



State of the Environment Report Card 2017

What's happening on our coast?

How do we measure coastal ecology?

Our coastal monitoring programme looks at how the things we do on our land, impact our coastal water quality and ecosystems.

We monitor the animals and plants living on our intertidal reefs, sandy beaches and estuaries, and look at ecosystem health and the level of contaminants in the mud, sand or gravel. This helps us to understand how the activities we have on land may be affecting our coastal environments.

How do our coastal environments stack up?

A number of factors determine the health of our estuaries

Sediment grain size - Many of our estuaries have increasing levels of fine mud indicating sediment inputs from the land.

Ecology - Low traits based index scores (TBI) suggest a low level of resilience in our estuaries. In the last 40 years areas of seagrass have been lost.

Sediment Quality - Mostly OK, but some localised contamination around point sources and in urban streams leading into the estuary.

Water Quality - Some urban streams are contributing high levels of nutrients and sediment to our estuaries.



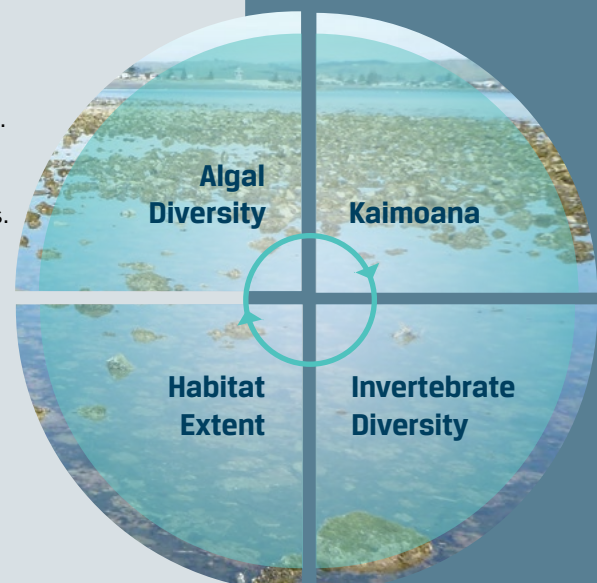
A number of factors determine the health of our reefs

Algal diversity - On some stretches of our coast algal diversity is high. However, many areas are under threat from vehicle access. The absence of common species in some areas and the prevalence of invasive species in others is an indication of ecosystems under stress.

Kaimoana - Anecdotally there is a decline in catches of kaimoana species. Large taonga species like pāua, kina and crayfish are generally only found in the subtidal zone.

Invertebrate diversity - Although there is a large variety of grazing and carnivorous invertebrates in Hawke's Bay reefs, there are no large animals found in the intertidal zone. In a healthy environment, large invertebrates such as pāua would be common.

Habitat Extent - Hawke's Bay has an amazing extent of reef systems which make up 48% of our coastal habitat.



QUICK FACTS

11 the number of fish species caught in the Waitangi Estuary

31 the number of algae species recorded on the region's reefs



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Mapping our estuaries

Estuaries are productive ecosystems that can support a wide range of species. The species found can provide information around the ecosystem services provided for and the ecological health of an estuary.

In 2017 a Waikato University Masters student (pictured) mapped the biogenic habitats of the Tukituki, Waitangi and Ahuriri estuaries. Digital techniques were used for both data collection and creating maps that detail the species found in the estuaries.



QUICK FACTS

1 estuary with any eelgrass left

63 species of macroinvertebrates have been recorded in the Ahuriri Estuary intertidal areas

State of the Environment Case Study

Get rid of an unwelcome guest

The marine invasive tubeworm *Ficopomatus enigmaticus* is a long-term resident of the Ahuriri Estuary

First recorded in 1991, populations of the crusting tubeworm can cause problems for harbours, mooring areas and pumps.

Until recently, populations in the Estuary have remained fairly small and stable. However, in 2012 colonies were observed to be increasing in size and distribution, and forming weirs along the estuary upstream of the Taipo Stream.

In November 2017, 216 tonnes was removed, creating better flowing waters between the upper and lower estuary. Further removals are scheduled for 2018.



Removal of the invasive tubeworm colony at Ahuriri Estuary.

Find out more

Hawke's Bay Regional Council monitors our land, water and air.

We use this data to inform our work with communities to improve and protect the environment.

Each year we develop a series of report cards to provide you with a snapshot of how our environment is tracking.

For more details including the full technical reports visit www.hbrc.govt.nz (search: report search)

For up to the minute monitoring results from Hawke's Bay and other parts of the country visit www.lawa.org.nz