# STATE OF HAWAI'I DEPARTMENT OF LAND AND NATURAL RESOURCE OFFICE OF CONSERVATION AND COASTAL LANDS Honolulu, Hawai'i

180-Day Exp. Date: July 27, 2014

June 27, 2014

Board of Land and Natural Resources State of Hawaii Honolulu, Hawai'i

**REGARDING:** 

Conservation District Use Application (CDUA) ST-3703: Ho'āla Loko I'a

A Statewide Programmatic General Permit and Programmatic Agreement for the repair, restoration, maintenance, and operation of traditional fishpond systems in

Hawai'i

APPLICANT:

Office of Conservation and Coastal Lands

LOCATION:

Statewide; all traditional Hawaiian fishponds located in the State Land Use

**Conservation District** 

SUBZONE:

All

#### **DESCRIPTION OF PROPOSAL**

Ho'āla Loko I'a is a proposed Statewide Programmatic General Permit and Programmatic Agreement for the repair, restoration, maintenance, and operation of traditional fishpond systems in Hawai'i.

The intent is to provide cultural practitioners with a single application and permit, processed by the Department of Land and Natural Resources (DLNR) Office of Conservation and Coastal Lands (OCCL), which will encompass the five (5) potential permits that are currently required for restoration activities. The program has been designed to be in compliance with seventeen distinct federal and state regulations.

OCCL is requesting that the Board approve the following:

That the Board delegate to the Chair the authority to sign a five-year Programmatic Agreement with the U.S. Army Corps of Engineers for the Hoʻāla Loko Iʻa program,

That the Board delegate to the Chair the authority to sign Tier 2 and Tier 3 level permits, as described below, and

That OCCL be given the authority to implement and manage the Ho'āla Loko I'a program as described below.

OCCL notes that there are access, land disposition issues, regulatory hurdles, financing and other issues involved with restoration. This project is designed to specifically address the **regulatory** side of these challenges.

OCCL anticipates that the U.S. Army Corps of Engineers (Corps) will issue a "General Permit" that will

delegate to the State the authority to issue permits covered under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403). The Section 10 process includes a mandatory consultation with resource agencies, and compliance with the Coastal Zone Management program, the Endangered Species Act, the Clean Water Act §401 Water Quality Certification program, the Magnusson-Stevenson Fishery Conservation and Management Act, the Fish and Wildlife Coordination Act, and the National Historic Preservation Act.

If this process holds true, the Corps will issue a public notice for the General Permit. This public notice will trigger an agency consultation process; the outcome of this process will be a finalized list of protocols, conditions and best management practices that prospective fishpond practitioners will need to follow for the repair, restoration, maintenance, and operation of traditional fishpond systems in Hawai'i.

The OCCL is trying to make this process as seamless as possible for fishpond practitioners in order to enhance their capacity to engage in a traditional native Hawaiian practice and to improve the functionality of these systems which provide environmental services important to everyone. The primary way to help a practitioner repair a fishpond is to reduce the regulatory burdens they face -e.g., multiple disparate permitting authorities and expensive studies.

Under the Statewide General Programmatic Permit process, projects will require a single user-friendly Conservation District Use Application that has been modified to meet the needs of the Hoʻāla Loko Iʻa program (Loko Iʻa CDUA). The CDUA will ask applicants to discuss the history of the pond, the ecology of the pond system, the applicant's relationship to the pond and associated ahupuaʻa, the proposed work, and the proposed best management practices and water quality monitoring plans that will be followed.

The application will have an associated **Guidebook** (in process) that will discuss the federally and statemandated best management practices that will need to be observed for the various types of activities.

# Streamlined Permit Structure

OCCL will receive a complete application and assign it to one of three different tracks for processing.

The first tier will encompass those activities that currently do not require a permit from or minimally require a Site Plan Approval from OCCL, but that do not trigger the need for federal review. OCCL will issue the permit to the applicant along with general conditions, monitoring protocol, and best management practices, and provide notice of the permit to cooperating agencies.

First tier activities include the minor repair, restoration, maintenance and operation of existing fishponds (e.g., replacement of small wall sections, replacement of individual rocks or other wall materials, repair of gates, 'auwai, minor dredging by non-mechanized means and non-routine maintenance of vegetation), construction or placement of minor structures (not to exceed 600 square feet) in the Conservation District that are accessory to the maintenance and operation of a loko i'a, stocking & harvesting with traditional methods, temporary emergency repair of breaches, and the removal of alien species (e.g. mangroves).

The second and third tiers will encompass those activities that trigger the need for Section 10 Review. Upon receipt of a complete application OCCL will forward the application to the A Corps and appropriate resource agencies for review. Reviewers will be able to concur with the standard conditions, request additional information from the applicant, seek additional consultation with subject matter area experts, or identify additional and or site-specific conditions, protocols, and BMPs. Once the review is complete notice will be provided to cooperating agencies of the findings, and the applicant will be issued an authorization to proceed. If no concerns or comments are received within thirty days OCCL will forward the application to the Chair of the Board of Land and Natural Resources, who will have the final authority to approve, modify, or deny the permit.

Second tier activities include emergency repair of fishponds, and restoration work that involved a change in excess of 10 percent, but no more than fifty percent of the dimensions of the historic structure.

Third tier activities are those where site-specific conditions, protocols, and BMPs are likely to be required. These include repair and restoration work that is in excess of fifty percent of the original fishpond structure, dredging with the use of mechanized equipment, and any activity that may moderately affect or alter sandy beaches or sediment deposition, or activities that might require an Incidental Take Permit or Habitat Conservation Plan. The Department will retain the discretion to exclude major projects from this process if there is the potential for significant environmental impacts.

Excluded activities that will not be covered by this process include new fishpond construction; activities that are likely to have significant, long-term negative impacts on marine life, water quality, or coastal processes, or coastal access (e.g. activities excluded from authorization under section 2.3.3); activities that are likely to result in significant damage to special aquatic sites such as wetlands, vegetated shallows, mudflats, coral reefs, and sea grass beds; and the introduction or culture of alien species.

OCCL notes that all of these issues, procedures, and best management practices were fully vetted through a Programmatic Final Environmental Assessment (PFEA), prepared by Honua Consulting. The Finding of No Significant Impact (FONSI) was published in October 2013. The PFEA examined over three decades of research data into fishpond systems, and concluded that the project could result in short-term minimal impacts to water quality, but these would be mitigated by long-term cumulative benefits to the coastal ecosystem in Hawai'i.

This streamlined regulatory effort is supported by non-regulatory efforts. For instance, both the Kua'āina Ulu 'Aumo (a 501(c)3 non-profit organization), funded with a grant from the Office of Hawaiian Affairs, and the Castle Foundation, intend to offer technical assistance to practitioners and researchers to conduct baseline studies and long-term monitoring projects that examine the environmental effects of restoration. In addition, these organizations will assist in training and the development of a Guidebook for the repair, restoration, maintenance, and operation of traditional fishpond systems in Hawai'i. Overall funding for this effort has been provided by Conservation International, and OCCL intends to encourage other funding agencies, scientists, and universities to conduct additional projects. Our office believes that this project offers researchers an unparalleled opportunity to unite traditional methods of ecosystem management with modern methods of scientific analysis.

In addition, the National Oceanic and Atmospheric Agency (NOAA) Sanctuaries System will take the lead in coordinating a state-wide parallel effort to study the effects of fishpond repair, restoration, maintenance, and operation on water quality. These findings will be calibrated against the findings of the water quality testing done by individual ponds.

Fishponds are categorized into six main types, each specific to a particular geographic area.

Type I – Loko I'a Kuapā: A fishpond of littoral water whose side or sides facing the sea consist of a stone or coral wall, usually containing one of more sluice gates.

Type II – Loko I'a Pu'uone: An isolated shore fishpond usually formed by the development of barrier beaches building a single, elongated sand ridge parallel to the coast and containing one or more ditches and sluice gates.

Type III – Loko I'a Wai: An inland freshwater fishpond which is usually either a natural lake or swamp, which can contain ditches connected to a river, stream, or the sea, and which contain sluice gates.

Type IV - Loko I'a Kalo: An inland fishpond utilizing irrigated taro plots.

Type V - Loko I'a 'Ume'iki: A fishtrap, similar to a Type I - loko i'a kuapā, which has various combinations of inward and outward leading lanes.

Type VI – Kaheka and Hapunapuna: A natural pool or holding pond.

This General Permit is intended to apply to all traditional loko i'a that are located within the Conservation District. It does not apply to any Loko I'a located within a land jurisdiction regulated by a County authority.

Historically, fishponds provided important ecosystem services to their moku (traditional Hawaiian districts). Research shows that approximately 400 fishponds once functioned across at least six of the inhabited Hawaiian Islands: Hawai'i Island, Maui, O'ahu, Moloka'i, Lāna'i and Kaua'i. Efforts to maintain and restore these systems continue today on all six of these islands.

Fishpond systems have lost function due to coastal degradation, fresh water impairment, lack of maintenance, loss of ownership, invasive species, urban development, and natural disasters. Climate change and sea level rise present new threats.

Concerns regarding the regulatory hurdles to repairing the ponds date back to the early part of the 20<sup>th</sup> Century. In the past two decades only a small handful of fishpond hui have succeeded in securing the necessary permits to restore fishponds.

OCCL and Honua set six main goals in designing the program:

- 1. The process needed to meet the relevant state and federal requirements;
- 2. The process needed to meet the needs of practitioners, and be usable by community groups and local practitioners;
- 3. The process needed enough flexibility to allow for innovation in meeting current environmental challenges while still respecting the integrity of the fishponds;
- 4. The permit needed to cover the "big three" activities that practitioners were having difficulty securing permits for: dredging, removal of invasive species that triggers ground disturbances; repair of severely damaged walls;
- 5. The process should not add any additional regulatory burdens or requirements; and
- 6. The process needed to be consistent with the Coastal Zone Management federal consistency general concurrence for minor federal permit activities for Hawaiian fishpond restoration, repair, maintenance, and reconstruction.

Activities that will be covered by the program include:

- 1. Repair, restoration, maintenance, and operation of fishpond walls and sluice gates, including but not limited to the placement, movement, manipulation and temporary stockpiling of necessary materials;
- 2. Placement, movement, manipulation and temporary stockpiling of small stones or rubble for interior wall fill ('ili'ili);
- 3. Silt removal by hand and/or mechanized equipment from within fishponds to restore original fishpond depth;
- 4. Vegetation removal by hand and/or mechanized equipment from within fishponds and from fishpond walls;

- 5. Periodic post-restoration maintenance activities required to facilitate the long-term use, management and operation of fishponds;
- 6. Use of hand and/or mechanized equipment to conduct fishpond restoration activities;
- 7. Placement of temporary structures within fishponds, which are necessary to conduct restoration;
- 8. Placement and use of aquaculture pens, nets, and/or cages within fishponds; and
- 9. Use of harvesting equipment within fishponds.

Activities related to water resources would include, but not be limited to, the following:

- 1. Clearing of 'auwai, or traditional waterways, to allow for restoration of fresh water flow into the loko i'a, thus restoring functional integrity and ecosystem services;
- 2. Removal of invasive species from loko i'a that diminish oxygen and other ecosystem services to the pond system;
- 3. Restoration of pūnāwai, wai hū, waipuna, kele, 'ele, kahawai and/or other fresh water sources for the purpose of restoring functional integrity to the system and ecosystem services; and/or
- 4. Stocking and breeding native species of flora and fauna using traditional methods for the purpose of restoring functional integrity and ecosystem services to the system.

Activities that are explicitly excluded from authorization or consideration under the Program are those projects that utilize any of the following:

- 1. Blasting;
- 2. Pile-driving, pre-drilling for pile-driving;
- 3. Activities that penetrate the pond floor;
- 4. New construction or dredging or in-water trenching not related to original fishpond structure/function;
- 5. Construction of new or expanded effluent discharge systems;
- 6. Construction of new bank stabilization structures;
- 7. Exploration or construction within estuaries or the marine environment that cannot be conducted from a work vessel or an existing bridge, dock, or wharf;
- 8. Any use of treated wood in marine or aquatic habitats (other than pressure-treated);
- 9. Actions determined for any reason by the technical advisory team to have a significant adverse environmental or cultural impact;
- 10. Use of chemicals inside or outside the fishpond to control or capture organisms;
- 11. Use of live rock or coral to construct or repair fishpond walls or other features; and
- 12. Actions that would cause extreme turbidity, purposeful damage to live rock or coral, extreme eutrophication, or other long-term impairment to water quality.

The following attachments have been included with this application:

**TABLE 1: Fishpond Restoration Activities** 

**TABLE 2: Description of the Review Process** 

**EXHIBIT 1: Flow Chart of Review Process** 

**EXHIBIT 2: Loko I'a Conservation District Use Application** 

**EXHIBIT 3: Draft Protocols and Best Management Practices** 

# **SUMMARY OF COMMENTS**

Pursuant to §13-5-40 of the HAR, Public Hearings were held between February 18 and March 5, 2014 in Kāne'ohe, O'ahu; Kapa'a, Kaua'i; Kalamaulu, Molokai; Kīhei, Maui; Lāna'i City, Lāna'i, and Kailua-Kona, Hawai'i.

The application was also referred to the following agencies for their review and comment: DLNR Commission on Water Resource Management, Division of Aquatic Resources, Division of Forestry and Wildlife Resources, Historic Preservation Division, Land Division, State Parks Division, and the Aha Moku Advisory Council; Office of Hawaiian Affairs; Kamehameha Schools; State Department of Health; State Coastal Zone Management Program; University of Hawaii Water Resources Research Center; Western Pacific Regional Fisheries Council; National Park Service; Army Corps of Engineers; The Nature Conservancy; Kuaʻāina Ulu ʻAumo; Harold Castle Foundation, Marine Conservation Officer; Conservation International; the County Planning Departments of Kauaʻi, Oʻahu, Maui, and Hawaiʻi; and NOAA's NMF Habitat Conservation Division, NMF Protected Resources Division, NMF Office of Aquaculture, and Office of National Marine Sanctuaries

Notice of the application was published in the October 23, 2013 edition of the *Environmental Notice*. In addition, the application and Programmatic Environmental Assessment were available for review at the Hawai'i State Library, Hilo Public Library, Kona Public Library, Līhu'e Public Library, Wailuku Public Library, Moloka'i Public Library, Lāna'i Public Library, and Kāne'ohe Public Library. OCCL and Honua Consulting also hosted copies of the application and supporting documents on their respective websites.

The following comments, questions, and suggestions were raised during the public hearings:

#### O'ahu

- Rising sea levels will impact fishponds, the program should address this
- This needs to be done in perpetuity, not just for five years
- Solutions for rural communities must be simple and affordable
- Pa'ēpa'ē has been trying to get a permit to repair one section of wall for three years the initial breach occurred in 1965
- Importance to have consistency with CZM.
- Waipi'o ponds (Big Island) silted up since 1946 tsunami, but water quality is still good, fresh water streams are still intact. Sees snails, oopu, clams at Lalakea Pond.
- Important to know the cultural history of each pond. If a pond is in one family it should stay in that family.
- Funding for repairs is a concern
- Give credit to restoration efforts that came before, in 1998 and 2001.
- There still seem to be a lot of parameters that need to be followed.
- Main water quality is turbidity, and to make sure that it doesn't go into class AA waters.
- In the past 60 years only one permit has been given for state-owned pond. This is an important issue.
- It costs a lot to restore ponds, and takes a lot of physical labor.
- Sustainable ponds can have some commercial uses.

# Kaua'i

- Important that water quality standards can be done on site, not sent away to a lab.
- Pond restoration can be a trigger for upland stewardship, overall ahupua'a health.
- Change the tier level; some of the uses can be moved to a lower tier.
- Hawaiians are innovative people. Process needs to acknowledge that.
- Concern that BMPs are too much for practitioners.

#### Moloka'i

- There is a hierarchy for imported rock: quarry rock is best. Removing river rock has other consequences. Land rock needs to be cleaned first.
- Look up the Babcock study on water quality testing, which was done during restoration and post-restoration.
- Mufi had a barge to remove mangroves.
- Mangroves at high tide are part of the ecosystem of the pond.
- Bucket thing can be used to pull out mangroves; rocks and sediment stay in the bucket, water drains out, COE doesn't regulate these.
- Nutrients were shared between lo'i and loko.
- Sustainable practices do not include injecting fish, or using fertilizers and artificial feed.
- Subsistence and traditional uses were defined in the earlier Moloka'i project, it's ok to box applicants in so that we don't have million dollar projects.

#### Maui

- Reconstruction shouldn't interfere with access or beach processes.
- Sometimes 'maintenance' can get out of hand, so this needs to be defined.
- Doing an annual report has helped Ko'ie'ie understand where they've been and measure the progress they made. Was very valuable after part of wall damaged by tsunami, and when changing shoreline impacted pond.
- Lease fees at Ko'ie'ie are 2G / year, this is a big part of their budget. Please help with this.
- Keep this process moving forward. How much time will it take to move the first stone, before kūpuna begin passing?
- It's better to build first and ask permission later.

#### Lanai

- Part of being sustainable is economic sustainability. Restoration takes a lot of effort.
- Can kūpuna fish in the ponds? Can they migrate close to the ponds to live?
- There are upland inputs that have been degraded. Improved ponds can lead to improved support for watershed restoration.
- How can practitioners handle poaching?
- How does ownership work over migratory fish such as 'ama'ama? Is there a unique regulatory framework that addresses this?
- Will the rights of public access still be preserved?

#### Kona

- Fishponds connect people to a place.
- Good to standardize BMPs across the state.
- Anchialine ponds were managed also, and should be included.

#### OCCL's Response

OCCL was heartened by the large degree of community support this proposal has. We have adjusted the tiering hierarchy in response to the concerns raised, and worked to simplify the proposed best management practices and to make them more user friendly.

Other concerns raised - such as improving access to State-owned ponds, securing financial resources to carry out restoration work, and improving the overall environmental health of the ahupua'a – remain significant issues. We anticipate working with community groups as they develop future legislative, administrative, and economic actions.

Written responses were received and have been summarized from the following agencies:

# Office of Hawaiian Affairs (OHA)

OHA supports the program, but has reservations towards the proposed BMPs listed, as they dictate a higher threshold than currently required. OHA has received several concerns from beneficiaries regarding water quality testing in particular.

OHA also notes that some BMPs require that an endangered species monitor be present at all times, and to survey the area prior to work commencing. The level of expertise required of these monitors is not disclosed, and suggests that "knowledgeable person" be substituted for "monitor."

# OCCL's Response

OCCL appreciates the support that OHA has shown the program throughout its development. We share the same concerns that additional burdens not be created, and note that the extensive BMPs will only be activated by large projects that trigger Section 10 review. There will be no change in the requirements for Tier 1 level activities. We have rewritten the proposal to clarify this.

OCCL has modified the proposed water quality testing protocols in response to community concerns.

OCCL also wishes to respect and promote local knowledge wherever possible, and concurs that "knowledgeable person" can be used instead of "a monitor."

We note, though, that the final practices will be determined during the Corps review process.

#### **DLNR** Division of Forestry and Wildlife (DOFAW)

DOFAW is generally supportive of the proposal, but has the following concerns regarding the potential impacts on threatened and endangered species:

The CDUA should mention HRS Chapter 195D, Hawaii's Endangered Species Statute, and its effects on the proposed actions

The BMPs generally do a good job of addressing possible impacts, but DOFAW should be consulted regarding threatened and endangered species and potential Habitat Conservation Plans and Safe Harbor Agreements. DOFAW should also be on the list of agencies contacted if a waterbird nest, turtle nest, monk seal pup, or pregnant monk seal is discovered.

Actions that might result in take will require habitat conservation plans.

The protected species BMPs should mention State protected species as well as Federally protected species. Work being conducted near these species but not "in water" should also follow these BMPs of suspending activity within 100 feet.

# OCCL's Response

The Best Management Practices contained in this report are drafts; they will be finalized during the Corps review process. DOFAW will be one of the agencies consulted in developing the final set of practices.

OCCL will also be seeking DOFAW's comments, along with those of other resource agencies, on individual Tier 2 and Tier 3 applications. This will be an opportunity to develop site-specific BMPs and conservation plans for projects that might impact threatened and endangered species.

We have added a discussion in the beginning of this report that emphasized that projects that might result in "take" will require an Incidental Take Permit and Habitat Conservation Plan, which should be coordinated with DOFAW.

#### **DLNR Land Division**

Applicants may require a land disposition, typically a right-of-entry permit, for actions to be conducted on fishponds owned by the state.

# **DLNR Division of Aquatic Resources**

If implemented, the permitting process will be streamlined and become more user friendly. No adverse effects on the fisheries or aquatic resources of the State are anticipated by the implementation of this program.

# O'ahu County Planning Department

No comments, other than to note that repair/restoration of shoreline structures are subject to limitations of §23-1.6, Revised Ordinances of Honolulu.

# County of Hawai'i Planning Department

Any proposed work within the Special Management Area (SMA) in Hawai'i County shall first be reviewed against the guidelines of the SMA, following submission of an SMA Use Permit Assessment Application. We recommend that the State put those interested in applying for this permit in touch with their local county Planning Department to prevent unanticipated delays in acquiring all required permits for the restoration projects.

With respect to Hawai'i County, may of the listed activities may fall under the definition of "development" and would require 1) Either a SMA Minor or Major Use Permit, 2) Review against Hawai'i County Code Chapter 27 "Floodplain Management," 3) Consultation with the regional branch of the State Historic Preservation Division, and 4) Review of the proposed uses and activities against Rule 11 of the County of Hawai'i Planning Department Rules of Practice and Procedure and Chapter 205A-43 through 44, HRS regarding shoreline setbacks.

# OCCL's Response

OCCL encourages all applicants whose projects fall within Special Management Areas to begin the SMA review process as early as possible. We will make a note to remind practitioners to follow through with this, and will notify the relevant County departments of Loko I'a applications that we receive.

# State Office of Planning

The Office of Planning supports the intent of the subject application. The Office offers the following comments on the application:

The application should list the potential permits that are currently required for the proposed action, and the estimated time and/or financial resources to complete these processes.

The application notes that "contemporary construction methods may be used." The application should describe the characteristics of these cases, and provide examples.

Activities that will be covered by the program include "reconstruction, restoration, repair, and maintenance;" the Office notes that "reconstruction" is not included in the title of the application. The potential scope and extension of reconstruction should be noted in the CDUA.

The application addresses six of the CZM objectives set forth in HRS §205A-2. The application should also discuss other objectives, such as Beach Protection, Marine Resources, Recreational Resources, and Managing Development.

# OCCL's Response

The program is incompliance with seventeen different federal and state laws, and covers the following permits or authorizations: Conservation District Use Permit, State of Hawai'i Water Quality Certification, and the US Army Corps of Engineers General Permit. The Corps permit is based in turn on compliance with the National Historic Preservation Act, the Endangered Species Act, the Magnusson-Stevens Fishery Conservation and Management Act (Essential Fish Habitat), and the Fish and Wildlife Coordination Act.

The terminology in this proposal was written to be consistent with the Coastal Zone Management Consistency Statement issued by the Office of Planning in April, 2013.

The program does not incorporate County permits for projects in the SMA. The Environmental Assessment for the project was written so that it can be used as a supporting document for fishpond projects that are outside the Conservation District.

We are not able to estimate the cost it would take an individual fishpond to secure the individual permits; there have not been enough successful applications since Statehood for us to establish a baseline number.

In order to avoid confusion we have removed the term "reconstruction" as one of the listed activities, as the current terms "repair, restoration, maintenance, and operation" are inclusive.

In our meetings with practitioner two "contemporary techniques" were discussed: the use of metal mākaha, and the use of rebar in reinforcing walls exposed to open ocean waves. Any proposal to use non-traditional materials or techniques will be reviewed by the State Historic Preservation Division.

Based upon your recommendation we will add discussions on the additional CZM objectives of Beach Protection, Marine Resources, Recreational Resources, and Managing Development.

# State Department of Health

The Department notes that any project and its potential impacts to State waters must meet the antidegredation policy (HAR §11-54-1.1), designated uses (HAR §11-54-3), and water quality criteria (HAR §11-54-4 through 11-54-8).

National Pollutant Discharge Elimination System (NPDES) permits might be required.

It is recommended that OCCL contact the US Army Corps of Engineers regarding their permitting requirements.

Do the "traditional fishponds" discussed in the application meet the "Hawaiian fishponds" definition found in HRS §183B-1.

Please ensure that stockpiling of small stones or rocks for interior wall fill is not done in state waters.

Clarification is needed on how dredged/excavated material will be disposed and dewatered to prevent leakage and return flow.

It is recommended that the Water Quality Assessment and Monitoring Protocol be revised to demonstrate the purpose of the sampling, how plans will demonstrate that they are successful, and how adverse impacts will be demonstrated.

Please note that noncompliance with water quality requirements may subject a permittee to penalties of \$25,000 per day per violation.

# OCCL's Response

The project has been designed to be in compliance with all applicable state and federal laws relating to water quality. The associated BMPs for water quality will be finalized during the Corps of Engineer's review process. OCCL has been working closely with Corps throughout this process.

The definitions of "traditional fishponds" and "Hawaiian fishponds" are consistent.

We will not issue permits for the stockpiling of stones or pebbles in State waters.

Each applicant will need to disclose how dredged/excavated material will be disposed and dewatered to prevent leakage and return flow as part of their Water Quality Best Management proposals.

Per your recommendation, we have revised the proposed Water Quality Assessment and Monitoring Protocols. We have modeled the revised plan off of existing plans that have been approved by the Clean Water Branch. When OCCL finds an objectionable level of impacts then we will have the authority, in consultation with the State Department of Health Clean Water Branch, to shut down the project.

Please note that the final protocols and practices will be developed during the Corp's review process.

#### Western Pacific Fishery Management Council

In general, the Council is not opposed to the application as it relieves the burden on communities that are working to restore a part of the Hawaiian culture.

The tiered permit system is important to ensure that minor activities are not subject to the same rigors as major activities. The application lists the types of ponds and allowable fishpond types, but should also identify the known/current fishponds that may be eligible under this permit. This will help OCCL determine which tiers a proposal would fall into, as the construction of new ponds is not allowed.

A tiered system should take into account the purpose of the activity. There is a big difference between maintenance, restoration, and putting a fishpond back into productivity. This will allow for a greater understanding of the permit's use and intention.

Finally, the Council would like to make certain that the existing mechanisms for review by agencies in the current Section 10 process are still utilized. The application should explicitly state those agencies that will be able to provide review opportunities and at the applicable point in the review process.

# OCCL's Response

OCCL thanks the Council for their comments and support of the tiered system.

Over 400 fishponds have been documented, ten percent of which are listed on the Hawai'l State Register of Historic Places. If an application comes in for a pond that has not been registered then OCCL will need to seek verification that it meets the definition of Hawaiian fishpond as found in HRS 183B-1.

We have adjusted the application that permit seekers will use to allow for more discussion of the purpose of the repair or restoration.

OCCL anticipates using the same distribution list for Loko I''a applications that we use for other land use applications: DLNR divisions, NOAA offices and divisions, US Army Corps of Engineers, the Ahu Moku councils, the Office of Hawaiian Affairs, the State Department of Health, the relevant County Planning Departments, and any identified community groups in the relevant ahupua'a.

# National Park Service (NPS)

NPS offers the following comments:

The permit doesn't seem to address ownership issues. In the intent for the fishponds to be managed and run by the community, but to remain public entities? How would community management change if small-scale commercial activities were allowed?

The application does not contain future plans for fishponds once the pond has been restored and productivity is achieved. Will the application contain a time frame, i.e. how long applicants will continue operations?

We need clarification on what is meant by fishponds having "no impact" on public access. Is that because the fishponds will be considered public regardless of who is managing it? What happens if fishponds are run as small-scale public entities?

How are cultural practitioners defined? Would a commercial resort qualify as one if they applied as one?

There is an implied assumption that Kua'āina Ulu 'Aumo has the skills and expertise to provide the stated technical assistance. It might be helpful to provide an appendix or link to more information about this organization.

What is the timeline for NOAA coordination on water quality?

How would silt removal by traditional methods, such as using a rake towed behind a canoe and taken out to sluice, not cause extreme turbidity? Table 1 states that dredging with mechanized equipment falls under Tier III, but dredging with traditional materials is Tier I. Is there a difference between amount of silt removed?

Excluded activities include the "use of chemicals inside or outside the fishpond to control or capture organisms." Does this include using traditional fish stunning methods using ground up plants?

It is unclear whether fish feeding would be allowed or not.

"Significant discharges of fill" is not defined.

Silt management is not clearly dealt with in the program.

#### OCCL's Response

Many traditional loko i'a are privately owned. Some of these will be managed by community-based hui, and some will be managed by the family that retains ownership. Applicants wishing to restore or manage State-owned ponds will need to secure the necessary lease agreements, rights-of-entry, and permits from the government agency that retains ownership. OCCL understands that some community groups have approached DLNR's Land Division to develop protocols for access to State-owned ponds; however, such access issues are beyond the scope of this permit.

Conservation District Use Permits (CDUPs) generally contain a time frame for commencing and completing a project. The standard time frame is that construction must be initiated within one year, and completed within three years of approval. This can be adjusted on a case-by-case basis. We anticipate that some restoration activities, such as the repair of walls by community groups, might take longer than three years. Others, such as dredging, are likely to be short term projects.

OCCLs hope is that once a pond is properly restored it can be maintained in perpetuity.

Hawai'i State Law allows the public access to the beaches and submerged lands makai of the shoreline (Hawai'i Revised Statutes (HRS) §§115-4, 115-5, Revised 2010). Landowners are required to ensure that lateral beach transit corridors are kept free and passable. The State delegates to the individual counties the authority to establish and maintain public access to the shoreline (HRS §§ 46-6.5, 115-, & 115-7). The program entails no changes to HRS laws regarding public access.

The program was designed with cultural practitioners in mind, and we anticipate that they will be the primary applicants. However, any owner of a fishpond would be allowed to apply for a permit. OCCL notes that Articles IX and XII of the State Constitution, other State laws, and the courts of the State require government agencies to promote and preserve cultural beliefs, practices, and resources of Native Hawaiians. Any proposal will be evaluated in light of these laws.

Kua'āina Ulu 'Aumo has received a grant from the Office of Hawaiian Affairs to promote fishpond restoration and to provide technical assistance to practitioners. OCCL mentions them, along with Castle Foundation, as a potential resource for applicants. The Hō'ala Loko I'a program, however, exists independently of the participation of these and other non-governmental organizations.

OCCL understands that, once the Army Corps of Engineers releases their Public Notice of the project, a thirty-day review period will commence.

A weighted bamboo rake, kope 'ohe, was used in historical times to clean the pond floor of debris; an action that is significantly different than dredging. The "minor dredging my non-mechanical mean" discussed under Tier I refers to clearing of mud and sand using hand-held buckets. OCCL agrees that this can also create turbidity, and will amend the discussion to note that this should be done in ponds with intact walls and closed / barricaded mākaha, which will act as a sediment containment device.

Dredged materials will need to be disposed of inland in such a way that effluent does not leach back into the ocean. Dumping debris, silt, or other materials in the ocean would not be compliant with Department of Health Clean Water regulations.

Using toxins derived from plants to stun fish would not be covered by this program.

Any pond wishing to feed fish would need to comply with applicable Department of Agriculture, Department of Health, and Federal laws. OCCL asks that applicants disclose any proposed feeding regimens so that we can forward the application to the appropriate agencies for review.

The only fill that OCCL anticipates in this program involves the repair of pre-existing walls.

Silt management is dealt with in the water quality best management practices, pollution and erosion control plan, and water quality monitoring and assessment protocols.

# United States Department of the Interior National Park Service

We recommend that the Section 106 process of the National Historic Preservation Act or Chapter 6E of the Hawai'i Revised Statutes be required prior to issuing a permit. Without first mapping a site, it will be difficult to accurately determine the percentage of the rock walls that need to be repaired.

The fishponds are cultural sites eligible for the National Register, therefore a complete archeological inventory and study would be critical before any work is conducted in order to provide baseline data and assess whether the work will have negative impacts to the archaeological sites.

# OCCL's Response

The Section 106 process will occur as part of the Corps of Engineers assessment of the General Permit.

OCCL notes that fishponds are also integral elements of an active culture; our goal is to help practitioners restore them to functionality in an environmentally and culturally appropriate manner. Requiring a complete archeological inventory and study is a financially prohibitive recommendation that would preserve a pond as museum pieces for study to the detriment of the living descendants of those who first built the ponds.

#### The Nature Conservancy

The Nature Conservancy supports the proposed Hoʻāla Loko Iʻa program as the restoration of ponds can help feed local communities and restore wild fish stocks.

However, we believe that a substantial revision of the Water Quality Monitoring Protocols is needed. Rather than developing generic monitoring guidelines for a wide range of restoration activities, we suggest that each permit application include a monitoring plan.

The draft application does not address actions that may have impacts to endangered species other than to say that they are excluded activities. However, the application also states that "Nearly all marine waters, as well as the lower reaches of many freshwater streams, within the Corps'

jurisdiction are occupied by ESA-listed marine species. Because the Proposed Action will occur within, near, or upstream of the marine environment, it has the potential to impact ESA-listed marine animals and their habitats across the Program's geographic area." It will be useful to see how this will be addressed. One proven way is to use the Corps process for nationwide general permits.

It may be useful to designate the State as the non-federal representative to the USACE for fishpond restoration projects.

# OCCL's Response

OCCL concurs that our original Water Quality Monitoring Plan was in need of serious revision. The current proposal incorporates the suggestions made by the Nature Conservancy and other agencies. We note that the final protocols will be developed as part of the US Army Corps process.

ESA consultation will take place during the US Army Corps of Engineers review. We have added a discussion in the beginning of this report that discusses "take" and the need for an Incidental Take Permit and Habitat Conservation Plan.

# 'Ao'ao O Nā Loko I'a O Maui (Association of the Fishponds of Maui)

The Association supports the proposal. They note that they were granted a 30-year lease in 2008 to revitalize Kō'ie'ie Fishpond on Maui, and since then have helped maintain the pond's 1200 foot wall, and have relied on support from the community to move large boulders. Many community members have been hired as part-time masons through a National Park Service grant.

However, they note that their yearly lease fees consume ten percent of their budget, and ask that the lease agreement can be reviewed by the Board of Land and Natural Resources.

# OCCL's Response

Lease fees are negotiated with DLNR's Land Division; we will forward these comments and concerns to Land Division and the Board.

#### Graydon "Buddy" Keala

Mr. Keala has been involved with fishpond restoration for more than 25 years, and has restored many fishponds throughout the state.

He notes that the ponds are important cultural and historic sites and therefore require the preview of constitution laws under the National Historic Preservation Act Section 106. Also, any decision making requires native Hawaiian consultation compliance in its development, and adds that "section 106 has also experienced environmental rules have been impacting cultural sites and associated practices nationally and have laws to provide Native practitioners opportunities to create balance with other federal agencies via interagency consultations.

#### OCCL's Response

The Section 106 process will occur as part of the US Army Corps of Engineers assessment of the General Permit.

We note that the genesis of this proposal came at the request of practitioners who were having difficulty securing the necessary permits. OCCL consulted with a wide range of practitioners in developing the program, including development meetings with different hui on O'ahu, Moloka'i, and Kaua'i. There have been two rounds of public comment, first on the environmental assessment and later on the Conservation District Use Application; the proposal has been modified extensively in response to input from practitioners.

## **Dorothy Meisner**

Ms. Meisner supports the proposal. As a student of William S. Richardson School of Law she has heard first-person accounts of how the onerous legal hurdles and fees associated with restoration, particularly the extensive permitting requirements, present difficulties to community groups and Native Hawaiian practitioners. This process will reduce the burden on these communities, and will help to ensure the perpetuation of loko i'a, increase cultural and food sustenance, and improve the quality of Hawai'i's near shore marine areas.

# Casey G. Jones

Mr. Jones notes that the Hawai'i State Constitution mandates the preservation of a healthy environment, and that the State has "the power to preserve and develop the cultural, creative and traditional arts of its various ethnic groups." The preservation of native Hawaiian fishponds touches on these important purposes.

As these vital cultural resources exist nowhere else in the world, DLNR and the State have the responsibility to do anything possible to enhance and preserve this cultural practice.

# OCCL's Response

OCCL thanks the students of UH's Law School for their support and their insights into the legal process.

#### **ANALYSIS**

The following discussion evaluates the merits of the proposed land use by applying the criteria established in Section 13-5-30, HAR.

1. The proposed land use is consistent with the purpose of the Conservation District.

The objective of the Conservation District is to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare.

The direct and indirect impacts of fishpond repair, restoration, maintenance, and operation on the environment, including, but not limited to nutrient enrichment, turbidity, invasive species, and other biological impacts resulting from the proposed action and alternatives are found to be negligible. The process would only apply to actions that are not likely to cause significant negative long-term impacts to the environment. Avoidance and minimization of impacts will be achieved with BMPs and conditions on permits; otherwise a permit will not be issued under the proposed process.

2. The proposed land use is consistent with the objectives of the subzone of the land on which the use will occur.

Submerged lands are typically in the Resource Subzone of the State Land Use Conservation District. Pursuant to HAR §13-5-13 (a), The objective of this subzone is to ensure, with proper management, the sustainable use of the natural resources of those areas.

Traditionally, fishponds were economically, culturally and environmentally critical to the sustainability of Hawai'i's unique and fragile ecosystems. The traditional ahupua'a system, created

by the Ali'i Mā'ilikūkahi, delineated a system that extended from the top of the watershed out to the reef or near shore waters. The near shore fisheries were essential to providing fish and food to the surrounding communities.

Active management of the ponds can also help in the management of invasive species. For example, a common and highly problematic invasive species is the red mangrove (*Rhizophora mangle*). Two other species of mangrove have also been established in the Hawaiian Islands: *Bruguiera gymnorrhiza* and *Conocarpus erectus*. Although mangroves provide important habitats in their native areas, introduction of mangroves to the Hawaiian Islands has caused negative impacts such as reduction in habitat quality for the Hawaiian stilt, (*Himantopus mexicanus knudseni*) and colonization and overgrowth of important cultural sites and biological habitats (such as anchialine ponds). Mangroves, known for their thick and extensive root systems, have proven destructive to kuapā. They enhance sediment deposition and decrease oxygen circulation in the ponds.

A variety of invasive algae also occur in nearshore areas. Habitat characteristics can make certain areas more susceptible to invasion. In healthy coral reef ecosystems, corals and coralline algae dominate with macroalgae and turf algae growth mainly in areas that are difficult for herbivores to access. Phase shifts of coral reefs to algal dominance (from both invasive and native algae) can result in changes in reef community structure and decreased biodiversity.

Both mangroves and invasive algae will need to be managed or removed to restore loko i'a to functionality. Doing so will improve the ecosystem health of both the ponds and the wider area.

3. The proposed land use complies with provisions and guidelines contained in Chapter 205, HRS, entitled "Coastal Zone Management," where applicable.

The Hawai'i Coastal Zone Management (CZM) Program has issued a CZMA federal consistency general concurrence for minor federal permit activities for Hawaiian fishpond restoration, repair, maintenance and reconstruction in the State of Hawai'i.

The program meets the following objectives of Chapter 205A:

Historic resources: The program will undergo §106 (National Historic Preservation Act) review as part of the Corps permit process. It is intended to restore historic resources to functionality, and to help local communities reintegrate these resources into their lives.

**Scenic and open space resources:** The removal of mangroves and other coastal invasive species will improve coastal open space.

Coastal ecosystems: Best management practices will be in place to protect coastal ecosystems during any construction phase. Active care and management of ponds can have a beneficial effect on water quality and adjoining coral reef health by catching sedimentation and limiting the spread of invasive species.

Economic uses: Fishponds can be utilized for small-scale commercial uses, which will provide direct economic benefits to rural Hawaiian communities and families.

Loko i'a are not physically suited to host the types of modern commercial aquaculture facilities found in open ocean waters; such high-tech operations would not be covered through this program.

Coastal hazards: Restored seawalls can protect neighboring communities from the effects of large storm waves.

**Public participation:** The project was initiated by members of the public, and OCCL has consulted with practitioners throughout the development of the program.

**Beach Protection**: Proposals that have the potential to impact beach processes will need to develop site-specific protocols to address this. OCCL is staffed with shoreline specialists and coastal geologists who have the expertise to identify potential issues should they arise.

Marine Resources: The restoration of pond walls will serve to trap sediment, allowing for a cleaner marine environment outside the walls. They can also serve to strengthen the supplies of native fish stock, as ponds act as a *de facto* nursery, free from predators, for juvenile fish.

**Recreational Resources**: Fishponds are not generally considered recreational resources, and OCCL does not anticipate that their restoration will have an impact in marine recreation areas.

Managing Development: The program covers the restoration and maintenance of traditional fishpond systems; new developments are not part of the proposal.

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

The Proposed Action and Alternatives involve primarily short-term repair, restoration, maintenance and operational activities. As described in Section 2 of the Programmatic Final Environmental Assessment, fishpond practitioners have developed and refined many BMPs and monitoring measures for carrying out their activities. Also, as described in Section 3, the existing baseline conditions within the geographic scope of analysis vary with the level of human activity and presence (i.e., from minimally populated rural areas to heavily developed beachfront communities).

The proposed action will result in enhancement of long-term productivity, with no short-term losses. The action does not foreclose on future options, narrow the range of beneficial uses of the environment, or pose long-term risks to health or safety.

There are no irreversible and irretrievable commitments of resources involved in the proposed action. Any work conducted on fishponds can be removed, and ponds can be deconstructed if desired in the future. The proposed action does not include take or harassment of protected species or significant damage to corals or live rock. There will not be any use of chemicals or external materials for feeding or maintaining fishponds that could cause long term damage to water quality or resources. There are no unresolved issues associated with the proposed action.

5. The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding area, appropriate to the physical conditions and capabilities of the specific parcel or parcels.

The proposed action does not include constructing any new permanent infrastructure in submerged lands, significant discharges of fill material, significant dredging, or using any hazardous materials that could be released into the environment. Therefore, it has been determined that the potential impacts to vegetation, aesthetics, traffic, utilities, population and demographics, public access to the coastline, and air quality, are negligible.

Any new structures will be limited to those that have been traditionally associated with loko i'a, and will not exceed 600 square feet.

6. The existing physical and environmental aspect of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable.

The clearing of mangroves and other coastal invasive species will improve coastal vistas; repaired walls will help protect sediment from flowing into the open ocean; and removing invasive algae will help neighboring coral reefs from being colonized. OCCL does not anticipate any negative impacts on the lands open space or natural beauty.

7. Subdivision of the land will not be utilized to increase the intensity of land uses in the Conservation District.

No subdivision of land is being proposed as part of this project.

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

Restoring functional integrity to ponds, through restoration of historic wall structures and removal of invasive vegetation encroaching on the pond ecosystem, could have significant cumulative benefits to Hawai'i's environment and coastal resources and communities. The program could help restore valuable ecosystem services and human capital to coastal areas, which have been degraded due to overpopulation and urbanization.

#### **DISCUSSION**

Archaeological and historical evidence suggests that loko i'a were constructed as early as AD 1000, and continued to be built until the 1820's. Fishpond construction intensified beginning in the late 1500's and early 1600's as pre-contact Hawaiian population was rapidly expanding and socio-political systems evolving in complexity.

Historic and cultural sites found within the geographic area of the program include historic structures, burials, fishing shrines, heiau (religious structures), leina (cultural sites from which spirits leapt into the next world), as well as cultural structures related to traditional Hawaiian and Polynesian navigation and seafaring.

The proposal is designed to assist community groups, families, and practitioners in restoring these loko i'a to functionality. Applicants will be expected to respect any historic sites found within the work area; permits will not be issued for projects that would result in the destruction or degradation of shrines, heiau, or leina.

The application itself requests that applicants discuss the relationship of their hui, family, or community group to the subject pond and the neighboring community. It is geared towards those whose aim is to strengthen traditional and customary rights and practices.

# BLNR's support of this application will help the Department to respect and show support for native Hawaiian rights and practices.

Restoration activities are likely to have minor, short-term impacts to turbidity, which is a measure of water clarity. Turbidity can be a natural occurrence in ponds, but it can be exacerbated by erosion and other land-based factors. Turbidity can be minimized through BMPs. Managing turbidity is a necessity of the program, as any factors that would reduce storage capacity of the ponds or impair the environment for cultivation defeats the purpose of restoration and function.

Applications for Tier 2 and Tier 3 activities (dredging using mechanized equipment; invasive species removal using mechanized equipment; a greater than 10% increase in the pond's dimensions; use of artificial feeds, and any activity that would moderately affect sandy beaches or increase sedimentation)

will be required to submit a Pollution and Erosion Control Plan and a Water Quality Monitoring and Assessment Plan.

These plans will draw from the list of required BMPs. While the exact BMPs will be developed during the Army Corps process, OCCL has studied existing permits and anticipates that the Hoʻāla Loko Iʻa protocols will be similar.

Based upon the above analysis, staff feels that the proposal is consistent with the State's Conservation Criteria. It will help the Department to respect and show support for native Hawaiian rights and practices, and it will assist communities who are working to improve the ecological functions of the ahupua'a.

#### RECOMMENDATION

Based on the preceding analysis, Staff recommends that the Board of Land and Natural Resources APPROVE the Department's participation in the Hoʻāla Loko Iʻa program, and specifically authorize the following actions:

- 1. That the Board delegate to the Chair the authority to sign a five-year Programmatic Agreement with the U.S. Army Corps of Engineers for the Hoʻāla Loko Iʻa program;
- 2. That the Board delegate to the Chair the authority to sign Tier 2 and Tier 3 level permits;
- 3. That OCCL be given the authority to approve Tier 1 level permits, and to implement and manage the general Hoʻāla Loko Iʻa program; and
- 4. That permit holders be subject to the following conditions where applicable:
  - 1. The permittee shall comply with all applicable statutes, ordinances, rules, and regulations of the federal, state, and county governments, and applicable parts of this chapter;
  - 2. The permittee, its successors and assigns, shall indemnify and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, and death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit;
  - 3. The permittee will comply with any required water quality BMPs, protected species BMPs, historic preservation protocols and BMPs, and water quality monitoring protocols;
  - 4. The permittee shall obtain appropriate authorization from the Department for the occupancy of State lands, if applicable;
  - 5. The permittee shall comply with all applicable Department of Health administrative rules;
  - 6. Before proceeding with any work authorized by the Department or the Board, the permittee shall submit four copies of the construction plans and specifications to the Chairperson or an authorized representative for approval for consistency with the conditions of the permit and the declarations set forth in the permit application. Three of the copies will be returned to the permittee. Plan approval by the Chairperson does not constitute approval required from other agencies;
  - 7. Unless otherwise authorized, any work or construction to be done on the land shall be initiated within one year of the approval of such use, in accordance with construction plans that have been signed by the chairperson, and shall be completed within three years of the

- approval of such use. The permittee shall notify the department in writing when construction activity is initiated and when it is completed;
- 8. All representations relative to mitigation set forth in the accepted environmental assessment or impact statement for the proposed use are incorporated as conditions of the permit;
- 9. The permittee understands and agrees that the permit does not convey any vested right(s) or exclusive privilege;
- 10. In issuing the permit, the Department and Board have relied on the information and data that the permittee has provided in connection with the permit application. If, subsequent to the issuance of the permit such information and data prove to be false, incomplete, or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and the department may, in addition, institute appropriate legal proceedings;
- 11. When provided or required, potable water supply and sanitation facilities shall have the approval of the department of health and the county department of water supply:
- 12. Where any interference, nuisance, or harm may be caused, or hazard established by the use, the permittee shall be required to take measures to minimize or eliminate the interference, nuisance, harm, or hazard;
- 13. Obstruction of public roads, trails, lateral shoreline access, and pathways shall be avoided or minimized. If obstruction is unavoidable, the permittee shall provide alternative roads, trails, lateral beach access, or pathways acceptable to the department;
- 14. During construction, appropriate mitigation measures shall be implemented to minimize impacts to off-site roadways, utilities, and public facilities;
- 15. Cleared areas shall be revegetated, in accordance with landscaping guidelines provided in this chapter, within thirty days unless otherwise provided for in a plan on file with and approved by the department;
- 16. Use of the area shall conform with the program of appropriate soil and water conservation district or plan approved by and on file with the Department, where applicable;
- 17. The permittee shall obtain a county building or grading permit or both for the use prior to final construction plan approval by the department;
- 18. For all landscaped areas, landscaping and irrigation shall be contained and maintained within the property, and shall under no circumstances extend seaward of the shoreline as defined in section 205A-1, HRS;
- 19. Artificial light from exterior lighting fixtures, including but not limited to floodlights, uplights, or spotlights used for decorative or aesthetic purposes, shall be prohibited if the light directly illuminates or is directed to project across property boundaries toward the shoreline and ocean waters, except as may be permitted pursuant to section 205A-71, HRS. All exterior lighting shall be shielded to protect the night sky;
- 20. Where applicable, provisions for protection of beaches and the primary coastal dune shall be established by the permittee, to the satisfaction of the department, including but not limited to avoidance, relocation, or other best management practices;
- 21. The permittee acknowledges that the approved work shall not hamper, impede, or otherwise limit the exercise of traditional, customary, or religious practices of native Hawaiians in the

immediate area, to the extent the practices are provided for by the Constitution of the State of Hawaii, and by Hawaii statutory and case law; and

- 22. Other terms and conditions as prescribed by the chairperson.
- 23. Failure to comply with any of these conditions shall render a permit void under the chapter, as determined by the chairperson or board.

Respectfully submitted,

Michael Cain, Staff Planner

Office of Conservation and Coastal Lands

Approved for submittal:

William J. Aila, Chairperson

**Board of Land and Natural Resources** 

TABLE 1: FISHPOND RESTORATION ACTIVITIES

		New fishpond construction
Activities with potential significant environmental impacts not covered under this EA		Activities that are likely to have significant, long-term negative impacts on marine life, water quality, or coastal processes/access (e.g. activities excluded from authorization under section 2.3.3)
		Activities that are likely to result in significant damage to special aquatic sites such as wetlands, vegetated shallows, mudflats, coral reefs, and seagrass beds
		Introduction or culture of alien species
General Conditions, Monitoring and BMPs Additional and Site Specific Conditions	Legal Authorities  Rivers and Harbors Act, §10 CWA §404 CWA §401 ESA § 7 NHPA § 106 NEPA	Fishpond repair, restoration, maintenance, and operation involving work that is in excess of 50 percent of the original fishpond structure, with the caveat that that the Department has the discretion to exclude major projects from the Programmatic Permit due to the potential for significant environmental impacts.  Activities that are likely to result in take of endangered, threatened, or otherwise protected species and that will require an Incidental take License or a Habitat Conservation Plan.  Fishpond dredging involving the use of mechanized equipment.
	MBTA EFH	Any activity that may moderately affect/alter sandy beaches or sediment deposition.
Tier II General Conditions, Monitoring and BMPs	FWCA CZMA HRS § 183-44 HRS § 183B HRS § 343	Fishpond repair, restoration, maintenance, and operation involving work that is in excess of 10 percent, but less than 50 percent of the original fishpond structure.
Tier I  General  Conditions,  Monitoring and BMPs	Legal Authorities CZMA HRS § 183-44 HRS § 183B HRS § 343	Minor repair, restoration, maintenance and operation of existing fishponds (e.g., replacement of small wall sections, replacement of individual rocks or other wall materials, repair of gates, 'auwai, minor dredging by non-mechanized means and non-routine maintenance of vegetation).  Construction or placement of minor structures (not to exceed 600 square feet) in the Conservation District accessory to the maintenance and operation of a loko i'a.
		Stocking & harvesting with traditional methods Removal of alien species (e.g. mangroves)
Activities not subject to regulation		Routine maintenance of existing fishpond by hand or with hand-tools and utilizing existing traditional materials

Table 1: Fishpond Restoration Activities

TABLE 2: DESCRIPTION OF THE REVIEW PROCESS

Activities with potential significant environmental impacts not covered under this EA	Upon review of completed application, applicant is notified that activities are outside the scope of the environmental assessment and/or SPGP and advised to pursue individual permits  No notice provided to cooperating agencies
Tier III  Additional and Site Specific Conditions; General Conditions, Monitoring and BMPs	Upon review of completed application, applicant is notified that the application is either accepted or that additional information is required  Upon receipt of a complete application OCCL forwards application to interagency/advisory group and resource agencies as appropriate for review. Reviewers can respond with one or more of the following:  • Request for additional information;  • Seek additional review / consultation from cooperating agencies or subject matter area experts; and/or  • Identify additional and/or site-specific conditions, monitoring and BMPs.  Once the review process is complete, notice is provided to cooperating agencies of findings and/or issuance of authorization to proceed. If no comments or concerns are received within thirty days then the permit will be issued with standard best management practices and conditions.
Tier II  General Conditions, Monitoring and BMPs	<ul> <li>Upon receipt of a complete application OCCL forwards application to interagency/advisory group and resource agencies as appropriate for review. Reviewers committee can respond with one or more of the following: <ul> <li>Request for additional information;</li> <li>Seek additional review / consultation from cooperating agencies or subject matter area experts; and/or</li> <li>Identify additional and/or site-specific conditions, monitoring and BMPs.</li> </ul> </li> <li>Once review is complete, notice is provided to cooperating agencies of findings and/or issuance of authorization to proceed.</li> </ul>
Tier I General Conditions, Monitoring and BMPs	Upon review of completed application, OCCL issues permit to applicant and may choose to provide BMPs and/or monitoring requirements as conditions on the permit.  OCCL provides notice to cooperating agencies.
Activities not subject to regulation	Upon review of completed application, OCCL notifies applicant that activities are not regulated, but provides language to applicant regarding BMPs.

Table 2: Description of the Review Process

# Flow Chart of Review Process

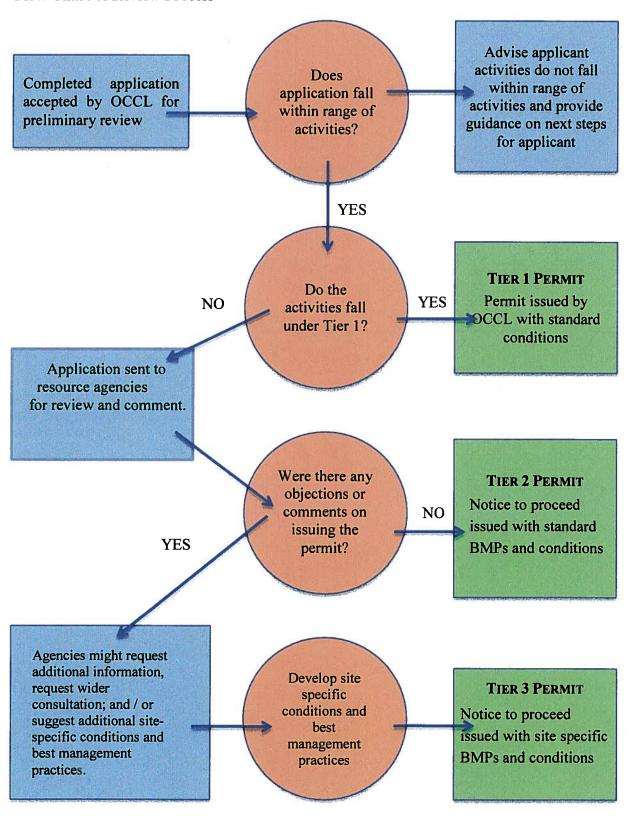


Exhibit 1 - Flow Chart of Review Process



# FISHPOND RESTORATION APPLICATION

State of Hawaii	File No: Acceptance Date: Assigned Planner: Distribution List:				
FISHPOND NAME:					
HUI NAME:		annual property of the control of th			
Project Address:					
Nearest Tax Map Key(s):					
Ahupua`a:		trict:			
County:	Isla	nd:			
Proposed Commencement I	Date: Proj	posed Completion Date:			
Wall length:		Pond surface area:			
Work Summary					
\$ Application Fee					
Construction of accessor	ry structures less than 600	) square feet			
Minor repair restoration	and maintenance of wa	lls, auwai, makaha, or other			
	toration (10 to 50% dama	17			
	tion (greater than 50% da				
Linear feet of wall to be re	epaired (rocks on site):	_			
Linear feet of wall to be re	estored (new rock):				
Source of new rock:	_				
Amount of "fill" (expansion	on beyond original footprint	):			
Dredging using mechanic	ized equipment	Estimated volume of dredging:			
☐ Vegetation removal usin	ng mechanized equipment	Estimated acreage:			
Heavy machinery that will b	oe used:				
Emergency repair					

# REQUIRED SIGNATURES **Applicant** Name / Hui: Street Address: Contact Person & Title: Phone: Fax: Email: Interest in Property: Signature: Date: Signed by an authorized officer if for a Corporation, Partnership, Agency or Organization Landowner (if different than the applicant) Name: Title; Agency: Mailing Address: Phone: Fax: Email: Signature: Date: For State and public lands, the State of Hawai'i or government entity with management control over the parcel shall sign as landowner. Agent Agency: Contact Person & Title: Mailing Address: Phone: Fax: Email: Signature: Date: For DLNR Managed Lands State of Hawai'i Chairperson, Board of Land and Natural Resources State of Hawaii Department of Land and Natural Resources P.O. Box 621

Date:

Honolulu, Hawaii 96809-0621

Signature \_

# HISTORY OF THE POND

Please discuss the history of the pond.

# **ENVIRONMENTAL CONDITIONS**

Please discuss the ecology of the pond. This should include fresh water sources, the nearby coast, and the natural & urban conditions mauka and makai of the pond. Please also note if any endangered or threatened species are found in the pond.

# Hui

Please discuss the hui, community group, or family that will be conducting the work. Describe the hui's connection to the pond and the neighboring community.

# STATE OF THE POND / PROPOSED WORK PLAN

Please provide a summary of the overall work that would be needed to bring the pond back up to productivity and what work is being proposed under this permit. Please note any use of mechanized equipment

# **PRODUCTIVITY**

Please discuss what species you intend to raise in the pond, and your proposed methods of stocking, raising, and harvesting these species.

# **BEST MANAGEMENT PRACTICES**

Please review the attached list best management practices (BMPs) and plans that will be required for certain activities, and discuss how the project will be in compliance with them:

Purpose: To comply with Rivers and Harbors Act, §10, CWA §404, CWA §401, ESA § 7, NHPA § 106, NEPA, MBTA, EFH, FWCA, CZMA, HRS § 183-44, HRS § 183B, HRS §343.

Activities: Dredging using mechanized equipment; invasive species removal using mechanized equipment; a greater than 10% increase in the pond's dimensions; any activity that would moderately affect sandy beaches or increase sedimentation.

**Water Quality Monitoring and Assessment Protocols** 

**Water Quality BMPs** 

**Protected Species BMPs** 

**Pollution and Erosion Control Plan** 

**Historic Resources Protection Criteria** 

# **CERTIFICATION**

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

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

	Signature of authorized agent(s) or if no agent, signature of applicant						
AUTHORIZATION OF AGENT							
I hereby authorize concerning this application.		to act as m	y representativ	ve and to bind	l me in all ma	atters	
			-				
	Signature of a	applicant(s)		7 - 1 -			

# EXHIBIT 3: DRAFT PROTOCOLS AND BEST MANAGEMENT PRACTICES

Note: These will be finalized during the US Army Corps of Engineer's Review Process

# **Water Quality Monitoring and Assessment Protocols**

A Water Quality Monitoring and Assessment Plan will be needed for permits that involve mechanical dredging, mechanical removal of vegetation, and placement of new fill.

Testing will be done for salinity, temperature, pH, and turbidity.

Testing will be done at two locations per 100-foot section of project area not contained by intact walls. The first site should be within 1 meter of the work area, and the second 15 meters out.

#### Procedures:

- 1. Map the proposed testing sites
- 2. Photo document the existing conditions
- 3. Baseline testing will be done ten times over the course of a two week (minimum) to ten week period. Longer periods are preferable. OCCL will review the baseline tests in consultation with the State Department of Health Clean Water Branch prior to issuing the final notice to proceed.
- 4. Daily testing will be done three times per day per testing site for the first ten days.
- 5. Daily testing will be done once per work day per testing site thereafter.
- 6. Post-construction testing will be done once per week for ten weeks after. If no effects are seen during the active phase then OCCL can waive post-construction testing.

Testing results will be emailed or faxed to OCCL at the end of each workday. If there is an objectionable level of turbidity then OCCL, in consultation with the State Department of Health Clean Water Branch, will have the authority to stop the project.

Potential options at this point will be to adapt the restoration procedures, initiate advanced water testing for total nitrogen, nitrate + nitrite, and ammonia; or halt the project until environmental conditions are more favorable.

Potential options if nitrogen parameters are exceeded will be to further adapt the restoration procedures, initiate advanced water testing for dissolved oxygen; or halt the project until environmental conditions are more favorable.

# **Water Quality Best Management Practices**

- 1. Turbidity and sediment from project-related work, including work relating to system structures, must be minimized and contained to the immediate vicinity of the authorized activity through the appropriate use of effective sediment containment devices.
- 2. To the extent practicable, the work must be conducted in the dry season or when any affected stream has minimal to no flow. The site must be stabilized to prevent erosion and runoff, and work must stop during flooding, intense rainfall, storm surge, or high surf conditions. To the extent practicable, work must be done during low tides.
- 3. No project-related materials (fill, revetment rock, pipe, etc.) shall be stockpiled in the aquatic environment (intertidal zones, reef flats, stream channels, wetlands, etc.) or in close proximity such that materials could be carried into waters by wind, rain, or high surf.
- 4. All debris and material removed from the marine/aquatic environment shall be disposed of at an approved upland or alternative disposal site.
- 5. No contamination (by trash, debris sediment, non-native species introductions, attractions of non-native pests, etc.) of adjacent waters of the United States, including special aquatic sites, shall result from project-related activities. Special attention must be paid to the fouling level on barges, vessels, and equipment whereas to minimize the transport and potential introduction and spread of aquatic non-native species. In addition, if dredged or excavated material or structural members are removed from the water or placed in the water, measures must be taken to prevent the spread or introduction of any aquatic non-native species. Additional conditions may be utilized to help meet this condition or related conditions.
- 6. Silt fences, silt curtains, or other appropriate containment structures shall be installed to contain sediment and turbidity at the work site (a) parallel to, and within 10 feet of, the toe of any fill or exposed soil which may introduce sediment to an adjacent aquatic site; and (b) adjacent to any fill placed or soil exposed within an aquatic site.
- 7. All silt fences, curtains, and other structures shall be installed properly and permanently stabilized, be self-sustaining, and remain in place until any turbidity levels elevated due to construction have returned to ambient levels.
- 8. Erosion controls must be properly installed before any alteration of the area may take place.
- 9. All disturbed areas must be immediately stabilized following cessation of activities for any break in work longer than 4 days.

# **Protected Species Best Management Practices**

- 1. All on-site personnel shall be apprised that they are working in an environmentally sensitive area and that endangered or threatened Hawaiian waterbirds, turtles, and monk seals may be in the vicinity of the project.
- 2. Each authorization will contain the requirement that the authorized entity document and report to DLNR OCCL (and thereby the Corps, NMFS and FWS) all interactions with listed species, including the disposition of any listed species that are injured or killed. Should an ESA-listed species be adversely affected, all work must stop pending reinitiation and completion of consultation between DLNR OCCL, the Corps, NMFS PRD and/or FWS for that action.
- 3. Constant vigilance shall be kept for the presence of ESA-list species during all aspects of the permitted and/or authorized action(s)
  - a. A responsible party, i.e., site manager / project supervisor, shall designate a competent observer to survey work sites and the areas adjacent to the authorized work area for ESA-listed marine species;
  - b. Surveys shall be made prior to the start of the work each day, including prior to resumption of work following any break of more than one-half hour. Periodic additional surveys throughout the work day are strongly recommended;
  - c. If any federally protected waterbird species appears within 100 feet (30.5 meters) of ongoing, in-water work, work activity shall be temporarily suspended until bird leaves the area of its own accord.
  - d. If a waterbird nest, turtle nest, or monk seal pup or pregnant monk seal is discovered, all work shall cease and DLNR OCCL should be contacted immediately, who shall then notify FWS and/or NOAA immediately.
  - e. All in-water work will be postponed or halted when ESA-listed marine species are within 50 yards of the proposed work, and will only begin/resume after the animal(s) have voluntarily departed the area, with the following exemption: if ESA-listed marine species are noticed within 50 yards after work after already begun, that work may continue only if, in the best judgment of the responsible party, the activity is unlikely disturb or harm the animal(s); and
  - f. No one shall attempt to feed, touch, ride, or otherwise intentionally interact with any protected species.
- 4. Project footprints must be limited to the minimum area necessary to complete the project.
- 5. The project area must be flagged to identify sensitive resource areas, such as seagrass beds, coral resources, listed terrestrial plants, and turtle nests.
- 6. Work located makai of the Mean Higher High Tide Line of a navigable water or makai of the upward limits of adjacent wetlands must be timed to minimize effects on ESA-listed species and their habitats.
- 7. Project operations must cease under unusual conditions, such as large tidal events and high surf conditions, except for efforts to avoid or minimize resource damage.
- 8. Additional conditions may be required based on a site-specific analysis of potential biological resources in the area and potential impacts.

# **Pollution and Erosion Control Plan**

If the project involves mechanical dredging or mechanical removal of vegetation then Pollution and Erosion Control Plan for the project might be required. At a minimum, this plan shall include:

- 1. The Best Management Practices that will be followed;
- 2. Proper installation and maintenance of silt fences, sausages, equipment diapers, and/or drippans;
- 3. A contingency plan to control and clean spilled petroleum products and other toxic materials;
- 4. Appropriate materials to contain and clean potential spills will be stored at the work site, and be readily available;
- 5. All project-related materials and equipment placed in the water will be free of pollutants;
- 6. Daily pre-work inspections of heavy equipment for cleanliness and leaks, with all heavy equipment operations postponed or halted until leaks are repaired and equipment is cleaned;
- 7. Fueling of project-related vehicles and equipment will take place at least 50 feet away from the water, preferably over an impervious surface;
- 8. A plan will be developed to prevent trash and debris from entertain the marine environment during the project; and
- 9. All construction discharge water must be treated before discharge.

#### **Historic Resources Protection Criteria**

- 1. Restoration of walls should, when possible, make use of stones from the existing walls and rubble, and that all imported materials should resemble these original stones.
- 2. No stones should be collected from adjacent fishponds or other historic sites.
- 3. Portable artifacts may be removed with adequate documentation prior to removal.
- 4. All nineteenth and twentieth century artifacts may be left in place, awaiting "coordinated conservation" efforts.
- 5. The pond should be open to periodic monitoring by State Historic Preservation Division staff to document newly discovered finds, provide additional interpretation, and assure that the previous conditions are being met.