STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
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STAFF SUBMITTAL

COMMISSION ON WATER RESOURCE MANAGEMENT

June 24, 2015
Honolulu, Hawaii

Request to Authorize the Chairperson to Enter into a Joint Funding Agreement with the U.S. Fish & Wildlife Service for the ʻĪao Stream Mauka to Makai Fish Passage Project
And
Declare Project Exempt from HRS Chapter 343,
Environmental Impact Statements, ʻĪao Stream, Maui

SUMMARY OF REQUEST:

Staff requests the Commission on Water Resource Management (Commission) authorize the Chairperson to enter into a Joint Funding Agreement with the U.S. Fish & Wildlife Service, Hawaii Fish Habitat Partnership (USFWS). The purpose of this project is to improve biological connectivity by limiting downstream larval entrainment and improve upstream migratory pathways in the ʻĪao Stream, Maui. The Commission, in cooperation with project Partners, propose the following:

Site 1: Modify an existing ditch diversion (**Exhibit 1**).
Site 2: Repair stream bank erosion at a waterfall (**Exhibit 2**).
Site 3: Improve a low flow channel in a channelized section of the ʻĪao Stream (**Exhibit 3**).

Staff also requests that the Commission declare the project exempt from an environmental assessment as the potential impacts involve negligible or no expansion or change of use beyond that previously existing, among others, pursuant to Hawaii Revised Statutes (HRS) §343-6 and Hawaii Administrative Rules (HAR) §11-200-8.

BACKGROUND:

ʻĪao Stream is a 26-mile long perennial stream that drains a large amphitheater-headed valley in the West Maui Mountains. Native amphidromous species are dependent on the connectivity of habitat between headwater streams and the ocean and have evolved to use suction disks on their ventral sides to climb wet rocks and up waterfalls. Newly hatched larvae migrate passively downstream to the ocean where they spend time developing as juveniles, and then migrate upstream to recolonize freshwater habitats. Native species of gobies, shrimps, and snails and include ʻOʻopu nakea (*Awaous Stamineus*), ʻOʻopu alamoʻo (*Lentipes concolor*), ʻOʻopu naniha

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(*Stenogobius hawaiiensis*), ʻOʻopu nopili (*Sicyopterus stimpsoni*), ʻOʻopu akupa (*Eleotris sandwicensis*), ʻŌpae kalaʻole (*Atyoida bisulcata*), ʻŌpae ʻoehaʻa (*Macrobrachium grandimanus*), and Hīhīwai (*Neritina granosa*).

However, due to a stream diversion in the upper section (**Exhibit 1**), there is a 1,000-ft dry stretch of stream that limits the upstream migration of native species and may entrain larvae during their downstream migration. Additional barriers to migration also exist, including an overhanging bank at the top of a naturally occurring waterfall in the mid-section (**Exhibit 2**), and the lower, channelized portion could be improved to support fish migration (**Exhibit 3**).

The Commission found that if the currently degraded habitat of Nā Wai ʻEhā streams are restored, recruitment and re-population are expected to occur. As such, the Commission ordered staff to confer with the DLNR's Division of Aquatic Resources, Maui County, and other parties to develop methods for allowing upstream migration in the ʻĪao Stream. (The Commission's Findings of Fact, Conclusions of Law, and Decision and Order in re ʻĪao Ground Water Management Area High-Level Source Water-Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihe'e River and Waiehu, ʻĪao, and Waikapu Streams Contested Case Hearing MAO6-O1, dated June 10, 2010).

The Hawaii Supreme Court held that the maintenance of waters in their natural state is one of four public trust purposes. Waiahole I, 94 Haw. 97; 9 P.3d 409 (2000).

SCOPE OF WORK:

Preliminary planning, permits, and compliance documents will be developed and completed by the USFWS and CWRM based on construction needs and logistics, in consultation with Partners and regulatory agencies. To minimize project costs, the Department's Engineering Division may take the lead on design and permitting. Cooperative agreement funds may also be used to obtain professional services for a design-build contract.

Site 1: Modify an existing diversion across the ʻĪao Ditch. (**Exhibit 1**). Modification of the diversion includes an elevation study across the ditch face to determine the low flow channel and install a plate across a portion of the ditch. The purpose is to increase water flow over the ditch intake grate so that native species can passively migrate downstream without getting entrained in the ditch and create a wetted path below the ditch sufficient for native species to migrate upstream.

As a result of this project, restoring stream flow over the diversion will connect 15 miles of upstream habitat and improve migration.

Site 2: Repair channel scour and undercut/overhang at a pipe crossing adjacent to waterfall. (**Exhibit 2**). At the top of the waterfall, there is a buried and cemented pipe crossing the Stream. This concrete structure creates hydraulic scour on the downstream side where the Stream flows over a naturally-occurring waterfall. The purpose of the project is to remediate this unclimbable overhang. Construction of the fish passage feature will be designed to ensure that there is a continuous climbable surface for native gobies and invertebrates' migration up the naturally occurring rock face of the waterfall. Structural modification under the overhang depends on permit requirements, logistics, and complexity of construction activities.

Site 3: Improve a low flow channel in a channelized section of the Stream. (**Exhibit 3**). Improve the low-flow portion of the channelized section of Stream near the mouth to help native species returning to the Stream access increased stream flows. Channel improvements include installation of: (1) a "speed bump" to limit the spread of water to a portion of the whole Stream width; and (2) a weir to monitor the instream flow values agreed upon by a April 2014 CWRM agreement. The location of the weir may change due to local conditions and as stream flow is better understood.

Sites 1 and 2 are priority areas. Sites 2 and 3 will be completed subject to funding availability.

FUNDING:

Staff requests the Commission approve $25,000 for the Joint Funding Agreement with the USFWS. Funding will be from the Commission's general fund, special fund, or a combination of both, subject to available funding.

The total cost of this agreement is $50,000. The Commission's share is $15,000. The USFWS will provide $25,000. Project partners will provide an "in-kind match" of $10,000. Additional project partners include DLNR's Divisions of Aquatic Resources and Engineering.

Site 1: Wailuku Water Company, LLC (Landowner).
Site 2: Robert Horcajo (Landowner).
Wailuku Water Company, LLC (Easement Holder).
Site 3: County of Maui.

Period of Performance: The period of performance for the ʻĪao Stream Fish Passage Project is from October 1, 2015 to September 30, 2017. Phase-one (Year 1) constitutes design and permitting work. The second phase (Year 2) will design-build the project sites. Discussions are underway with the U.S. Army Corps of Engineers, public and private landowners, and community groups that were part of prior agreements.

Monitoring: Implementation monitoring to record and confirm installation of fish passage features will be documented using photo points and methods derived from monitoring protocols outlined in the publication titled: *Monitoring habitat restoration projects: U.S. Fish and Wildlife Service Pacific Region Partners for Fish and Wildlife Program and Coastal Program Protocol* (Woodward and Hollar, 2011). Effectiveness monitoring to document success of upstream passage of fish and invertebrates will be derived from routine Hawaii DLNR – Division of Aquatic Resources stream surveys and will be supplemented with information from site visits by Service biologists.

ENVIRONMENTAL REVIEW (CHAPTER 343, HRS):

Environmental Assessment Trigger. Pursuant to HRS §343-5(a)(1), the proposed action triggers the need for an Environmental Assessment (EA) based on the use of State or County lands or funds.

Environmental Assessment Exemption. HRS §343-6(a)(2) provides that actions that have minimal or no significant effects on the environment are exempt from the preparation of an EA

and provides for exempt classes of action, HAR §11-200-8. The subject project is exempt from the preparation of an EA for the following reasons:

HAR §11-200-8(A)(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.

HAR §11-200-8(A)(4): Minor alterations in the conditions of land, water, or vegetation.

HAR §11-200-8(A)(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.

RECOMMENDATION:

1. Authorize the Chairperson to enter into a Joint Funding Agreement with the U.S. Fish & Wildlife Service to improve biological connectivity by limiting downstream larval entrainment and improve upstream migratory pathways in the ʻĪao Stream, Maui. Commission funding will be from general or special funds or a combination of both, subject to the availability of funding.

2. Declare that this project will likely have minimal or no significant effect on the environment and is therefore exempt from the preparation of an EA pursuant to HRS Chapter 343 and HAR Section 11-200-8(A)(1), (4), and (5).

Respectfully submitted,

W. ROY HARDY
Acting Deputy Director

Exhibits:
1. Site 1: Upper section, ʻĪao Stream ditch diversion.
2. Site 2: Mid-section, waterfall and pool.
3. Site 3: Lower section, improve a low flow channel

APPROVED FOR SUBMITTAL

SUZANNE D. CASE
Chairperson

Exhibit 1: Site 1: Upper section, ʻĪao Stream ditch diversion.

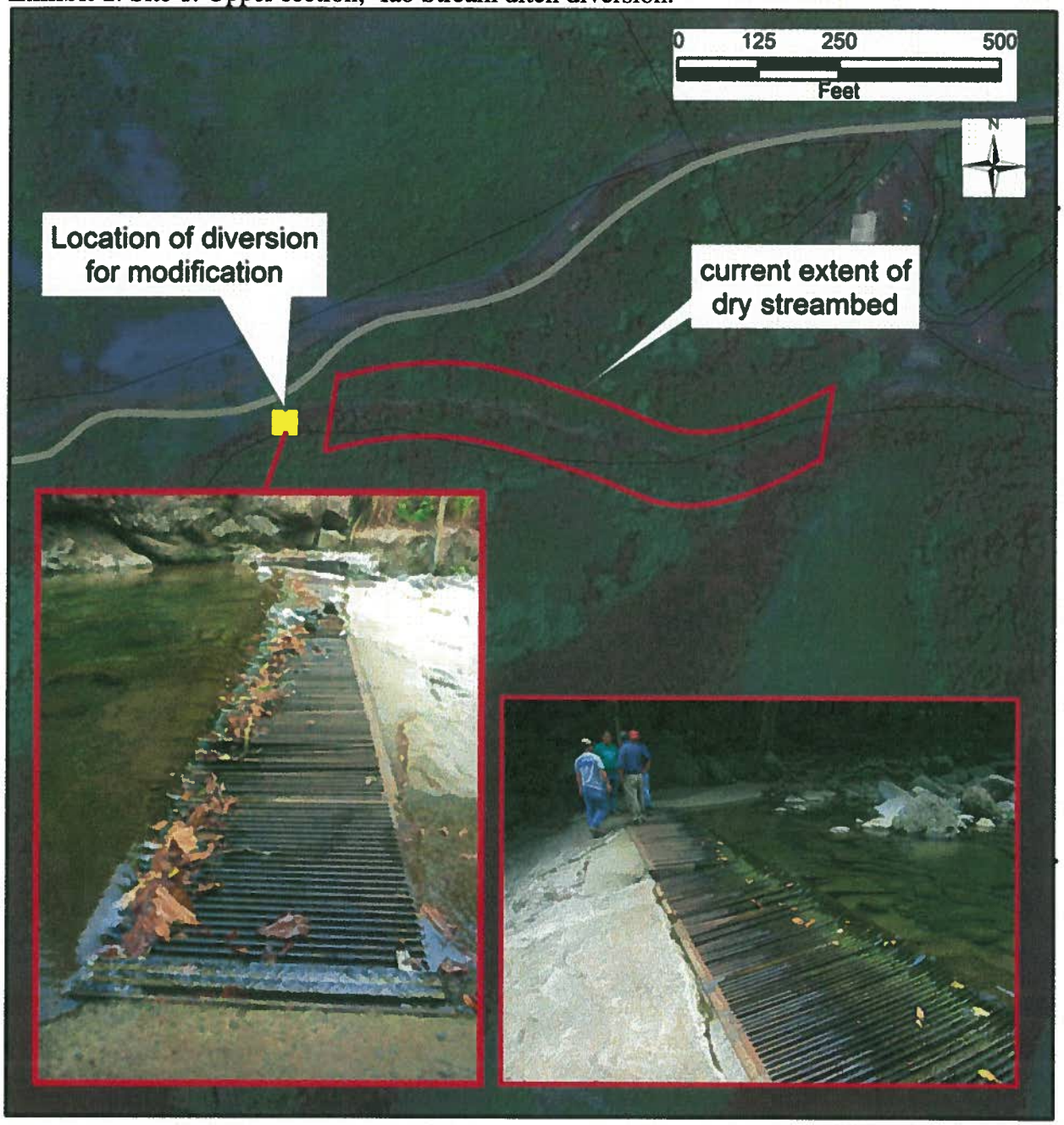

EXHIBIT 1

Exhibit 2: Site 2: Mid-section, waterfall and pool

EXHIBIT 2

Exhibit 3: Site 3: Lower section, improve a low flow channel.

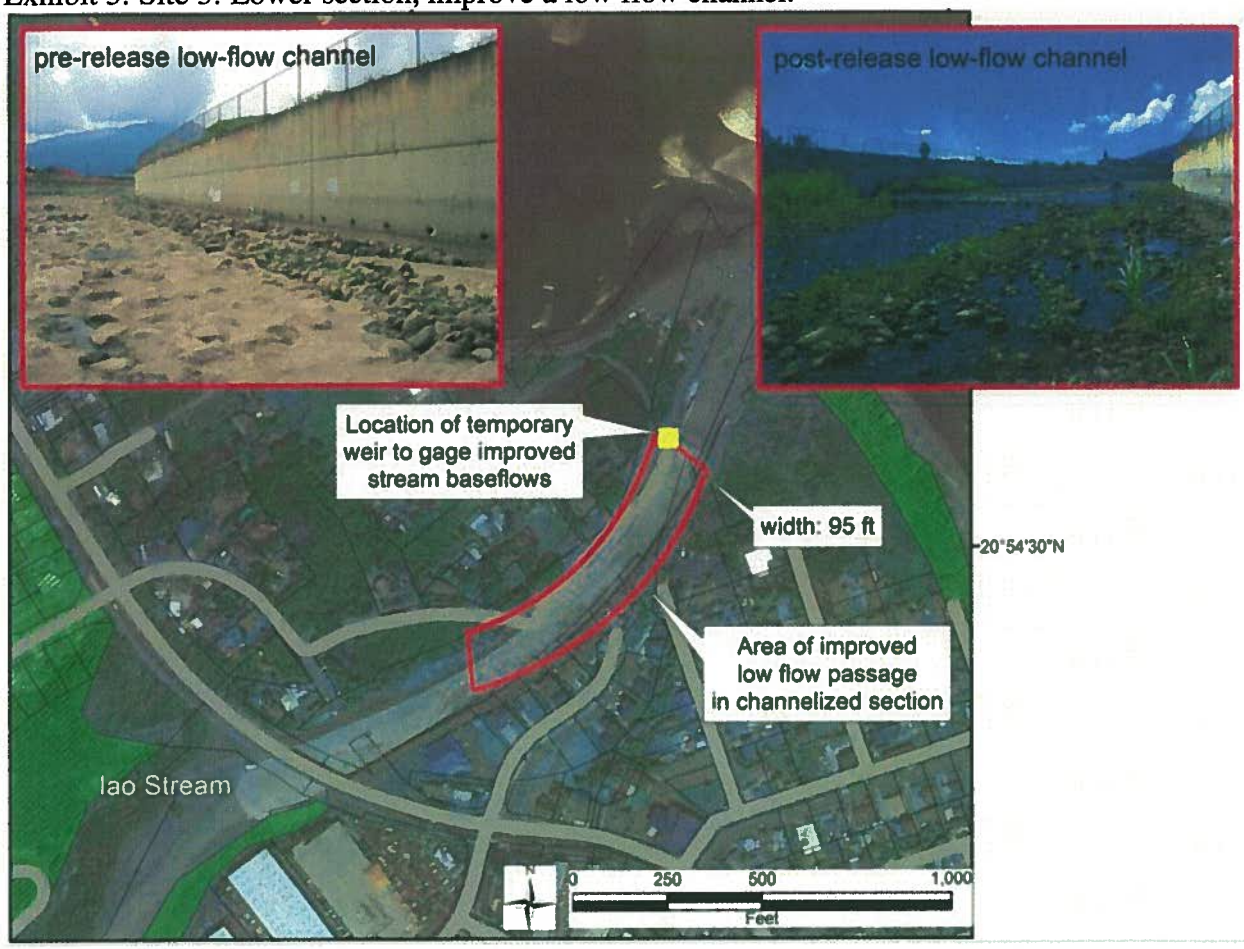

EXHIBIT 3