



ACTION PLAN FOR THE KALAUHA'IHA'I (LUCAS SPRING) FISHPOND RESTORATION PROJECT

NOAA'S OFFICE OF NATIONAL MARINE SANCTUARIES



FACILITY PROGRAMMING AND CONSULTING
FRASER AND FOGLE ARCHITECTS AND LEEWAY ENTERPRISE

FINAL - MAY 2010

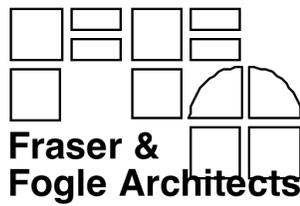
FACILITY
PROGRAMMING
AND CONSULTING



NOAA's Office of National Marine Sanctuaries (ONMS) has engaged Facility Programming and Consulting to prepare an Action Plan for the Kalauha'īha'ī (Lucas Spring) Fishpond Restoration effort.

This report is intended to provide a starting point for interested parties as they begin to tackle the issues surrounding the restoration.

FOREWORD



*The contents of this document are not for regulatory approval,
permitting, or construction.
Final published May 2010.*

TABLE OF CONTENTS

Introduction.....	1
Current Conditions	2
Market Survey.....	3
Visioning Workshop	4
Action Plan	5
Appendix	A

ACKNOWLEDGEMENTS

Acknowledgments

A significant commitment was made by many individuals to create this document. Their participation is greatly appreciated.

Chris Cramer	Maunalua Fishpond Heritage Center
Kimo Franklin	Mālama Maunalua
Miki Lee	Project Facilitator, Leeway Enterprise
Laura Lucas Thompson	Community Advocate

ONMS

Allen Tom	Regional Director for the Pacific Islands Region
Ted Lillestolen	ONMS Deputy Director
Naomi McIntosh	Superintendent, Hawaiian Islands Humpback Whale National Marine Sanctuary
‘Aulani Wilhelm	Superintendent, Papahānaumokuākea Marine National Monument

Introduction

1

NOAA's Office of National Marine Sanctuaries (ONMS) has commissioned a report on the preservation and restoration effort of the Kalauha'iha'i (Lucas Spring) Fishpond in Maunalua Bay. ONMS seeks to facilitate an action plan and strategy to restore and maintain the fishpond as a Hawaiian historic and cultural resource that is inherently connected to the ocean. ONMS understands how fishponds connect to communities at the Hawaiian Islands Humpback Whale National Marine Sanctuary office in Kīhei, Maui, where ONMS has restored and interprets a significant fishpond in coordination with local Hawaiian leaders.

ONMS does not intend to lead or determine a recommendation or preferred outcome for the project, only to be a catalyst to bring the community together for action in the future of the fishpond.

NOAA's Office of National Marine Sanctuaries Vision

The vision of ONMS is to inspire people through education, research, public outreach, ocean exploration, and marine management to value marine sanctuaries as treasured places today and for generations ahead.

NOAA's Office of National Marine Sanctuaries Mission

It is the mission of the National Marine Sanctuary System to protect, conserve, and enhance the living and nonliving resources of the system for this and future generations.

Purpose of This Document



A functional Hawaiian fishpond on O'ahu filled with fresh spring water and fish. Source: Maunalua Fishpond Heritage Center

NOAA's ONMS recognizes fishponds as important resources not only for their historical and cultural significance, but also their impact on the health of nearby bodies of water and the marine life that inhabit them. Recently, ONMS was a key player in the restoration of the Ko'ie'ie Fishpond in Kīhei, Hawai'i. This experience helped ONMS to understand and appreciate the importance of fishponds and the need to preserve them for the benefit of future generations.

The Kalauha'iha'i Fishpond is another significant example of Hawaiian culture and history, and much has been written and discussed about this fishpond. Each additional document, conversation, or event leads to more questions, and sometimes confusion, about what should be done with the property. This document gathers all the issues in one place, and the next step will be for the community to move forward with their vision of what they would like the fishpond to become.

This project process began with a community-based survey to assess local interest in the future of the fishpond conducted in

INTRODUCTION

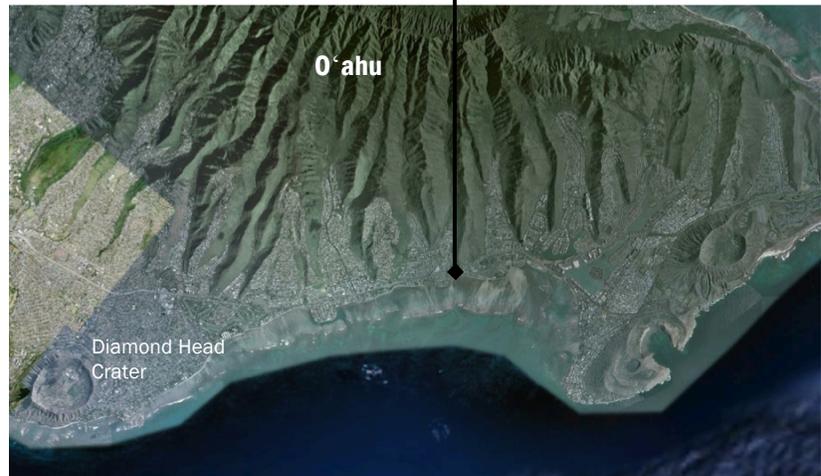
March 2010. The survey was followed by a large visioning workshop in April 2010 that gathered local residents, community supporters, and stakeholders in the fishpond project. The visioning workshop was the beginning of the effort to obtain ownership and restore the fishpond.

The purpose of this document is to outline an action plan for revival, restoration, and ongoing maintenance of the fishpond. The general vision is that once the property is restored, it could be preserved as an educational and cultural resource that is available to the public (with neighborhood approval and in accordance with local zoning and ordinances).

This report presents in one volume, each of the significant issues affecting the fishpond. Each issue is presented along with the major questions related to that issue. The intent of this document is to become the go-to source for all future actions related to the fishpond. Everyone who has an interest in the fishpond can use this document as a common resource and an action plan for decision making. This report is not intended to present specific answers to the issues related to the fishpond. That responsibility belongs to the stakeholders who are charged to formulate recommendations for each of the issues presented in this report.

Fishpond Location

Kalauha‘iha‘i Fishpond is located at 5841 and 5839 Kalaniana‘ole Highway in the Paikō Beach area of the Maunaloa Bay region in Honolulu, O‘ahu, Hawai‘i.



The fishpond property is currently occupied by two residential buildings and a garage, which are vacant and in disrepair. More information and pictures of the current state of the property can be found in Chapter 2 of this document.

History

Hawaiian Fishponds

Historically, native Hawaiians lived a sustainable and harmonious existence that respected both the land and ocean. Native Hawaiians used the resources within their ahupua‘a (a land division usually extending from the uplands to the sea), practiced

INTRODUCTION

aloha (respect), laulima (cooperation), and mālama (stewardship), which resulted in a desirable pono (balance) through their holistic integration of their natural environment.

Native Hawaiians understood that by caring for their resources they would in turn be cared for. Fishponds were first built around the 15th century when native Hawaiians studied the tides and learned they could harvest fish within a confined area. By observation, the Hawaiians learned that fish would gather around currents and a mākāhā (sluice gate) was placed at precise locations where there was a current. In Kalauha‘iha‘i, currents were generated from the flow of freshwater from the spring being introduced to the bay through naturally occurring volcanic tubes. Small fish

were able to enter the ponds through slats in the mākāhā and larger fish were prevented from escaping, giving the native Hawaiians a sustainable source for food. The main species of fish were awa and ‘ama‘ama. In ancient times, ali‘i (chiefs) were considered wealthy if they had fishponds on their land.

Hawaiians built 488 fishponds statewide, of which only 60 remain today. Kalauha‘iha‘i Pond is one of only six remaining fishponds on O‘ahu.¹

Kalauha‘iha‘i Fishpond

Maunalua Bay, located at the southeast end of O‘ahu, was once home to many large Hawaiian fishponds. Currently only the Kalauha‘iha‘i fishpond and nearby Kanewai Pond remain. The pond’s original owners were King Kamehameha I and Queen Ka‘ahumanu who maintained a summer resort residence on Paikō Beach. The name Kalauha‘iha‘i refers to Queen Ka‘ahumanu’s breaking of the old kapus (the ancient system of laws and regulations) when she became Christian, which is said to have taken place on the property.

King Kamehameha later gave the land, including the spring and pond, to Captain Alexander Adams (1780–1871), a Scotsman who served in the British Royal Navy and then came to the Hawaiian Islands and served in the navy of the Kingdom of Hawai‘i. The pond was later used for a family dairy by Mary Papapaupu Lucas, the granddaughter of Captain Adams, and his descendants who remain in the area.



*A depiction of ancient Hawaiians overlooking the fishpond.
Source: Maunalua Fishpond Heritage Center*

¹ *Maunalua Fishpond Heritage Center*



*A view of the fishpond through the glass floor in the Hara residence.
Source: Maunalua Fishpond Heritage Center.*

In the 1960s Mr. Tad Hara cared for his dream home on the property, which was a simple two-story wooden house built over the still vibrant pond. The home was designed with a glass floor to allow Mr. Hara to view the fish in the pond. The adjacent house belonged to Hara's friend and real estate business partner, Larry Lee. For 23 years, Mr. Hara and his son and two daughters lived happily on the property. In 1989, Mr. Hara registered his fishpond with the State Water Commission.

The history of the pond changed dramatically in the early 1990s when the state Department of Transportation (DOT) widened the adjacent Kalaniana'ole Highway from four lanes to six. During the construction project, DOT contractors damaged the fresh water spring by somehow obstructing the lava tubes that allowed spring waters to flow from the mountain to fishpond. A legal battle ensued to restore the spring's flow; Mr. Hara eventually sold the property to the DOT. The current ownership of the property is in limbo. DOT announced its intention to sell it at an auction, and there is pending legislation (House Bill 1665) that would prohibit the auction of a state-owned fishpond.



Prior to modern development, the fishpond property was used as a family dairy farm, where cattle often drank from the fresh water spring. Source: Laura Lucas Thompson

Timeline

The following timeline was gathered by the Maunalua Fishpond Heritage Center.

Early History

(Excerpted from Lucas family records and interviews by J. Clark, C.Cramer):

- **1800's:** Kamehameha I and Queen Ka'ahumanu have their favorite summer resort residence at Paikō Beach extending the first three lots towards Diamond Head.
- **1819:** Ka'ahumanu renounces the ancient kapu system at the Kalauha'iha'i Assembly here. Kalauha'iha'i refers to the scattering of the leaves and breaking of the ancient kapu. The name also refers to a break in the reef fronting the spring.
- **1820:** Kamehameha awards the ahupua'a (land tract) including the spring to Captain Adams. Captain Adams descendents occupy the land for several decades.

Recent History

- **1989:** the State Water Commission registers Lucas Spring as a fishpond. Fish species include aholehole, 'opae lolo, mullet,

INTRODUCTION

awa, hiiwai , and koi. Mr. Tad Hara occupies the glass floored home over the pond while the Lee family live in the makai (facing the ocean) structure.

- **1990's:** The Kalaniana'ole Highway widening project ruptures lava tubes directly supplying mauka (mountain facing side) of the pond. Spring flow to the ocean is interrupted and the pond fish die. The native limu (algae) disappear and invasive algae cover the reef in the bay. Following a legal battle and condemnation of the properties, ownership goes to the DOT.
- **2000's:** DOT readies for auction a portion of Kanewai Pond in Kuli'ou'ou and Kalauha'iha'i fishpond as "remnant lands".
- **2008:** DOT Director and the Lieutenant Governor listen to the community and Maunalua Fishpond Heritage Center concerns over potential auction of one of Honolulu's last shoreline fishponds.
 - The pond properties experience deterioration, vandalism, and homeless break-ins.
 - DOT begins talks with University of Hawai'i Manoa, the Office of Hawaiian Affairs, and NOAA to identify a governmental entity able to take title to the property.
- **2009:** The economic crisis hits and DOT talks with agencies that seek to hold title to the property stall.
 - The City publishes a sewer repair study showing that Sewer Segment 3 located adjacent to Kalauha'iha'i, is being infiltrated by one million gallons daily of groundwater. City video footage and scientific analysis inside the sewer confirm the massive leak is extremely fresh water and a repair is scheduled for fall 2010.
- **2010:** The DOT decides to move forward on a public auction of the properties.
 - The Hawai'i State legislature approves House Bill 1665, which prohibits sale of government-owned fishponds. At the time this report was drafted, the bill was still awaiting signature by the Governor for final approval.



A view of the Hara residence when the fishpond still received water from Lucas Spring. Source: Maunalua Fishpond Heritage Center



When the DOT widened the highway, flows from the spring were somehow obstructed and fresh spring water flooded the DOT construction project. Source: Maunalua Fishpond Heritage Center

Project Process

The following process has helped to develop the Action Plan for the Kalauha‘iha‘i (Lucas Spring) Fishpond Restoration Project.

Preliminary Information Collection. The intent of this task was to gather as much preliminary information as possible in order to develop the initial parameters for the project, and prepare for the market survey and visioning workshop. This phase of the project determined the proposed scope of the fishpond project and what properties were to be considered.

Market Survey. This process was intended to characterize community interest in the fishpond project. Survey participants were asked about their vision for the future of the fishpond and how the property could best be used. The market survey determined the direction and topics of interest for the visioning workshop held on April 10, 2010. The survey was also able to test community interest in the fishpond project.

Visioning Workshop. The intent of the visioning workshop was to establish a common vision for the project and assess community support for saving the fishpond property. Interested local organizations, community leaders, residents, and others were invited to the visioning workshop. Many hurdles are in the way of the ultimate goal to obtain ownership of the property and restore the fishpond. The visioning session was the first step in establishing the vision for the project and determining why the project is important to the community in a public forum. The workshop also provided a sounding board to discuss all past and present roadblocks that affect the fishpond project.

Action Plan Document. The final report gathers information currently related to the fishpond and lays out issues facing a proposed preservation and restoration project of the property, including obtaining ownership, possible uses for the property, and long-term upkeep and maintenance of the fishpond.

INTRODUCTION

Current Conditions

2

This chapter reviews existing conditions of the property at 5839 and 5841 Kalanianaʻole Highway. The two parcels are considered a single parcel of land by the DOT. There are two homes on the site (one with a garage) with the fishpond in between the two homes. The property is zoned in a residential district.

5839 Kalanianaʻole Highway
1,720 SF two story house with three bedrooms / 2.5 baths
on a 5,382 SF lot



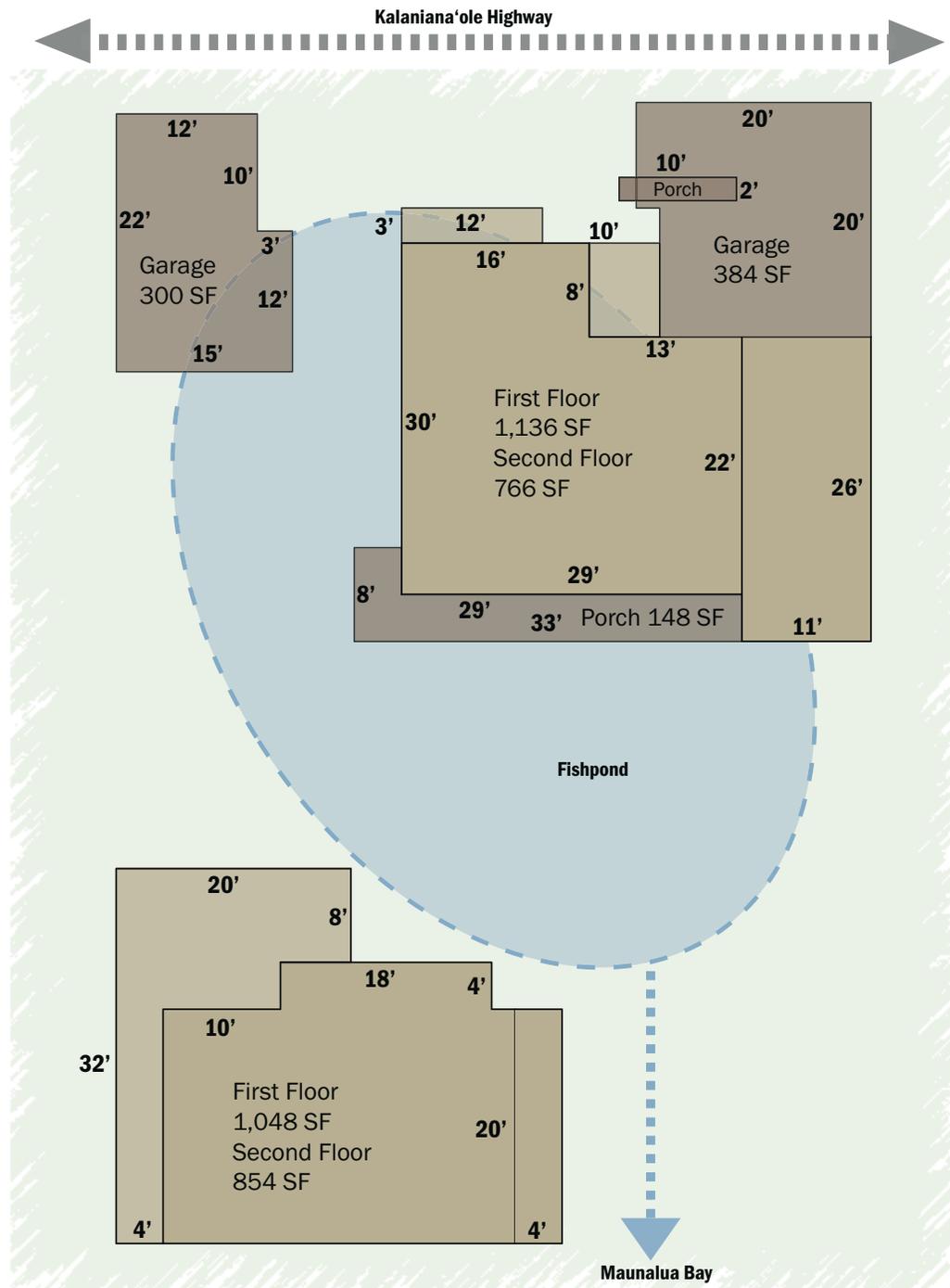
Fishpond

5841 Kalanianaʻole Highway
1,902 SF two story house with three bedrooms / three baths
on a 5,445 SF lot

CURRENT CONDITIONS

Site Diagram

The following site diagrams details dimensions of the current on site buildings and the approximate layout of the site.



Site Photos

The following site photos were taken April 13, 2010 by Facility Programming and Consulting and show the current condition of the fishpond and the buildings on the property.



A view of the makai (ocean facing) building on the property, formerly the Lee residence at 5841 Kalaniana'ole Highway.



The channel and mā kāhā (sluice gate) where fish would enter the pond and spring water was expelled to the bay.



The beach side view of 5841 Kalaniana'ole Highway.



The corner of 5841 Kalaniana'ole Highway.



A view of both buildings from the beach.



The only water in the fishpond now comes from rainfall.

CURRENT CONDITIONS



A panoramic view of the fishpond and the two buildings from the east side of the property.



A panoramic view of the building at 5839 Kalaniana'ole Highway (former Hara residence) and the fishpond.



The structural piers supporting the residence.



A view of the fishpond property from the highway.

Market Survey

3

To prepare for the visioning workshop conducted on April 10, 2010, a web-based survey was sent to approximately 220 people via email. NOAA, Mālama Maunalua and the Maunalua Fishpond Heritage Center provided the email addresses for the survey. Eighty-five surveys were completed and returned.

Survey responses indicated the level of awareness about the area and helped with early identification of community interests and concerns. Through the survey, participants indicated interest in:

- Education;
- Improved water condition of the spring and nearby bay;
- Restoration and preservation of a site with historical significance;
- Restoration and preservation of a natural habitat;
- Protecting the spring for future generations; and
- Creating a model of sustainability that could be replicated elsewhere.

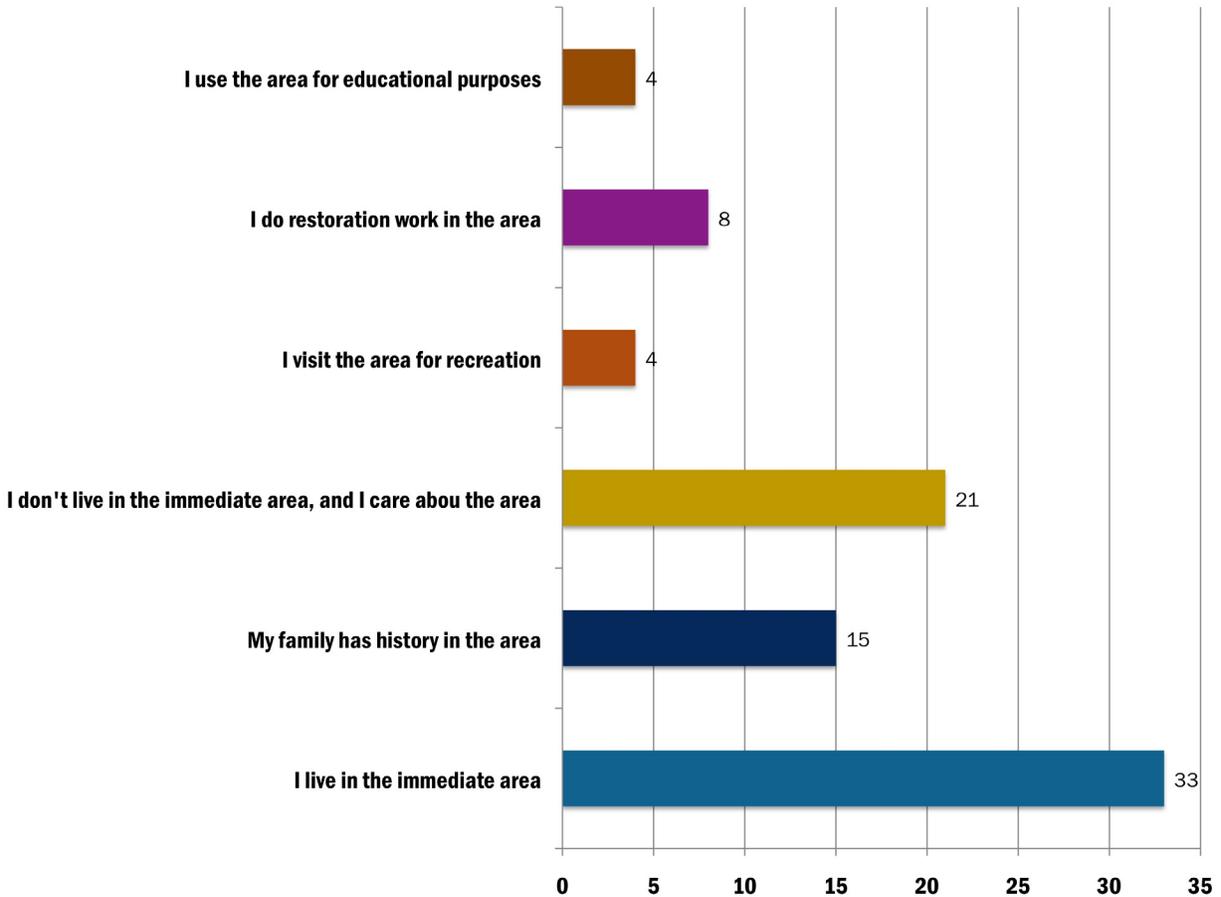
In addition, survey respondents suggested that the health of the area is interconnected to nearby ahupua‘a (tracts of land), ecosystems, and beyond.

Survey participants were asked to list activities they would not want to see in the area. While specific activities varied greatly (from fishing, camping and shark tours to developing a parking lot or wedding chapel and private ownership), they can be organized in these three themes:

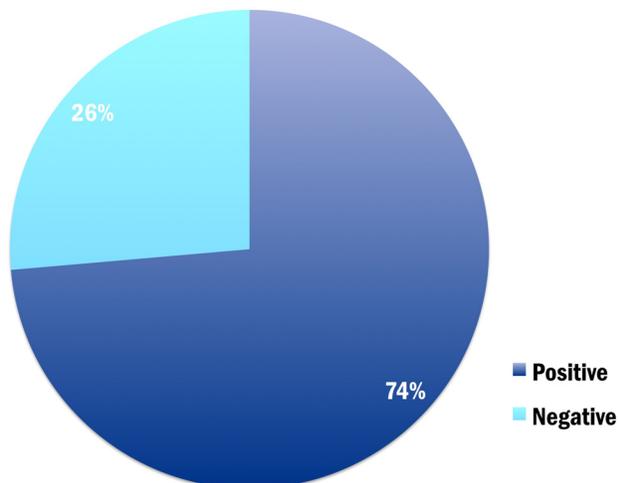
- Further waste, loss and degradation of natural and cultural resources;
- Over-use by recreational, commercial and visitor use; and
- Closed, limited or overly stringent access.

The results of the survey are detailed on the following pages.

What is your primary relationship to Lucas Spring/Maunalua Bay?



For those who have been to the Lucas Spring/Maunalua Bay area words that describe their impression?



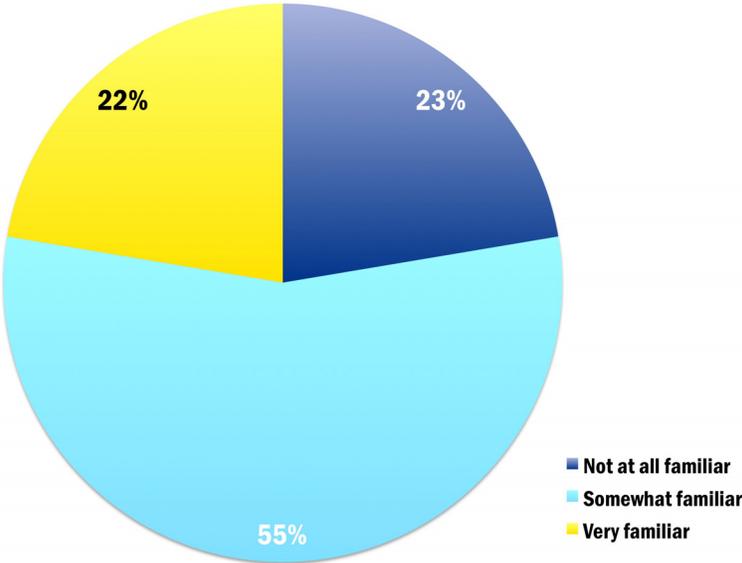
Positive:

Amazing, Beautiful, Big, Breathtaking, Calling, Clean, Cultural, Educational, Healthy, Historic, Hidden, Hopeful, Hospitable, Important, Impressive, Interesting, Invaluable, Life, Opportunity, Peaceful, Pleasurable, Possibilities, Potential, Priceless, Resource, Restorable, Rich, Sacred, Scenic, Serene, Special, Spiritual, Tranquil, Treasure, Unique, Valuable

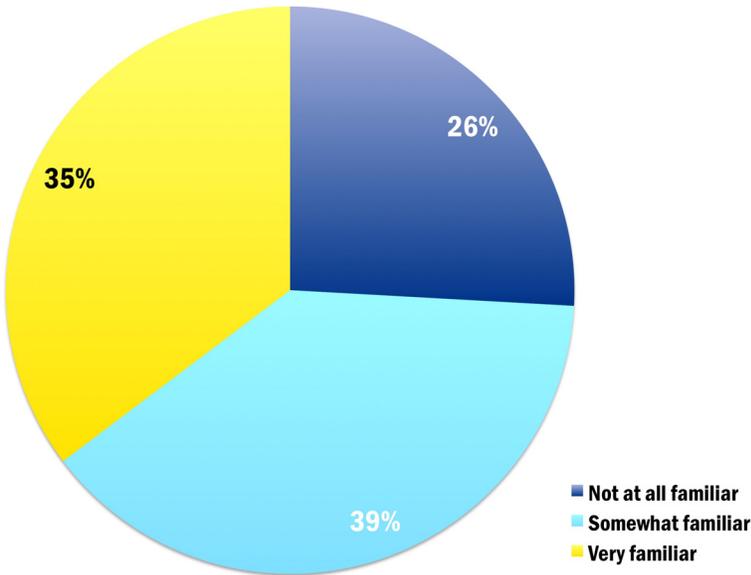
Negative or Neutral:

Abused, Alien, Confined, Degraded, Dilapidated, Destroyed, Diminishing, Disrepair, Environmental Disaster, Heartbreaking, Impaired, Invasive Species, Lack of Circulation, Sand/Sediment Build Up, Neglected, Overdeveloped, Overgrown, Polluted, Poor Stewardship, Sad, Small, Tragic Waste, Unhealthy, Un-kept, Vulnerable, Waste

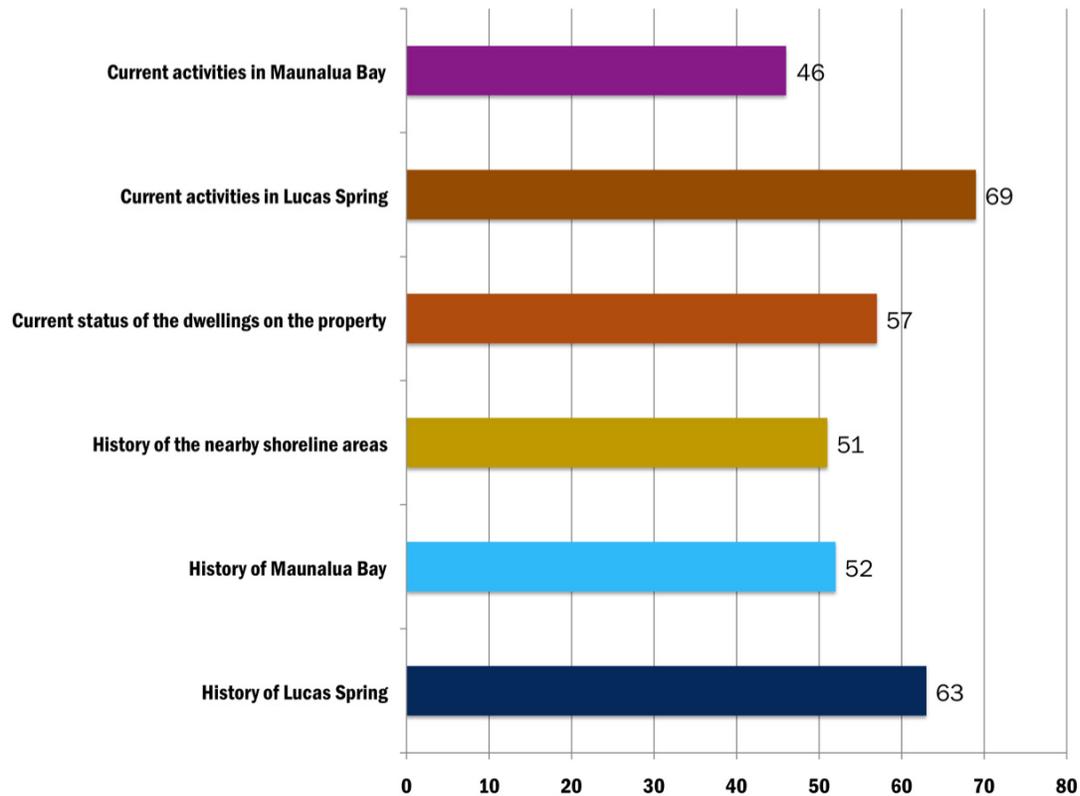
How familiar are you with the history of Lucas Spring (Kalauiha'i) and Maunalua Bay?



How familiar are you with the current condition of Lucas Spring?



Is there anything about Lucas Spring or Maunalua Bay that you would like to know more about?



Fifty years from now, in the year 2060, the legacy of Lucas Spring and Maunalua Bay will be...

- The spring is part of, if not the focal point, where the community recognizes the connection between the land and sea and understands their own role and impacts.
- The Bay's watershed and Paikō Lagoon have been rehabilitated and the region's groundwater flows improved.
- Widespread education and innovative storm water management programs have cleaned up the water quality and community groups have removed most of the invasive species off the reefs. As a result, native plants, animals and fish have made a dramatic comeback.
- All [fishponds] are treasured as valuable cultural and educational sites and there are many volunteers working to maintain them.
- Kalauha'īha'ī is a place where children can reconnect to the knowledge and practice of living in a way that contributes to the harmony and balance in nature. Thousands of children

are learning critical thinking and problem solving skills, and making connections relevant to their learning and caring for Hawai'i.

- Families reconnect to the natural and cultural resources of their own community with an eye towards sustainability and giving back to empower future generations.
- How wonderful that our great grandparents [back in 2010] worked so hard to preserve this beautiful, wild place.
- I love coming here to get away from the crush and noise of four million people living in Honolulu.
- [It is] a gathering place for children, families and University of Hawai'i students working and learning together to address issues of sustainability, community leadership, and education within the context of Hawaiian values and olelo (language).
- Lucas Spring is a working fishpond run by Mālama Maunalua, whose office is there. The house with the glass bottom is functioning and it is the core of restoration work of Maunalua Bay.
- Lucas Spring is restored as best as possible to a natural flowing spring that can sustain the near shore fish. Open to sustainable fishing (that is somehow enforced).
- The spring and bay are places where my grandchildren come to fish, visit and learn from something that comes close to the original area (knowing it may not be fully restored).
- Lucas Spring stands proud with the restoration of the hale (dwelling) and the healthy flow of the spring. The story of how it was restored is a role model and story in itself.
- Maunalua Fishpond and Heritage Hale are a place of learning and inspiration and celebration of culture and honor the past. It's a quiet place, but very productive. Those who care for the place get there by walking, bikes or the bus. The place is open to visitors but by reservation as a means of managing resources and not displacing the locals.
- It will be the last physical evidence of the original natural resource present when my kupuna (elders) first settled into the area.
- Lucas Spring restored hydrologically and biologically and is connected to the larger Maunalua ecosystem.
- The dwellings on the site have been preserved and serve as a research and cultural gathering site for students of all ages and the community. There are two dwellings; one is a community site; and the other an educational site.
- Students interact with the community, especially kupuna (elders) who provide invaluable historical insights.

MARKET SURVEY

- Information is available about the history of the significance of Lucas Spring in relation to the entire coastal area.
- Maunalua Bay is free of invasive seaweed. All commercial activity in the Bay has stopped or been reduced to allow the Bay to refurbish itself. Leases or access is granted to those who want to provide educational activities.
- [The fishpond is] restored back to the 1940s. Remove the houses. There are fish in the pond, which feeds into the ocean. It's a fishpond as it was in ancient Hawai'i.
- The spring is a natural resource managed by educated and committed managers who allow access to anyone wishing to respect and care for the resource. Full of estuarine flora and fauna, attracting birds.
- Hundreds of visitors per year come to learn about aquaculture, water rights and restoration of a historic site. It is the start of restoration along the coast.
- A place where students and volunteers can come to learn, work and practice traditional practices of raising fish.
- A classroom for future generations. It's an outdoor classroom for surrounding schools.
- An education center with a food-producing component on a scale that works best for the spring.
- In addition to an office and educational facility, there is room for ecotourism activities. Classes and tours are limited in size to ensure acceptable use in the residential area. A bus stop is close to eliminate the need for parking. Facilities are environmental and efficient.
- All craft in the area are wind or man-powered, an outdoor shower and fishing seasons and limits.
- Ribbons of bright green seaweed wave in the clear ocean water at the mouth of the spring, nourishing many crab, shrimp and bivalves. The aina (earth) is happy.
- Community-based stewardship brings people together for the common good.
- Now that it is 2060, I look back and am thankful that people took the time and effort to save one of the last remaining fishponds on Oah'u. By taking care of our heritage, we better prepare our youngsters to be productive and responsible citizens.
- Sitting at the edge of the pond you can see Native Hawaiian fish through the pristine waters.
- Students and visitors of all ages visit for tours and hands-on experience at being a fishpond caretaker.

The greatest potential value of Lucas Spring (Kalauiha'i) is...

(Listed in the order of the number of times mentioned – most to least)

- Education
- Improved water condition
- Restoration and preservation of a site with historical significance
- Restoration and preservation of a natural habitat
- Something for future generations
- Model of sustainability
- Improve the health of the island and community

What activities or functions would you not like to see in the area?

(Listed in the order of the number of times mentioned – most to least)

- Commercial activity (weddings, tourism, jet skis, shark tours)
- Development / Redevelopment
- Degradation / Decline / Condemnation
- Motorized vehicles
- Fishing / Netting
- Residential use / Private ownership
- Water diversion
- Over use (fishing, netting, visitors)
- Recreation (camping, swimming)
- Exclusivity
- Filling in the fishpond
- Invasive species
- Pollution
- Unsustainable activity
- Public park
- Changes to the bay
- Alcohol, drug use, prostitution
- Auctioning away of this *wahi pana* (sacred place)
- 4th of July shows
- Dogs
- More pavement
- No *aloha*
- Harvesting of ogo (seaweed)

MARKET SURVEY

- Diminished view
- Parking

Visioning Workshop

4

VISIONING WORKSHOP



The visioning workshop was a participatory event where attendees were encouraged to ask questions, share opinions, and brainstorm. Source: FPC

As a means of gathering community perceptions, ideas and concerns relating Kalauha‘iha‘i fishpond, NOAA’s Office of National Marine Sanctuaries sponsored a day-long workshop on Saturday, April 10, 2010. The workshop was open to the public and was promoted through email announcements to constituency lists that NOAA, Mālama Maunalua and the Maunalua Heritage Foundation maintain. Press releases were also distributed to media to inform the public about the workshop.

More than forty people attended the Saturday workshop. The start of the workshop was spent sharing information about the history of the area, along with current restoration and educational activities. Presentations were made by Mālama Maunalua about issues affection Maunalua bay, the Maunalua Fishpond Heritage Society on the history and importance of the fishpond, and Mrs. Laura Lucas Thompson briefly presented her family’s history in the area.

Throughout the day, workshop participants added the following issues and topics as part of their discussions:

- The need for a plan that includes what will happen and who will be involved.
- The need for better access to the spring and bay to do current and future invasive species removal, restoration and protective work.
- The impending auction – both a concern and opportunity.
- Who ends up owning or managing the property will impact what happens to the spring and bay.
- There are questions about who has rights to the water that is currently being diverted from the spring to the sewer system.
- The need to integrate efforts with other restoration projects and initiatives, agencies and community groups.
- The importance of understanding homeowner interests, keeping them informed and involved, and garnering their support.
- Clarity and communication is desired on the different moving parts of this issue. What is happening, who is in the lead, what can community members do and when do they need to do it by?
- More community education, involvement and awareness about the status of the area needed.
- Maintain a holistic perspective when thinking about the future of Lucas Spring; it is one piece of a more complex, diverse and robust ecosystem and cultural landscape. What happens in one place has a direct effect on what happens to other places.

VISIONING WORKSHOP

- All efforts should be culturally driven; look to the past to help shape the future.

Using the information gathered through the survey, workshop participants were encouraged to select topic areas and to develop suggestions for desired activities. Workshop participants identified three areas of interest: the auction, development of a functioning facility, and Hawaiian culture. The recommendations of each of the three working groups are listed below.

The Auction

There are both positive and negatives to the auction. The fact that the Department of Transportation was not able to identify an alternate method of transferring ownership is disappointing. However, the auction could result in an entity stepping up to become a steward of the site.

Several possible owners and stewards, including NOAA, Department of Land and Natural Resources, The Nature Conservancy, University of Hawai'i, Office of Hawaiian Affairs, Maunalua Fishpond Heritage Center were named. It was noted that ownership may not be appropriate for some and the significant cost of purchasing, restoring and maintaining the property is a significant consideration. Government involvement would be helpful, though it was noted that as administrations change, from election to election, so might the level of interest in commitment.

The working group took it upon themselves to learn more about the auction, including the timing and terms. In addition, they agreed to:

- Learn more about House Bill (HB) 1665, a bill prohibiting the sale of public lands on which Hawaiian fishponds are located. It was introduced in 2009, but did not pass. The working group wants to know what happened to the bill and whether it can be resurrected (since the time of the visioning session the bill passed and is now awaiting signature).
- Learn more about Act 176, which requires legislative approval to sell public lands; does this include "condemned" or "remnant" land?
- Find out where the Governor stands on the issue to see if she's inclined to assist.
- Find out more about what happens when the Board of Water Supply helps correct the diversion of fresh spring water (work to start in May 2010). Will the water naturally find it's way back to the spring or is more needed?
- Increase public interest and awareness by:



*The "Stop the Auction" working group.
Source: FPC*

- Sharing the Department of Transportation letter announcing the auction and HB 1665 to the media.
 - Holding a press conference on or near the site.
 - Posting informational signs.
 - Contacting policy leaders.
 - Including information on partner websites.
 - Sharing information via churches and other organized groups.
 - Starting a second petition.
 - Spreading the word via public service announcements.
 - Involving youth (being sensitive to not overstepping parental interests).
- The working group agreed to reconvene in May to share information and plan their next steps.

Functioning Facility

At the heart of the “functioning facility” concept is the value of the property being a living, active center that “tells the story” of the place. The facility would be:

- An educational center with a cultural, historical and environmental focus.
- A natural laboratory for undergraduate and graduate students to conduct research and studies.
- A multipurpose facility that integrates different program efforts for many, including mentors and integrated programs that support each other.
- Integrated with other related activities happening in the community.
- A foundation for supporting all community efforts that support the stewardship of the bay for the community.
- A showcase for the bay as an important food source for the community. It would highlight Native Hawaiian food preparation, which could generate income to support the center.

The working group suggested the exploration of a “heritage trail” that interprets significant sites along the coastal and land sites of Maunalua. Additionally, the concept of declaring the area a “historical site” was mentioned, although the requirements that come with that designation were not clear.

All the activities discussed above would have an impact on vehicle traffic, and the group felt that traffic concerns could be creatively resolved relying on community based business and



*The “Functioning Facility” group.
Source: FPC*

VISIONING WORKSHOP

churches, encouraging car pools, walking and bicycling and relying on buses.

The creation of an educational facility, like the one described above is dependent on who takes title of and manages the property. Additionally, funds and partners would be required to make it a success.

The working group suggested the development of a proposal, with costs, phases and stages and sharing that with the broader community, policy makers, political leaders and potential partners. In addition to a development plan, the group suggested the creation of a resource management plan with the involvement of and periodic review by the community.

A question was raised about the role of the Department of Land and Natural Resources and Department of Transportation. The group was not clear on whom best to engage.

Finally, there was agreement that the community may welcome an educational facility as described here because there are already several active schools in the area.

Hawaiian Culture

This working group suggests that culture is the foundation for everything that occurs on the site. They feel that the development of a historical and cultural center would not only perpetuate culture, but would also promote the concepts of sustainability and interconnectedness.

The center they envision would be alive and interactive, and would celebrate and share memories, history, ecology, science, farming and fishing, song, dance and *olelo* (language). It's a site principled on place-based learning and a space to show, tell and teach.

The group imagines the use of signs and markers throughout the area explaining the cultural significance of places.

A nonprofit, educational center could be sustainable by producing food for sale. The food would be centered on traditional Hawaiian food preparation and would promote a healthy diet.

Involvement and support from Hawaiian Civic Clubs was viewed as instrumental to the success of the center. Additionally, the adoption and use of the center by Hawai'i's local chefs would be positive.

The group noted that they could learn from the work that others have done throughout the state to preserve fishponds



The "Hawaiian Culture" discussion group. Source: FPC

Water is seen not just as a symbol of life, but is directly linked to the health of the environment and its community. The ocean needs to drink, just as humans do, making the re-establishment of the flow of spring water into the bay important.

As was noted by the other two working groups, who ends up with the title for the property will impact the future of the property and the health of the areas ecosystem. Ownership and/or management by a “like-minded” organization, like The Nature Conservancy, would be ideal.

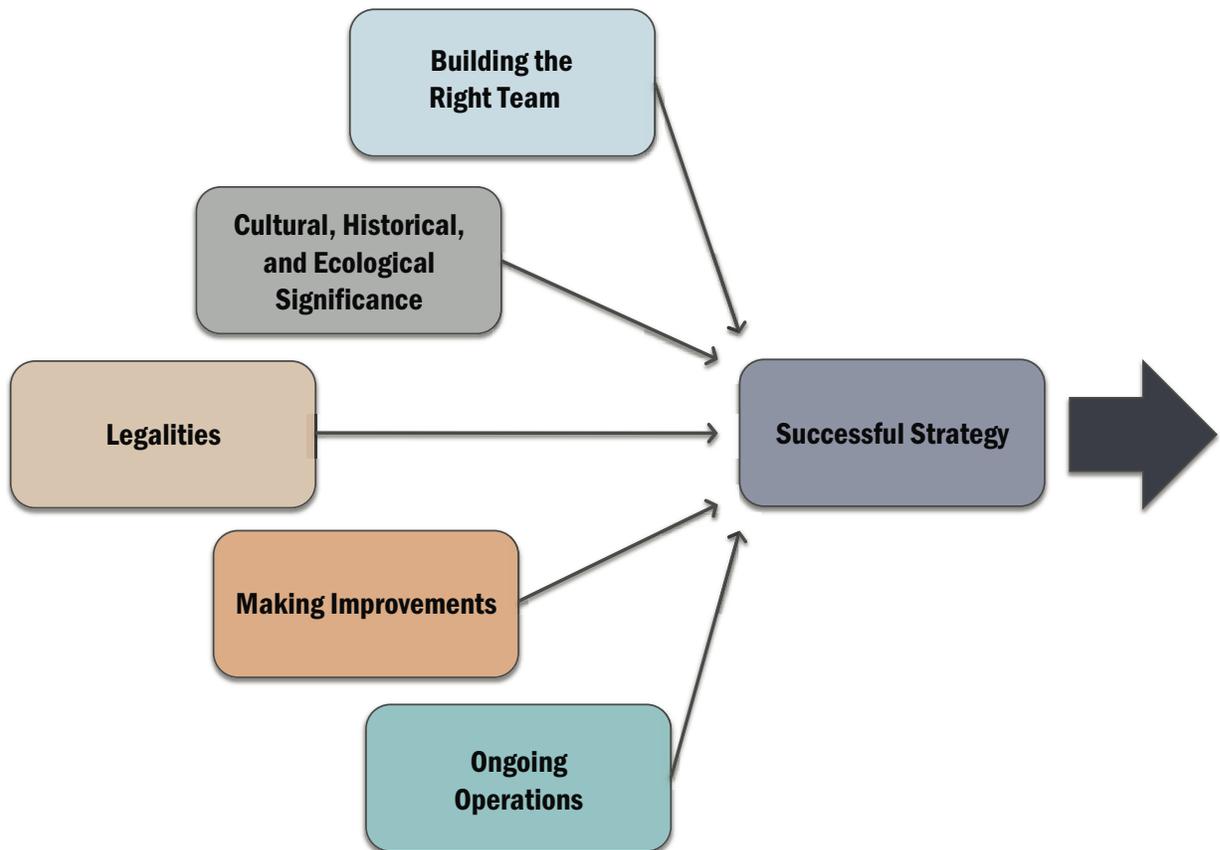
VISIONING WORKSHOP

The intent of this chapter is to establish a single, comprehensive list of the challenges related to the fishpond that is both concise and easy-to-understand. Everyone who has an interest in the fishpond can use this list as the go-to source of issues. This chapter purposely does not make recommendations related to any single issue. As each issue is dealt with, the action plan for the fishpond will become more complete.

For the convenience of the reader, the issues discussed in this chapter have been organized into five broad categories:

1. Building the Right Team
2. Cultural, Historical, and Ecological Significance
3. Legalities
4. Making Improvements
5. Ongoing Operations

Within each of the five broad categories is a checklist of the issues along with action items to be completed as each issue is tackled.



1. Building the Right Team

- Stakeholders and Decision Making
- Potential Partners
- Measuring Success (and Avoiding Failure)
- Funding Sources for Capital Improvements and for Ongoing Operations and Maintenance
- Making it All Happen

Stakeholders and Decision Making

The April workshop brought together many individuals and groups who are interested in the future of the fishpond. These people can become the nucleus for moving forward. However making forward progress on any topic requires organization. Its time to get started:

Action Items:

- Create an operating entity, or use an existing entity, as the vehicle to begin planning. This can be a temporary situation until a permanent responsible party is identified or created.
- Establish a **“Core Group”** of individuals who will act as the *de facto* leadership team, taking charge and making decisions. The Core Group should have no more than eight people and their mission will be to “work themselves out of a job” once the desired outcomes for the fishpond are achieved.
- Establish two other sets of participants:
 - ✓ **Stakeholders:** This group will include everyone who has a direct stake in the future of the fishpond. The Stakeholder Group will be much larger than the Core Group. Their role will be to provide support, collaboration, and constructive criticism to the Core Group on any issue.
 - ✓ **Liaisons:** This group will consist of the rest of the people and organizations that are tangentially related to the fishpond. Liaisons tend to participate on a single issue, or a small subset of issues, that affect them directly and should be included in the planning on an as-needed basis.
- Everyone who wants to participate, or who has a role in the future of the fishpond, should be included in one of these three groups.

Measuring Success (and Avoiding Failure)

In order to ensure that actions related to the fishpond are successful, it is necessary to measure success. One of the problems to-date is that while there is a lot of interest and concern in dealing with the fishpond, there has been less definitive forward progress. Measuring success requires a set of metrics to rate performance.

Action Items:

- Agree on the objectives for the fishpond by answering this question: “When this effort is complete, it will be considered a success if _____.”
- Develop a set of measurable goals that support the objectives listed above.
- Establish a timeline with target dates and specific milestones.
- Establish a budget for moving forward with developing a strategy.

Potential Partners

Many organizations have been involved in the ongoing battle for restoration of the fishpond. The following partial list includes organizations that may have interest in the ongoing support of the fishpond project:

- Oah‘u Land Trust
- Kapi‘olani Community College
- Maunalua Fishpond Heritage Center
- NOAA and the Office of National Marine Sanctuaries
- Mālama Maunalua
- Department of Land and Natural Resources
- University of Hawai‘i Manoa
- Maunalua Hawaiian Civic Club
- State Water Commission
- Livable Hawai‘i Kai Hui
- Office of Hawaiian Affairs

Whatever is ultimately recommended for the fishpond, it is very likely that one or more partner agencies or organizations will participate in the solution. Unlike the participation of interested parties to-date, partners will probably be legally committed to the fishpond and potential improvements. This commitment will likely involve financial support, partial ownership, or being parties to a lease or Memorandum of Agreement. Depending on what decisions are made, partners may join the Stakeholder Group or even the Core Group.

Action Items:

- Prepare a long list of potential partners who might be willing to participate in a long-term solution for the fishpond.
- Vet the possible partners and develop a short list of partners who are willing to contribute to the future of the fishpond.
- Enter into meaningful discussions with each partner on the short list.

ACTION PLAN

Funding Sources for Capital improvements and for Ongoing Operations and Maintenance (O&M)

In addition to costs normally associated with buildings, including lease costs or construction costs, potential fishpond stewards must also consider long-term upkeep of facilities. Operational cost for owned facilities is defined as costs for the total cost of building operations, including:

- Custodial service
- Energy
- Grounds
- Maintenance and repair
- Management
- Pest control
- Refuse
- Security
- Telecommunications
- Water
- Sewer

As a point of reference, average facility O&M costs for a typical office-type building in Honolulu are approximately \$15.24 per square foot annually¹.

Although it is not possible to know exactly how much money will be required to support the future of the fishpond until more planning has occurred, it is prudent to identify likely sources of money that can be sought once a plan is in place. Without money, real progress will be restricted.

Action Items:

- Establish a source for funds to begin planning the future of the fishpond.
- Seek out possible sources of funds for potential improvements.
- Seek out possible sources of funds for ongoing maintenance and operations.

Making it All Happen

Now is the time to take this checklist of issues and GET STARTED. Inertia will tend to keep everyone talking about the fishpond but working on his or her full time jobs. Someone needs to break away and take the lead. The first steps are:

Action Items:

- Establish the Core Group identified above.

¹ *Figures referenced from the Whitestone Building Operations Cost Reference 2008-2009 2nd Annual Edition*

- The Core Group should hold an organizational meeting or conference call to review this checklist, prioritize what steps should be taken first, and then begin taking action.
- The Core Group should determine if the services of any paid consultants or vendors are needed, and if so, when they need to be brought on board, and how they are going to be contracted. Possible consultants and vendors include: legal counsel, historian, accountant, meeting facilitator, engineers, scientists, real estate professionals, environmental specialists, publicist, etc.

2. Cultural, Historical, and Ecological Significance

- Why Doing SOMETHING is Important
- The Historical and Cultural Significance of the Fishpond
- The Science of How the Spring Flows Relate to the Bay

Why Doing Something is Important

Maunalua was once home to the largest fishpond in Polynesia and many other large fishponds. It now contains some of the few fishponds left in existence on Oahū. Maunalua Bay has experienced dramatic changes over the past several decades due to the loss of the freshwater fishponds including loss of fish and biomass in the area.

Conserving the fishpond will serve as an example of the commitment to preserve these vibrant historical, cultural, and ecological resources for future generations. The fishpond should be available for science and research, for local school children, and for the general public to gain a greater awareness of their history and culture, along with a greater appreciation of their natural resources.

The fishpond represents an important part of Hawaiian history. Over the past decade, primarily through inaction, it has been left to atrophy and fall into disrepair. The universe of possible actions for the fishpond ranges from simply documenting the history and significance of the fishpond to its full restoration. This report does not advocate any particular solution or end-use for the property. Instead this report outlines a strategy for success in saving the fishpond. It is the responsibility of the Core Group, with support from the Stakeholders and the Liaisons, all described above, to act.

Action Item:

- Establish a process for studying what to do, evaluate the most appropriate alternatives, and then implementing the preferred solution.

The Historical and Cultural Significance of the Fishpond

For centuries, fishponds have not only been a staple of the Hawaiian culture, but also a symbol of Hawaiian innovation that paved way for current marine aquaculture. Fishponds serve as a visible symbol of the native Hawaiian culture in the natural and spiritual environment. Fishponds are a representation of native Hawaiians' dedication to enhance sustainability and sustenance while remaining in balance with their environment.

Originally, these systems were built to be self-sufficient, with nutrients and food passing through the systems from high watersheds ultimately to extensive marine fishponds. During their early existence, these ponds were used to cultivate a variety of fish, invertebrates, and algae. The fishpond is an accomplishment in both construction and aquaculture that showcases how native Hawaiians respected both land and sea and used this reverence to develop a sustainable source of food. Hawaiian fishponds are the basis for modern aquaculture practices.

This report contains references to other documents that present the historical and cultural significance of this fish pond and Hawaiian fishponds in general. Fishponds have always been a significant part of native Hawaiian history and culture, linking the land and sea.

Action Items:

- Assemble as much factual information related to Hawaiian fishponds in general, and this particular fishpond
- This information will serve as a valuable resource when attempting to evaluate alternative courses of action, and to present the recommended course of action to others.

The Science of How the Spring Flows Relate to the Bay

Hawaiian fishponds are important for their ability to integrate freshwater and marine aquaculture into a complete system. Natural wetlands and fishponds once served as filters of water coming from the land before entering the bay. Today, wetlands and fishponds are scarce, having been affected by construction and urbanization of the area. It is estimated that the Kalauha‘iha‘i fishpond once pumped approximately 250,000 gallons of fresh spring water from the mountains of Niu to Maunalua Bay daily. Since the flow of Lucas Spring has been cut off, Maunalua Bay has suffered from three resource threats including invasive algae species that take over the bay and take precious resources from local fish and algae, polluted watershed runoff from the urbanization of the area, and depleted native fish populations. All of the threats to the bay are interrelated and further research is needed to determine how the reintroduction of fresh water will affect the bay.

Much has been written about Hawai‘i’s fishponds, the Lucas Spring, and Manalua Bay. Before embarking on a quest to save/preserve/improve the fishpond, the following scientific evidence should be gathered:

ACTION PLAN

Action Items:

- Assemble all available information related to the hydrology of Lucas Spring and the fishpond.
- Assemble any factual data related to the spring flow and Manalua Bay, along with any evidence of changes in the bay since the spring flows were diverted.
- Engage appropriate scientists (hydrologists, marine biologists, etc.) to conduct a study that analyzes the potential future actions taken at the fishpond and predicts the likely outcomes for each.

3. Legalities

- Ownership
- Auction
- Water Rights Related to the Spring Flow
- Covenants, Deed Restrictions, and Clear Title
- Legal Jurisdiction and Applicable Laws
- Survey, Appraisal, and Environmental Studies
- Responsible Party
- Liability and Indemnification
- Leases and Memorandums of Understanding to Use the Fishpond

(Note: Because of the complexity of these issues, experienced legal counsel should be consulted.)

Ownership

One of the first hurdles to cross is the issue of ownership. The fishpond is a piece of real estate, and as such someone owns it. Currently, ownership lies with the State of Hawai'i, through the Department of Transportation. In order to move forward with any activities related to the fishpond, the owners must participate.

Action Items:

- Confirm who currently owns the fishpond property.
- Determine who should own the fishpond property.
- Develop a strategy that will allow the intended owner to take clear title of the property, including all interim steps in the process.
- Determine if the transfer of ownership involves any cost, and if so how will these costs be paid?
- Incorporate any issues related to water rights (see below).

Auction

At the time this report was prepared, it was rumored that the Department of Transportation intended to put the fishpond property up for auction in the upcoming months. It was also rumored that there were laws on the books and a bill in the state legislature that could potentially prohibit this property from being sold at auction.

Action Items:

- Determine specifically what current laws and what pending legislation limits the sale of this property, including State of Hawai'i House Bill 1665.
- If appropriate, develop a strategy to stop the sale of this property to a third party who may not be interested in the significance of the fishpond, whether through auction or other means.

ACTION PLAN

Water Rights Related to the Spring Flow

Ownership of the fishpond land, as discussed above, may or may not include ownership of the spring water that flows into it from the Lucas Spring. Obviously owning the site without the spring flows would greatly change the outcome of any further actions related to the fishpond.

Action Items:

- Research the applicable laws and legal precedent related to the natural spring flows.
- Determine if the owner of the fishpond property has legal right to the spring flows, and if not what can be done.
- Determine if these water rights are affected by the fact that the water may be made to flow under Kalanianaʻole Highway by artificial instead of natural means.

Covenants, Deed Restrictions, and Clear Title

In any real estate transaction, it is wise to have a clear understanding of anything that might limit or constrain taking any future action. In this case, it is important to conduct this due diligence before moving forward.

Action items:

- Research and document all covenants and deed restrictions that affect the property.
- Because of the historic nature of the fishpond, determine if this property is affected by any state or Federal laws related to cultural antiquities and/or historic sites.
- Confirm if the current owner has a clear and unrestricted title to the fishpond property, and if not, determine what actions are appropriate.

Legal Jurisdiction and Applicable Laws

Prior to taking any action, it is important to understand what laws govern the fishpond and might affect its future, including any improvements. The examples cited below are just the “tip of the iceberg” to illustrate the possible range of jurisdictions and statutes.

Action items:

- Identify all governments and agencies that have jurisdiction over the fishpond, including any rulings that might apply.
- Research the local, state, and federal laws that apply to the fishpond. Examples include (but are not limited to):
 - ✓ Local zoning ordinances, building codes, and flood plain requirements.

- ✓ State coastal zone management statutes, legislation specific to fishponds, and historical and/or cultural mandates.
- ✓ Federal water quality requirements, endangered species issues (in Manalua Bay), or Army Corps of Engineers requirements governing “Waters of the United States”.
- ✓ Determine if state or Federal laws would take precedence if there were a conflict.
- Determine if ownership by a Federal agency would nullify any state or local laws, and if ownership by a state agency would nullify any local laws.

Survey, Appraisal, and Environmental Studies

Before attempting to acquire the fishpond property, and or plan any physical improvements, the following items should be addressed:

Action items:

- Obtain a complete real property survey showing topography, flood plain, buildings, and all easements.
- Conduct a title search of the property to establish a clear chain of ownership.
- Conduct a real estate appraisal to determine fair market value.
- Perform asbestos and lead paint survey to determine if the existing buildings contain any hazardous materials.
- Determine what environmental studies are appropriate (Phase 1 Study, Categorical Exclusion, Environmental Assessment, etc.), and conduct the appropriate study.
- Research what environmental studies (if any) were prepared at the time Kalanianaʻole Highway was widened, specifically related to diverting the spring flow to the fishpond.
- A study should be conducted in concurrence with the upcoming fall 2010 repair project for sewer segment three to see if this project will affect or restore flow of the spring.

Responsible Party

As noted above, there are many stakeholders and other parties interested in the future of the fishpond. In order to move forward, a responsible party or parties must be identified and make a commitment.

Action items:

- Agree what legal entity or governmental agency will commit to procuring the fishpond property from the current owner.
- If the responsible party is a new entity, such as a corporation, take the steps to establish the entity.

ACTION PLAN

- Agree how the transfer will take place (i.e. purchase, lease, inter-governmental transfer, etc.)
- Outline the steps required for the transfer to happen.
- Determine if this will be a permanent transfer, or if this is just a first step in a chain of events with the property ultimately transitioned to another entity.

Liability and Indemnification

With ownership of real estate comes risk. Before taking any action related to ownership, the following protective measures must be addressed:

Action items:

- Agree what steps are necessary to protect the responsible party from lawsuits or other risks.
- Determine if the responsible party can indemnify others associated with the fishpond.
- Determine if ownership by a governmental agency can shield liability.

Leases and Memorandums of Understanding to Use the Fishpond

It may be advantageous for one entity to own the fishpond, and allow others to participate in the operation, conduct research, etc. There should be an easy way for these partnerships to happen.

Action items:

- Establish a process for the responsible party, agencies, and other partners to work together.
- Prepare a draft Memorandum of Understanding between the responsible party and hypothetical partners that can be easily consummated at the appropriate time.
- Agreements of use should be drafted with the neighborhood organizations concerning use of the property, access, and activity on the property.

4. Making Improvements

- Can the Water be Restored to the Fishpond?
- Finding the Best Answer
- Specific Projects Needed to Accomplish the Recommendations
- Message, Exhibits, Signs, and Kiosks
- Use of the Site and Buildings
- Access and Parking
- Cost of Improvements
- Developing a Phasing Strategy and Schedule
- The Permitting Process

Can the Water be Restored to the Fishpond?

One key element that directly affects the possible future of the fishpond is whether or not the spring flows can be restored, and if they can be restored, what is required and at what cost. When the state widened the highway, the natural spring flows were diverted. As noted above, evidence suggests that the spring flows still exist, but are being diverted into the sanitary sewer and are being needlessly carried to, and treated at, the wastewater treatment plant. There is a project to repair the sanitary sewer line in fall of 2010 that will correct this situation, however it is not known what will happen to the spring flows once the sanitary sewer no longer carries them away.

Action items:

- Obtain a legal opinion related to who has rightful claim to the spring flows, including who is responsible for managing the outflow.
- Conduct an engineering analysis to determine what physical options exist for redirecting the spring flows back to the fishpond, and then into the bay.

Finding the Best Answer

Planning the future of the fishpond property involves developing an overarching strategy that answers the question, “What is the best answer?” Once this strategy is agreed to, other, more specific parts of the solution can be developed.

Action items:

- The Core Group, with support from the Stakeholders and the Liaisons (see above), should evaluate the available data and then develop a range of the most plausible alternatives for the fish pond
- Each option should be carefully evaluated and ranked according to the following criteria (other criteria may be added):

ACTION PLAN

- ✓ Will it achieve the definition of success stated above?
- ✓ Can the cost be justified and supported?
- ✓ Is the solution achievable?
- Once the Core Group decides on a recommendation, they should document the decision and present it clearly and concisely to the public so there is no longer any confusion about what is about the future of the fish pond

Specific Projects Needed to Accomplish the Recommendations

The recommended option will actually be a collection of individual steps or projects. The Core Group should:

Action items:

- Develop an outline that sub-divides the recommended option into an action plan that outlines what steps to take, and in which order.
- Define the requirements for each step in the action plan and assign a target start date and finish date for each activity.
- Assign a person who is responsible for accomplishing each step.

Message, Exhibits, Signs, and Kiosks

Whatever the recommended solution is, it is almost certain that it will involve using signs, exhibits and/or kiosks to get the message out to the public. The Core Group should:

Action items:

- Identify the message(s) that are needed at each location (both on the fish pond property and at other locations)
- Retain an exhibit designer to develop preliminary designs for each location.

Use of the Site and Buildings

Assuming the best answer (see above) involves using the current property, the existing buildings will require significant renovation and upgrading. The precise requirements will be a function of exactly how the property is going to be used (i.e., research, educational programming, or public visitor center).

Action items:

- An architect, with appropriate engineering sub-consultants, should be engaged to plan and design improvements to the existing buildings.
- It is possible the existing buildings cannot be economically brought into line with the vision. If this is the case,

demolishing the buildings and/or replacing them with a new facility should be considered.

Access and Parking

Access to this site is very limiting. There is very little space on the property for parking. Traffic on Kalaniana'ole Highway is fast moving, and even stopping in front of the property could present safety issues. There are parking lots nearby that possibly could be used, assuming the owners of those lots are willing. Pedestrians can also access the property by walking along the public beach, however access onto the beach is only available via a narrow walkway, and parking near the walkway is also very limited.

Action items:

- Determine the predicted number of staff and visitors who will be on the fishpond at any one time.
- Develop a strategy for where those people will park and how they will get to/from the property.

Cost of Improvements

There must be a budget to carry out the proposed improvements. This budget can be refined as design progresses on each component of the project, but it is unrealistic to move forward without a firm estimate of costs and a strategy for funding the project. Remember that nothing will happen until funds have been committed.

Action items:

- Prepare a broad based cost estimate for each project.
- Identify possible funding sources for each project.
- How would funds be disbursed?

Developing a Phasing Strategy and Schedule

It is unlikely that all improvements will occur simultaneously. The Core Group should develop a phasing strategy that addresses the following:

Action items:

- Prioritize each component of the project.
- Establish approximate durations for each segment of the overall strategy.
- Identify elements that could be taken out of sequence if funds become available.

ACTION PLAN

The Permitting Process

Because several agencies and governments have jurisdiction over this property, it will require care and diligence to obtain all of the needed permits to move forward with the recommended improvements.

Action items:

- Prepare a preliminary list of necessary reviews and approvals.
- Identify any approvals that might require an extremely long amount of time.

Constructing the Improvements

Compared to all of the strategizing, consensus building, and decision-making, actually constructing the improvements may be relatively straightforward. The recommended strategy should identify how construction would be procured, and which entity would hold the contract.

5. Ongoing Operations

- Day-to-day Operations of the Site, Buildings, and any Improvements, Including Performing Ongoing Maintenance
- Caretakers
- Security and Public Safety
- Neighbor Relations
- Periodically Updating the Action Plan

Day-to-day Operations of the Site, Buildings, and any Improvements, Including Performing Ongoing Maintenance

Once the recommended improvements are complete, the strategy should include the following:

Action items:

- Who would be responsible for ongoing O&M? (The cost of staffing should be considered as well.)
- How would O&M costs be funded?

Caretakers

Who would be responsible for ensuring the long-term care of the fishpond and of the message that it presents to the public? (i.e. avoiding a situation similar to what has occurred over the past decade where the fishpond was allowed to fall into ruins.) Whoever has control of the property may also need to consider staffing.

Security and Public Safety

The strategy should include a section on ensuring the safety of staff and visitors on the fishpond property, as well as the securing the property from theft, vandalism, trespassing, and other perils.

Neighbor Relations

The fishpond is sandwiched between two neighboring houses along a beautiful residential coastline. Managing how the neighbors (both next door and nearby) react to the recommended improvements is a key to the overall success of the strategy. Any project on the site will likely require the neighborhoods support and approval.

Periodically Updating the Action Plan

Like any master plan, this checklist and the strategy that comes from it should be kept up to date. As situations change and

ACTION PLAN

additional constraints and opportunities come to light, the action plan should be formally updated.

INTRODUCTION

The appendix of this document is meant to provide a central source for supplemental information.

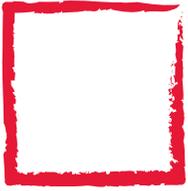
Bibliography and Supplemental Documents

The following documents provided background information needed for this report.

Title	Organization	Year Completed	Focus
More Than a Decade After Condemnation, Hawai'i Department of Transportation Still Owns Homes on Ancient Hawaiian Fishpond	Hawai'i Reporter	2009	News article on the history and current state of the property. Includes detailed timeline of property since 1998.
Property Inspection Report	Island Home Inspections	2008	Detailed home inspection of the building at 5839 and 5841 Kalaniana'ole Hwy. Hon. HI 96821
Maunalua Bay Loka I'a Properties	Hawai'i inuiakea School of Hawaiian Knowledge	2008	Planning document developed as a facility strategy for the fishpond and buildings as a research and cultural center.
Restoration of Kalauha'iha'i Fishpond Kalauha'iha'i Loka I'a Project	Maunalua Fishpond Heritage Center and Charles H. Palumbo Architects	2008	Architectural renderings as completed as part of the previously listed project.
Public Auction Bid Packet	DOT	2008	The auction documents for the properties. Includes Notice of Sale, Notice of Intent to Bid, Conduct of Sale Document, Memorandum of Sale, Purchase Agreement, Quitclaim Deed, Use and Occupancy Agreement for Encroachment of Front Wall and Fence, Assignment of Party Wall Agreement, Conveyance Tax Certificate, Maps, Survey, and Description of Properties, and Fact Sheet/Disclosures.

APPENDIX

Title	Organization	Year Completed	Focus
Lucas Spring/ Kalauha‘iha‘i Restoration and Access Workshop	Miki Lee	2010	An outline of the vision and goals of the April 10, 2010 visioning workshop.
Niu Spring	Laura Lucas Thompson	2010	A presentation given by Laura Lucas Thompson with pictures of the spring when her family lived there.
Kalauha‘iha‘i Fishpond (Lucas Spring) Timeline	Maunalua Fishpond Heritage Center		A detailed timeline of the fishpond.
Mālama Maunalua A Community Based Initiative	Mālama Maunalua	2010	A presentation given by Mālama Maunalua at the April 10, 2010 visioning workshop that outlines Maunalua Bay area and the top three issues that affect the health of the bay.
Visioning Workshop Sign In Sheet	ONMS	2010	A list of names and emails of people who attended the April 10, 2010 visioning workshop.



FACILITY
PROGRAMMING
AND CONSULTING

Frost Bank Tower, Suite 1100
100 West Houston Street
San Antonio, Texas 78205
Phone: 210/228-9600
Fax: 210/228-9697
facilityprogramming.com

Architectural Programming
Laboratory Planning
Healthcare Planning
Strategic Facilities Planning
Needs Assessment
Space Utilization Analysis

SAN ANTONIO | HOUSTON