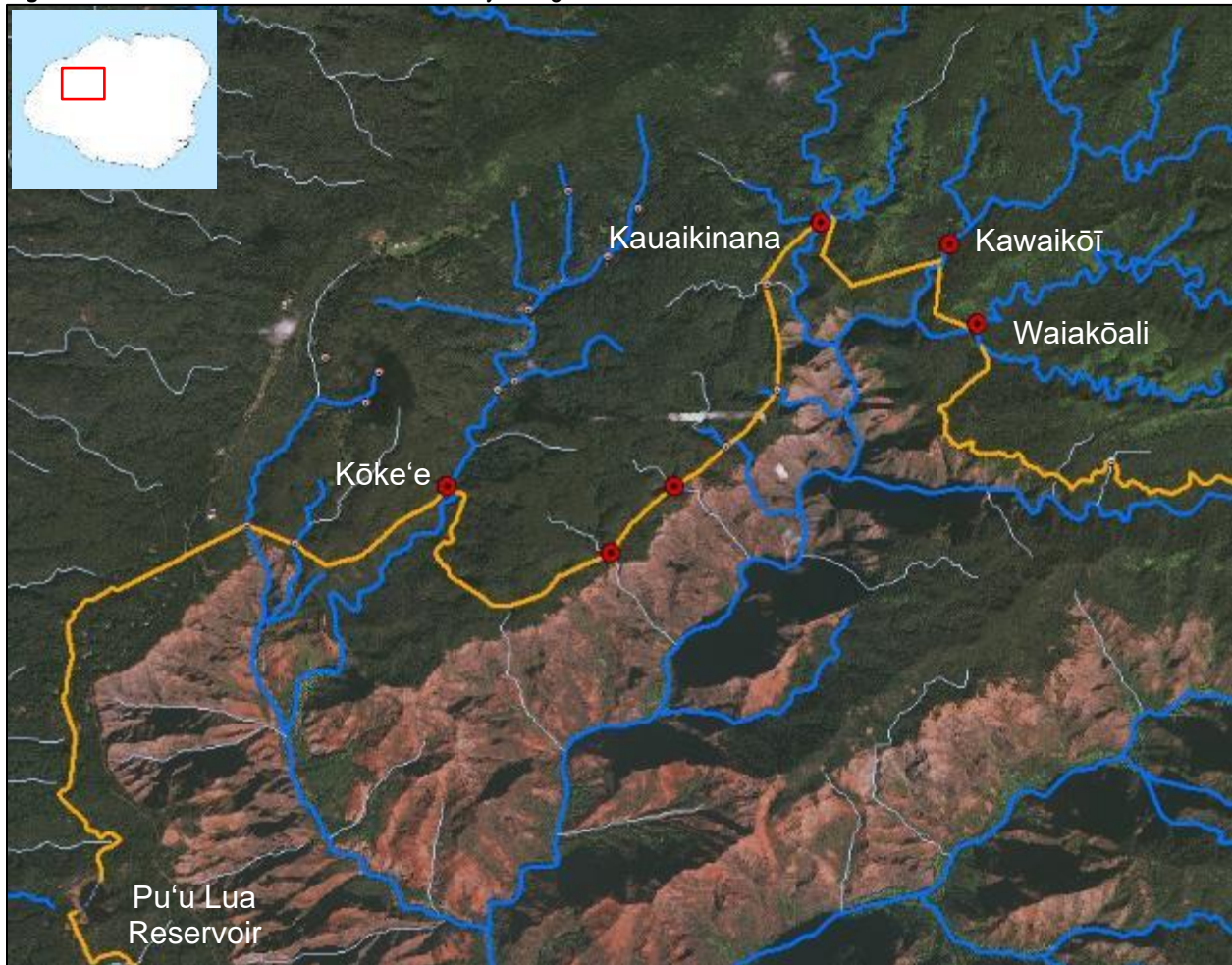
1. Waiakōali Stream: Installation of a concrete diversion headwall with a control gate;
2. Kawaikōi Stream: Construction of a gravel cofferdam with a gated pipe and trash rack;
3. Kōke'e Stream: Construction of a 36-inch bulkhead with gate, installation of one 85-foot long, 24-inch HDPE pipe flume, and rehabilitation of the tunnel head gate.

The proposed changes will result in less water diverted into the ditch and more water retained in the streams. It is intended to address the requirements for Phase One Interim Instream Flow Standards (IIFS) outlined in the Mediation Agreement for the Waimea Watershed Area approved on April 18, 2017 by the Commission. This is a resubmission of a staff submittal

that was approved by the Commission on September 15, 2020, but the permit expired in 2022 with no work being done. The project scope remains the same.

LOCATION: Waimea Surface Water Hydrologic Unit, Kauai. **Figure 1.**

Figure 1. Location, Waimea Surface Water Hydrologic Unit, Kauai.



BACKGROUND

On July 24, 2013, Pōʻai Wai Ola and West Kauaʻi Watershed Alliance, through their attorneys Earthjustice, filed 1) a Complaint for Dispute Resolution; 2) a Petition to Amend Interim Instream flow Standard; and 3) a Complaint for Declaratory Order Against Waste in the Waimea River and its tributaries, Waimea, Hawaiʻi.

On April 18, 2017, the Commission approved a Mediation Agreement for the Waimea Watershed Area (Mediation Agreement). The parties consisted of the petitioners Pōʻai Wai Ola/West Kauaʻi Watershed Alliance, represented by Earthjustice; the State of Hawaiʻi, Agribusiness Development Corporation and Department of Hawaiian Home Lands; Kauaʻi Island Utility Cooperative (KIUC); and the Kekaha Agriculture Association. The Mediation

Agreement and chronology of events can be viewed on the Commission website at:
<https://dlnr.hawaii.gov/cwrmsurfacewater/ifs/2060-waimea/>

Since 2017, the Commission staff has continued to host regular meetings of the parties involved in the Mediation Agreement to work through specific details in the implementation of the approved IIFS. Phase One of the Mediation Agreement went into effect upon its approval by the Commission, whereby the parties agreed to take immediate steps to restore flows to the maximum extent possible while working on the structural modifications. KIUC submitted its Revised Kōke‘e Ditch Diversion Phase One Flow Release Modification Plan in September 2017. A more detailed plan was submitted in March 2018 as KIUC continued to work through the permitting process with the U.S. Army Corps of Engineers, Department of Health, U.S. Fish and Wildlife Service, State Historic Preservation Division, Office of Conservation and Coastal Lands, and the State Land Division.

On May 31, 2018, KIUC filed a Request for Determination regarding a stream channel alteration permit application for the Kōke‘e Ditch diversion modification project. Phase One of the mediated agreement required flow restoration and IIFS.

On September 27, 2019, upon further review, the Commission restated its response to KIUC’s request for determination. It stated that KIUC needed: 1) a stream channel alteration permit for gage installations and supporting actions on the Waiakōali, Kauaikinana, and Kōke‘e Streams; and 2) a stream diversion works permit for the headwall and spillway modifications at the Waiakōali Stream diversion; earthen cofferdam installation at the Kawaikōī Stream diversion; and HDPE pipe and ditch bulkhead and tunnel headgate rehabilitation at the Kōke‘e Stream diversion.

On September 15, 2020, (SDWP.5321.2) was approved by the Commission but it expired in 2022 with no work being done.

On October 13, 2023, the Commission received the complete Application for a Stream Diversion Works Permit (SDWP.6001.2) on the subject streams. The permit application can be viewed on the Commission website at https://files.hawaii.gov/dlnr/cwrmswreview/SDWP_6001_2.pdf. There have been no changes to the project design since the previous approval.

STREAM DESCRIPTION

Both the National Hydrography Dataset and the Division of Aquatic Resources classified the Waiakōali, Kawaikōī, and Kōke‘e Streams as perennial. The total drainage area is 85 square miles with a maximum basin elevation of 5,240 feet. The mean annual precipitation is 97 inches and the longest flow path is over 26 miles. The streams have a constant connection to the ocean.

PROJECT DESCRIPTION

Waiakōali Stream

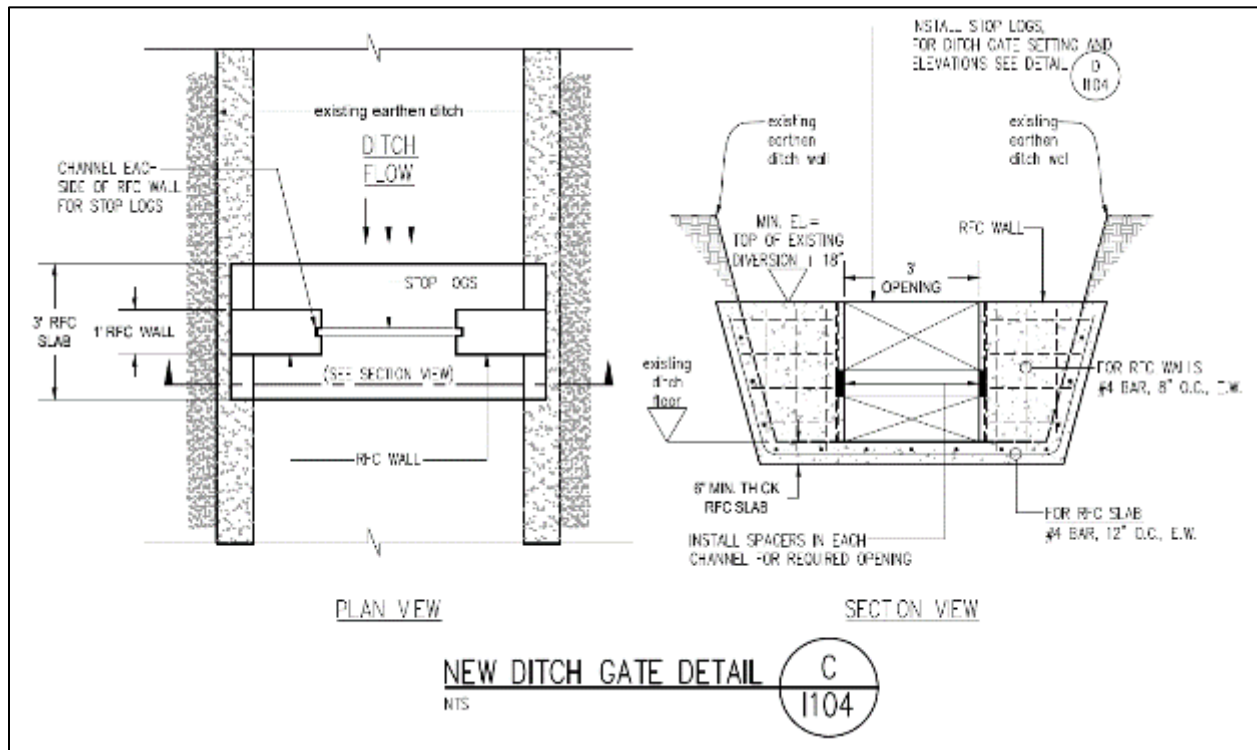
The Waiakōali Stream diversion is the uppermost active diversion structure (See **Figure 2**). It consists of an existing concrete diversion dam about 35-feet wide, 10-feet high, at an elevation of 3,425 feet. The structure impounds a small pool and directs water through a trash rack and into an ungated open ditch 6-feet wide. The diversion currently does not have gates or a low-level outlet and is unregulated. The diversion routes all streamflow into the ditch during low and moderate streamflow situations. Only high flows are sufficient to increase the impoundment level enough to result in discharge over the spillway. The primary design challenge to a Phase One IIFS release is the lack of a ditch inlet gate, an outlet gate or stop log (pani board) section that can be modified to provide a means of control for balancing diversion flows and stream flows. There are two viable options for addressing this: a) blocking or controlling ditch flow to force flows over the spillway crest; or b) cutting an orifice or slot in the structure at sufficient depth to ensure IIFS release during all flow conditions.

Since the Waiakōali diversion is the first supply point for the ditch and the current irrigation requirements are low, the modification for this structure only needs to provide enough ditch flow to hydrate the ditch and tunnels. The proposed modification involves restricting the ditch inlet and providing controlled flow over the spillway crest. This approach will allow regulation of diversion flows, thereby forcing streamflows up and over the spillway crest.

Figure 2. Waiakōali Stream Diversion. Existing (yellow), New (white).



- a. Ditch Intake Headwall. A concrete headwall will be constructed in the ditch just downstream of the existing trash rack. The headwall will serve to control both ditch flow and impoundment level. The headwall will be keyed into the ditch walls and will be approximately 7 feet in width, have a height of at least 18 inches above the diversion crest and be designed to take full head pressure. The center of the headwall will contain a 36-inch wide stoplog bay that will have boards set in place to provide a fixed opening. This opening will admit a small amount of water to the ditch to keep it hydrated and make a contribution to the water user's needs. The opening size and elevation is calculated to work in unison with the IIFS release point design to ensure that IIFS flows are passively maintained.

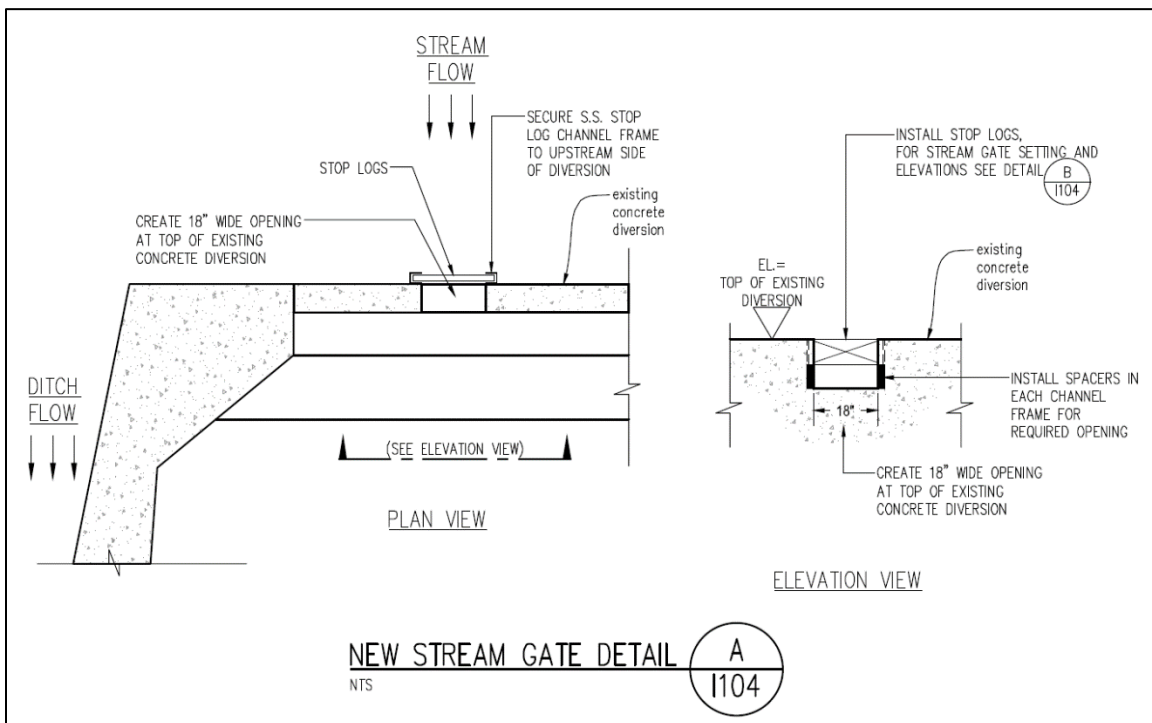


Trash rack and support beam at Waiakoali Ditch inlet (KIUC, 2020).



Diversion dam, looking toward ditch inlet and trash rack (KIUC, 2020).

- b. **Spillway Release Gate.** An 18-inch wide by 12-inch deep notch and weir assembly will be cut into the concrete diversion dam. The notch and weir will provide a deeper narrow section that shows stage differences at low-flow volumes. This action is related to SCAP.6002.2 which considers the installation of a flow monitoring device on the concrete diversion dam and adjacent to the spillway release gate. The upstream side of notch will have a steel frame affixed to the concrete to hold boards which can be used to adjust the opening size and invert to adjust the flow release during the calibration process. The release gate is the mechanism that controls how much water is released past the Waiakoali diversion dam to meet the downstream IIFS. The Phase One IIFS value is 1.4 mgd. After proposed work is completed, the estimated diversion flow capacity will range from 0 to 30 mgd.



Diversion dam, looking upstream (KIUC, 2020).



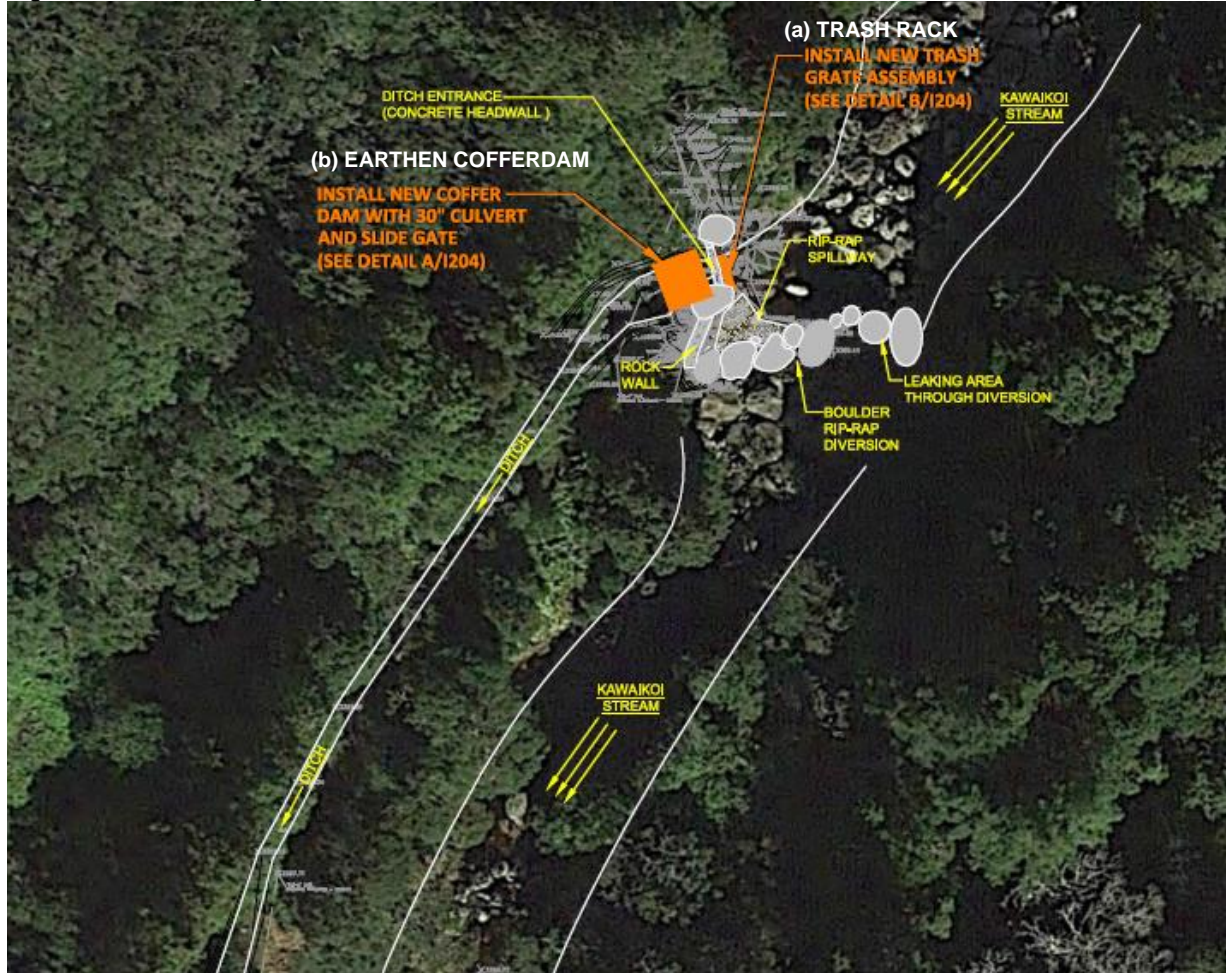
Diversion dam, looking toward ditch inlet and trash rack (KIUC, 2020).

Kawaikōi Stream

The Kawaikōi Stream diversion is the second diversion structure and contributes the majority of the water present in the ditch system (**Figure 3**). The diversion consists of concrete and rubble masonry in several small sections of gaps and holes between large boulders in the stream channel. The open ditch continues downstream paralleling the stream channel for approximately 300 feet where it terminates at a masonry spillway and gated tunnel entrance. The diversion has neither gates nor a low-level outlet and is completely unregulated. However, the tunnel entrance gate can be closed to force water over the ditch sidewall and back into the stream channel. Approximately 75 feet into the tunnel is a large adit that is closed off by stop logs. These stop logs can be removed to gain maintenance access to the tunnel or to sluice material out.

The Phase One IIFS value is 4.8 mgd. After the proposed work is completed, the estimated diversion flow capacity will range from 0 to 32 mgd.

Figure 3. Satellite image of Kawaikōi diversion site.



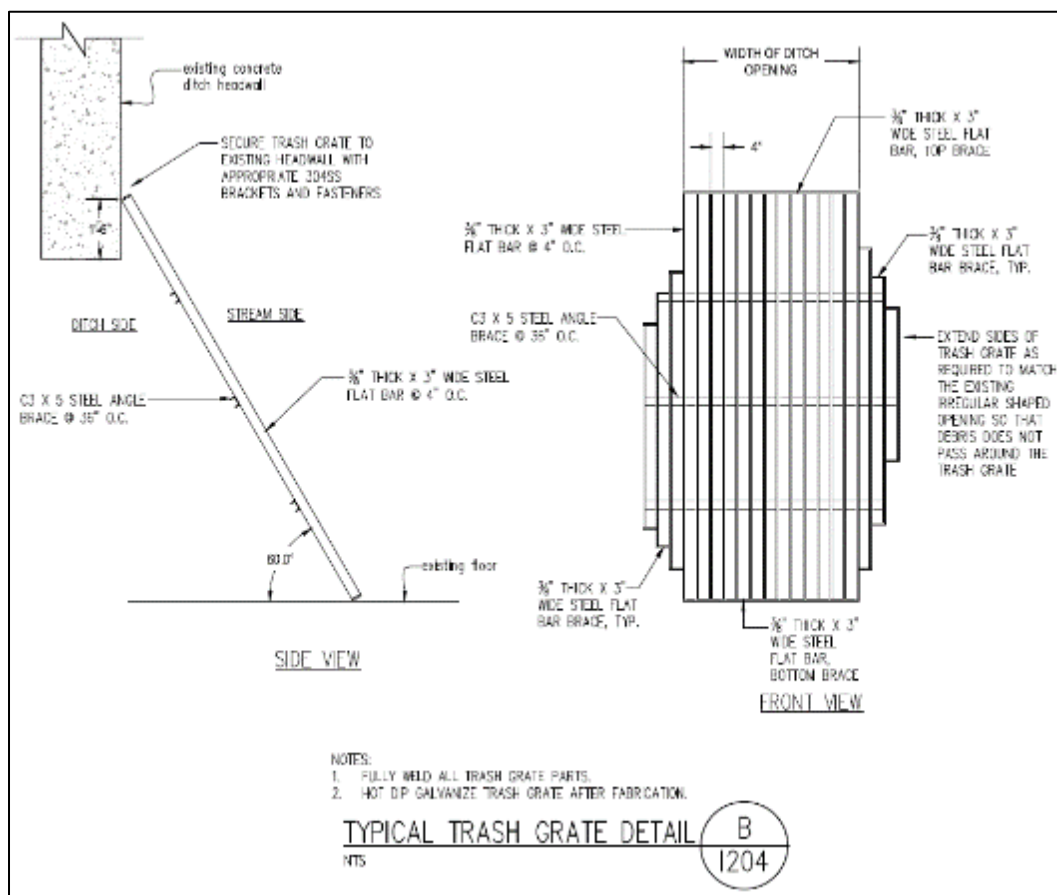
Like Waiakōali, the unregulated Kawaikōi diversion routes all streamflow into the ditch during low and moderate streamflow situations. Only high flows increase the impoundment level enough to result in flows continuing over the diversion and remaining in the stream. The

primary design challenge to the modification at Kawaikōi is the lack of an outlet gate or stop log (pani board) section that can be modified to provide a release point at the diversion. Additionally, the masonry infill design of the diversion is less suited for an effective addition of a stop log section or for the installation of a submerged orifice for release.

Because Kawaikōi is the largest contributor to ditch flows, the modification provides operational balance for meeting the Phase One IIFS and irrigation flow.

The proposed modification involves the construction of an earthen cofferdam at the head of the ditch just downstream of the existing concrete headwall. This cofferdam will block water from entering the ditch and force it to remain in the stream. In order to allow some controlled flow to enter the ditch, a culvert will be installed through the center of the earthen cofferdam. A slide gate will be installed at the inlet to the pipe to provide manual control of ditch flows.

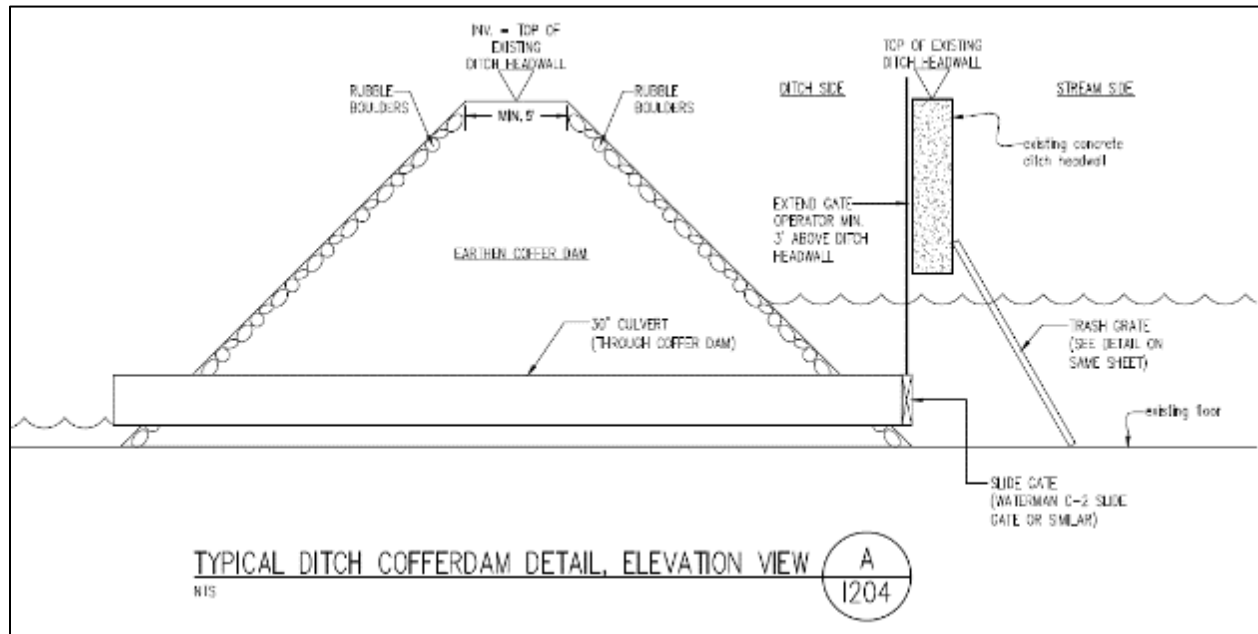
- a. Trash Rack. A new steel trash rack will be installed on the upstream face of the existing ditch intake headwall to prevent stream debris from entering the ditch or blocking the control gate.



- b. Earthen Cofferdam with Culvert and Slide Gate. A compacted earthen cofferdam will be constructed in the ditch immediately downstream of the existing concrete headwall. The upstream and downstream faces of the cofferdam will be built of boulders and rubble to add

stability and lessen the footprint of the cofferdam. The top of the cofferdam will be equal in height to the existing headwall to prevent flood events from overtopping the cofferdam and entering the ditch.

A 30-inch diameter culvert will be installed through the cofferdam to allow water to flow into the ditch. A slide gate will be installed on the upstream face of the culvert to allow ditch flows to be adjusted. The gate frame will be braced to the concrete headwall to prevent shifting.



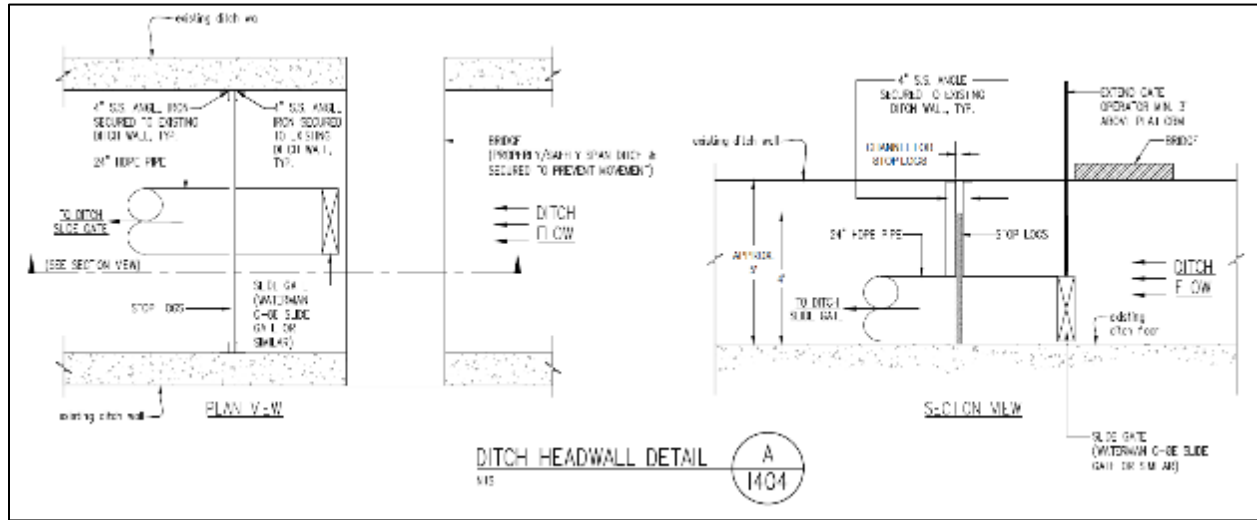
The Kōke'e Stream diversion is the fourth main diversion structure. **(Figure 4)**. The composite concrete and masonry gravity structure has an overall length of 80 feet, a height of 6 feet with a 24-inch wide stop log bay and two sections of overflow spillway totaling approximately 25 feet. The structure serves as a control point and release point before the accumulated ditch flow leaves the watershed and enters the tunnel towards the Pu'u Lua reservoir. The tunnel entrance is served by a trash rack and vertical slide gate with a manual hoist.

The Kōke‘e diversion captures streamflow plus recaptures ditch discharge and routes the combined flows into the main ditch tunnel adjacent to the west abutment. Like Kauaikinana, the structure is regulated by both a stop log section in the center of the spillway and the tunnel head gate. From an operational standpoint, this diversion has been used as a flow regulator for the entire ditch by controlling ditch flows through head gate adjustments and by releasing excess flows into the downstream channel through the stop log bay.

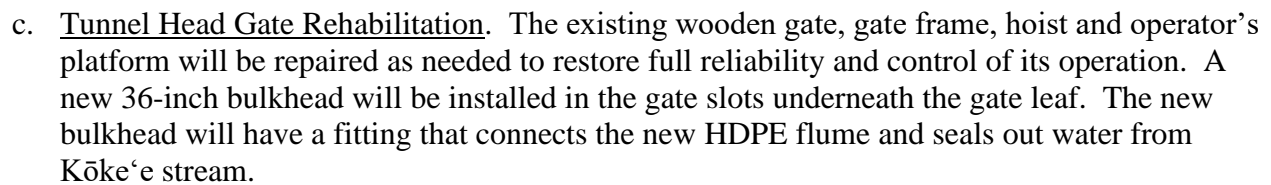
The proposed modification for Kōke'e involves the use of the stop log bay in the spillway as a release point. The Phase One IIFS is equal to natural streamflow and will be passed through the existing stoplog bay. The ditch flow will be conveyed in an HDPE pipe flume from the end of the open ditch channel (coming in from the left bank or east-side of Kōke'e Stream), bypassing

the diversion dam structure and connecting to the rehabilitated tunnel head gate on the opposite (right or west-side) bank of Kōke'e Stream. The HDPE pipe flume will crossover and will not be connected to Kōke'e Stream.

- a. Ditch Headwall and Slide Gate. A 36-inch tall timber bulkhead will be installed at the end of the concrete ditch section. This bulkhead will be approximately 24 inches lower than the ditch sidewalls to protect upstream ditch integrity. The bulkhead will be mounted to steel brackets bolted to the ditch sidewalls.



- b. HDPE Pipe Flume. An 85-foot long, 24-inch diameter HDPE pipe flume will be installed from the ditch bulkhead, across the stream, upstream of the diversion, and into the bulkhead under the tunnel headgate leaf. The pipe will be partially submerged during all flow conditions and will have supports every 10 feet to secure it in place. The HDPE pipe flume will be capable of conveying up to 10 mgd of combined diverted ditch flow of the three upstream diversions. The inlet to the HDPE pipe will be fitted with a gate to allow dewatering of the downstream tunnel or passing flushing flows for maintenance.



AGENCY REVIEW COMMENTS

County of Kauai, Planning Department: Not subject to our regulatory authority and permit.

County of Kauai, Department of Public Works: No objections.

Department of Hawaiian Home Land (DHHL): No comments received.

Department of Land and Natural Resources (DLNR), Aha Moku: No comments received.

DLNR, Aquatic Resources: Hawaiian streams and estuaries provide habitat for native aquatic biota composed of 5 fish species 'o'opu akupa (*Eleotris sandwicensis*), 'o'opu naniha (*Stenogobius hawaiiensis*), 'o'opu nakea (*Awaous hawaiiensis*), 'o'opu nopili (*Sicyopterus stimpsoni*), 'o'opu 'alamo'o (*Lentipes concolor*); 2 crustacean species 'opae 'oeha'a (*Macrobrachium grandimanus*), 'opaekala'ole (*Atyoida bisulcata*); and 2 mollusk species hapawai (*Neritina vespertina*), and hihiwai (*Neritina granosa*) which may occur in the stream diversion locations. However, the proposal indicates that surveys conducted in 2018 for the original permit application found no native aquatic species downstream of each of the diversions. As most of the proposed project will be occurring in the ditch system, is not expected to have adverse impacts on the aquatic environment, but may have short-term impacts during the installation of the earthen coffer dam, headwall modification, and construction of bulkhead with gate and pipe flume. Habitat disturbance and water turbidity are the most probable short-term impacts. Best Management Practices (BMPs) or mitigative measures should be implemented during these activities to minimize the potential for erosion, siltation, pollution, turbidity, and degradation of the aquatic environment.

- 1) Stream bank areas denuded of vegetation should be planted or covered as quickly as possible to prevent erosion and the vegetation cleared along stream banks should be removed and prevented from falling into the stream/estuary environment;
- 2) Scheduling stream maintenance activities during periods of minimal rainfall;
- 3) Use of silt curtains, fiber rolls, silt fencing, etc. to prevent sediments from increasing water turbidity and sediment run-off;
- 4) Prevent construction materials, petroleum products, debris and landscaping products from falling, blowing or leaching into the aquatic environment; and
- 5) Reduce as much as possible the disturbance and impacts to natural stream channel bottom substrate types (cobble, boulders, etc.) as much as possible during the removal of vegetation and sediment from the stream channel. These substrate types are essential components of the habitat for the native stream biota.

CWRM Staff Response: Added as a special condition by reference. See **Exhibit 1**.

DLNR, Engineering: 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). 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) (fhathawaii.gov) could also be used to research flood hazard information. If there are questions regarding the local flood ordinances, please contact the County of Kauai, Department of Public Works.

CWRM staff response: Noted. In addition, the project area is in Zone X, or areas determined to be outside the 0.2% annual chance floodplain. See **Exhibit 2**.

DLNR, Forestry and Wildlife (DOFAW): The State listed 'ōpe'ape'a or Hawaiian Hoary Bat (*Lasiurus cinereus semotus*) could potentially occur at or in the vicinity of the project and may roost in nearby trees. Any required site clearing should be timed to avoid disturbance to bats during their birthing and pup rearing season (June 1 through September 15). During this period woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed. Barbed wire should also be avoided for any construction because bats can become ensnared and killed by such fencing material during flight.

Artificial lighting can adversely impact seabirds that may pass through the area at night by causing them to become disoriented. This disorientation can result in their collision with manmade structures or the grounding of birds. For nighttime work that might be required, DOFAW recommends that all lights used be fully shielded to minimize the attraction of seabirds. Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season, from September 15 through December 15, when young seabirds make their maiden voyage to sea. If nighttime construction is required during the seabird fledgling season (September 15 to December 15), we recommend that a qualified biologist be present at the project site to monitor and assess the risk of seabirds being attracted or grounded due to the lighting. If seabirds are seen circling around the area, lights should then be turned off. If a downed seabird is detected, please follow DOFAW's recommended response protocol by visiting <https://dlnr.hawaii.gov/wildlife/seabird-fallout-season/#response>.

Permanent lighting also poses a risk of seabird attraction, and as such should be minimized or eliminated to protect seabird flyways and preserve the night sky. For illustrations and guidance related to seabird-friendly light styles that also protect seabirds and the dark starry skies of Hawai'i please visit <https://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf>.

The State listed nēnē or Hawaiian Goose (*Branta sandvicensis*) could potentially occur in the vicinity of the proposed project site. It is against State law to harm or harass these species. If any are present during construction, all activities within 100 feet (30 meters) should cease and the bird or birds should not be approached. Work may continue after the bird or birds leave the area of their own accord. If a nest is discovered at any point, please contact the Kaua'i Branch DOFAW Office at (808) 274-3433 and establish a buffer zone around the nest.

The endemic pueo or Hawaiian Short-Eared Owl (*Asio flammeus sandwichensis*) could potentially nest in the project area. Before any potential vegetative alteration, especially ground-based disturbance, we recommend that line transect surveys are conducted during crepuscular

hours through the project area. If a pueo nest is discovered, a minimum buffer distance of 100 meters from the nest should be established until chicks are capable of flight.

The proposed project is in proximity to designated Ecosystem Critical Habitat for threatened and endangered plant species. DOFAW recommends that a botanical survey be conducted by a qualified botanist in all proposed affected areas prior to commencing work to determine if any rare or endangered plants are present in the project area. We recommend that the survey consists of a complete species list and is conducted during the wettest time of year when plants are more likely to be visible, especially in drier areas. If any listed species are found, please notify DOFAW at (808) 587-0166.

In addition, DOFAW recommends heavy equipment work to be done greater than 100 m away from listed plants. For information on avoidance and minimization measures for plants, please refer to the following link: <https://www.fws.gov/media/plant-avoidance-and-minimization-measures-may-2023>.

DOFAW recommends using native plant species for landscaping that are appropriate for the area; i.e., plants for which climate conditions are suitable for them to thrive, plants that historically occurred there, etc. Please do not plant invasive species. DOFAW also recommends referring to www.plantpono.org for guidance on the selection and evaluation of landscaping plants and to determine the potential invasiveness of plants proposed for use in the project.

DOFAW recommends minimizing the movement of plant or soil material between worksites. Soil and plant material may contain detrimental fungal pathogens (e.g., Rapid ʻŌhiʻa Death, Coffee Leaf Rust), vertebrate and invertebrate pests (e.g., Coqui Frogs, Little Fire Ants, Coffee Berry Borer, etc.), or invasive plant parts (e.g., Barbados Gooseberry, False Kava, Giant Reed, etc.) that could harm our native species and ecosystems. We recommend consulting the Kauaʻi Invasive Species Committee (KISC) at (808) 821-1490 to help plan, design, and construct the project, learn of any high-risk invasive species in the area, and ways to mitigate their spread. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species. To prevent the spread of Rapid ʻŌhiʻa Death (ROD), DOFAW requests that the information and guidance at the following website be reviewed and followed if ʻōhiʻa trees are present at the project site that will be removed, trimmed, or potentially injured: <https://cms.ctahr.hawaii.edu/rod>.

We recommend that Best Management Practices are employed during and after construction to contain any soils and sediment with the purpose of preventing damage to near-shore waters and marine ecosystems.

We appreciate your efforts to work with our office for the conservation of our native species. These comments are general guidelines and should not be considered comprehensive for this site or project. It is the responsibility of the applicant to do their own due diligence to avoid any negative environmental impacts. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Myrna N. Girald Pérez,

Protected Species Habitat Conservation Planning Coordinator at (808) 265-3276 or
myrna.girald-perez@hawaii.gov.

CWRM Staff Response: Added as a special condition by reference. See **Exhibit 3**.

DLNR, Historic Preservation (SHPD): On March 3, 2022, SHPD determined that no historic properties are affected and that project initiation may proceed.

CWRM Staff Response: Concur. See **Exhibit 4**.

DLNR, Land Division: No comments received.

DLNR, Office of Conservation and Coastal Lands (OCCL): On February 12, 2019, the DLNR Office of Conservation and Coastal Lands considered the direct, cumulative, and potential impacts and declared the actions stated above will have minimal or no significant impact on the environment and exempted it from the preparation of an EA in accordance with HAR, Section 11-200.1 and per its Comprehensive Exemption List for the DLNR reviewed and concurred upon by the Environmental Council on June 5, 2015.

CWRM Staff Response: Noted. See **Exhibit 5**.

DLNR, State Parks: No comments received.

Dept. of Health (DOH), Clean Water Branch: The DOH standard comments can be reviewed on the DOH website at: <https://health.hawaii.gov/cwb/files/2018/05/Memo-CWB-Standard-Comments.pdf>.

CWRM staff response: The lead agency for the protection of water quality is the Department of Health, Clean Water Branch, which administers the Federal Clean Water Act (33 U.S.C. §1251 et seq.) and the State Water Pollution Act (HRS Ch. 342D; HAR Ch. 11-54 Water Quality Standards; and HAR Ch. 11-55 Water Pollution Control). HAR §11-54-1 through §11-54-8 defines Best Management Practices and water quality criteria applicable to inland and nearshore waters and are based on the Federal Clean Water Act. HAR Ch. 11-55 Appendix C defines discharges of storm water associated with construction activity. HRS 174C-66 states that the DOH oversees the State's water quality control program.

Office of Hawaiian Affairs: No comments received.

US Army Corps of Engineers: No comments received.

US Fish and Wildlife Service (FWS): Our letter has been prepared under the authority of and in accordance with provisions of the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), as amended (ESA). We have reviewed the information you provided and pertinent information in our files, as it pertains to federally listed species in accordance with section 7 of the ESA. Our data indicate the following species may occur or transit through the vicinity of the proposed

project area: endangered 'ua'u (Hawaiian petrel, *Pterodroma sandwichensis*), endangered Hawai'i distinct population segment (DPS) of the 'akē'akē (band-rumped storm-petrel, *Hydrobates castro*), threatened 'a'o (Newell's shearwater, *Puffinus newelli*) (hereafter collectively referred to as Hawaiian seabirds); endangered 'ōpe'ape'a (Hawaiian hoary bat, *Lasiurus cinereus semotus*); endangered koloa maoli (Hawaiian duck, *Anas wyvilliana*), endangered 'alae ke'oke'o (Hawaiian coot, *Fulica alai*), endangered ae'o (Hawaiian stilt, *Himantopus mexicanus knudseni*), endangered 'alae 'ula (Hawaiian gallinule, *Gallinula galeata sandvicensis*) (hereafter collectively referred to as Hawaiian waterbirds); and threatened nēnē (Hawaiian goose, *Branta sandvicensis*). We provide the following to assist you in preparation of your project.

Hawaiian Seabirds. Hawaiian seabirds may traverse the project area at night during the breeding, nesting, and fledging seasons, March 1 through 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 Hawaiian seabirds we recommend you incorporate the following measures into your project design:

- Fully shielded all outdoor lights so the bulb can only be seen from below.
- Install automatic motion sensor switches and controls on all outdoor lights or turned 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.

'Ōpe'ape'a. 'Ōpe'ape'a roosts in woody vegetation across all islands and will leave their young unattended in trees and shrubs when they forage. If trees or shrubs 15 feet or taller are cleared during the pupping season, June 1 through September 15, there is a risk that young bats could inadvertently be harmed or killed, since they are too young to fly or move away from disturbance. 'Ōpe'ape'a 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 potential project impacts to the endangered 'ōpe'ape'a, we recommend you incorporate the following applicable measures into your project design:

- Do not disturb, remove, or trim woody plants greater than 15 feet tall during the birthing and pup rearing season for 'ōpe'ape'a, June 1 through September 15.
- Do not use barbed wire for fencing.

Hawaiian Waterbirds. 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 (*Colocasia esculenta*) lo'i or patches, irrigation ditches, sewage treatment ponds, and in the case of the koloa maoli, montane streams and marshlands. Ae'o may also be found wherever ephemeral or persistent standing water may occur. Threats to these species include habitat loss and habitat degradation. To avoid and minimize potential project impacts to Hawaiian waterbirds we recommend you incorporate the following measures into your project design:

- 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 area, incorporate applicable best management practices (BMPs) regarding work in aquatic environments into the project design (see enclosure).
- 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 project site prior to project initiation. Repeat surveys again within 3 days of project initiation and after any subsequent delay of work of 3 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.

In addition, your project may result in the creation of standing water or open water that could attract Hawaiian waterbirds to the project site. 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 aeʻo is also known to nest in sub-optimal locations (e.g., any ponding water), if water is present. Therefore, we recommend you work with our office during project planning so that we may assist you in developing measures to avoid impacts to listed species (e.g., fencing, vegetation control, predator management).

Nēnē. 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 potential project impacts to nēnē we recommend you incorporate the following measures into your project design:

- Do not approach, feed, or disturb nēnē.
- If nēnē are observed loafing or foraging within the project area during the breeding season, September through April, have a biologist familiar with nēnē nesting behavior survey for nests in and around the project area prior to the resumption of any work. Repeat surveys after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest).
- Cease all work immediately and contact the Service for further guidance if a nest is discovered within a radius of 150 feet of the proposed project, or a previously undiscovered nest is found within the 150-foot radius after work begins.
- In areas where nēnē 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.

A 4(d) rule was established at the time 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.

CWRM Staff Response: Added as a special condition by reference. See **Exhibit 6**.

TRADITIONAL AND CUSTOMARY PRACTICES

- 1) The identity and scope of cultural, historical, or natural resources in which traditional and customary native Hawaiian rights are exercised in the area.

The Applicant stated “The proposed work is on the existing Kokee Ditch system, which is actively diverting water for irrigation, recreational fishing and other state facility uses. The proposed work is for the purpose of stream restoration consistent with the IIFS for each stream. During our community and stakeholder outreach for the proposed work, we did not identify any native Hawaiians who access this area for traditional and customary practices. Several people mentioned that due to difficulty of accessing the area, it isn’t an ideal location for their purposes. Access is by a rough road, accessible by four wheel drive vehicles only, that terminates in a foot path. The footpath is approximately 1/4 mile in distance, steep and lightly maintained. However, it is possible there are native Hawaiians who do access the area for traditional plant gathering, fishing and ceremonial practices. Based on stream surveys conducted in 2018, no native aquatic species were found in Waiakoali, Kawaikoi and Kokee Streams downstream of each diversion. Flora and fauna surveys in the area indicated the predominant vegetation coverage is alien forest with some scattered remnant native koa and ohia.”

CWRM Staff Response: No comments were received by DLNR Aha Moku. No comments were received from the public. No impacts to traditional and customary native Hawaiian rights which may be exercised in the area are anticipated.

- 2) The extent to which those resources, including traditional and customary native Hawaiian rights, will be affected or impaired by the proposed action.

The Applicant stated, “The sole purpose of the proposed work will result in stream restoration per the IIFS adopted by CWRM as part of the Mediation Agreement for the Waimea Watershed, which was approved by CWRM in April 2017. If any traditional and customary native Hawaiian practices occur in the area, the stream restoration will likely provide for improved aquatic and riparian habitats. Because all

modifications/installations will be within the footprint of the existing ditch system, this proposed work is not expected to negatively impact any traditional and customary Native Hawaiian rights on land around the ditch system or in the streams.”

CWRM Staff Response: There are no anticipated impacts to traditional and customary practices or upstream/downstream movement of native macrofauna.

- 3) What feasible action, if any, could be taken by the Commission in regards to this application to reasonably protect native Hawaiian rights.

The Applicant stated, “As previously mentioned, the purpose of the proposed work is restoring stream flows consistent with the IIFS adopted by CWRM as part of the Mediation Agreement for the Waimea Watershed, which was approved by CWRM in April 2017. DHHL was a party to the mediation and has approved the proposed work.”

CWRM Staff Response: The project BMPs are feasible actions that will be employed during the project period to ensure water and stream resources mauka and makai of the project area are not impacted to the detriment of traditional and customary practices of Native Hawaiians.

HRS CHAPTER 343 – ENVIRONMENTAL ASSESSMENT (EA) COMPLIANCE

Under Hawaii Revised Statutes (HRS) §343-5(a), an EA shall be required for actions, as summarized in part below, that propose:

- (1) use of state land or county lands, or the use of state or county funds;
- (2) use within any land classified as a conservation district;
- (3) use within a shoreline area;
- (4) use within any historic site as designated in the National Register or Hawaii Register;
- (5) use within the Waikiki area of O‘ahu;
- (6) any amendments to existing county general plans where the amendment would result in designations other than agriculture, conservation, or preservation;
- (7) any reclassification of any land classified as a conservation district;
- (8) construction of new or the expansion or modification of existing helicopter facilities within the State, that may affect: (A) any land classified as a conservation district; (B) a shoreline area; or (C) any historic site as designated in the National Register or Hawaii Register;
- (9) any (A) wastewater treatment unit, except an individual wastewater system or a wastewater treatment unit serving fewer than fifty single-family dwellings or the equivalent; (B) Waste-to-energy facility; (C) Landfill; (D) Oil refinery; or (E) Power-generating facility.

The project triggers an EA because it proposes (1) the use of state or county lands or the use of state or county funds and (2) use within the conservation district. On February 12, 2019, the DLNR Office of Conservation and Coastal Lands considered the direct, cumulative, and potential impacts and declared the actions stated above will have minimal or no significant

impact on the environment and exempted it from the preparation of an EA in accordance with HAR, Section 11-200.1 and per its Comprehensive Exemption List for the DLNR reviewed and concurred upon by the Environmental Council on June 5, 2015. See **Exhibit 5**.

STAFF REVIEW

Review of the permit application by Commission staff is subject to the consideration of the legal authorities cited in **Exhibit 8**.

HAR §13-168-32(d) sets out the general criteria for ruling on SDWP applications.

- (1) The quantity and quality of the stream water or the stream ecology shall not be adversely affected.

CWRM Staff Response: The action is intended to increase streamflow downstream of the diversions per the Mediation Agreement. Upon approval of the construction plans as proposed, the quantity and quality of stream water should not be adversely affected.

- (2) Where instream flow standards or interim instream flow standards have been established pursuant to HAR Chapter 13-169, no permit should be granted for any diversion works which diminishes the quantity or quality of stream water below the minimum established to support identified instream uses, as expressed in the standards.

CWRM Staff Response: HRS §174C-71 and HAR §13-169-36, requires the Commission to protect stream channels from alteration whenever practicable to provide for fishery, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses. The IIFS for the Waimea Watershed Area was approved on April 18, 2017 by the Commission. Upon approval of the proposed work plan, it is anticipated that identified instream uses will be better supported.

- (3) The proposed diversion works shall not interfere substantially and materially with existing instream or non-instream uses or with diversion works previously permitted.

CWRM Staff Response: The proposed work plan should not interfere with instream or non-instream uses. Commission records indicate that there are numerous registered diversions located on the ditch and downstream of the project area. No adverse impacts are anticipated.

RECOMMENDATION

That the Commission:

1. Approve the Stream Diversion Works Permit (SDWP.6001.2) Application that proposes the installation of a concrete diversion headwall with a control gate on the Waiakōali Stream; the construction of a gravel cofferdam with a gated pipe and trash rack on the Kawaikōi Stream; and the construction of a 36-inch bulkhead with gate, installation of one 85-foot long, 24-inch HDPE pipe flume, and rehabilitation of the tunnel head gate on the Kōke‘e Stream subject to the standard conditions in **Exhibit 7** and special conditions below.
 - a. In conformance with the Division of Aquatic Resources’ recommendations, incorporated by reference as **Exhibit 1**, the permittee shall employ best management practices when working in the water.
 - b. In conformance with the Division of Forestry and Wildlife recommendations, incorporated by reference as **Exhibit 3**, the permittee shall employ best management practices when working in the area.
 - c. In conformance with the US Fish and Wildlife Service recommendations, incorporated by reference as **Exhibit 6**, the permittee shall employ best management practices when working in the area.

Ola i ka wai,



DEAN D. UYENO
Acting Deputy Director

Exhibits:

1. DLNR, Division of Aquatic Resources letter, dated November 22, 2023.
2. DLNR, Engineering Division letter, dated November 21, 2023.
3. DLNR, Division of Forestry and Wildlife letter, dated November 28, 2023.
4. DLNR, Historic Preservation letter, dated March 3, 2022.
5. DLNR, Office of Conservation and Coastal Lands letter, dated February 12, 2019.
6. US Fish and Wildlife Service letter, dated November 30, 2023.
7. Standard Stream Diversion Works Permit Conditions.
8. Legal Authorities.

APPROVED FOR SUBMITTAL:



DAWN N. S. CHANG
Chairperson

JOSH GREEN, M.D.
GOVERNOR | KE KAA'ĀINA
SYLVIA LUKI
LIEUTENANT GOVERNOR | KA HOPE KAA'ĀINA



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

Date: 11/21/23

DAR # AR6505

DARIN H.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT
LAURA H.E. KAKUKA
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

MEMORANDUM

TO: Brian J. Neilson
DAR Administrator

FROM: Heather Ylitalo-Ward, Aquatic Biologist

SUBJECT: Request for Comments, Stream Diversion Works Permit Application
(SDWP.6001.2)

Request Submitted by: M. Kaleo Manuel, Deputy Director CWRM

Location of Project: Waiakōali, Kawaikōi, Kōke'e Streams, Waimea, Kauai, Tax Map Key: (4) 1-4-001:003
and 013

Brief Description of Project:

The proposed work includes the following diversion modifications:

1. Waiakōali Stream: Installation of a concrete diversion headwall with a control gate.
2. Kawaikōi Stream: Construction of a gravel cofferdam with a gated pipe and trash rack.
3. Kōke'e Stream: Construction of a 36-inch bulkhead with gate and 85-foot long, 24-inch HDPE pipe flume.

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:

Brian J. Neilson
DAR Administrator

Date: Nov 22, 2023

DAR# AR6505

Comments

Thank you for the opportunity to comment on the proposed permit application.

Hawaiian streams and estuaries provide habitat for native aquatic biota composed of 5 fish species 'o'opu akupa (*Eleotris sandwicensis*), 'o'opu naniha (*Stenogobius hawaiiensis*), 'o'opu nakea (*Awaous hawaiiensis*), 'o'opu nopili (*Sicyopterus stimpsoni*), 'o'opu 'alamo'o (*Lentipes concolor*); 2 crustacean species 'opae 'oeha'a (*Macrobrachium grandimanus*), 'opaekala'ole (*Atyoida bisulcata*); and 2 mollusk species hapawai (*Neritina vespertina*), and hihiwai (*Neritina granosa*) which may occur in the stream diversion locations. However, the proposal indicates that surveys conducted in 2018 for the original permit application found no native aquatic species downstream of each of the diversions.

As most of the proposed project will be occurring in the ditch system, is not expected to have adverse impacts on the aquatic environment, but may have short-term impacts during the installation of the earthen coffer dam, headwall modification, and construction of bulkhead with gate and pipe flume. Habitat disturbance and water turbidity are the most probable short-term impacts.

Best Management Practices (BMPs) or mitigative measures should be implemented during these activities to minimize the potential for erosion, siltation, pollution, turbidity, and degradation of the aquatic environment.

1) Stream bank areas denuded of vegetation should be planted or covered as quickly as

possible to prevent erosion and the vegetation cleared along stream banks should be removed and prevented from falling into the stream/estuary environment;

2) Scheduling stream maintenance activities during periods of minimal rainfall;

3) Use of silt curtains, fiber rolls, silt fencing, etc. to prevent sediments from increasing water turbidity and sediment run-off;

4) Prevent construction materials, petroleum products, debris and landscaping products from

falling, blowing or leaching into the aquatic environment; and

5) Reduce as much as possible the disturbance and impacts to natural stream channel bottom substrate types (cobble, boulders, etc.) as much as possible during the removal of vegetation and sediment from the stream channel. These substrate types are essential components of the habitat for the native stream biota.

January 30, 2024

JOSH GREEN, M.D.
GOVERNOR



DAWN N. S. CHANG
CHAIRPERSON

KENNETH S. FINK, M.D., MGA, MPH
NEEL J. HANNAHS
AURORA KAGAWA-VIVIANI, PH.D.
WAYNE K. KATAYAMA
PAUL J. MEYER
LAWRENCE H. MIKE, M.D., J.D.

M. KALEO MANUEL
DEPUTY DIRECTOR

STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES | KA 'ŌHANA KUMUWAIWAI 'ĀINA
COMMISSION ON WATER RESOURCE MANAGEMENT | KE KAHUWAI PONO
P.O. BOX 621
HONOLULU, HAWAII 96809

October 26, 2023

Ref: SDWP.6001.2

FROM: ~~TO:~~ Aha Moku
Aquatic Resources
Engineering Division
Forestry and Wildlife
Land Division
Office of Conservation and Coastal Lands
State Parks

TO: ~~FROM:~~ M. Kaleo Manuel, Deputy Director
Commission on Water Resource Management

SUBJECT: Request for Comments, Stream Diversion Works Permit Application
(SDWP.6001.2), Kaua'i Island Utility Cooperative, Kōke'e Ditch Diversion
Modification and Monitoring, Waiakōali, Kawaikōi, Kōke'e Streams, Waimea,
Kaua'i, Tax Map Key: (4) 1-4-001:003 and 013

We would appreciate your review and comment on the subject permit application within 30 days from the date of this memo. Previously, Stream Diversion Works Permit (SDWP.5321.2) for this project was issued on September 15, 2020, but expired. There have been no changes to the project design since the previous approval. The proposed work includes the following diversion modifications:

1. Waiakōali Stream: Installation of a concrete diversion headwall with a control gate.
2. Kawaikōi Stream: Construction of a gravel cofferdam with a gated pipe and trash rack.
3. Kōke'e Stream: Construction of a 36-inch bulkhead with gate and 85-foot long, 24-inch HDPE pipe flume.

The application is online at <http://dlmr.hawaii.gov/cwrm/surfacewater/review/>. If you have any questions, contact Rebecca Alakai at (808) 587-0266, or rebecca.r.alakai@hawaii.gov.

Response:

- | | |
|---|---|
| <input type="checkbox"/> We have no objections | <input type="checkbox"/> Additional information requested |
| <input type="checkbox"/> Not subject to our regulatory authority and permit | <input type="checkbox"/> Extended review period requested |
| <input checked="" type="checkbox"/> Comments attached | <input type="checkbox"/> EA / EIS is required |

Contact Person:
Carty S. Chang, Chief Engineer

Date: Nov 21, 2023

**DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION**

CWRM/M. Kaleo Manuel

**Ref: Request for Comments, Stream Diversion Works Permit Application
(SDWP.6001.2), Kaua‘i Island Utility Cooperative, Kōke‘e Ditch Diversion
Modification and Monitoring
Location: Waiakōali, Kawaikōi, Kōke‘e Streams, Waimea, Kaua‘i
TMK(s): (4) 1-4-001:003 and 013**

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). 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) (fhaw.hawaii.gov) 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: Nov 21, 2023

JOSH GREEN, M.D.
GOVERNOR | KE KAUĀNA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KAUĀNA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA

DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
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DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
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LAURA H.E. KAKUKA
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FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

November 28, 2023

Log no. 4311/SDWP.6001.2

MEMORANDUM

TO: M. KALEO MANUEL, Deputy Director
Commission on Water Resource Management

FROM: JASON D. OMICK, Acting Wildlife Program Manager
Division of Forestry and Wildlife

SUBJECT: Request for Comments on the Stream Diversion Works Permit Application (SDWP.6001.2) Kaua'i Island Utility Cooperative, Kōke'e Ditch Diversion Modification and Monitoring, Waiakoali, Kauaikinana, Kōke'e Streams, Waimea, Kaua'i island

The Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) has received your request for comments on the Kōke'e Ditch Diversion Modification and Monitoring permit application (SDWP.6001.2) located along the Waiakoali, Kauaikinana, and Kōke'e Streams, on the island of Kaua'i; TMK: (4)1-4-001:003 and 013. The sole purpose for the proposed project is for stream restoration per the IIFS adopted by the Commission on Water Resource Management (CWRM) as part of the Mediation Agreement for the Waimea Watershed, approved in April 2017. The proposed work is on the existing Kōke'e Ditch system, which actively diverts water for irrigation, recreational fishing, and other state facility uses. The proposed work will result in restored stream flows at the Kōke'e Diversion, which is consistent with the IIFS for each stream and Kaua'i General Plan's Vision for Kaua'i 2020. At Waiakoali, the proposed work includes the installation of a concrete diversion headwall with a control gate with the purpose of increasing high stream flow to facilitate water release and to control diversion volumes. At Kawaikoi, streamflow restoration will be addressed by installing an earthen coffer dam with a gated pipe and trash rack. And at Kōke'e stream the restoration work will include installation of one 36- inch bulkhead with gate and one 85-foot long 24-inch HDPE pipe flume to retain all natural flows in the stream, which requires the ditch flows to pass across the stream without comingling. The proposed changes will result in less water diverted into the ditch and more water retained in the streams. A previous Stream Diversion Works Permit (SDWP.5321.2) was issued on September 15, 2020, but has expired. There have been no changes to the project design.

DOFAW provides the following comments regarding the potential for the proposed work to affect listed species in the vicinity of the project area.

The State listed 'ōpe'ape'a or Hawaiian Hoary Bat (*Lasiurus cinereus semotus*) could potentially occur at or in the vicinity of the project and may roost in nearby trees. Any required site clearing should be timed to avoid disturbance to bats during their birthing and pup rearing season (June 1 through September 15). During this period woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed. Barbed wire should also be avoided for any construction because bats can become ensnared and killed by such fencing material during flight.

Artificial lighting can adversely impact seabirds that may pass through the area at night by causing them to become disoriented. This disorientation can result in their collision with manmade structures or the grounding of birds. For nighttime work that might be required, DOFAW recommends that all lights used be fully shielded to minimize the attraction of seabirds. Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season, from September 15 through December 15, when young seabirds make their maiden voyage to sea.

If nighttime construction is required during the seabird fledging season (September 15 to December 15), we recommend that a qualified biologist be present at the project site to monitor and assess the risk of seabirds being attracted or grounded due to the lighting. If seabirds are seen circling around the area, lights should then be turned off. If a downed seabird is detected, please follow DOFAW's recommended response protocol by visiting <https://dlnr.hawaii.gov/wildlife/seabird-fallout-season/#response>.

Permanent lighting also poses a risk of seabird attraction, and as such should be minimized or eliminated to protect seabird flyways and preserve the night sky. For illustrations and guidance related to seabird-friendly light styles that also protect seabirds and the dark starry skies of Hawai'i please visit <https://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf>.

The State listed nēnē or Hawaiian Goose (*Branta sandvicensis*) could potentially occur in the vicinity of the proposed project site. It is against State law to harm or harass these species. If any are present during construction, all activities within 100 feet (30 meters) should cease and the bird or birds should not be approached. Work may continue after the bird or birds leave the area of their own accord. If a nest is discovered at any point, please contact the Kaua'i Branch DOFAW Office at (808) 274-3433 and establish a buffer zone around the nest.

The endemic pueo or Hawaiian Short-Eared Owl (*Asio flammeus sandwichensis*) could potentially nest in the project area. Before any potential vegetative alteration, especially ground-based disturbance, we recommend that line transect surveys are conducted during crepuscular hours through the project area. If a pueo nest is discovered, a minimum buffer distance of 100 meters from the nest should be established until chicks are capable of flight.

The proposed project is in proximity to designated Ecosystem Critical Habitat for threatened and endangered plant species. DOFAW recommends that a botanical survey be conducted by a qualified botanist in all proposed affected areas prior to commencing work to determine if any rare or endangered plants are present in the project area. We recommend that the survey consists of a complete species list and is conducted during the wettest time of year when

plants are more likely to be visible, especially in drier areas. If any listed species are found, please notify DOFAW at (808) 587-0166.

In addition, DOFAW recommends heavy equipment work to be done greater than 100 m away from listed plants. For information on avoidance and minimization measures for plants, please refer to the following link: <https://www.fws.gov/media/plant-avoidance-and-minimization-measures-may-2023>.

DOFAW recommends using native plant species for landscaping that are appropriate for the area; i.e., plants for which climate conditions are suitable for them to thrive, plants that historically occurred there, etc. Please do not plant invasive species. DOFAW also recommends referring to www.plantpono.org for guidance on the selection and evaluation of landscaping plants and to determine the potential invasiveness of plants proposed for use in the project.

DOFAW recommends minimizing the movement of plant or soil material between worksites. Soil and plant material may contain detrimental fungal pathogens (e.g., Rapid 'Ōhi'a Death, Coffee Leaf Rust), vertebrate and invertebrate pests (e.g., Coqui Frogs, Little Fire Ants, Coffee Berry Borer, etc.), or invasive plant parts (e.g., Barbados Gooseberry, False Kava, Giant Reed, etc.) that could harm our native species and ecosystems. We recommend consulting the Kaua'i Invasive Species Committee (KISC) at (808) 821-1490 to help plan, design, and construct the project, learn of any high-risk invasive species in the area, and ways to mitigate their spread. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species.

To prevent the spread of Rapid 'Ōhi'a Death (ROD), DOFAW requests that the information and guidance at the following website be reviewed and followed if 'ōhi'a trees are present at the project site that will be removed, trimmed, or potentially injured: <https://cms.ctahr.hawaii.edu/rod>.

We recommend that Best Management Practices are employed during and after construction to contain any soils and sediment with the purpose of preventing damage to near-shore waters and marine ecosystems.

We appreciate your efforts to work with our office for the conservation of our native species. These comments are general guidelines and should not be considered comprehensive for this site or project. It is the responsibility of the applicant to do their own due diligence to avoid any negative environmental impacts. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Myma N. Girald Pérez, Protected Species Habitat Conservation Planning Coordinator at (808) 265-3276 or myma.girald-perez@hawaii.gov.

Sincerely,



JASON D. OMICK
Acting Wildlife Program Manager



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD., STE 555
KAPOLEI, HI 96707

SUZANNE D. CASE
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ROBERT K. MASUDA
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M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
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BUREAU OF CONVEYANCES
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CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENDORSEMENTS
FOREST AND WILDLIFE
HISTORIC PRESERVATION
KAWAIALEI ISLAND RESERVE COMMISSION
LAND
STATE PARKS

March 3, 2022

Michael Cain, Acting Administrator
Department of Land and Natural Resources
Office of Conservation and Coastal Lands
1151 Punchbowl Street, Room 131
Honolulu, Hawai'i 96813
michael.cain@hawaii.gov

IN REPLY REFER TO:
Project No. 2019PR30706
Doc. No. 2203DB01
Archaeology
Architecture

Dear Mr. Cain:

**SUBJECT: HRS Chapter 6E-42 Historic Preservation Review –
Kaua'i Island Utility Cooperative – Kōke'e Ditch Diversion Modification Project
Flow Release and Monitoring Plans – OCCL – Site Plan Approval
Kona and Waimea Ahupua'a, Kona District, Island of Kaua'i
TMK: (4) 1-4-001, 002, 003, 013**

This letter provides the State Historic Preservation Division's (SHPD's) HRS §6E-42 updated review of the Kaua'i Island Utility Cooperative (KIUC) – Kōke'e Ditch Diversion Modification Project. The Kaua'i Island Utility Cooperative proposes the installation of gauging stations and to release water in the stream channel at each diversion. The project requires Department of Land and Natural Resources (DLNR) Office of Conservation and Coastal Lands (OCCL) site plan approval. In a letter dated May 17, 2021 (Project No. 2019PR30706, Doc. No. 2104DB08), SHPD requested additional information for the proposed project, including requesting an SIHP Site number for the Kōke'e Ditch System, providing assessment of integrity and site significance of the ditch and reservoir, providing a project effect determination (if necessary), and if warranted, providing potential mitigation commitments for potential impacts related to the current project.

The SHPD received the latest project submittals on November 11, 2021 (Submission No. 2019PR30706.002) that included cover letter for submittal of the revised LRFI report (Belluomini and Hammatt, October 2021), document titled *Archaeological Literature Review and Field Inspection Report for the Kōke'e Diversion Modification Project, Waimea Ahupua'a, Waimea District, Kaua'i, TMK: (4) 1-4-001* (Belluomini and Hammatt, October 2021), and on November 30, 2021 (Submission No. 2019PR30706.003) that included email correspondence for SIHP Site # request. The property acreage totals approximately 0.486 acres (21,160.813 sq. ft.).

The four primary Kōke'e Ditch diversion locations are Waiakoali, Kawaikoi, Kauaikinana, and Kōke'e streams. According to the Kōke'e Ditch System landowner (Agribusiness Development Corporation), the Waiakoali and Kawaikoi diversions are located in the Na Pali Kona Forest Reserve and the Kauaikinana and Kōke'e diversions are located in Kōke'e State Parks. DLNR Division of Forest and Wildlife (DOFAW) manages the land surrounding the Waiakoali and Kawaikoi diversions while DLNR Division of State Parks manages the land surrounding the Kauaikinana and Kōke'e diversions. Pua Moe Divide and Upper Pipeline are located within the Kōke'e State Parks and Pu'u Ka Pele Forest Reserve. Additionally, DOFAW and State Parks manage portions of the upper pipeline.

The proposed project scope of work is based upon a Mediation Agreement for the Waimea Watershed, which was approved by Commission on Water Resource Management (CWRM) in April 2017 and involves modifications to the existing ditch structure to install gauging stations and to release water in the stream channel at each diversion.

There are two types of minor ground disturbance involved with the project. The first involves the installation of 3 concrete pads measuring 3 ft. by 4 ft. at three diversion sites and less than a foot in depth. The second type of ground

Mr. Michael Cain
March 3, 2022
Page 2

disturbance is the widening of a 2-foot-wide footpath at Kawaikoi diversion between an access road and the ditch. Ground disturbance would be caused by removal of ginger and small gauva with an excavator. The path after clearing will be approximately 10 ft. wide. The ditch is currently in use and maintained on a regular basis.

The Kōke‘e Ditch (SIHP Site #50-30-02-02417) was originally constructed between 1906-1907 by the Kekaha Sugar Company, and expanded between 1923 and 1926 into the Kōke‘e Ditch system which includes the Waiakoali Diversion, Kawaikoi Diversion, Kauaikinana Diversion, Kōke‘e Diversion (1924), and Pu‘u Lua Reservoir (1927). The ditch system is defined as a historic property, per §6E-2, HAR. Each diversion structure is comprised of man-made tunnels, basalt and mortar constructed walls, and concrete masonry walls.

The proposed project is limited in spatial extent and will not adversely affect the character defining features of Kōke‘e Ditch, and the minimal ground disturbance has low potential to impact intact subsurface historic properties. Within the revised LRFI, the Kōke‘e Ditch System was assessed for integrity and significance per HAR §13-275-6. It was determined to sufficiently retain all seven elements of integrity for location, design, setting, materials, workmanship, feeling and association, although modern modifications, current lack of commercial agricultural use of the area and ditch, and abandonment of portions of the ditch has slightly diminished its integrity. The ditch system was also determined significant under criteria a, c, and d.

SHPD requests that the Belluomini and Hammatt (October 2021) LRFI be revised to indicate the project is subject only as a §6E-42 project, and pursuant to HAR §13-284. Once revised, please upload final document to HICRIS under Project No. 2019PR30706, as well as two hard copies and a text searchable pdf copy transmitted to the SHPD Kapolei office and to Lehua.K.Soare@hawaii.gov, respectively.

Based on the updated information provided by the applicant, SHPD’s determination is “No Historic Properties Affected” for the current project. Pursuant to HAR §13-284-7(e), when the SHPD agrees that the action will not affect any significant historic properties, this is the SHPD’s written concurrence and historic preservation review ends. The historic preservation review process is ended. The permitting and/or project initiation process may continue.

Please contact Julia Flauaus, Architectural Historian, at Julia.Flauaus@hawaii.gov for any concerns regarding architectural resources, and David Buckley, Kaua‘i Lead Archaeologist, at (808) 462-3225 or at David.Buckley@hawaii.gov for questions regarding this letter.

Mahalo,

Alan Downer

Alan S. Downer, PhD
Administrator, State Historic Preservation Division
Deputy State Historic Preservation Officer

cc: Jason Hines, Joule Group, jhines@joulegroup.com
Dawn Huff, Joule Group, dhuff@joulegroup.com
David Bissell, President and CEO KIUC, dbissell@kiuc.coop
Hal Hammatt, CSH, hhammatt@culturalsurveys.com
Scott Belluomini, CSH, sbelluomini@culturalsurveys.com



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
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CHAIRPERSON
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COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
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N. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONSERVATION
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ENFORCEMENT

FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAWAIALEI ISLAND RESERVE COMMISSION
LAND
STATE TREASURY

REF:OCCL:TM

Correspondence: KA 19-117

Galen Nakamura
Shiramiu Loo & Nakamura
4357 Rice St., Suite 102
Lihue, HI 96766

FEB 12 2019

SUBJECT: Kōke'e Ditch Diversion Modification and Monitoring Proposal Located at Napali-Kona Forest Reserve, Kaua'i, Vicinity of TMKs: (4) 1-4-001:003 & 013

Dear Mr. Nakamura:

The Office of Conservation and Coastal Lands (OCCL) has reviewed your information regarding the subject matter. According to your information the Waimea Watershed Area Mediation Agreement approved by the Commission on Water Resource Management calls for modifications to several existing diversion structures on the Ditch system and the installation of flow measurement equipment on the ditch and on diverted streams.

For this particular request, Kaua'i Island Utility Cooperative (KIUC) is proposing to: 1) Modify four diversions on the Ditch system to increase the natural flows of Waiakoali, Kawaikōī, Kawaikinānā, and Kōke'e streams to satisfy interim instream flow standards adopted by CWRM and 2) install flow measurement equipment in the noted streams and/or associated ditch.

In addition, KIUC is requesting a determination as to what type of authorization would be required for the proposed project and also if the proposed project could be exempt from HRS, Chapter 343.

The OCCL notes the subject area lies within the Resource subzone of the Conservation District. The Kōke'e Ditch system is a nonconforming land use as it was created [1926] prior to the advent of the Conservation District.

What is being proposed are identified land uses in the Conservation District pursuant to the Hawai'i Administrative Rules, Chapter 13-5, §13-5-22 P-1 DATA COLLECTION (B-1) Basic data collection, research, education, and resource evaluation that results in a minor disturbance to natural resources or land; P-8 STRUCTURES AND LAND USES, EXISTING (B-1) Demolition, removal, or minor alteration of existing structures, facilities, land, and equipment. Any historic property shall be evaluated by the department for historical significance; and P-9 STRUCTURES, ACCESSORY (B-1) Construction or placement of structures accessory to existing facilities or uses.

The proposed land uses would require the filing of a Site Plan Approval (SPA) that can be authorized administratively by the OCCL. The SPA application should focus on describing the proposed land uses in detailed layman terms, the construction methodology, best management practices and any proposed mitigation. The SPA application can be found on our website at dlnr.hawaii.gov/occl under applications.

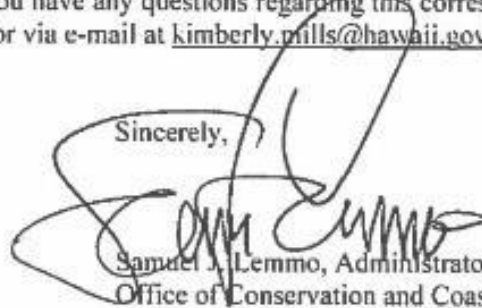
Galen Nakamura
Shiramiu Loo & Nakamura

Correspondence: KA 19-117

At this time, the OCCL believes that the proposed modifications and monitoring improvements may be considered an exempt action pursuant to Hawaii Revised Statutes (HRS), Chapter 343 as amended, HAR, Chapter 11-200, and pursuant to the Exemption List for the Department, specifically exemption class 1- Operations, repairs or maintenance of existing structures, facilities, equipment, or topographical features, involving negligible or no expansion or change of use beyond that previously existing; DLNR exemption 1-22) Repair and maintenance of existing water diversions and intake structures, including valves, gates, intake boxes, and lines, in order to collect or improve the collection at the location of the existing water source diversion works; 1-42) Actions that are intended to maintain or support the sustainability of those natural resources under the jurisdiction of the Department, including law enforcement, regulation compliance, resources and environmental monitoring, debris or property removal, and other administrative and management measures; Exemption Class 3 Construction and location of single new, small facilities or structures and the alteration and modification of same and installation of new, small, equipment and facilities and the alteration and modification of same; DLNR exemptions 3-13) Installation of new, small groundwater, surface water, or climatological monitoring and data collection equipment, structures that house or protect this equipment, and installation of electrical, telemetry, or communications systems to service this equipment; Exemption Class 4 Minor alteration in the conditions of land, water, or vegetation; Exemption Class 5 Basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource; DLNR exemption 5-5) Installation of climatological stations and equipment and streamflow gaging stations and equipment, and other similar equipment necessary to measure environmental factors and collect data; and Exemption Class 6 Construction or placement of minor structures accessory to existing facilities. When processing the SPA application, the OCCL shall seek concurrence with another State agency to hopefully exempt the proposed improvements from HRS, Chapter 343.

In addition, as the Koke'e Ditch Irrigation System is considered a historic feature, the State agency that has oversight of the entire system should submit the HRS 6E Submittal Form on behalf of KIUC in regards to historic properties. This form can be found on the State Historic Preservation Division website under FORMS.

The OCCL notes the plans for Documentations and Modifications of Four Koke'e Diversions has the wrong tax map key. OCCL staff has deduced the subject location's TMKs. Please include the proper location, preferably a TMK. Should you have any questions regarding this correspondence, contact Tiger Mills of our Office at (808) 587-0382 or via e-mail at kimberly.mills@hawaii.gov.

Sincerely,

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

C: CWRM/HP/KDLO
DOA
County of Kaua'i
-Planning

January 30, 2024



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



In Reply Refer To:
2024-0004962-S7-001

November 30, 2023

Mr. M. Kaleo Manuel
Attn: Ms. Rebecca Alakai
Commission on Water Resource Management
State of Hawai'i
Honolulu, Hawai'i 96809

Subject: Technical Assistance for the Proposed KIUC Kōke'e Ditch Diversion
Modification and Monitoring Project, Kaua'i

Dear Mr. Manuel:

Thank you for your October 20 and October 26, 2023 letters, requesting technical assistance for the proposed KIUC Kōke'e Ditch Diversion Modification and Monitoring project. There are two sections to this proposed project. The section under the SDWP.6001.2 application is located at Waiakōali, Kawaikōi, and Kōke'e Streams and the section under the SCAP.6002.2 application is located at Waiakōali, Kauaikinana, and Kōke'e Streams. Both sections of the project are in Waimea, on the island of Kaua'i [TMKs: (4) 1-4-001:003 and 013].

The proposed work for SDWP.6001.2 includes the following diversion modifications:

1. Waiakōali Stream: Installation of a concrete diversion headwall with a control gate.
2. Kawaikōi Stream: Construction of a gravel coffer dam with a gated pipe and trash rack.
3. Kōke'e Stream: Construction of a 36-inch bulkhead with a gate and a 85-foot long, 24-inch HDPE pipe flume.

At Waiakōali, the headwall modification will serve to control ditch flow and impoundment level. The new headwall will be keyed into the ditch walls and have a height of at least 18-inch above the diversion crest. The center of the headwall bulkhead will contain a 36-inch wide stoplog bay that will have boards set in place to provide a fixed opening. A new release point will be cut into the concrete crest wall of the existing spillway and will be located at the west end of the spillway crest and measure 18-inch wide and 12-inch deep. The proposed work will take place primarily in the ditch and not in the stream channel. The stream channel at the point of diversion is

PACIFIC REGION 1

IDAHO, OREGON*, WASHINGTON,
AMERICAN SAMOA, GUAM, HAWAII, NORTHERN MARIANA ISLANDS

*PARTIAL

Mr. M. Kaleo Manuel

2

approximately 35 feet in width above the existing diversion structure and 15 feet in width below the diversion.

At Kawaikōi, an earthen coffer dam will be installed in the ditch immediately below the diversion. The coffer dam will contain a gated culvert to allow ditch flows to be regulated and thereby keep water in the stream during periods of natural low flows. The proposed work will take place primarily in the ditch and not in the stream channel. The stream channel at the point of diversion is approximately 80 feet in width above the existing diversion structure and 30 feet in width below the diversion.

At Kōke'e Stream, the goal of the modifications is to retain all natural flows in the stream, which requires the ditch flows to pass across the stream without comingling. The ditch flow will be conveyed in a 24-inch HPDE flume pipe from the end of the ditch across the stream and into the downstream ditch tunnel. The pipe will be partially submerged during all flow conditions and will have supports every 10 feet. A new 36-inch tall bulkhead will be installed at the end of the concrete ditch section. The existing ditch gate, gate frame, hoist, and operator's platform will be repaired and modified to accept the new flume pipe. The proposed work will take place in both the ditch and the impounded stream channel behind the existing diversion structure. The Kōke'e stream channel upstream of the diversion is comprised of small braided channels two to six feet in width with a total width of 10 to 15 feet. The stream channel below the diversion varies from four to 12 feet in width.

The proposed work for SCAP.6002.2 includes the following diversion modifications:

1. Waiakōali Stream: Construction of a stream gate, two pressure transducers, a staff gate, an equipment enclosure, and a gage weir.
2. Kauaikinana Stream: Installation of a pressure transducer, two staff gages, a spillway insert, a modified ditch gate leaf, and an electrical enclosure.
3. Kōke'e Stream: Installation of a pressure transducer, a staff gage, an acoustic Doppler, a HDPE ditch water flume pipe and control gate, a stoplog slot insert, and an equipment enclosure.

The proposed work includes the installation of flow monitoring equipment to measure stream and ditch flows. The goals for the gauging station installation includes gaining a better understanding of natural stream flow on the currently ungauged streams, measuring what is diverted into the ditch, and measuring flow in the stream channel below each diversion.

Our letter has been prepared under the authority of and in accordance with provisions of the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*), as amended (ESA). We have reviewed the information you provided and pertinent information in our files, as it pertains to federally listed species in accordance with section 7 of the ESA. Our data indicate the following species may occur or transit through the vicinity of the proposed project area: endangered 'ua'u (Hawaiian petrel, *Pterodroma sandwichensis*), endangered Hawai'i distinct population segment (DPS) of the 'akē'akē (band-rumped storm-petrel, *Hydrobates castro*), threatened 'a'o (Newell's shearwater, *Puffinus newelli*) (hereafter collectively referred to as Hawaiian seabirds); endangered 'ōpe'ape'a (Hawaiian hoary bat, *Lasiurus cinereus semotus*); endangered koloa maoli (Hawaiian duck, *Anas wyvilliana*), endangered 'alae ke'oke'o (Hawaiian coot, *Fulica*

Mr. M. Kaleo Manuel

3

alai), endangered ae'o (Hawaiian stilt, *Himantopus mexicanus knudseni*), endangered 'ālae 'ula (Hawaiian gallinule, *Gallinula galeata sandvicensis*) (hereafter collectively referred to as Hawaiian waterbirds); and threatened nēnē (Hawaiian goose, *Branta sandvicensis*). We provide the following to assist you in preparation of your project.

Hawaiian Seabirds

Hawaiian seabirds may traverse the project area at night during the breeding, nesting, and fledging seasons, March 1 through 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 Hawaiian seabirds we recommend you incorporate the following measures into your project design:

- Fully shielded all outdoor lights so the bulb can only be seen from below.
- Install automatic motion sensor switches and controls on all outdoor lights or turned 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.

'Ōpe'ape'a

'Ōpe'ape'a roosts in woody vegetation across all islands and will leave their young unattended in trees and shrubs when they forage. If trees or shrubs 15 feet or taller are cleared during the pupping season, June 1 through September 15, there is a risk that young bats could inadvertently be harmed or killed, since they are too young to fly or move away from disturbance. 'Ōpe'ape'a 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 potential project impacts to the endangered 'ōpe'ape'a, we recommend you incorporate the following applicable measures into your project design:

- Do not disturb, remove, or trim woody plants greater than 15 feet tall during the birthing and pup rearing season for 'ōpe'ape'a, June 1 through September 15.
- Do not use barbed wire for fencing.

Hawaiian Waterbirds

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 (*Colocasia esculenta*) lo'i or patches, irrigation ditches, sewage treatment ponds, and in the case of the koloa maoli, montane streams and marshlands. Ae'o may also be found wherever ephemeral or persistent standing water may occur. Threats to these species include habitat loss and habitat degradation.

Mr. M. Kaleo Manuel

4

To avoid and minimize potential project impacts to Hawaiian waterbirds we recommend you incorporate the following measures into your project design:

- 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 area, incorporate applicable best management practices (BMPs) regarding work in aquatic environments into the project design (see enclosure).
- 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 project site prior to project initiation. Repeat surveys again within 3 days of project initiation and after any subsequent delay of work of 3 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.

In addition, your project may result in the creation of standing water or open water that could attract Hawaiian waterbirds to the project site. 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 aeʻo is also known to nest in sub-optimal locations (e.g., any ponding water), if water is present. Therefore, we recommend you work with our office during project planning so that we may assist you in developing measures to avoid impacts to listed species (e.g., fencing, vegetation control, predator management).

Nēnē

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 potential project impacts to nēnē we recommend you incorporate the following measures into your project design:

- Do not approach, feed, or disturb nēnē.
- If nēnē are observed loafing or foraging within the project area during the breeding season, September through April, have a biologist familiar with nēnē nesting behavior survey for nests in and around the project area prior to the resumption of any work. Repeat surveys after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest).

Mr. M. Kaleo Manuel

5

- Cease all work immediately and contact the Service for further guidance if a nest is discovered within a radius of 150 feet of the proposed project, or a previously undiscovered nest is found within the 150-foot radius after work begins.
- In areas where nēnē 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.

A 4(d) rule was established at the time 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.

We appreciate your efforts to conserve protected species. If you have questions regarding this response, please contact Charmian Dang, Fish and Wildlife Biologist (phone 808-792-9400, email: Charmian_Dang@fws.gov). When referring to this project please include this reference number: 2023-0004962-S7-001.

Sincerely,

JINY
KIM

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by JINY KIM
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Island Team Manager
Oʻahu, Kauaʻi, Northwest Hawaiian Islands and
American Samoa

Enclosure: Service Recommended Standard BMP

U.S. Fish and Wildlife Service Recommended Standard Best Management Practices

The U.S. Fish and Wildlife Service (Service) recommends the following measures to be incorporated into project planning to avoid or minimize impacts to fish and wildlife resources. Best Management Practices (BMPs) include the incorporation of procedures or materials that may be used to reduce either direct or indirect negative impacts to aquatic habitats that result from project construction-related activities. These BMPs are recommended in addition to, and do not over-ride any terms, conditions, or other recommendations prepared by the Service, other federal, state or local agencies. If you have questions concerning these BMPs, please contact the Service's Aquatic Ecosystems Conservation Program at 808-792-9400.

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. Dredging/filling in the marine environment should be scheduled to avoid coral spawning and recruitment periods, and sea turtle nesting and hatching periods. Because these periods are variable throughout the Pacific islands, we recommend contacting the relevant local, state, or federal fish and wildlife resource agency for site specific guidance.
3. 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.
4. 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 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.
5. Project construction-related materials (fill, revetment rock, pipe, etc.) should not be stockpiled in, or in close proximity to 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.
6. 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.
7. 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, hydro-seeding, etc.

STANDARD STREAM DIVERSION WORKS PERMIT CONDITIONS
(Revised December 15, 2020)

1. The permit application and staff submittal approved by the Commission at its meeting on the above date shall be incorporated herein by reference.
2. The project may require other agency approvals regarding wetlands, water quality, grading, stockpiling, endangered species, and floodways. The permittee shall comply with all other applicable statutes, ordinances, and regulations of the Federal, State and county governments, including, but not limited to, instream flow standards.
3. The permittee, his successors, assigns, officers, employees, contractors, agents, and representatives, shall indemnify, defend, and hold the State of Hawaii harmless from and against any claim or demand for loss, liability, or damage including claims for property damage, personal injury, or death arising out of any act or omission of the permittee or his successors, assigns, officers, employees, contractors, and agents under this permit or related to the granting of this permit.
4. The permittee shall notify the Commission, by letter, of the actual dates of project initiation and completion. The permittee shall submit a set of as-built plans and photos in pdf format of the completed work to the Commission upon completion of this project. This permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The proposed work under this stream channel alteration permit shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Commission upon showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Commission no later than three (3) months prior to the date the permit expires. If the commencement or completion date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.
5. Before proceeding with any work authorized by the Commission, the permittee shall submit one set of construction plans and specifications in PDF format to determine consistency with the conditions of the permit and the declarations set forth in the permit application.
6. The permittee shall implement site-specific, construction Best Management Practices in consultation with the DOH Clean Water Branch and other agencies as applicable, that are designed, implemented, operated, and maintained by the permittee and its contractor to properly isolate and confine activities and to contain and prevent any potential pollutant(s) discharges from adversely impacting State waters per HRS Ch. 342D Water Pollution; HAR §11-54-1 through §11-54-8 Water Quality Standards; and HAR Ch. 11-55 Water Pollution Control, Appendix C.
7. The permittee shall protect and preserve the natural character of the stream bank and stream bed to the greatest extent possible. The permittee shall plant or cover lands denuded of vegetation as quickly as possible to prevent erosion and use native plant species common to riparian environments to improve the habitat quality of the stream environment.
8. The permittee, owner and/or operator of the stream diversion works shall provide and maintain an approved meter or other appropriate device or means for measuring and reporting total water usage on a monthly (calendar or work schedule) basis to the Commission per HAR §13-168-7 Report of Water Use.
9. In the event that subsurface cultural remains such as artifacts, burials or deposits of shells or charcoal are encountered during excavation work, the permittee shall stop work in the area of the find and contact the Department's Historic Preservation Division immediately. Work may commence only after written concurrence by the State Historic Preservation Division.

LEGAL AUTHORITIES

Water as a Public Trust. The four public trust purposes are:

1. Maintenance of waters in their natural state.
2. Domestic water use of the general public, particularly drinking water.
3. The exercise of Native Hawaiian and traditional and customary rights, including appurtenant rights. Waiahole, 94 Hawaii 97; 9 P.3d 409 (2000).
4. Reservations of water for use on Hawaiian home lands. Waiola O Molokai, Inc., 103 Hawaii 401; 83 P.3d 664 (2004).

Activities on undeveloped lands. Public Access Shoreline Hawaii v. Hawaii County Planning Commission (PASH I). 79 Hawaii 246 (1993).

HRS §174C-71 Protection of instream uses. The commission shall establish and administer a statewide instream use protection program. In carrying out this part, the commission shall cooperate with the United States government or any of its agencies, other state agencies, and the county governments and any of their agencies. In the performance of its duties the commission shall:

- (2) Establish interim instream flow standards;
 - (D) In considering a petition to adopt an interim instream flow standard, the commission shall weigh the importance of the present or potential instream values with the importance of the present or potential uses of water for noninstream purposes, including the economic impact of restricting such uses;
- (3) Protect stream channels from alteration whenever practicable to provide for fishery, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses;
 - (A) The commission shall require persons to obtain a permit from the commission prior to undertaking a stream channel alteration; provided that routine streambed and drainageway maintenance activities and maintenance of existing facilities are exempt from obtaining a permit;
 - (C) The commission shall establish guidelines for processing and considering applications for stream channel alterations consistent with section 174C-93;

HRS §174C-93 Permits for construction or alteration. No person shall construct or alter a stream diversion works, other than in the course of normal maintenance, without first obtaining a permit from the commission.

HAR §13-168-2 Definitions.

“Instream flow standard” means a quantity or flow of water or depth of water which is required to be present at a specific location in a stream system at certain specified times of the year to protect aquatic life, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses.

“Instream use” means beneficial uses of stream water for significant purposes which are located in the stream and which are achieved by leaving the water in the stream. Instream uses include, but are not limited to:

- (1) Maintenance of aquatic life and wildlife habitats;
- (2) Outdoor recreational activities;

- (3) Maintenance of ecosystems such as estuaries, wetlands, and stream vegetation;
- (4) Aesthetic values such as waterfalls and scenic waterways;
- (5) Navigation;
- (6) Instream hydropower generation;
- (7) Maintenance of water quality;
- (8) The conveyance of irrigation and domestic water supplies to downstream points of diversion; and
- (9) The protection of traditional and customary Hawaiian rights.

“Stream diversion” means the act of diverting, pumping or otherwise removing water from a stream into a channel, ditch, pipeline, or other conduit.

“Stream diversion works” means any artificial structure, excavation, pipeline, or other conduit constructed singly or in combination, for the purpose of diverting or otherwise removing water from a stream into a channel, ditch, tunnel, pipeline, etc.

HAR §13-168-7 Report of water use. (a) The owner or operator of any well or stream diversion works from which water is being used shall provide and maintain an approved meter or other appropriate device or means for measuring and reporting total water usage on a monthly (calendar or work schedule) basis.

HAR §13-168-32 Stream diversion permits. (a) No person shall construct or alter a stream diversion works, other than in the course of normal maintenance, without first obtaining a stream diversion permit from the commission...

(b) Each application for a stream diversion permit shall be made on forms provided by the commission and shall contain the following:

- (1) Name and address of the applicant;
- (2) Name and address of the owner or owners of the land upon which the works are to be constructed and a legal description of such land;
- (3) Location of the works;
- (4) Engineering drawings showing the detailed plans of construction;
- (5) Detailed specifications of construction;
- (6) Name and address of the person who prepared the plans and specifications for construction;
- (7) Name and address of the person who will construct the proposed work;
- (8) General purpose of the proposed works; and
- (9) Such other information as the commission may require.

(c) The commission may issue or cause to be issued a stream diversion permit if the proposed construction complies with all applicable laws, rules, and standards. The commission shall approve or disapprove an acceptably completed application within ninety calendar days of receipt by the commission. The commission may approve in whole, approve in part, approve with modifications, or disapprove an application for a stream diversion permit.

(d) In reviewing an application for a permit, the commission shall cooperate with persons having direct interest in the stream diversion works and be guided by the following general considerations:

- (1) The quantity and quality of the stream water or the stream ecology shall not be adversely affected.

- (2) Where instream flow standards or interim instream flow standards have been established pursuant to chapter 13-169, no permit should be granted for any diversion works which diminishes the quantity or quality of stream water below the minimum established to support identified instream uses, as expressed in the standards.
- (3) The proposed diversion works shall not interfere substantially and materially with existing instream or non-instream uses or with diversion works previously permitted.

HAR §13-169-45 Interim instream flow standard for Kauai. The Interim Instream Flow Standard for all streams on Kauai, as adopted by the commission on water resource management on June 15, 1988, shall be that amount of water flowing in each stream on the effective date of this standard, and as that flow may naturally vary throughout the year and from year to year without further amounts of water being diverted offstream through new or expanded diversions, and under the stream conditions existing on the effective date of the standard.