



State of the Environment Report Card 2016

What's happening on our coast?

How we measure coastal quality

Our coastal monitoring programme looks at how the things we do on our land, impact our coastal water quality and ecosystems. We monitor estuarine and nearshore water quality, and the animals and plants living on our intertidal reefs, sandy beaches and estuaries.

We look at ecosystem health and the level of contaminants in the mud, sand or gravel, to measure the impacts of human activities on the crabs, snails, fish and other creatures that live there.

Intertidal reefs

35% of Hawke's Bay's coastline is intertidal reef, providing a variety of habitat from flat siltstone platforms, broken boulder fields, eelgrass beds and brown algae forests.

These reefs provide home to a large number of species of fish, invertebrates and birds.



QUICK FACTS

Hawke's Bay has over

350km

of open coast and estuary shoreline

We monitor intertidal reef communities at three locations around Hawke's Bay.

- Kairakau on the southern coast
- Hardinge Road in Napier
- Te Mahia on the Mahia Peninsula

We use one-metre square quadrants to examine the species of algae and invertebrates at different tidal heights across the reef platform. The species found are influenced by the geology of each reef, exposure to waves, water quality and human impacts such as trampling and rock turning.

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Monitoring our Coastal Water Quality

A coastal water quality monitoring buoy known as HAWQI (Hawke's Bay Water Quality Information) is located off the coast of Whirinaki, north of Napier. HAWQI collects data about water temperature, salinity, clarity and weather information in the nearshore marine environment.

The estuaries and coastal nearshore waters of the Hawke's Bay region are natural habitats for marine creatures and also popular recreation and commercial areas. Estuaries and nearshore zones however also receive the impacts of nearly all land-based activity, and are susceptible to a number of water quality issues, such as algal blooms. The rivers can at times deliver pollutants and sediments to the marine environment.



QUICK FACTS

HBRC monitors nearshore water quality sites **13**

HAWQI buoy measures water quality every **15** minutes

Below: DOC staff measure the invasive tubeworm colony at Ahuriri Estuary.

State of the Environment Case Study

When worms invade

An invasive tubeworm is causing problems with water movement up and down the Ahuriri Estuary.

The *Ficopomatus enigmaticus* (Australian tubeworm) was first recorded in the estuary in 1991, but until recently the population has remained fairly small and stable.

In 2012 colonies started to increase in size and form weirs along the estuary, above the Taipo Stream.

The tubeworm is a filter-feeder and gets its food by sifting through the water for small plants and animals.

By 2016 the tubeworm was causing problems to water flow. More work is scheduled in 2017 to better understand why these worms have expanded, what this means for the estuary and how best to manage it.



Find out more The purpose of HBRC's State of the Environment report is to:

- Report on issues that affect our shared environment
- Help councils and communities set priorities for environment management
- Monitor the effectiveness of how we manage the environment
- Provide information people can use in their decision-making

This report card is part of a series prepared by Hawke's Bay Regional Council. It outlines the high-level results from HBRC's monitoring programme.

For more details, including full technical reports and up to the minute monitoring results visit www.lawa.org.nz