

Management Plan Review

Extending the Sanctuary up the Hanalei River, Kaua'i Proposed for Alternative 4 Only



Photo: Paul Wong

The Hanalei National Wildlife Refuge provides habitat for many waterbirds, including the native and endangered nēnē.



Photo: Emily Gaskin

The wetlands surrounding the river provide a rich environment for the Native Hawaiian practice of taro farming.



Photo: John Johnson

The Hanalei River estuary provides a breeding area for many juvenile fish, including bluefin trevally.

Hanalei River, Kaua'i

The Hanalei River flows from Mount Wai'ale'ale into Hanalei Bay on the north shore of Kaua'i. Hawaiian Islands Humpback Whale National Marine Sanctuary currently encompasses Hanalei Bay up to the mouth of the Hanalei Estuary. The sanctuary proposes to extend this boundary mauka (inland) approximately 2,500 meters to abut the makai (seaward) boundary of the Hanalei National Wildlife Refuge, managed by the US Fish and Wildlife Service.

From mauka to makai

The head of tide, or the extent to which saltwater from the bay reaches upriver, varies with time and can reach up to 5,000 meters mauka. As such, the river provides breeding ground for native marine fish species and native gobies and is an important habitat for marine life in the bay. By extending this sanctuary boundary mauka, the sanctuary and existing management authorities could provide contiguous protection of the unique natural and culture resources in the river, estuary and bay.

Cultural significance

'O'opu were an important food resource to the Native Hawaiians that were typically wrapped in ti plant leaves and cooked, dried or eaten raw. 'O'opu Nōpili was also used in ceremonies, such as the weaning ceremony for first-born children and house-warming feasts.

'O'opu Alamo'o was kapu (sacred) and believed to be related to the mo'o (gods) and bad luck if caught. Juvenile goby, or hinana, were also prized by Native Hawaiians.

Taro Farming

Taro farming has been conducted for more than 1,000 years in Hanalei Valley and was a main staple of Native Hawaiians.

There are also a number of historic sites located adjacent to the Hanalei River. The Hanalei Bridge is on the National Register of Historic Places, as is the Ho'opulapula Rice Mill, which is the only remaining rice mill structure in all of Hawai'i.

Biological significance

The Hanalei River estuary provides a breeding area for many juvenile fish species including the native mullet, or 'ama'ama, native flagtails, or āholehole, giant trevally, and bluefin trevally. Evidence of these species has been found as far as 4,000 meters upstream.

The estuary also supports all five species of endemic Hawaiian goby fish or 'o'opu. Many 'o'opu are amphidromous, which means they migrate between freshwater and saltwater during different stages of their lifecycle. 'O'opu Nākea have been reported from the mouth of the river to eight miles (13km) upstream. Juvenile species develop upstream and migrate downstream when they mature.

The wetland areas directly adjacent to the Hanalei River provide habitat for several Native Hawaiian water birds, including the Hawaiian stilt, or ae'o, the Hawaiian coot, or 'alae ke'oke'o, the Hawaiian moorhen, or 'alae 'ula, and the Hawaiian duck, or koloa maoli. The endangered Hawaiian hoary bat, or 'ōpe'ape'a, can be found in this area as well. Several endangered Hawaiian geese, or nēnē, have also been released into the Hanalei National Wildlife Refuge as part of the recovery program for this species.

How will the sanctuary's proposed plan affect Hanalei?

Marine species in the Hanalei River would benefit from inclusion in the sanctuary as a result of the sanctuary's shift to ecosystem-based management. For example, the proposed prohibition on taking and possessing protected species would help to protect those species in the Hanalei River. Additionally, the proposed prohibition against releasing introduced species into the sanctuary would benefit the native species that breed in and inhabit the estuary.

Including this boundary addition in the sanctuary would have a beneficial impact on the unique and important estuarine habitat that the Hanalei River provides. Species would benefit from inclusion in the sanctuary through regulatory and non-regulatory actions, such as monitoring water quality and prohibiting alteration of submerged lands.

The cultural and historic practices and resources in the Hanalei River, including native 'o'opu species and wetlands for traditional taro farming, would benefit from inclusion in the sanctuary through proposed management plan activities to recognize and protect cultural sites and the proposed prohibition of removing or damaging historic and cultural resources in the sanctuary.

Will new regulations be introduced?

New and revised sanctuary-wide regulations will apply in existing sanctuary areas as well as in proposed boundary additions. A boundary adjustment is proposed for Hanalei River in Alternative 4 as shown in the figure below.

How will sanctuary regulations change?

The revisions to the current sanctuary-wide regulations, proposed under Alternative 2, 3 and 4, would:

- (1) Clarify humpback whale approach regulation (see next page for detail);
- (2) Combine the two regulations prohibiting the taking and possession of humpback whales into one regulation;
- (3) Remove the prohibition against discharge in the sanctuary;
- (4) Remove the prohibition against discharging from outside the sanctuary anything that enters and injures a sanctuary resource;
- (5) Remove the prohibition on altering submerged lands;
- (6) Add the authority to issue sanctuary permits and authorizations; and
- (7) Add sanctuary-wide regulations prohibiting the disturbance of submerged cultural and maritime heritage resources.

Threats to Species and Habitats in Hanalei

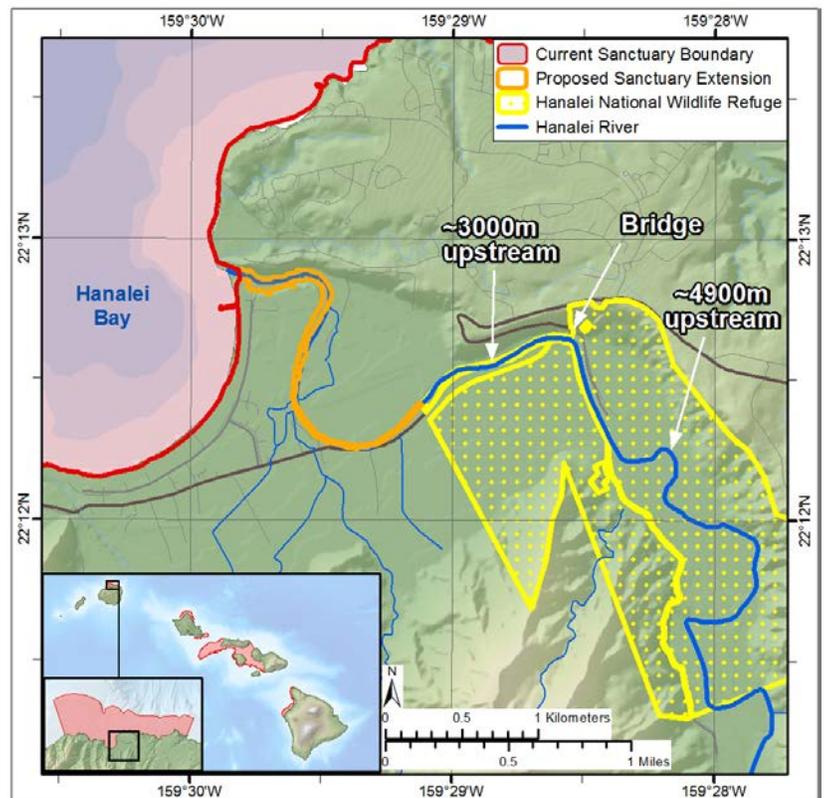
Agricultural runoff, pollution or any other alteration to river habitat could greatly affect breeding patterns and have negative impacts on Native Hawaiian fish populations, including goby, mullet and trevally.

Additionally, the river currently lacks the proper infrastructure to support growing tourism. As the Hanalei River feeds into Hanalei Bay, increasingly poor water quality could threaten coral reef habitats.



Photo: Heather Spalding

Hanalei River also provides habitat for sea turtles.



Proposed boundary adjustment for Hanalei River in Alternative 4.

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>

