

## Management Plan Review

### Cultural significance of Maunalua

Maunalua Bay has been the site of human interaction with the natural environment for hundreds of years.

One of the fishponds in Maunalua, **Kuapā Pond**, was once one of the largest in the Hawaiian Islands, measuring 523 acres on a map dating from 1851.

**Kuapā pond translates to “walled pond”** referring to an offshore fishpond, which is a misnomer since the pond is considered an onshore pond, or loko pu’u-ne, with a natural sand barrier. The sand barrier was built up into a sea wall with rock on the outside to reinforce it.

The seawall construction took several years and it is said that thousands of people formed a human chain to bring rock from the Ko’olau Mountains to Maunalua. Other stories say that menehune built the seawall overnight.

The original name for the pond, Keahupua o Maunalua, translates to “the shrine of the baby mullet of the two mountains”.

Historic descriptions and maps of the pond indicate that areas were walled into fish pens and some of the wetland may have been used for cultivation including taro.

The pond was actively fished until 1959, when residential and commercial development began.

## Maunalua Bay: A Special Sanctuary Management Area

### Maunalua Bay

Maunalua Bay is located on the south eastern shore of the island of O’ahu, between Lē’ahi (Diamond Head) volcanic cone and Koko Head peak.

The bay adjoins five ahupua’a across seven watersheds with at least four perennial streams and as many as 52 drainages.

In the midst of a largely urban setting, the bay supports varied recreational uses and important habitat for marine species.

### Biological significance of Maunalua

The majority of the bay is comprised of hard bottom with isolated patches of sand and fringing aggregate coral reefs. These reefs host typical Hawaiian coral reef species.

Native seagrasses as well as native and introduced macroalgal meadows are dominant on sand and soft-bottom habitats.

Sea turtles, Hawaiian monk seals and humpback whales all utilize the waters of Maunalua Bay as habitat. Paikō Lagoon is a State of Hawai’i Wildlife Sanctuary for sea and shore birds.

The sand flats of Maunalua Bay are well-regarded habitat for bonefish and yellow fin goatfish, both of which are targeted fishery species.

Introduced algae have colonized the submerged lands and compete with native organisms in some locations of the bay.

Recent restoration efforts have cleared nearly 2.9 million pounds of introduced algae and restored up to 23 acres of soft bottom-sand habitat.

In many locations, land based sources of pollution have led to sedimentation on nearshore reefs and degraded water quality.

### The threat of introduced species

In surveys of marine algae, reef fish, and invertebrates, a higher percentage of introduced species was found in Maunalua Bay (18%), than in Waikīkī (6.9%). Inside Koko marina, the percentage of introduced species reaches 40%, the highest percentage recorded in Hawai’i.

Photo: Norman Kaleomokuokanalu Chock



The Hawaiian Islands Humpback Whale National Marine Sanctuary is jointly managed by the National Oceanic and Atmospheric Administration and the State of Hawai’i.

<http://hawaiihumpbackwhale.noaa.gov>

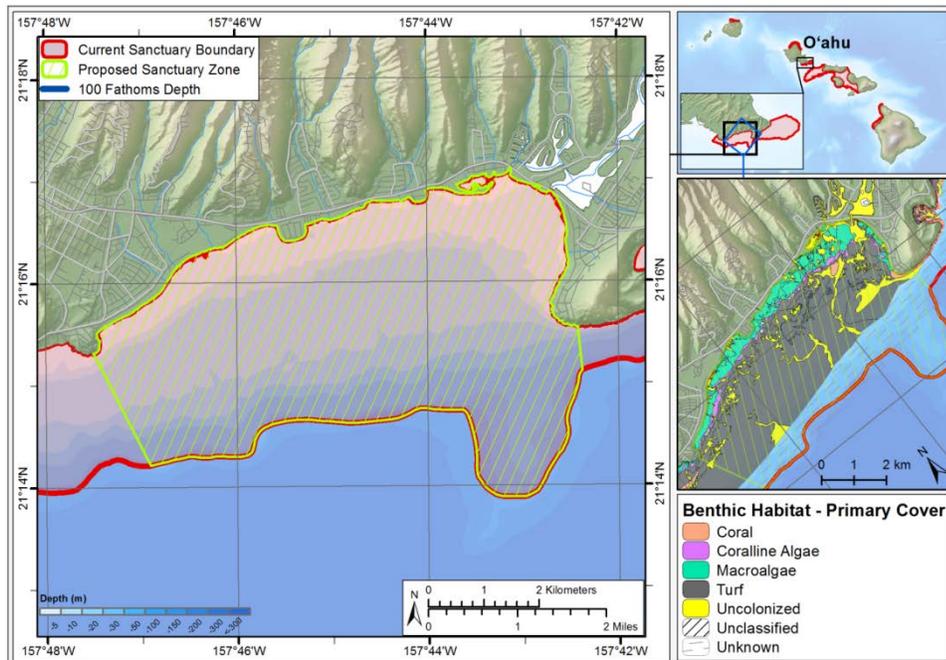
## How will the sanctuary's plan help restore marine resources in Maunalua Bay?

Communities that live adjacent to Maunalua Bay are already actively engaged in a range of conservation and restoration efforts. The sanctuary is positioned to provide additional support for site-based learning initiatives to enhance community stewardship and increase overall protection of the Bay.

Recognizing this opportunity, the sanctuary has identified Maunalua Bay as one of four *Sanctuary Focus Areas* statewide, as well as a *Special Sanctuary Management Area*. The *Maunalua Bay Action Plan* describes how the sanctuary seeks to conserve and restore marine resources in Maunalua Bay through strong community partnerships and cooperative place-based planning and education. Key elements of the plan are listed below.

### A selection of activities proposed in the Maunalua Bay Action Plan

- Engage in a community driven process to address key threats to resources in Maunalua Bay.
- Support volunteer programs to remove invasive alien algae and promote restoration of native coral reef habitat.
- Work with Polynesian Voyaging Society, community, and non-profit organizations to establish an education area for hands-on activities that promote sustainable uses and traditional Hawaiian marine resource management concepts.
- Support community activities to reduce impacts from runoff discharged into the Bay.
- Coordinate with other agencies to assess, review, and respond to emerging threats to the Bay's marine habitats and species.
- Bring kupuna and scientists together to develop a coastal resiliency plan for Maunalua Bay that incorporates traditional Hawaiian knowledge and scientific information.
- Provide experiential ocean education opportunities, including navigation, pono fishing, and traditional Hawaiian resource management practices.
- Work with ocean-based businesses, fishers, and recreational ocean users to understand, develop and embrace the use of best management practices to reduce impacts to marine resources within Maunalua Bay.



Proposed regulatory area for Maunalua Bay Special Sanctuary Management Area.

### Special Sanctuary Management Area

As the sanctuary transitions towards ecosystem-based management, sanctuary managers are proposing additional regulations to protect the marine environment.

These regulations seek to enhance resource conservation, protect marine habitats, maintain water quality, and improve enforcement efforts.

Special Management Area regulations would apply only to discrete areas within the sanctuary, including Maunalua Bay.

Special Sanctuary Management Area regulations would prohibit the following in activities Maunalua Bay:

- (1) Taking or possessing additional marine species;
- (2) Discharge;
- (3) Altering submerged lands;
- (4) Using explosives;
- (5) Introducing non-native species;
- (6) Damaging or destroying signs.