DAVID Y. IGE
GOVERNOR OF HAWAII

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BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Testimony of
CARTY S. CHANG
Interim Chairperson

Before the Senate Committees on
HAWAIIAN AFFAIRS
and
HEALTH
and
WATER AND LAND

Monday, February 09, 2015
2:45 pm
State Capitol, Conference Room 325

In consideration of
SENATE BILL 537
RELATING TO HAWAIIAN FISHPONDS

Senate Bill 537 proposes to require the Department of Health (DOH) to waive the requirement to obtain a water quality certification for any person that has received notice of authorization to proceed from the department of land and natural resources office of conservation and coastal lands under the statewide programmatic general permit for the restoration, repair, maintenance, and operation of Hawaiian fishponds. **The Department of Land and Natural Resources (Department) supports this measure.**

Hawai‘i State Senate Resolution 86 (2012) urged the Department, the Office of Planning (OP), and the DOH to streamline the permitting process for the restoration of Hawaiian fishponds. To this end, the Department has been working with other State, County, and Federal agencies have been working to integrate the many permits needed for the repair, restoration, maintenance, and operation of traditional Hawaiian fishponds.

Agencies have taken the following actions in support of the resolution:

- April 2013 – OP issues a Coastal Zone Management Consistency Statement.
- October 2013 – The Department publishes a Final Programmatic Environmental Assessment for activities related to the repair, restoration, maintenance, and operation of traditional Hawaiian fishponds.

- June 2014 – The Board of Land and Natural Resources approves Conservation District Use Permit (CDUP) ST-3703 for the repair, restoration, maintenance, and operation of traditional Hawaiian fishponds (Ho'āla Loko I'a program)
- November 2014 – The United States Army Corps of Engineers notifies the Department that fishpond repair and restoration is consistent with the existing Nationwide General Permit Number 4.

Securing a Water Quality Certification for fishpond repair and restoration is the necessary final step towards creating a streamlined permitting regime.

The Department's Ho'āla Loko I'a program contains best management practices and water quality monitoring protocols that are in compliance with the federal Clean Water Act and with Environmental Protection Agency guidelines, as well as with Section 10 of the Rivers and Harbors Act of 1899.

The Final Environmental Assessment reviewed the best available science, and concluded that repair, restoration, maintenance, and operation of traditional Hawaiian fishponds would have significant benefits to Hawaiian biocultural resources and long-term cumulative benefits to the State's coastal ecosystems and water quality.

The Ho'āla Loko I'a program has been funded and/or supported by a network of governmental and non-governmental entities, such as Conservation International (CI), Kua'āina Ulu 'Auamo (KUA), NOAA, traditional fishpond practitioners, and others, with no additional budgetary requirements for the Department. Once the program is fully operational, application processing will be managed by the Department's Office of Conservation and Coastal Land and technical support for traditional fishpond practitioners (e.g., preparation of a guidebook, and water quality monitoring) will be supported by entities such as CI, KUA and others.

DAVID Y. IGE
GOVERNOR OF HAWAII

VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. Box 3378
Honolulu, HI 96801-3378
doh.testimony@doh.hawaii.gov

Testimony COMMENTING on S.B. 537
RELATING TO HAWAIIAN FISHPONDS

SENATOR MAILE SHIMABUKURO, CHAIR
SENATE COMMITTEE ON HAWAIIAN AFFAIRS
SENATOR JOSH GREEN, CHAIR
SENATE COMMITTEE ON HEALTH
SENATOR LAURA THIELEN, CHAIR
SENATE COMMITTEE ON WATER AND LAND

Hearing Date: February 9, 2015 2:45PM Room Number: 224

Fiscal Implications: None.

Department Testimony: The Department of Health (DOH) offers suggestions to this measure. The purpose of this measure is to exempt any project from the need to obtain a permit if the project was given a notice of authorization to proceed by the Department of Land and Natural Resources (DLNR) under a Statewide Programmatic General Permit (SPGP) for the reconstruction, repair, maintenance, and operation of a traditional fishpond system.

The DOH, Clean Water Branch (DOH-CWB) continues to support Hawaiian fishponds. Specifically, Hawaii Administrative Rules (HAR), Chapter 11-54, Water Quality Standards address Hawaiian fishponds. HAR Section 11-54-9.1.01(c) requires that DOH-CWB process applications for Section 401 Water Quality Certification (WQC) for the reconstruction, repair, maintenance, and operation of any Hawaiian fishpond that meets the requirements of Hawaii Revised Statutes (HRS), Chapter 183B before all other permits and certifications. In addition, it imposes strict deadlines on DOH-CWB to determine the completeness of these applications and for issuing or denying a Section 401 WQC for a Hawaiian fishpond.

All Section 401 WQC applications for Hawaiian fishponds have been processed in accordance with provisions under HRS 91 and 92, HRS Chapter 342D, and HAR 11-54. Attached for your reference is a document entitled, SB537 Hawaiian Fishpond Section 401 WQC Applications. It lists all the Hawaiian Fishpond Section 401 WQC Applications that DOH-CWB has processed to-date. The information therein shows that most of these applications were processed within one year. It is important to note that this processing time includes the time taken by applicants to respond to DOH-CWB's comments and suggestions, and the public participation process.

Under the Public Trust Doctrine, the State is under a fiduciary duty to protect and conserve water resources for the people of Hawai'i. Section 401 WQC plays an important role in protecting our state's water resources from water pollution and violation of Water Quality Standards (WQS). Essentially, Section 401 WQC is a statement made by the State that asserts that a proposed discharge from an activity will comply with applicable WQS pursuant to HAR 11-54, HRS 342D, and the Clean Water Act. Pursuant to HAR 11-54-9.1.04, where the discharge resulting from an activity is covered under a Department of Army (DA) nationwide permit authorization, the director may, on a case-by-case basis, waive certain WQC requirements for minor and non-controversial projects. This provision has been used to waive requirements of the public notice and public hearing process. This waiver, however, is not intended to be used for obliterating all WQC requirements all together – that would significantly undermine the state's responsibilities and fiduciary duties to protect the state water resources from water pollution. Furthermore, HRS 342D-6.5 expressly requires the director to process Section 401 WQC for Hawaiian fishpond before all other certifications. Any proposed amendments to HRS 342D-6.5 that exempts Hawaiian fishpond from obtaining a Section 401 WQC would be inconsistent with the statutory objective of HRS 342D-6.5.

Pursuant to 33 CFR 325.5(c)(3), the DA issues a State Programmatic General Permit (SPGP, a type of DA General Permit for Hawaiian fishponds and such permit is administered by

the DLNR through a coordination agreement. Prior to issuing the SPGP, the DA is required to obtain a Section 401 WQC from the DOH-CWB. Once issued, the SPGP contains all of the Section 401 WQC conditions and DOH-CWB does not propose any further Section 401 WQC requirements. For instance, on September 9, 1996, DOH-CWB issued a blanket Section 401 WQC (File NO. WQC0298) to the DA General Permit (PODCO-O GP 94-1) for the restoration, repair, maintenance, and reconstruction of 19 fishponds on Molokai and Hawaii. The DA, however, did not issue a General Permit for this application and the DLNR did not issue the required Conservation District Use Permit for these fish ponds.

Fishpond operations may be subject to federal permitting requirements in the Code of Federal Regulations (CFR), Title 40, Parts 122.24 and 122.25. Of course, state agencies do not have the authority to exempt federal permitting requirements, including ones that apply to National Pollutant Discharge Elimination System (NPDES) permits.

Offered Amendments: The DOH-CWB suggests the following revision to H.B. No. 537, Page 4:

"(b) Any project for which a notice of authorization to proceed has been issued by the Department of Land and Natural Resources under a statewide programmatic general permit issued by the Department of the Army for the reconstruction, restoration, repair, or reuse of a traditional fishpond system shall be exempt from being required to obtain a permit under this chapter, providing that the permit is not subject to permit programs delegated, authorized, or approved by federal law."

Thank you for the opportunity to testify on this measure.

OFFICE OF HAWAIIAN AFFAIRS
Legislative Testimony

SB537
RELATING TO HAWAIIAN FISHPONDS
Committee on Hawaiian Affairs
Committee on Health
Committee on Water and Land

February 9, 2015 2:45 p.m. Room 224

The Office of Hawaiian Affairs (OHA) Beneficiary Advocacy and Empowerment Committee will recommend to the Board of Trustees a position of **COMMENTS** for SB537, which seeks to promote the restoration, repair, maintenance, and operation of traditional Hawaiian fishponds by waiving Department of Health water certification permitting requirements for those projects that have been vetted through the statewide general programmatic fishpond permit process.

OHA commends the intent of this measure, in seeking to support the restoration and rejuvenation of our traditional Hawaiian fishponds. Traditional fishponds, or loko iʻa, were and continue to be important cultural resources to Native Hawaiians. Demonstrating advanced engineering and aquaculture technologies found nowhere else in the Pacific, loko iʻa still serve as a source of sustenance for communities, and today offer a wide range of educational opportunities for Native Hawaiians and the larger community. In addition, fishpond restoration has become a major part of the Hawaiian cultural revival movement, with a number of groups across Hawaiʻi taking on the kuleana of bringing once-forgotten fishponds back to life.

Unfortunately, the permitting and approval processes for fishpond restoration have proven cumbersome, hindering efforts to revive these cultural treasures. Accordingly, OHA has consistently supported state and federal agencies' efforts, as well as those of fishpond practitioners and cultural nonprofit organizations, in streamlining these processes, when appropriate, into an interagency programmatic permit. OHA understands that this bill now seeks to remove a separate permitting process required under the Department of Health's water quality rules.

OHA notes that in support of the streamlined fishpond permit program, the state Coastal Zone Management ("CZM") Program has added relevant fishpond activities to its list of federal permits subject to federal consistency review. This inclusion allows minor fishpond activities to take place without repetitive federal review. However, the inclusion of these activities is conditioned on "compliance with applicable State of Hawaii [sic] water quality standards and requirements of . . . Hawaii Administrative Rules (HAR)

Chapter 11-54"; notably, Chapter 11-54 is the same rule chapter that establishes the water certification permits that this bill seeks to exempt.

Accordingly, OHA recommends consulting with the state CZM Program to ensure that fishpond activities will still be eligible for federal consistency review, notwithstanding any waiver to water quality certification granted by this bill.

Mahalo nui for the opportunity to testify on this measure.

KUA'ĀINA ULU 'AUAMO

Testimony before the
Senate Committees on Hawaiian Affairs, Health, and Water and Land
Comments regarding SB 537
Monday, February 9, 2015, 2:45pm, Room 224

My name is Brenda Asuncion and I am the Loko I'a Coordinator of Kua'āina Ulu 'Auamo (or KUA). KUA works to empower grassroots rural and Native Hawaiian mālama 'āina groups to celebrate their places and pass on their traditions to better Hawai'i and achieve 'āina momona— an abundant, productive ecological system that supports community well-being. We employ a community-driven approach that currently supports three networks; E Alu Pū (moving forward together) consists of 31 mālama 'āina community groups, Hui Mālama Loko I'a consists of 40 fishpond stewardship projects, and a new and growing Limu Hui consists of limu (seaweed) practitioners from all across our state. In particular, I have the privilege to work with and coordinate the collective discussions and actions of the fishpond practitioners within Hui Mālama Loko I'a.

KUA serves as a facilitator, consultant, trainer, liaison, and tool-builder for current and developing grassroots community stewardship efforts. A primary function of KUA includes development of the 'auwai, a stream of resources, tools, bridges and networks that help to cultivate and take our communities' work to greater levels of collective impact.

We commend any current and ongoing efforts that aim to both improve the physical conditions of fishponds, and increase the opportunities for practitioners and stewardship organizations to reinvigorate the role of fishponds in achieving 'āina momona within their communities. As initiatives continue to progress, we are available to assist coordinating communication with practitioners, and we will continue to facilitate collective discussions as the network continues to grow and work together.

307A KAMANI ST HONOLULU, HI 96813 | 808.672.2545 kuahawaii.org

From: mailinglist@capitol.hawaii.gov
To: HWNTestimony
Cc: darakawa@lurf.org
Subject: Submitted testimony for SB537 on Feb 9, 2015 14:45PM
Date: Wednesday, February 04, 2015 11:34:38 PM

SB537
Submitted on: 2/4/2015
Testimony for HWN/HTH/WTL on Feb 9, 2015 14:45PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
David Z. Arakawa	Land Use Research Foundation of Hawaii	Support	No

Comments: The Land Use Research Foundation of Hawaii supports SB 537, which provides that a project possessing a notice to proceed pursuant to a permit issued for the reconstruction, restoration, repair, or reuse of a Hawaiian fishpond shall be exempt from the permit requirements of Chapter 91, Hawaii Revised Statutes.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

Do not reply to this email. This inbox is not monitored. For assistance please email webmaster@capitol.hawaii.gov

From:	Graydon
To:	HWNTestimony; HTHTestimony; WTLTestimony
Cc:	Jalna Keala; adam asquith; Alan Everson; Alexander Concepcion; Chad Wiggins; Fred Cachola; Gilbert Peter Kea; Graydon Keala; Israel "Ikaika" Velez III; Issac "Paka" Harp, Jr.; James "Kapule" Torio; Keli"i Kotubetey; Kimi Makiau; Michelle Swartman; Noelle "Kauanoe" Campbell; Rebecca Jane Most; Royce "Keahi" Piiohia; Theresa Jokiel; rosalyn.dias@gmail.com; Jessie Paahana; Camille Kalama
Subject:	Testimony Submittal for SB 537
Date:	Friday, February 06, 2015 1:18:04 AM
Attachments:	CDUA-ST-3703-Hoala-Loko-Ia-Final.pdf Kauikeolani BMP 5493.pdf EXHIBIT 3 WQ ADP Demo-ponds.docx

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Aloha Kakou,

My name is Graydon 'Buddy' Keala and I have been working with Hawaiian Fishponds for 30+ years. I have work with over 30 loko on all islands and have restored over half a dozen including processing the arduous permits processes for restoration. I retain a degree in aquaculture from the University of Hawaii-Manoa, published the 'Loko I'a Hawaiian Fishpond Manual' and sat 8 years on the Office of Hawaiian Affairs-Native Hawaiian Historic Preservation Council. Loko I'a have been my life's' work.

My concern in SB-537 is the amendment Section 342D-6.5 HRS,

> (b) Any project for which a notice of authorization to proceed has been issued by the department under a statewide programmatic general permit for the reconstruction, restoration, repair, or reuse of a traditional fishpond system shall be exempt from being required to obtain a permit under this chapter.

This legislation will unfairly set precedence to loko i'a practitioners who would decide not to use the fore mentioned, State Programmatic General Permit (SPGP), which provides half a dozen additional Department of Health monitoring requirements beyond what is an already acceptable water quality parameter regime.

Below, I compare the SPGP to two examples of approved permits for two separate applications to the DOH-Clean Water Branch for Water Quality Certification (WQC);

<!--[if !supportLists]-->1. <!--[endif]-->In 1990, the State Aquaculture Development Program processed a Master CDUA for 28 Molokai fishponds. I facilitated the restoration work for both Honouliwai and Kahinapohaku Fishponds on Molokai and have attached the WQC monitoring parameters performed. This monitoring regime included only five WQ parameters, which was conducted once-a-day at one sampling point and not too costly on operators and operations. This work involved the typical kuapa (fishpond wall) repair of several hundred to 1200 feet. (see attached-WQ Two Demonstration Ponds)

<!--[if !supportLists]-->2. <!--[endif]-->In 2007, I processed all required permits and

conducted the repair of Kauikeolani Fishpond in Hanalei, which included 5000+ cubic yards of dredging. This effort is probably the most extreme case of disturbance and impact and would require a highest level of WQ monitoring, as well as, additional monitoring of WQ impacts caused by the daily dredge work.

Loko Kauikeolani monitoring regime from the DOH Clean Water Branch WQC- Best Management Practices for 5000 cubic yards included only 6 parameters. Dissolved oxygen, salinity, temperature, pH, Total Suspended Solids (TSS) and Turbidity were monitored 3 times a week at two sample points. The latter two, Turbidity and TSS, were processed via certified EPA approved method, which was sent to the Water Resources Research Center at UH. These samples needed to be kept refrigerated and tested within 48 hours by a certified WQ lab, which can cost up to $60 per sample. (see attached-Kauikeolani Fishpond approved BMP)

<!--[if !supportLists]-->3. <!--[endif]-->The proposed SPGP (see attached-CDUA-ST-3703-Hoala-Loko-Ia-Final) approved by BLNR last summer, is heavily flawed in WQ monitoring, frequency, sampling points and cost to be considered anything close to streamlined.

On page 38, the 'streamlined' BMP water quality includes 11 monitoring parameters; Total Nitrogen, Ammonia Nitrogen, Nitrate +Nitrite, Nitrogen, Total Phosphorus, Chlorophyll a, Oxygen Reduction Potential, Turbidity, pH, Temperature, and Dissolved Oxygen. Of these 11, the first 7 parameters are for monitoring pollution and erosion, most of which needs to be processed by an actual water quality lab to be EPA compliant.

Furthermore, on page 37 the SPGP BMP diagram identifies 11 sampling points. Add to this the processing of 11 WQ parameters and a fishpond under the proposed State SPGP BMP could have 121 WQ samples to process in a day.

This could be a deal breaker for those under financed operations on Molokai or Keaukaha, who don't have the expertise or finances to conduct required BMP monitoring, but have the ohana and backing to do the hard physical work. Also, these WQ parameters do not meet the needs of fishpond repair criteria, i.e., tracking direct impacts from repair activities and operations.

I do not support this amendment as it creates an unfavorable regulatory WQ compliance climate for loko i'a practitioners who choose not to follow the State SPGP.

If you have any questions or concerns, please don't hesitate to contact me at 808.828.1952.

Thank you for your time and the opportunity to testify on this important cultural legislation.

Mahalo,

Graydon 'Buddy' Keala
Kia'i Loko/Loko I'a Practitioner

GRAYDON 'BUDDY' KEALA

Loko I'a Consulting
PO Box 1428
Kilauea, HI 96754
808.828.1952 808.227.6648(c)

Free Hawaiian Fishpond Manual web link:
http://www.ctahr.hawaii.edu/oc/freepubs/pdf/Loko%20I'a%20Full%20Publication.pdf

Free Hawaiian Fishpond Curriculum Gr. 4-12 web link:
http://nsgl.gso.uri.edu/hawau/hawaue03001/hawaue03001index.html

CONSERVATION DISTRICT USE APPLICATION (CDUA)

File No:
Acceptance Date: 180-Day Expiration Date:
Assigned Planner:

PROJECT NAME: Hoʻāla Loko Iʻa

Conservation District Subzone:

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

Project Address: Statewide nearshore waters and adjoining Conservation District lands

Tax Map Key(s):

Ahupua`a: District:

County: Island: Statewide

Proposed Commencement Date: April 2014

Proposed Completion Date: April 2019

Estimated Project Cost:

TYPE OF PERMIT SOUGHT: ☒ Board Permit ☐ Departmental Permit

☐ Boundary Determination *(ref §13-5-17)*
☐ Emergency Permit *(ref §13-5-35)*
☐ Temporary Variance *(ref §13-5-36)*
☐ Site Plan Approval *(ref §13-5-38)*

Note: The four items on the left do not require that a full CDUA be filled out; please complete the first three pages of this application, and refer to the relevant HAR sections for the required documentation.

ATTACHMENTS *(where applicable)*

$ exempt Application Fee *(ref §13-5-32 through 34)*
$ _____ Public Hearing Fee *($250 plus publication costs; ref §13-5-40)*
☐ 20 copies of CDUA for Board and Departmental Permits (*5 hard + 15 hard or digital copies)*
☐ Management Plan *or* Comprehensive Management Plan (*ref §13-5-39 and §13-5 Exhibit 3)*
☒ Draft / Final Environmental Assessment *or* Draft / Final Environmental Impact Statement
☐ Special Management Area Determination *(ref Hawai`i Revised Statutes (HRS) 205A)*
☐ Shoreline Certification (*ref §13-5-31(a)(8))* if land use is subject to coastal hazards.
☐ Kuleana documentation (*ref §13-5-31(f))* if applying for a non-conforming kuleana use.
☐ Boundary Determination *(ref §13-5-17)* if land use lies within 50 feet of a subzone boundary.

REQUIRED SIGNATURES

Applicant
Name / Agency: Office of Conservation and Coastal Lands
Street Address: 1151 Punchbowl Room 131
Honolulu HI 96803
Contact Person & Title: Michael Cain, Planner
Phone: 808-783-2501 Fax:
Email: michael.cain@hawaii.gov
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
Honolulu, Hawaii 96809-0621

Signature _____ **Date:**

PROPOSED USE

Please provide an executive summary of the proposed land use. Attach any site plans, landscaping plans, photographs, maps, and construction plans as needed.

Hoʻāla Loko Iʻa is a proposed Statewide Programmatic General Permit and Programmatic Agreement for the repair, restoration, maintenance, and operation of traditional fishpond systems in Hawaiʻi

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 potential permits that are currently required. The program has been designed to be in compliance with seventeen distinct federal and state regulations.

From a regulatory standpoint, OCCL anticipates that the U.S. Army Corps of Engineers 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.

From a practioners' standpoint, 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 ahupua`a, 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 that will discuss the federally and state-mandated best management practices for different activities.

From a processing standpoint, OCCL will receive the application and assign it to one of three different tracks for processing.

The first tier will encompass those activities that currently 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 agency.

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,ʻauwai, 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 iʻa, 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 resource agencies as appropriate 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 have the authority to issue the permit with the standard BMPs and conditions.

Second tier activities include emergency repair of fishponds, and restoration work that involved a change in excess of 10 percent, but no more than 50 percent, in 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 structure fishpond dredging with the use of mechanized equipment, and any activity that may moderately affect or alter sandy beaches or sediment deposition. 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 take of endangered, threatened, or otherwise protected species or significant damage to special aquatic sites such as wetlands, vegetated shallows, mudflats, coral reefs, and seagrass beds; and the introduction or culture of alien species.

From a research standpoint, OCCL notes that the Final Environmental Assessment (FEA), prepared by Honua Consulting, and Finding of No Significant Impact (FONSI) were published in October 2013. The FEA 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.

Both the KUA Foundation, 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. 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 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.

From the Board of Land and Natural Resources (Board) standpoint, 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, and

That OCCL be given the authority to implement and manage the Hoʻāla Loko Iʻa program as described.

The following attachments have been included with this application:

Exhibit 1: Environmental Regulations, Permits, and Consultations

Exhibit 2: Loko I`a Conservation District Use Application

Attached to Exhibit 2: Fishpond Water Quality Monitoring and Assessment Protocols

Exhibit 3: Flow Chart of Review Process

Exhibit 4: Fishpond Restoration Activities

Exhibit 5: Description of the Review Process

EXISTING CONDITIONS

Please describe existing conditions on the parcel (geology, ecology, cultural and recreational resources, historic resources, structures, landscaping, etc). Attach maps, site plans, topo maps, biological or archaeological surveys as appropriate.

The underwater topography of fishponds and adjacent near-shore areas typically consist of five physiographic zones:

1. Intertidal and near-shore sub-tidal zones consisting mainly of sand and silt;
2. A pond basin characterized by basalt rock, ranging in size from larger boulders to smaller cobble stones;
3. A zone comprised of small stones, known as ʻiliʻili, which were used traditionally for a variety of cultural purposes;
4. The structural remains of the fishpond wall, known as the kuapā; and
5. Seaward facing limestone reef flats.

Fishpond systems typically include two major subdivisions of marine benthic habitats: intertidal and sub-tidal. The intertidal region is characterized as "the shore bordered on the seaward side by the reach of ebbing (falling) tides and landward by the reach of flooding (rising) tides." It is essentially the part of the shore that is intermittently awash or exposed as a result of tidal exchange. Although the boundaries of the intertidal vary with the phase of the moon and the intensity of wave action, the unique geographic location of the Hawaiian Islands provides less than 20 centimeters of tidal exchange.

Hawaiʻi is primarily surrounded by shallow fringing reefs, providing an ideal topography for the distribution of marine organisms that thrive under these environmental conditions. The constantly immersed sub-tidal zone includes species of marine algae, fish, and invertebrates, such as polychaetes, sea urchins, sea cucumbers and crabs.

With space at a premium, species must constantly take advantage of changes in the physical environment, such as fluctuations in salinity due to rainfall or flooding, and/or newly available substrate caused by a physical disturbance such as herbivory or storm surge. Some of these changes can occur within seconds while others are on a timescale of hundreds of years.

The ahupuaʻa system, in particular loko kuapā, provided both intertidal and sub-tidal species a refuge and food-rich environment in which to live and reproduce. These ponds offered a complete trophic cycle; sunlight would promote algal growth, herbivorous fish would consume and regulate the algae, predatory fish would regulate the herbivores, crustaceans and filter feeders would filter the water providing healthy conditions for plant and animal life, and bacteria would consume detritus and organic matter.

In order to maximize productivity and yield, Native Hawaiians took into consideration sudden and seasonal changes of coastal topography, wave energy, depth, and biodiversity when designing and erecting each individual pond.

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: Hawaiʻi Island, Maui, Oʻahu, Molokaʻi, Lānaʻi and Kauaʻi. Efforts to maintain and restore these systems continue today on all six of these islands.

Fishpond systems have lost function over time due to coastal degradation, fresh water impairment, lack of maintenance, loss of ownership, invasive species, urban development, and natural disasters. Concerns regarding the regulatory hurdles to repairing the ponds date back to the early part of the 20th Century.

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

Type I – Loko Iʻa 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 Iʻa Puʻuone: 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 styles of loko i`a that are located within the Conservation District, with an emphasis on the most common loko i`a kuapā.

Most ponds were built along sheltered seashores or in bays, and were often located near brackish springs or at the mouth of a stream. The loko i‘a took advantage of the momona (fertile) water that has washed through many lo‘i kalo up mauka (in the highlands).

There were two methods of building the wall of a loko i‘a. The first was to construct a wall across the mouth of a small bay or between two close points of land. The second was to run a wall out from two sites on the shore and to connect them with a circular wall creating a full enclosure. Most fishponds were built using the latter method and while all methods were time consuming the latter required a significantly longer wall to be constructed. In areas where two loko i‘a were bordering each other, some ponds were built by using a portion of the existing/ bordering wall precisely because of the amount of physical labor involved in building the walls. There are also a few cases of a third pond being built between two neighboring ponds by connecting a small wall to the opening between them (Kapu‘u). These measures were taken to connect and share pond walls because it took at least a year to build a single pond.

While ponds varied in size, many had walls over 2,000 feet long and the size of the actual kuapā could vary from one to over 500 acres. The largest, Keahupua o Maunalua, was destroyed in order to create the Hawai‘i Kai housing development.

The longest wall reported for an O‘ahu pond, He‘eia, is 5,000 feet and is currently undergoing restoration. The length of the wall is not always indicative of the overall area of the pond, as some ponds used existing bays, and so have a large pond area with shorter walls. Nonetheless, the discipline and labor needed to construct these kuapā should be noted.

The width of the walls varied from 3 to 19 feet with an average of about 5 feet. They varied from 2 to nearly 6 feet in height depending on the depth of the water. Unlike the loko ‘umeki these walls were not to be submerged during high tide.

The walls were usually constructed of coral and/or basalt. Since some of the stones used in the walls weighed nearly half a ton the most accessible materials were used. In a few cases sand or dirt was added to help bind the wall. In some other cases coralline algae was included to strengthen the wall. The walls were loosely constructed to allow for water to seep in and out according to the tide and therefore preventing stagnation in the pond.

However, this was not the case for two O‘ahu ponds, Wailupe Pond and He‘eia, because both had multiple mākāhā (gates/openings) that provided ample circulation.

Mākāhā were built to allow water and young fish to enter the pond without letting the larger fish escape. The mākāhā were a series of straight sticks tied with beams in an upright standing position. The sticks were fastened close enough together than no fish wider than an inch and a half could pass. This was done not only to trap the grown fish from escaping but also to protect the fish from predators. Although no part of an ancient mākāhā was movable some today can be opened or closed like a gate, while others can be

raised or lowered. It was customary to build a small thatched guard house, hala kiaʻi, near the mākāhā for the keeper of the mākāhā to stay.

There were two ways to stock a pond. One way is to allow young fish to enter through the mākāhā and growing too large to exit. The other method required catching young fish measuring ½ to 1 inch long in nets while in shallow bay waters and transporting the live fish to the pond.

When the keeper wanted to harvest or remove fish he would go to the mākāhā during high tide (where the fish would congregate as they were attracted to the incoming seawater) and use a scoop net to catch the number of fish desired. When a large number of fish were desired, an ʻupena kuʻu (a long net) was used. The fish raised in the ponds varied from ʻamaʻama, awa, awaʻaua, kaku, aholehole, ʻoʻopu, ʻopae and puhi.

In order to prevent the filling of a pond with silt, an entrance, probably with a mākāhā, was sometimes built near the shore on either side of the pond. On the flow of the tide, the water entered through one entrance and washed the silt to the other side of the pond where it would be carried out through that entrance at the ebbing of the tide. This method of cleaning was employed in some of the Molokaʻi ponds.

There is documentation that sometimes a weighted bamboo rake, kope ʻohe, was used to clean the pond floor. The rake would be towed behind a canoe and the collected matter taken to the sluice. There was no fear that doing so would kick up harmful organic matter or sediments that would negatively affect the pond or ocean. Once or twice a year the makaʻāinana would scoop mud out of the pond to firm the pond floor and maintain it to help keep ecosystem function high

The majority of activities reported are restoration, maintenance and educational activities. These activities include: 1) manual replacement of wall stones dislodged as a result of heavy surf action or natural disrepair, 2) manual removal of wave-deposited sand and rock from the fishpond basin to maintain pond depths, 3) manual removal of mangrove and other invasive species from the fishpond wall and basin to prevent damage to wall, and 4) educational and research activities. It is anticipated that these are the majority of activities that would be conducted under the General Permit.

However, this does not necessarily represent the totality of activities that would be conducted under the auspices of the General Permit. In some cases, contemporary construction methods may be utilized to repair, restore, and maintain and operate Hawaiian fishponds.

To the extent possible, fishpond use and management will follow traditional practices and methods, subject to existing State-regulated fishing methods, seasons, and catch limits. Marine organisms cultured or harvested within the pond will be used for either subsistence purposes, as stocking materials for other fishponds, and for limited commerce.

Activities that will be covered by the program include:

1. Reconstruction, restoration, repair and maintenance 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.
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
12. Actions that would cause extreme turbidity, purposeful damage to live rock or coral, extreme eutrophication, or other long-term impairment to water quality.

EVALUATION CRITERIA

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

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

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

   Submerged lands fall, unless otherwise designated, are in the General 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. Describe how the proposed land use complies with the provisions and guidelines contained in chapter 205A, HRS, entitled "Coastal Zone Management" *(see 205A objectives on p. 8).*

   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 has undergone §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.

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

   The Proposed Action and Alternatives involve primarily short-term repair, restoration, maintenance and operational activities. As described in Section 2 of the Final Environmental Assessment, fishpond practitioners have developed and refined many BMPs and monitoring measures for carrying out their activities. 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. Describe how the proposed land use, including buildings, structures and facilities, is compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.

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

   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. If applicable, describe how subdivision of 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. Describe how 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.

CULTURAL IMPACTS

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

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

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.

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

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.

What feasible action, if any, could be taken by the BLNR in regards to your application to reasonably protect native Hawaiian rights?

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

OTHER IMPACTS

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

The program should have no impact on public shoreline access.

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

There is no new hardening of the shoreline being proposed under this program. OCCL will consult with the Department's Coastal Engineers if a pond is located adjacent to a sandy beach to determine if restoration will result in an impact.

Will the proposed use cause increased runoff or sedimentation?

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 Best Management Practices, as described in the application itself and on the following page. The water quality protocols have been designed so that practitioners can carry them out using locally available test kits. Parameters that will be measured include total nitrogen, ammonia nitrogen, nitrate and nitrite nitrogen, phosphorus, chlorophyll, turbidity, temperature, and dissolved oxygen. Practitioners will report their results to OCCL, who will have the authority to issue stop-work orders, or request additional BMPs, if the results exceed the geometric mean established by the State Department of Health for low wetlands and estuaries.

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

Loko i`a are visible to neighboring communities, from coastal roads, and from ocean-goers. Many are in a state of disrepair; OCCL is of the opinion that their repair and maintenance will have a positive visual impact.

Please describe any sustainable design elements that will be incorporated into the proposed land use.

OCCL is of the opinion that the act repairing, restoring, maintaining, and operating traditional fishpond systems, when done in an environmentally and culturally responsible manner, is in and of itself a sustainable activity.

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

Applications involving landscaping that do not trigger Section 10 review will be evaluated based upon the existing Conservation District Rules found in HAR §13-5-22. These are outlined below:

Removal of Invasive Species (§13-5-22 P-4)

(A-1) Removal of invasive species including chemical and mechanical control methods, not to exceed one acre, in accordance with state and federal laws and regulations, for the purpose of protecting, preserving, or enhancing native species, native habitat, or native ecosystem functions that results in no, or only minor ground disturbance. The department or board reserves the right to require site plan approval, departmental or board approval if it is determined that the proposed action may cause significant negative secondary impacts on natural or cultural resources, or the surrounding community. Any replanting shall be appropriate to the site location and shall give preference to plant materials that are endemic or indigenous to the State. For existing developed lots, compliance with section 13-5-23(L-2) satisfies the requirements of this section.

(B-1) Removal of invasive species including chemical and mechanical control methods, in an area greater than one acre, in accordance with state and federal laws and regulations, for the purpose of protecting, preserving, or enhancing native species, native habitat, or native ecosystem functions that results in no, or only minor ground disturbance. The department or board reserves the right to require departmental or board approval if it is determined that the proposed action may cause significant negative secondary impacts on natural and cultural resources, or the surrounding community. Any replanting shall be appropriate to the site location and shall give preference to plant materials that are endemic or indigenous to the State.

Land and Resource Management (§13-5-22 P-13)

(A-1) Basic land management, including routine weed control, clearing of understory, and tree pruning, utilizing chemical and mechanical control methods, which involves no grubbing or grading, in accordance with state and federal laws and regulations, in an area less than one acre.

(A-2) Planting of native and endemic plants and fence maintenance. New fence ex-closures for small native plants or wildlife communities, in an area less than one acre. The department or board reserves the right to require a site plan approval or a departmental permit or a board permit if it is determined that the proposed action may cause secondary impacts on natural or cultural resources.

(A-3) Clearing of sand or silt from stream mouths, canals, drainage pipes, or other features for state or county maintenance, provided that the sand removed shall be placed on adjacent shoreline areas unless the placement would result in significant turbidity, as determined by the department.

(B-1) Basic land management, including routine weed control, clearing of understory, and tree pruning, utilizing chemical and mechanical control methods, which involves no grubbing or grading, in accordance with state and federal laws and regulations, in an area greater than one acre. The department or board reserves the right to require departmental or board approval if it is determined that the proposed action may cause significant negative secondary impacts on natural or cultural resources, or the surrounding community.

OCCL notes that those land uses marked (A) are considered maintenance, and do not require a permit from DLNR. Those land uses marked (B) require a Site Plan Approval. Site Plan Approvals are generally processed "in-house" by OCCL, and are issued with the standard conditions outlined in §13-5. We do not anticipate increasing the regulatory burden of these activities, or any others requiring a Site Plan Approval, with this program.

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

OCCL has compiled and consolidated a list of BMPs that are in compliance with the Rivers and Harbors Act §10, CWA §404, CWA §401, ESA § 7, NHPA § 106, NEPA, MBTA, EFH, FWCA, CZMA, HRS § 183-44, HRS § 183B, and HRS §*343.* We have grouped these into two broad categories dealing with water quality and protected species. These will be required conditions of any permits for Tier 2 and Tier 3 activities.

Water Quality BMPs

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 BMPs

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 re-initiation 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

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

State and/or federal agencies, including but not limited to DLNR and the Corps of Engineers, will retain the right of reasonable access to projects authorized under the program to monitor compliance with and effectiveness of authorization conditions.

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_____to act as my representative and to bind me in all matters concerning this application.

_____

_____

Signature of applicant(s)

Exhibit 1: Environmental Regulations, Permits, and Consultations

Clean Water Act

Section 301(a) of the Clean Water Act prohibits the discharge of pollutants into "navigable waters" except in compliance with sections 402, 404, and certain other provisions. Navigable waters are defined in section 502(7) as "waters of the United States, including the territorial seas." "Waters of the United States" are in turn defined as regulation to include wetlands which are adjacent to water bodies which are themselves waters of the United States (e.g., wetlands adjacent to tidal waters, wetlands adjacent to traditionally navigable waters, wetlands adjacent to tributaries of those waters, etc.) and isolated wetlands whose use, destruction, or degradation could affect interstate commerce (40 CFR §230.3(s)). The term "wetlands" is defined by regulation to mean "those areas which are inundated or saturated at a sufficiency and duration to support, and which under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions" (40 CFR §230.3(t)).

In addition to the prohibition of section 301(a), other Clean Water Act requirements application to "navigable waters," like the development of water quality standards under section 303, water quality management planning under sections 208 and 303(e), enforcement under section 309, etc., also apply to those wetlands which are "waters of the United States."

Section 101(a) of the Clean Water Act defined the national goal of restoring and maintaining the chemical, physical and biological integrity of the Nation's waters. Section 303(a)(4) of the Clean Water Act explicitly refers to satisfaction of the antidegradation requirements of 40 CFR 131.21 prior to taking various actions, which would lower water quality. The EPA Region 9 antidegradation guidance specifies: "The first step in any antidegradation analysis is to determine whether or not the proposed action will lower water quality… If the action will not lower water quality, no further analysis is needed and EPA considers 40 CFR 131.12 to be satisfied."

Section 401

The purpose of § 401 of the Clean Water Act (CWA) is for states to use its process to ensure that no federal license or permit authorizes an activity that would violate the state's water quality standards or become a future source of pollution. A § 401 Water Quality Certification (WQC) covers construction, operation, maintenance and decommissioning of a proposed project, and conditions of the WQC become conditions of the federal license or permit.

5.1.1.2 Section 404

CWA Section 404 establishes a program to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. The U.S. Army Corps of Engineers (USACE) and EPA share responsibility for administering and enforcing Section 404. USACE administers the day-to-day program, including individual permit decisions and jurisdictional determinations; develops policy and guidance; and enforces Section 404 provisions. EPA develops and interprets environmental criteria used in evaluating permit applications, identifies activities that are exempt from permitting, reviews/comments on individual permit applications, enforces Section 404 provisions, and has authority to veto USACE permit decisions.

Section 404 requires a DA permit, issued by the Corps on behalf of the Office of the Secretary of the Army, prior to the discharge of dredged or fill material into any waters of the United States, including wetlands. Discharges of fill material generally include, but are not limited to: placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; dams and dikes; artificial islands; property protection or reclamation devices such as riprap, groins, sea walls, breakwaters, and revetments; beach nourishment; levees, fill for intake and outfall pipes and subaqueous utility lines; fill associated with the creation of ponds; and other work involving the discharge of dredged or fill material. A DA permit is required irrespective of whether the work is permanent or temporary.

Endangered Species Act

The Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531-1544, 87 Stat. 884, as amended) requires the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) to identify plant and animal species that are threatened or endangered since "…various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation; other species of fish, wildlife, and plants have been so depleted in numbers that they are in danger of or threatened with extinction; these species of fish, wildlife, and plants are of aesthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people; the United States has pledged itself as a sovereign state in the international community to conserve to the extent practicable the various species of fish or wildlife and plants facing extinction…" Federal agencies are required to assess the effect of any project on threatened and endangered species under Section 7 of the ESA.

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.

Section 7

Section 7 of the Endangered Species Act (ESA) requires Federal agencies to ensure that actions they authorize, fund, or carry out do not jeopardize the existence of any species listed under the ESA, or destroy or adversely modify designated critical habitat of any listed species. Thus, Section 7 requires consultation by the Federal 'action agency' (the agency authorizing, funding, or carrying out the action) with the appropriate regulatory agency, either the National Marine Fisheries Service (NMFS) for marine species, or the U.S. Fish & Wildlife Service (USFWS) for terrestrial and freshwater species.

Rivers and Harbors Act

The Rivers and Harbors Act address projects and activities in navigable waters and harbor and river improvements. Several of these Acts provided a number of regulatory authorities, the implementation of which has evolved over time. This profile addresses only those sections that relate to the Corps Regulatory program.

The activities identified and authorized under the Proposed Action and program are likely to trigger the need for authorization by the U.S. Army Corps of Engineers Honolulu District, which is responsible for overseeing and permitting certain activities regulated under Section 10 of the Rivers and Harbors Act of 1899 (Section 10). Structures or work in, above, or beneath navigable waters of the United States require a Department of the Army (DA) permit under Section 10 prior to the commencement of work. The law applies to any dredging or disposal of dredged materials, excavation, filling, rechannelization, or any other modification of a navigable water of the United States, and applies to all structures, from the smallest floating dock to the largest commercial undertaking.

Section 10

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) prohibits the unauthorized obstruction or alteration of any navigable water of the United States. This section provides that the construction of any structure in or over any navigable water of the United States, or the accomplishment of any other work affecting the course, location, condition, or physical capacity of such waters is unlawful unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army. The Secretary's approval authority has since been delegated to the Chief of Engineers.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 U.S.C. 703-712) protects many species of migratory birds. Specifically, the act prohibits the pursuit, hunting, taking, capture, possession, or killing of such species or their nests and eggs. An activity will be determined to have a significant adverse effect when it is found within a reasonable period of time to diminish the capacity of a population of a migratory bird species to maintain genetic diversity, to reproduce, and to function effectively in its native ecosystem.

Fish and Wildlife Coordination Act

The purpose of the Act is to recognize the contribution of wildlife resources to the Nation, the increasing public interest and significance thereof due to expansion of our national economy and other factors, and to provide that wildlife conservation receives equal consideration and be coordinated with other features of water-resources development programs (16 U.S.C. 661). The terms "wildlife" and "wildlife resources", as used in this Act, "include birds, fishes, mammals and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent" (16 U.S.C. 666(b)). The Secretary of the Interior, through the U.S. Fish and Wildlife Service (USFWS) is authorized to assist and cooperate with Federal, state and public or private agencies and organizations in the conservation and rehabilitation of wildlife. (The National Marine Fisheries Service (NMFS) provides similar assistance and cooperation for wildlife species under the management responsibilities of the Department of Commerce). 16 U.S.C. 662(a) provides that whenever the waters of any stream or other body of water are proposed to be impounded, diverted, the channel deepened or otherwise controlled or modified, the Corps shall consult with the U.S. Fish and Wildlife Service (FWS), the National Marine Fisheries Service (NMFS) as appropriate, and the agency administering the wildlife resources of the state. The consultation shall consider conservation of wildlife resources with the view of preventing loss of and damages to such resources as well as providing for development and improvement in connection with such water resources development.

Federal Coastal Zone Management Act

The Federal Coastal Zone Management Act of 1972 (as amended 16 U.S.C. 1451, et seq.,) excludes Federal lands from the coastal zone. However, Federal agencies that conduct activities directly affecting the zone must ensure that the activity is consistent with the State's Coastal Zone Management Program. The Hawai'i Coastal Zone Management Program (HRS Chapter 205A), which is administered by the Department of Business, Economic Development and Tourism, Office of Planning, regulates public and private uses in the coastal zone. The objectives and policies of the program consist of providing recreational resources; protecting historic and scenic resources and the coastal ecosystem; providing economic uses; reducing coastal hazards; and managing development in the coastal zone. The Hawai'i Coastal Zone Management Program designates special management areas in the coastal zone, which are subject to special controls on development. These areas extend inland from the shoreline and are established by the county.

National Historical Preservation Act

The Act establishes preservation as a national policy and directs the Federal government to provide leadership in preserving, restoring and maintaining the historic and cultural environment of the Nation. Preservation is defined as the protection, rehabilitation, restoration, and reconstruction of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, or engineering. The Act authorizes the Secretary of the Interior to expand and maintain a national register of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology and culture, referred to as the National Register.

Federal agencies having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking shall take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. Federal agencies shall afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on each undertaking (Section 106 (16 U.S.C. 470f). In addition, Federal agencies shall assume responsibility for the preservation of historic properties that are owned or controlled by the agencies. They also shall establish a program to locate, inventory, and nominate all properties under the agency's ownership or control that are eligible for inclusion on the National Register (Section 110(16 U.S.C. 470h-2)).

Cultural resources include prehistoric and historic artifacts, archaeological sites (including underwater sites), historic buildings and structures, and traditional resources (such as Native American and Native Hawaiian religious sites). Cultural resources of particular concern include properties listed in or eligible for inclusion in the National Register of Historic Places (National Register). Section 106 of the National Historic Preservation Act (16 U.S.C. 470 et seq.) requires Federal agencies to take into consideration the effects of their actions on significant cultural properties. Implementing regulations (36 CFR 800) specify a process of consultation to assist in satisfying this requirement. To be considered significant, cultural resources must meet one or more of the criteria established by the National Park Service that would make that resource eligible for inclusion in the National Register. The term "eligible for inclusion in the National Register" includes all properties that meet the National Register listing criteria specified in Department of Interior regulations at 36 CFR 60.4. Resources not formally evaluated may also be considered potentially eligible and, as such, are afforded the same regulatory consideration as listed properties. Whether prehistoric, historic, or traditional, significant cultural resources are referred to as historic properties.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (Public Law 94-265) (16 U.S.C. 1801-1882, April 13, 1976, as amended) requires that Federal agencies consult with NMFS on activities that could harm Essential Fish Habitat (EFH) areas. EFH refers to "those waters and substrate (sediment, hard bottom) necessary to fish for spawning, breeding, feeding or growth to maturity."

In 1996, the Magnuson-Stevens Fishery Conservation and Management Act (MSA) was reauthorized and amended by the Sustainable Fisheries Act (Public Law 104-267). The reauthorized MSA mandated numerous changes to the existing legislation designed to prevent overfishing, rebuild depleted fish stocks, minimize bycatch, enhance research, improve monitoring, and protect fish habitat. One of the most significant mandates in the MSA that came out of the reauthorization was the Essential Fish Habitat (EFH) provision, which provides the means to conserve fish habitat.

The EFH mandate requires that the regional Fishery Management Councils, through federal fishery management plans, describe and identify EFH for each federally managed species; minimize, to the extent practicable, adverse effects on such habitat caused by fishing; and identify other actions to encourage the conservation and enhancement of such habitats. Congress defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 United States Code (U.S.C.) §1802(10). The term "fish" is defined in the MSA as "finfish, mollusks, crustaceans, and all other forms of marine animals and plant life other than marine mammals and birds." The regulations for implementing EFH clarify that "waters" include all aquatic areas and their biological, chemical, and physical properties, while "substrate" includes the associated biological communities that make these areas suitable fish habitats (50 C.F.R. §600.10). Habitats used at any time during a species' life cycle (i.e., during at least one of its life stages) must be accounted for when describing and identifying EFH (National Marine Fisheries Service 2002).

Authority to implement the MSA is given to the Secretary of Commerce through NMFS. The MSA requires federal agencies to consult with NMFS on activities that may adversely affect EFH or when NMFS independently learns of a federal activity that may adversely affect EFH. The MSA defines an adverse effect as "any impact that reduces quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality and/or quantity of EFH.

Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions" (50 C.F.R. §600.810).

Marine Mammal Protection Act

The Marine Mammal Protection Act (16 U.S.C. 1361, et seq.) gives the USFWS and NMFS coauthority and outlines prohibitions for the taking of marine mammals. A take means to attempt as well as to actually harass, hunt, capture, or kill any marine mammal. Subject to certain exceptions, the Act establishes a moratorium on the taking and importation of marine mammals. Exceptions to the taking prohibition allow USFWS and NMFS to authorize the incidental taking of small numbers of marine mammals in certain instances.

National Marine Sanctuaries Act

The National Marine Sanctuaries Act (NMSA) 16 U.S.C. § 1431 et seq. authorizes the Secretary of Commerce to designate as National Marine Sanctuaries areas of the marine environment that possess conservation, recreational, ecological, historical, research, and educational, or aesthetic resources and qualities of national significance, and to provide a comprehensive management and protection of these areas. To protect the area designated, any Federal action that is likely to destroy, cause the loss of, or injure a sanctuary resource must consult with the Secretary of Commerce prior to commencement of the action and adhere to reasonable and prudent alternatives set by the Secretary of Commerce. To the extent practicable, consultation may be consolidated with other consultation efforts under other Federal laws, such as the Endangered Species Act.

The NMSA allows the Secretary to issue regulations for each sanctuary designated and the system as a whole that, among other things, specify the types of activities that can and cannot occur within the sanctuary. The Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS) was signed into law in November 1992. The Final EIS/Management Plan was released in March 1997, and the final rule was published in November 1999. The sanctuary includes specific areas from the coast of the Hawaiian Islands seaward to the 100-fathom isobath.

Permits and Consultations

The State Programmatic General Permit will seek to include a range of permitting requirements into a single program, thereby helping to facilitate program activities for communities and practitioners who may otherwise lack the financial resources necessary to complete the extensive permitting process.

U.S. Army Corps of Engineers Regional General Permit

Regional General Permits are used to authorize similar activities that cause only minimal individual and cumulative environmental impacts. Regional general permits are developed by individual districts to streamline project review by minimizing duplication of other federal, state and local review processes, while still protecting aquatic resources. Regional general permits may be restricted for use in areas as small as a single residential development, a county, a region of the state, or the entire district.

State of Hawai‘i, Department of Health, Clean Water Branch Requirements

The State of Hawai‘i Department of Health's (DOH) Clean Water Branch (CWB) administers the Clean Water Act § 401 Water Quality Certification program. The State of Hawai‘i § 401 Water Quality Certification program is further administered by Hawai‘i Administrative Rules § 11-54. Under these administrative rules, activities like those proposed under this program that are minor and non-controversial are eligible for a waiver from water quality certification requirements. Specifically, HAR § 11-54-9.1.04 (b) states: “If the discharge resulting from an activity receives a determination to be covered under a nationwide permit authorization, thereby fulfilling specific conditions of that permit pursuant to 33 CFR Sections 330.4, 330.5, and 330.6 then the [State of Hawai‘i] [D]irector [of Health] will determine, on a case-by-case basis, which projects are considered minor and non-controversial. Certification requirements of section 11-54-9.1 shall be waived for minor and non-controversial activities within one year of receipt of a complete water quality certification application.”

National Historic Preservation Act (NHPA) Compliance

Section 106 of the National Historical Preservation Act addresses the need for federal agencies to take into account impacts, if any, that undertakings have on historic properties. Protection of Historic

Properties and Section 106 analysis are regulated under 36 CFR Part 800. This part provides guidelines as to conducting an analysis in assessing when and how to undergo Section 106 review.

The first step in initiating the Section 106 process constitutes determining whether or not a proposed Federal action is an undertaking as defined in 36 CFR §800.16(y), which states: "*Undertaking* means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those required a Federal permit, license or approval." It is likely to be determined that this proposed action is an undertaking as defined in §800.16(y).

The proposed project areas include the coastal land areas, shoreline areas and nearshore ocean waters within the State of Hawai'i where existing Hawaiian fishponds are located. The specific geographic area of each individual fishpond system is defined by the type of fishpond. NHPA Section 106 requires the agency to "take into account the effect of (an) undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register (of Historic Places.)" 16 U.S.C. § 470f. NHPA section 101(d)(6)(B) requires agency officials to consult with any Native Hawaiian organization that attaches religious and cultural significance to historic properties that may be affected by an undertaking, regardless of the location of the property.

There may be sites within the geographic area that would meet this definition of historic properties, including, but not limited to: sites related to traditional Hawaiian navigation and other seafaring traditions, traditional Hawaiian fishponds, ko'a (traditional Hawaiian fishing shrines typically consisting of piles of coral or stone), Hawaiian heiau (religious structures), Native Hawaiian burial sites, leina (places from which spirits leapt into the spirit world), and other cultural heritage properties. NHPA section 106 requires an agency to make a reasonable and good faith effort to identify historic properties, determine whether identified properties are eligible for listing on the National Register, assess the effects of the undertaking on any eligible historic properties found, determine whether the effect will be adverse; and avoid or mitigate any adverse effects. To this end, NHPA regulations require an agency to provide a Native Hawaiian organization, as a consulting party, with "a reasonable opportunity to identify its concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate its views on the undertaking's effects on such properties, and participate in the resolution of adverse effects" 36 CFR § 800.2(c)(2)(ii)(A).

Section 106 of the National Historic Preservation Act (16 U.S.C. 470 et seq.) requires Federal agencies to take into consideration the effects of their actions on significant cultural properties. Implementing regulations (36 CFR 800) specify a process of consultation to assist in satisfying this requirement. To be considered significant, cultural resources must meet one or more of the criteria established by the National Park Service that would make that resource eligible for inclusion in the National Register. The term "eligible for inclusion in the National Register" includes all properties that meet the National Register listing criteria specified in Department of Interior regulations at 36 CFR 60.4. Resources not formally evaluated may also be considered potentially eligible and, as such, are afforded the same regulatory consideration as listed properties. Whether prehistoric, historic, or traditional, significant cultural resources are referred to as historic properties.

Endangered Species Act, Section 7 Consultation

Federally funded programs at the state and local level, such as some habitat restoration projects, require a Section 7 consultation process, which includes a biological assessment. Each federal agency must ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species in the wild, or destroy or adversely modify its critical habitat.

Essential Fish Habitat

The PIRO NMFS Habitat Conservation Division coordinates with state and federal agencies to conserve EFH. As per the Magnuson-Stevens Fishery Conservation and Management Act (MSA), Federal agencies which fund, permit, or undertake activities that may adversely affect EFH are required to consult with the NMFS.

Fish and Wildlife Coordination Act

Under the Fish and Wildlife Coordination Act, USACE would be required to first consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service, as well as with state fish and wildlife agencies regarding the impacts on fish and wildlife resources and measures to mitigate these impacts.

Conservation District Use Permit

Conservation District Use Permits (CDUP) are required for all land uses taking place in the Stat Land Use Conservation District. This includes all submerged lands out to three miles. Conservation regulations and permitting procedures are covered in HAR § 13-5, as authorized under HRS § 183C-3. Pursuant to HAR § 13-5, Land Use means:

1. The placement or erection of any solid material on land if that material remains on the land more than thirty days, or which causes a permanent change in the land area on which it occurs;
2. The grading, removing, harvesting, dredging, mining, or extraction of any material or natural resource on land;
3. The subdivision of land; or
4. The construction, reconstruction, demolition, or alteration of any structure, building, or facility on land.

5.2.3 Coastal Zone Management Consistency Statement

The Hawai‘i Coastal Zone Management (CZM) Program intends to issue 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 general concurrence is being established in response to Senate Resolution No. 86, adopted by the Hawai‘i State Legislature on April 10, 2012, which urges the Department of Land and Natural Resources, Department of Health, and Office of Planning to streamline the permitting process for the restoration of Hawaiian fishponds. The resolution also requests the Office of Planning to consider “a coastal zone management program consistency statement for Hawaiian fishponds.” Coastal Zone Management Act (CZMA) federal consistency regulations (15 CFR Part 930) establish procedures for States to issue general concurrences (15 CFR §930.53(b)) allowing similar minor work in the same geographic area to avoid repeated review of minor federal license or permit activities which, while individually inconsequential, cumulatively affect any coastal use or resource. Federal permit activities which satisfy the conditions of the general concurrence are not subject to the consistency certification and review requirements of 15 CFR

FISH POND RESTORATION APPLICATION

File No:
Acceptance Date:
Assigned Planner:
Distribution List:

FISHPOND NAME:

HUI NAME:

Conservation District Subzone:

Project Address:

Nearest Tax Map Key(s):

Ahupua`a: District:

County: Island:

Proposed Commencement Date:

Proposed Completion Date:

Wall length Pond surface area

WORK SUMMARY

$ _____ Application Fee

☐ Construction of accessory structures less than 600 square feet

☐ Minor repair, restoration, and maintenance of walls, auwai, makaha, or other
☐ Moderate repair and restoration (10 to 50% of original structure)
☐ Major repair and restoration (greater than 50% of original structure)
Linear feet of wall to be repaired

☐ Dredging using non-mechanized methods
☐ Dredging using mechanized equipment
Estimated volume of dredging

☐ Emergency repair

REQUIRED SIGNATURES

Applicant
Name / Agency:
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

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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
Honolulu, Hawaii 96809-0621

Signature _____ **Date:**

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 following best management practices (bmps) that will be required for certain activities:

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 BMPs

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 BMPs

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 re-initiation 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 please attach a Pollution and Erosion Control Plan for the project. 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.

Water Quality Monitoring and Assessment Protocols

A Water Quality Monitoring and Assessment Plan will be needed for permits that involve mechanical dredging, modification of a rock wall, and feeding of fish using commercial feed. The appropriate water quality standards from HAR Chapter 11-54 State of Hawaii Department of Health Water Quality Standards will be used as reference to compare water quality at each site prior to, during and after construction and operation of any fishpond.

Please review the Water Quality Assessment and Monitoring Protocols attached to this application.

If a plan is triggered for the project, please note below which monitoring procedures you will follow, the timeline for monitoring, and the timeline for reporting results to OCCL. Please attach a map showing the sampling sites for your pond.

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_____to act as my representative and to bind me in all matters concerning this application.

_____

_____

Signature of applicant(s)

Attachment – Water Quality Assessment and Monitoring Protocol

Fishpond Water Quality Monitoring Flow Chart

Construction/Maintenance/Structure

Enclose the Area Working In?
Ex. BMPs, silt curtains

NO

- Use general sampling procedure to sample water in and around each portion that is being worked on.
- Document the extent of sediment plume and sample water in the plume.
- After the plume has settled, resample locations where the plume had been.

YES

- Use general monitoring procedure to sample water in and around each portion that is being worked on

General Operation

Feeding Fish?

NO

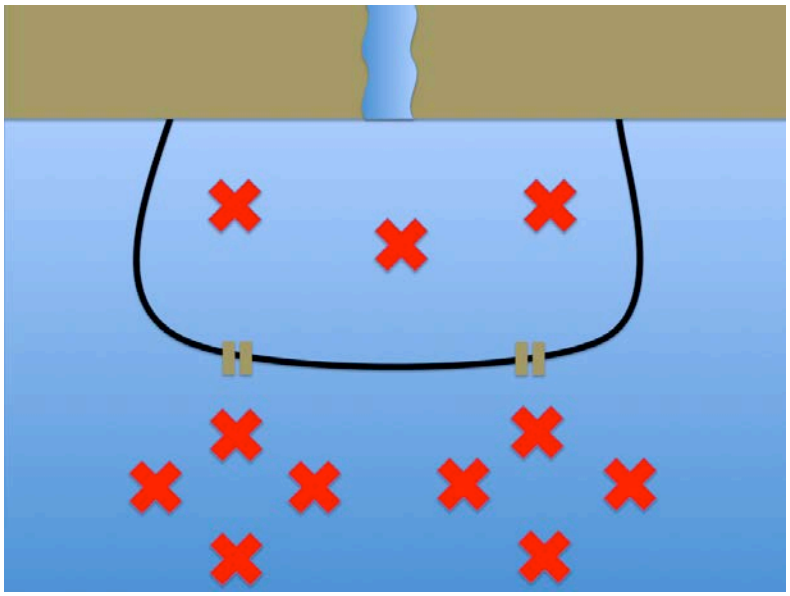
- Use general monitoring procedure.

YES

- Use general monitoring procedure to sample after feedings as tide goes out.

If rain drains into pond, sample within 24 hours of a significant storm.

General Monitoring Procedure Sampling Sites



The parameters that will be measured by these protocols include:

Total Nitrogen	Total Phosphorus	Temperature
Ammonia Nitrogen	Chlorophyll a	Dissolved Oxygen
Nitrate + Nitrite Nitrogen	pH	
	Turbidity	

Materials needed include:

Water quality monitoring kit or electronic data collecting sondes
GPS
Field transect tape or rope

Reporting Procedures:

Reports the findings of the monitoring will be forwarded to the OCCL, and shared with the State of Hawai`i Department of Health upon request. Final monitoring will be reported at the conclusion of the construction phase, or monthly for operations using commercial feed.

Water Quality Standards:

The appropriate water quality standards from HAR Chapter 11-54 State of Hawaii Department of Health Water Quality Standards will be used as reference to compare water quality at each site prior to, during and after construction and operation of any fishpond. In many cases the appropriate standards are those for all estuaries (§11-54-5.2(2)(1).

Hawaii State Department of Health Water Quality Standards for Estuaries

Parameter	Mean Not to Exceed	Not to Exceed More than 10% of the Time	Not to Exceed More than 2% of the Time
Total Nitrogen (N/L)	200	350	500
Ammonia (ug)	6	10	20
Nitrate + Nitrite (ug)	8	25	35
Turbidity (NTU)	1.5	3	5
Chlorophyll a (ug)	2	5	10
Total Phosphorus (P/L)	25	50	75
pH ± 0.5 Ambient Must not go lower than 7.0 and higher than 8.6			
Dissolved Oxygen ≥ 75% Saturation			
Temperature ± 1°C			
Salinity ± 10% Ambient (ie for 34 PPT, ± 3.4 PPT)			
Oxidation – Reduction Potential > 100 millivolts in the uppermost 10 cm of sediment			

I. General monitoring procedures

Baseline water quality parameters will be assessed prior to construction/modification of the rock wall. The state of water quality observed at baseline will serve as a reference to compare changes in water quality from fishpond related activities.

Inside the fishpond:

At least 3 locations within the fishpond will be measured at high tide including the two locations furthest from the points of discharge (mākāhā or `auwai) and sampling will occur at a minimum of one location in the center of the pond (see illustration).

Outside the fishpond:

Water quality will be assessed at each point of discharge (just outside the mākāhā and `auwai) at low tide, at a minimum of three sites between 50 – 100 ft directly seaward from the discharge and at 50-100 ft in locations 45° and 135° seaward from the primary sampling location. If levels are above water quality standards, additional sampling will occur at another 100 ft from the primary sampling points in the direction of the flow of the discharge from the fishpond and if the direction cannot be determined, water will be sampled at 200 ft directly seaward from the primary sampling location and at 45° and 135° seaward from the primary sampling location).

II. Construction and dredging procedures

A. When sediment from dredging and construction is contained with BMPs
(ie silt curtains, rock walls, etc)

The general monitoring procedure will be implemented before, during and after major activity. Monitoring before the activity will serve as a recent baseline. During the activity, the areas outside the enclosure adjacent to the area to undergo manipulation will be sampled at least once during the activity. When manipulation on a section of the fishpond wall or dredging activity is completed, water quality sampling will be repeated to assess the impacts of newly loosened sediments on water quality.

B. When sediment from dredging and construction is not contained with BMPs

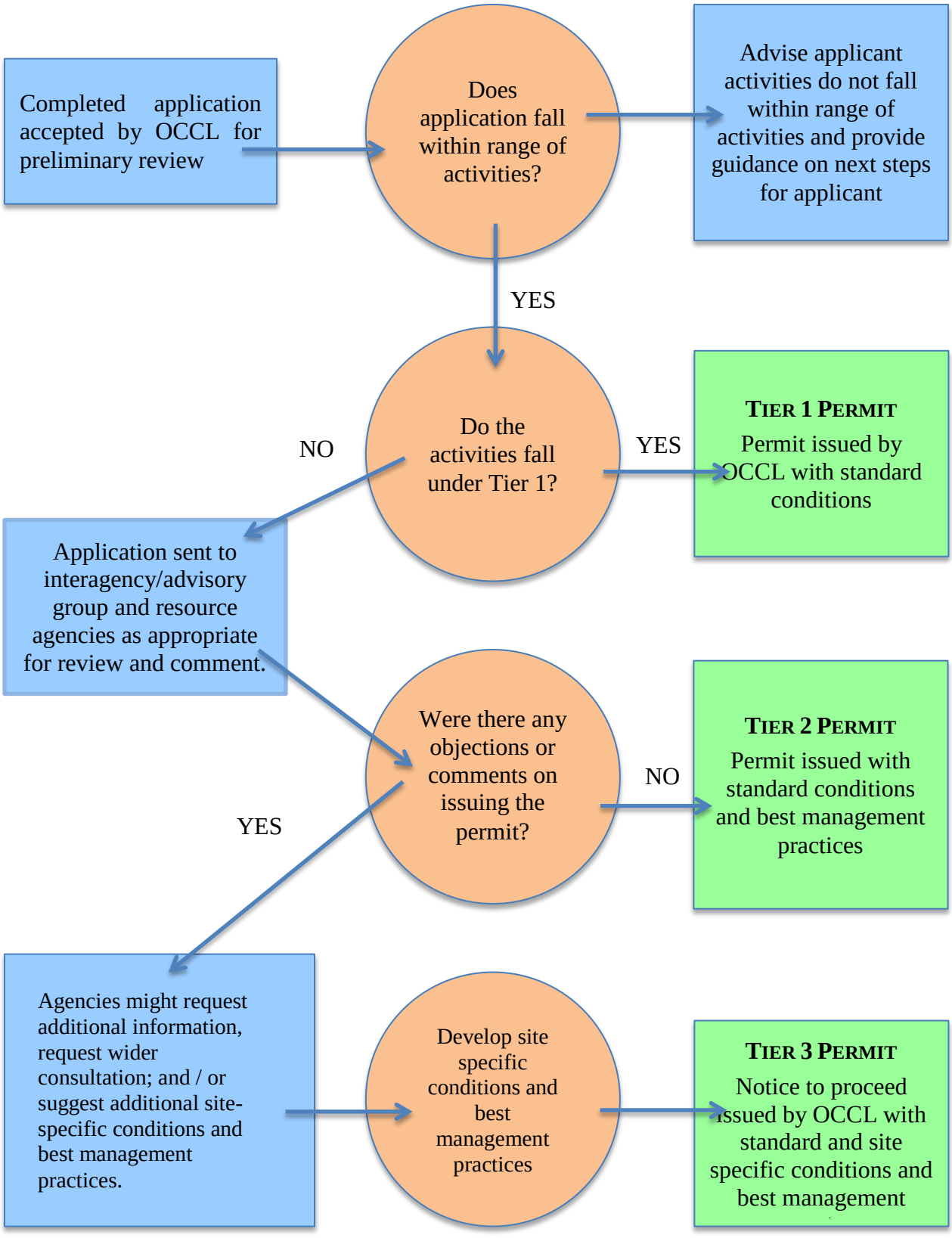
The general procedure will be implemented before, during and after major activity. Monitoring before the activity will serve as a recent baseline. During the activity, the areas immediately adjacent to the area to undergo manipulation will be sampled at least once during the activity and the extent of the sediment transport into the ocean will be measured and mapped with measuring tape, GPS, or other means. When manipulation on a section of the fishpond wall or dredging activity is completed, water quality sampling will be repeated to assess the impacts of newly loosened sediments on water quality.

III. Procedures for operations using commercial fish feed

The general monitoring procedure will be implemented at regular intervals throughout operation. Monitoring will occur daily at outgoing tide for at least the first week of operation. After the first week monitoring will occur weekly at outgoing tide for at least the first four weeks of operation. Long term monitoring may occur biweekly or monthly.

If levels are found to exceed water quality standards for any parameter either during construction/dredging or operation, sampling frequency will increase to calculate the geometric mean, and percentage of time that maximal anomalous readings are occurring.

Flow Chart of Review Process



~~TABLE 1: FISHPOND RESTORATION ACTIVITIES~~

Activities with potential significant environmental impacts not covered under this EA		New fishpond construction 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 take of endangered, threatened, or otherwise protected species or significant damage to special aquatic sites such as wetlands, vegetated shallows, mudflats, coral reefs, and seagrass beds Introduction or culture of alien species
Tier III 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 MBTA EFH FWCA CZMA HRS § 183-44 HRS § 183B HRS §343	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. Fishpond dredging involving the use of mechanized equipment. Any activity that may moderately affect/alter sandy beaches or sediment deposition.
Tier II General Conditions, Monitoring and BMPs		Emergency repair 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, ʻauwai, 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 iʻa 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 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	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: • 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 review is complete, notice is provided to cooperating agencies of findings and/or issuance of authorization to proceed.
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.

KAUIKEOLANI FISHPOND - MONITORING PLAN

1.0 Introduction

This water quality monitoring plan (WQMP) has been prepared to accompany the Kauikeolani Fishpond Repair and Maintenance Plan in Hanalei Kauai (hereinafter referred to as ("the Project"). This WQMP has been prepared in accordance with water quality regulations promulgated in Hawaii Administrative Rules (HAR) Chapter 11-54 and the General Monitoring Guideline for Section 401. Water Quality Certification Projects (revised: April 7, 2000) found on the Stale of Hawaii Department of Health (DOH) internet web site.

The proposed Project involves repair and maintenance to Kauikeolani Fishpond damaged by the evasive species erosion and spring flood events of February/March 2006.

The site specific monitoring program is section specific by 100 ft. sections each. Monitoring data will be submitted to DOH CWB by section as the project progresses. The WQMP is designed to monitor water quality of Kauikeolani Fishpond before, during, and after repair and maintenance. The Section 401 WQC application guidelines consider the "during-construction monitoring period" as extending from the start of in-water work through completion of in-water work. The in-water work on this project is expected to be completed within 3-4 years.

The monitoring of water quality parameters will be conducted by the Project contractor, if approved by the DOH, and by UH Water Resource Research Center laboratory approved by the DOH.

2.0 Parameters to be Measured

Receiving water quality parameters to be measured are those following the General Monitoring Guideline for Section 401 Water Quality Certification Projects. These include monitoring for dissolved oxygen, salinity, temperature, pH, turbidity, and total suspended solids (TSS). Visual observations of physical characteristics of the project area, such an appearance and odor, will be recorded. The proposed sampling locations are set forth below.

Photographs will he taken of the proposed sampling locations and the project site prior to and after construction is comp1eted. The sampling locations will be marked in the field to ensure that sampling and/or photographs are taken at the same locations.

2.1 Sampling Locations

Two sampling (2) stations will be designated and monitored at each site specific section. Starting at Sec. 1 at the cement walk on the South side work activities will progress clock-wise to cover following Sections 2-29. There will be an 'impact area' sampling

point (SP1) outside of the silt containment devise and within 1 meter of silt curtain. A second 'ambient' sampling point (SP2) is located at 50 feet away from silt curtain. The proposed sampling locations are shown on (see Appendix Site Specific Section Map)

The sampling contractor shall provide the Longitude and Latitude of each sampling station in the final report.

2.2 Sampling Frequency

2.2.1 Pre-construction Sampling

Prior to construction, ten (10) sampling events will he undertaken over two weeks, or if time allows evenly spaced over a longer period (e.g.. once a week if there are 10 weeks prior to construction, twice a week if there are five weeks prior to construction,, etc.). During pre-construction, the two (2) control stations will be sampled at SP1 and SP2 of Site Specific Section 1.

The pre-construction sampling will include recording of dissolved oxygen, salinity, temperature, pH, turbidity, and total suspended solids (TSS). at the two (2) control stations.

2.2.2 During Construction Sampling

The two (2) sampling point (SP) stations will be sampled daily during in-water construction for the first ten (10) days of construction. Thereafter, for month 1 to 2 duration of construction, sampling will be continued on a daily basis or less based on actual in-water working days per week. Any sampling frequency changes will require the concurrence of the Department of health, Clean Water Branch upon review of the results obtained from the first ten days of daily sampling.

The during-construction sampling will include recording of dissolved oxygen, salinity, temperature, pH, turbidity, and total suspended solids (TSS). at the two (2) control stations.

2.2.3. Post-Construction Sampling

Post-construction sampling will occur once per week for ten (10) consecutive weeks at the two control stations. However, if there are no observable impacts during construction, then post-construction monitoring may be reduced or waived. Approval to forgo or reduce post-construction monitoring must be requested from the Department of Health, Clean Water Branch.

The post-construction sampling will include recording of dissolved oxygen, salinity, temperature, pH, turbidity, and total suspended solids (TSS) at the two (2) control stations SP1 and SP2 of Site Specific Section 29..

3.0 Sampling And Analytical Methods/Quality Assurance

Weather conditions and relevant observations will be noted daily by the Project contractor's and logged in a field notebook. Visual inspections of water quality by this individual will be made at least daily as long as in-water work is occurring. This will insure that no physical change in the character of the receiving water occurs due to operations, or if any change is noted, that modification to existing Best Management Practices (BMP's) are implemented in a timely manner. Results of the visual inspections will also be noted in the field notebook. These notes will be provided to the contracted analytical laboratory for use in assessing impacts to water quality.

All water quality parameters will be measured from grab samples or *in situ* probes by the contractor and trained Water Resources Research Center (WRRC) laboratory personnel. The sampler(s) will also note any unusual site conditions and condition of any treatment device or facility at the time of collection, and will record the time and location of each sample.

Prior to collecting a sample, each plastic bottle will be pre-rinsed with the water to he sampled. The samples will be collected by facing the plastic bottle upstream and right below the surface of the water. A one liter plastic bottle will be used at each monitoring station. Within 15 minutes of collection, the samples will be measured for pH and then placed on ice in a cooler and returned to the WRRC laboratory for turbidity and TSS analysis. Dissolved oxygen, temperature and salinity will be measured *in situ.* Table I lists the analytical methods and instrumentation to be used in the monitoring program.

The WRRC laboratory will participate in any DOH and Environmental Protection Agency (EPA) sponsored quality assurance (QA) programs available for all analyses conducted as part of this monitoring program. This presently should include either (or both) EPA Water Supply performance evaluation and/or EPA Water Pollution performance evaluation programs. Relevant quality assurance/quality control (QAIQC) results will be provided to DOH upon request.

Table 1. Analytical methods and instruments to he used for the Project's water quality monitoring program.

Analysis	Method	Reference	Instrument
Dissolve Oxygen	EPA 360.1	EPA (1979)	YSI Model 85
pH	EPA 150.1	EPA (1979)	YSI pocket pH meter
Salinity			YSI Model 85
Temperature	EPA 170	EPA (1979)	YSI Model 85
Turbidity	EPA 180.1	EPA (1993)	2100P Hach Turbidimeter
Total Suspended Solids	Method 2540D (EPA 160.2)	Standard Methods 18th Ed. (1992); EPA (1979)	Mettler H51 Balance

The laboratory will retain in its records the analytical procedures used and any relevant QA/QC and instrument calibration information pertaining to the specific analysis. All

analytical results and field notes will be entered into a notebook or file established for this purpose, and provided in a final report prepared for the monitoring program. These files will be available for inspection by DOH-authorized personnel during normal business hours.

4.0 Reports/Assessment

Results of Site Specific Sections sample testing will be available via facsimile from the contractor upon completion of the analyses of each section, usually within 3 to 5 days for all measurements. A brief report for submittal to DOH will be prepared within two weeks of receipt of results. In addition to analytical results, the report will include time and date of sampling, name of the person who collected the samples, date each analysis was conducted, site photographs, and identification of the laboratory and analyst(s) that conducted the work.

The reports will have a running statistical summary for each phase of the project. A final pre-construction monitoring report *will* assess and compare data to applicable State water quality standards.

A post-construction final report and water quality assessment will be prepared upon completion of the monitoring program. This report will be submitted to the DOH within 60 days following completion of post-construction monitoring. If post-construction monitoring is not required, the report will be submitted 60 days after construction is completed.

The post-construction final report will identify the methods and procedures for analytical measurements and include all data collected as well as statistical summaries of results by station and activity phase (pre-construction, construction and post construction). This report will also assess whether water quality was impacted by the construction activity. Upon completion of the monitoring program, the original data, photographs, and field notebook will be retained by the contract laboratory for a minimum of five years.

5.0 Site Photographs

Site photographs will be taken to document pre-construction and post-construction project site conditions at each sampling location. During construction, photographs will be taken at each sampling location for each sampling event. All photographs will be labeled with the location, date, and time at which they were taken.

After construction, photographs will be taken of the entire project site to document conditions. The photographs will show the sampling locations and the repair sites. The photographs may be taken with either a conventional or digital camera.

6.0 References Cited

Standard Methods. 1992. Standard Methods for the Examination of Water and Wastewater. 18th Edition. 1992. (Greenberg, Clesceri. and Eaton, eds.). APHAIP AWWA, & WEF. 1100 p.

U.S. Environmental Protection Agency (EPA). 1979. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020.

1993, Methods for the Determination of Inorganic Substances in Environmental Samples. EPA 600/R-93/ 100.

EXHIBIT 3.9

WATER QUALITY,
TWO DEMONSTRATION PONDS

PONDS:	HONOULIWAI	KAHINAPOHAKU		
DATE:	13 November 1992	13 November 1992		
TIME:	14:30	15:30		
LOCATION:	Pond	Freshwater	Stream	Pond
SALINITY, parts per thousand (ppt):	35	0	21	35
TEMPERATURE, Centigrade (*C):	27.5	23.6	25.0	27.4
DISSOLVED OXYGEN, parts per million (ppm):	7.9	4.9	6.8	6.8
pH:	8.4	--	--	8.4
TURBIDITY (Secchi, centimeters [cm]):	clear			60-70

Center for Hawaiian Sovereignty Studies
46-255 Kahuhipa St. Suite 1205
Kane'ohe, HI 96744
Tel/Fax (808) 247-7942
Kenneth R. Conklin, Ph.D. Executive Director
e-mail Ken_Conklin@yahoo.com
Unity, Equality, Aloha for all

To: SENATE COMMITTEES ON
HAWAIIAN AFFAIRS
HEALTH
WATER AND LAND
For hearing Monday, February 9, 2015

Re: SB 537 RELATING TO HAWAIIAN FISHPONDS.
Provides that a project possessing a notice to proceed pursuant to a permit issued for the reconstruction, restoration, repair, or reuse of a Hawaii fishpond shall be exempt from the permit requirements of chapter 91, Hawaii Revised Statutes.

TESTIMONY IN OPPOSITION

The stated purpose of this bill is to place an application for permit to restore a fishpond at the front of the line, prioritized ahead of all other permit applications; and to require that a permit shall be certified as issued if the application and associated environmental studies are delayed longer than a specified time limit.

This bill should be defeated for at least two reasons: (1) It is not pono to automatically give top priority to permits for fishponds. There are many worthy projects awaiting permits, and some might be of greater importance to the community than fishponds -- for example, a dairy or cattle farm, a prison so that Hawaii criminals do not have to be sent to mainland prisons, or housing for homeless people. (2) Automatically granting a permit merely because an artificial time limit has expired will either result in a lot of bad projects that never should have been permitted or else will result in massive expansion of government bureaucracy to ensure compliance with the time limit.

Many individuals and businesses are rightly aggrieved and angry at excessive delays in the permitting process. The legislature, and some county councils, have previously considered legislation to impose a time limit on government bureaucracies, such that the permit must automatically be granted if the application process is delayed beyond the specified time limit. But such time limits are usually impractical and inadvisable; because, as we all know from doing home improvement or construction contracting, unexpected problems or environmental discoveries might require more time.

Would it be acceptable to impose a time limit on island burial councils so that failure to make a timely decision regarding whether to keep a burial in place or allow relocation of it will result in automatic granting of a permit to move the burial? Why should a landowner wanting to build a house or store or church recreation hall be kept waiting for years merely because a burial council lacks sufficient members for a quorum or lacks the desire to render a decision? Why should this situation be allowed to drag on but a fishpond application enjoys a deadline for decision-making?

The mere fact that a fishpond was constructed in its current location and used in ancient times is no guarantee that it should be approved for renovation and fish production in modern times. Today we have fertilizers, pesticides, and genetically modified organisms in mauka areas which find their way into the streams that flow into the fishponds. Thus the fish enjoyed by natives in ancient times might be unsafe to eat today from that same fishpond. It's important to do studies of streamflow, clarity, and purity in both the rainy season and the dry season during a period of several years. Mosquitoes were never present in ancient times, but a fishpond could become a breeding place for mosquitoes that would negatively impact neighbors living very nearby, such as the fishpond at He'eia (Kane'ohe) -- and some of those mosquitoes could cause an epidemic of malaria or dengue.

Some projects are quite similar to fishponds either regarding the amount of space they occupy along the shoreline or ocean, or regarding the pollution they create and safety of eating the fish. For example, a pier protrudes from the shoreline into a bay or ocean, with perhaps a roughly equal area of footprint. Why should a homeowner or business wanting to build a pier be subjected to excessive delays and need for multiple permits from multiple bureaucracies while a fishpond restoration group should get expedited and simplified consideration? Some companies have wanted to operate fishfarms offshore by using nets to surround large volumes of ocean, allowing water and nutrients and fishpoop to flow in and out of the enclosed area through the mesh of the net in the same way as happens in a fishpond with flow through the makaha(s). Even though such an offshore fishfarm clearly allows extremely free flow of nutrients and waste -- much more free than the flow through the makaha of a rock-enclosed fishpond -- nevertheless environmentalists protest the fishfarms but give protest-free approval to the fishponds. A fishpond needs more scrutiny than an offshore fishfarm before receiving a permit, because the fishpond interacts with neighbors and land as well as ocean, while a fishfarm has no neighbors and interacts only with ocean.

From: mailinglist@capitol.hawaii.gov
To: HWNTestimony
Cc: blossom96708@yahoo.com
Subject: *Submitted testimony for SB537 on Feb 9, 2015 14:45PM*
Date: Sunday, February 08, 2015 3:47:28 PM

SB537
Submitted on: 2/8/2015
Testimony for HWN/HTH/WTL on Feb 9, 2015 14:45PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
Blossom Feiteira	Non-profit	Support	No

Comments:

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Committee On Hawaiian Affairs
Senator Maile Shimabukuro, Chair
Senator Brickwood Galuteria, Vice Chair

Committee On Water and Land
Senator Laura Thielen, Chair
Senator Brickwood Galuteria, Vice Chair

Committee On Health
Senator Josh Green, Chair
Senator Glen Wakai, Vice Chair

RE: Support for SB537, Relating to Fishponds

Aloha Senators,

Thank you for the opportunity to testify in support of this measure. Our Hawaiian fishponds are unique features of our landscape and it serves no purpose to watch them slowly fall into ruin. They need to be managed and brought back into use. The age of the fishponds indicate that they were an important part of the environment and provided important habitat. The details of management may soon be lost as we have no idea of yield and the species complex that was available in each fishpond. We are unsure of the nutrient requirements and habitat support that fishponds required. With active management these things will be learned.

O wau no me ka ha`aha`a
Charles Kaaiai

From: mailinglist@capitol.hawaii.gov
To: HWNTestimony
Cc: elmerk@hawaii.edu
Subject: Submitted testimony for SB537 on Feb 9, 2015 14:45PM
Date: Sunday, February 08, 2015 10:39:22 PM

SB537
Submitted on: 2/8/2015
Testimony for HWN/HTH/WTL on Feb 9, 2015 14:45PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
Elmer Kaai	Individual	Support	No

Comments: This measure is a necessary step in the processing the permits.

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From: mailinglist@capitol.hawaii.gov
To: HWNTestimony
Cc: lucialyou@gmail.com
Subject: *Submitted testimony for SB537 on Feb 9, 2015 14:45PM*
Date: Monday, February 09, 2015 9:43:29 AM

SB537
Submitted on: 2/9/2015
Testimony for HWN/HTH/WTL on Feb 9, 2015 14:45PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
Lucia You	Individual	Support	No

Comments:

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Cc: hoonanea@aol.com
Subject: *Submitted testimony for SB537 on Feb 9, 2015 14:45PM*
Date: Sunday, February 08, 2015 8:39:44 PM

SB537
Submitted on: 2/8/2015
Testimony for HWN/HTH/WTL on Feb 9, 2015 14:45PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
Regina Gregory	Individual	Support	No

Comments:

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Cc: slwsurfing@yahoo.com
Subject: *Submitted testimony for SB537 on Feb 9, 2015 14:45PM*
Date: Sunday, February 08, 2015 8:36:24 PM

SB537
Submitted on: 2/8/2015
Testimony for HWN/HTH/WTL on Feb 9, 2015 14:45PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
sharon	Individual	Support	No

Comments:

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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From: mailinglist@capitol.hawaii.gov
To: HWNTestimony
Cc: wkenkoike@hotmail.com
Subject: Submitted testimony for SB537 on Feb 9, 2015 14:45PM
Date: Monday, February 09, 2015 3:40:13 AM

SB537
Submitted on: 2/9/2015
Testimony for HWN/HTH/WTL on Feb 9, 2015 14:45PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
W. Ken Koike	Individual	Support	No

Comments: I am strongly in support of SB537! Hawaiian Fishpond restoration has been hijacked and forestalled by state bureaucratic permitting delays, breaching the fiduciary responsibility to expedite and streamline the approval process according to the spirit and letter of the law. The ACTUAL WORK of moving and resetting stones takes a great amount of time to do, too! The fish, limu and supporting marine life also require years to grow and reproduce in order to repopulate the pond. Consider our fishpond in He‘eia and do not delay the new projects any longer - allow them to commence as soon as possible! We need the food, we need the challenge, we need the income, and we need the education and experience of coming together as a community for the community once more. Personally, I am a small farmer in Waianae who has studied about the fishponds we once had in our wetland taro fields as well as the fishpond for the ali‘i at the top of Mt. Ka‘ala recorded in, "Hawaiian Planters," by Handy & Handy. I have discovered there is mo‘olelo about the fishpond at the peak of Mt. Ka‘ala that will help to confirm it‘s proper location and restoration. Satellite imaging used to confirm oil and shale deposits will also be beneficial. We will all benefit by the example it represents: Hawaiian Self-Sufficiency & Ingenuity; and we pray over time it will demonstrate and celebrate Hawaiian Abundance & Sustainability! Therefore, please eliminate or waive the required water pollution control permit from the Dept. of Health that has restricted our restoration projects from beginning its long journey home.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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