

## HO'ALA LOKO I'A APPLICATION

FISHPOND NAME: **HUILUA FISHPOND**

APPLICANT NAME: **DLNR/STATE PARKS**

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Pond location: Ahupua'a 'O Kahana State Park, Kahana, Ko'olauloa, O'ahu

Nearest Tax Map Key(s): (1) 5-2-005:021

Ahupua'a: Kahana

District: Ko'olauloa

Island: O'ahu

Commencement Date: May 15, 2015

Completion Date: December 31, 2017

Wall length: Approx. 1,000 feet

Pond surface area: 7.0 Acres

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### WORK SUMMARY

- Operations only
- Construction of accessory structures
- Minor repair and restoration of pond walls, 'auwai, mākāhā, etc.
- Moderate repair and restoration (10% to 50% damage)
- Major repair and restoration (greater than 50% damage)

Linear feet of wall to be repaired (rocks on site):

Linear feet of wall to be restored (new rock):

Source of new rock:

Amount of "fill" (expansion beyond original footprint):

- Dredging using mechanized equipment  
Estimated volume of dredging:
- Vegetation removal using mechanized equipment  
Estimated acreage:

- Emergency repair
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## REQUIRED SIGNATURES

### Applicant

Name / Hui: DLNR, Division of State Parks

Street Address: 1151 Punchbowl St. #310

Honolulu, HI 96813

Contact Person & Title: Dan Quinn, State Parks Administrator

Phone: (808) 587-0300

Email: Daniel.S.Quinn@hawaii.gov

Interest in Property: Landowner

Signature: 

Date: 5/12/15

*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: DLNR

Mailing Address:

Phone:

Email:

Signature:

Date:

*For State-owned ponds, the government entity with management control over the parcel shall sign as landowner.*

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### Agent

Agency: See above

Contact Person & Title: Renee Kamisugi, Park Coordinator; Alan Carpenter, Planner V

Mailing Address: 1151 Punchbowl St. #310

Honolulu, HI 96813

Phone: (808) 587-0308, (808) 587-0286

Email: Renee.Y.Kamisugi@hawaii.gov; Alan.B.Carpenter@hawaii.gov

Signature: 

Date: 5/12/15

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### For DLNR Managed Lands

#### State of Hawai`i

Chairperson, Board of Land and Natural Resources

Department of Land and Natural Resources

P.O. Box 621

Honolulu, Hawaii 96809-0621

Signature:

Date:

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## DESCRIPTION OF THE LOKO I'A

**Please discuss the current physical and environmental conditions of the loko i'a. Please also note if any endangered or threatened species are found in the pond.**

Huilua is a traditional Hawaiian fishpond located in Kahana Bay, in the moku of Ko'olauoa, on the island of O'ahu. It is one of three known ponds in Kahana Valley. Huilua is shaped like a right triangle, with rocks walls forming the northern and western makai boundaries and the shoreline forming the inland boundary.

Kahana stream enters the bay just outside the pond's southwest corner. Two 'auwai o ka mākāhā once connected the stream to the pond. A spring also fed freshwater into the pond.

Huilua has elements of both kuapā and pu'uone-style ponds. Much of the western wall was built in a double-walled style that is typical of kuapā ponds. In other portions rocks were used to fortify natural sand berms, which is more typical of pu'uone ponds. The total length of wall is approximately 1000 feet.

The pond once contained pua ponds, or smaller, roughly-built rock enclosures inside the main pond.

A large rock ko'a, or fishing shrine (now destroyed), was located next to the mākāhā.

Common fish in the pond include schools of 'ama'ama (mullet), āholehole (flagtail), and tilapia. Residents state that awa (milkfish) were also common in the past. Other species include palani (surgeonfish), manini (tang), pāpio (trevally), 'o'opu nakea (stream goby), and kaku (barracuda). Seaweed species include limu ele'ele and limu kala. Invertebrates include barnacles, pipipi (sea snails), 'opihi, and various crab species. There are no coral colonies in the pond.

The mauka areas of the pond are dominated by invasive species. Residents state that various endemic sedge species were once more common.

Residents also state that 'alae ke'oke'o (Hawaiian coot) and 'alae 'ula (Hawaiian mudhen) were common at Huilua. However, neither has been seen in recent decades.

There are no known protected species that currently frequent the pond.

Current conditions of the pond are:

- The pond walls have been damaged by storms and tsunami over the past fifty years. The foundations remain intact; however, the top of the walls are mostly submerged.
  - A breach at the northwest corner of the wall has allowed sand to enter the pond, and now there are significant deposits along the shore and in the northeast of the pond. The pu'uone walls have large ironwood trees and other invasive species growing on the berm.
  - The pond basin is covered with sand; there is relatively little siltation and mud.
  - The 'auwai are covered with sand and debris, and surrounding area has trees and bushes that prevent the water's ingress and egress path to the pond.
  - The pua ponds and ko'a no longer exist.
  - The spring is covered with sand.
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## HISTORY OF THE LOKO I'A

According to ethnohistoric info, Huilua was built in a single night by mēnehune, and was inhabited / guarded by both a mo'ō (lizard) and a manō (shark).

It is unclear in what era the pond was actually built.

Historical documentation covering the period from roughly 1880 until the present provides details of the latest phase of fishpond use and eventual abandonment. Significant dates include:

- 1884: a map shows vegetation in the eastern portion of the pond, and large stone enclosures next to the mākahā
- 1910: Kai'apa and Pua are listed as caretakers of the pond; their granddaughter Hattie Au lives with them on site.
- 1918: Louis Kawehi becomes caretaker
- 1923: A tsunami damages the walls of the pond.
- 1924: Pua Ha'aheo becomes caretaker. Concrete is added to the 'auwai o ka mākāhā.
- 1946: Tsunami. The three grandchildren of Pua Ha'aheo are killed; Ha'aheo leaves Kahana.
- 1946: Joseph Kekona leases the pond, repairs walls by hand.
- 1957: A tsunami damages the pond. Kekona uses heavy equipment to fix the damage. A bulldozer is used to push boulders back on the north wall, and a dragline was used to remove sand and debris from the pond basin. The dredged material is placed along the west wall, the southeastern portions of the pond, and on the eastern border near the road and springs.
- 1960: Tsunami. No record of repairs being made.
- 1965 and 1966: Heavy rains flood pond, creating a breach in the northwest corner.
- 1969: Harrison Thurston leases the pond; Dave Cox conducts repairs and alterations on the northwest corner.
- 1975: Harrison Thurston leaves the pond. Pond goes out of commercial use.
- 1980: Bishop Museum conducts archaeological survey of pond.
- 1990: State Parks begins developing a plan for the restoration of the pond.
- 1995: Carol Araki Wyhan prepares an environmental assessment for State Parks for the restoration and revitalization of Huilua
- 1999: The Board of Land and Natural Resources approves Conservation District Use Permit OA-2921 for the restoration and revitalization of the pond for interpretive purposes. The plan includes wall repair and mechanical dredging. The effort is never fully realized, and the permit expired in 2003.

A renewed interest in revitalizing Huilua is at hand, spurred by a new generation of practitioners, and a streamlined permitting process.

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## **PROPOSED WORK PLAN**

**Please provide a summary of the work that is being proposed under this permit. Please note any use of mechanized equipment.**

The Division of State Parks, in partnership with the Kahana community residents, is in the process of resuming the restoration and revitalization work at Huilua Fishpond for interpretive and cultural purposes. The proposed scope of work is the exact same thing proposed as approved in 1999, which is to restore in a sequence designed to protect the adjacent stream, bay, springs, and pond biota beginning with the restoration of the 1,000 foot pond wall.

For the next 2 years (2015-2017), we intend to do all work by hand, using hand tools, shovels, buckets, and wheel barrels to clear out all invasive species, sand build up, and sedimentation.

Scattered rocks that were part of the pond wall will be used in the wall construction. Some of these are existing and stockpiled on-site, others will be recovered from the pond basin by hand. Rocks of various sizes will be supplemented with dead coral within the pond basin and used in the wall core fill. Stream washed rock gathered from river-clearing projects in Kahana may be utilized as the work progresses.

Wall building will be performed on days with calm seas, low wind conditions and at low tide.

Restoration and revitalization will take place in identified zones and according to a sequence designed to protect the adjacent stream, bay, springs, and pond biota. This sequencing protects the bay with the wall buffer and protects the springs and existing pond biota from pollutants associated with the dredging activities.

No mechanical dredging is being proposed at this time; State Parks will consult with the Corps of Engineers and other DLNR divisions on permitting requirements regarding any future proposals to dredge sand from the pond basin.

The pond basin has evolved into a wave-scoured tidal basin and through the restoration/revitalization process it will revert back to the brackish water silt-bottomed fishpond as some of the the silt that currently flows from the Kahana Stream and into the bay will naturally enter the fishpond through the makahā. The particulate matter will settle on the pond bottom and the freshwater spring that are presently covered by sand and coral will be recovered.

## **PROPOSED OPERATIONS PLAN**

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

The long range plan is to raise 'ama'ama, moi, 'āholehole, and awa. Methods of stocking will vary and have not been decided on. Traditional methods of harvesting will be used.

The pond will not be put into active operation until restoration, including dredging of the pond basin, is complete. Additional permits will be obtained for the more intensive restoration phase.

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## **CONSISTENCY WITH HO‘ALA LOKO I‘A PROGRAM**

**Please discuss how this proposal is consistent with Conservation District Use Permit (CDUP) ST-3703 (available online at [dlnr.hawaii.gov/special-projects](http://dlnr.hawaii.gov/special-projects)) and which tier-level the project falls under.**

State Parks is seeking a tier one permit for the manual repair of the fishpond walls, and manual removal of sedimentation. The base of the wall is intact, and there will be no expansion of the original wall's footprint.

According to CDUP ST-3703, First tier activities include the minor repair, restoration, maintenance and operation of existing fishponds (e.g., replacement of small wall sections, replacement of individual rocks or other wall materials, repair of gates, ‘auwai, minor dredging by non-mechanized means and non-routine maintenance of vegetation), construction or placement of minor structures (not to exceed 600 square feet) in the Conservation District that are accessory to the maintenance and operation of a loko i‘a, stocking & harvesting with traditional methods, temporary emergency repair of breaches, and the removal of alien species (e.g. mangroves).

## **BEST MANAGEMENT PRACTICES**

**Please discuss the BMPs that will be followed to protect both the environment and the integrity of the pond (users’ guide forthcoming).**

Some BMP's that will be followed are:

1. Rocks to be used in the wall will consist only of those presently on-site or within the pond basin.
  2. No mechanized equipment will be used to retrieve rocks from the pond basin. All gathering will be done by hand or using an o'o.
  3. Setting of rock wall facings will be conducted under the direction of cultural practitioners with training and experience in traditional Hawaiian dry-stacked masonry techniques.
  4. Cultural protocols will be established by the masons or other appropriate designated cultural practitioners.
  5. Wall building will be performed on days with calm seas, low wind conditions and at low tide.
  6. Work supervisors will visually monitor any sediment plumes that develop, and will record the size and duration if the plume lasts more than 12 hours.
  7. Restoration and revitalization will take place in identified zones and according to a sequence designed to protect the adjacent stream, bay, springs, and pond biota. The zones and sequence are described in an environmental assessment prepared for State Parks in 1995.
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## 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.



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*Signature of authorized agent(s) or if no agent, signature of applicant*

### AUTHORIZATION OF AGENT

I hereby authorize            Renee Kamisugi, Alan Carpenter            to act as my representative and  
to bind me in all matters concerning this application.



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*Signature of applicant(s)*

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DAVID Y. IGE  
GOVERNOR OF HAWAII



**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**  
OFFICE OF CONSERVATION AND COASTAL LANDS  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA  
FIRST DEPUTY

W. ROY HARDY  
ACTING DEPUTY DIRECTOR - WATER

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

ref:OCCL:MC

File No: Loko I'a: OA-15-02

Dan Quinn, Administrator  
DLNR State Parks  
1151 Punchbowl Street, Room 310  
Honolulu, HI 96813

**MAY 13 2015**

Dear Mr. Quinn

**SUBJECT: LOKO I'A PERMIT OA-15-02 - HUILUA FISHPOND**  
Ahupua'a 'O Kahana State Park, Kahana, Ko'olauloa, O'ahu  
TMK (1) 5-2-005:021

Dear Mr. Quinn,

The Office of Conservation and Coastal Lands (OCCL) has reviewed the information you sent regarding restoring the walls and conducting minor dredging by hand at Huilua Fishpond. The state-owned pond is in the Resource Subzone of the Conservation District.

Huilua is an 11-acre traditional Hawaiian fishpond located in Kahana Bay, in the moku of Ko'olauloa, on the island of O'ahu. It is one of three known ponds in Kahana Valley. Huilua is shaped like a right triangle, with rocks walls forming the northern and western makai boundaries and the shoreline forming the inland boundary.

Kahana stream enters the bay just outside the pond's southwest corner. Two mākāhā once connected the stream to the pond. A spring also fed freshwater into the pond.

Huilua has elements of both kuapā and pu'uone-style ponds. Much of the western wall was built in a double-walled style that is typical of kuapā ponds. In other portions rocks were used to fortify natural sand berms, which is more typical of pu'uone ponds. The total length of wall is 1000 feet.

The Division of State Parks, in partnership with the Kahana community residents, is in the process of resuming the restoration and revitalization work at Huilua Fishpond for interpretive and cultural purposes.

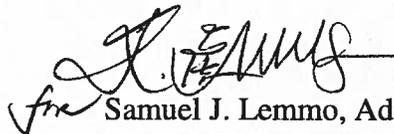
All work by hand, using hand tools, shovels, buckets, and wheel barrels. Volunteers will be supervised by cultural practitioners experienced in dry stack rock techniques and pond restoration.

No mechanical dredging is being proposed at this time; State Parks will consult with the Corps of Engineers and other DLNR divisions on permitting requirements regarding any future proposals to dredge sand from the pond basin.

9. The permittee acknowledges that the approved work shall not hamper, impede, or otherwise limit the exercise of traditional, customary, or religious practices of native Hawaiians in the immediate area, to the extent the practices are provided for by the Constitution of the State of Hawai'i, and by Hawai'i statutory and case law;
10. Should historic remains such as artifacts, burials or concentration of charcoal be encountered, work shall cease immediately in the vicinity of the find, and the find shall be protected from further damage. The contractor shall immediately contact HPD (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary;
11. Other terms and conditions as prescribed by the chairperson.
12. Failure to comply with any of these conditions shall render a permit void under the chapter, as determined by the chairperson or board.

Please acknowledge receipt of this approval, with the above noted conditions, in the space provided below. Please sign two copies. Retain one and return the other within thirty days. Should you have any questions feel free to contact Michael Cain at 587-0048.

Sincerely,



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

Receipt acknowledged:

\_\_\_\_\_  
Permittee's Signature

\_\_\_\_\_  
Date

copy: Chair