



State of the Environment Report Card 2016

How do our wetlands stack up?

Hawke's Bay has lost 98% of the original wetland extent in Hawke's Bay, while nationally the country has lost about 90%.

Wetlands are one of the most threatened ecosystems today, and it is important to know what state the different types of wetlands are in, whether they are improving, or degrading and disappearing.

How we measure wetland health

HBRC measures a range of indicators to determine the state of wetland condition;

- Vegetation pattern
- Hydrology (water)
- Physicochemical (nutrient and sedimentation, peat decomposition level)
- Ecosystem intactness (degree of modification from the original state)
- Dominance of native plants
- Pressures for the wetland (e.g. catchment hydrology that may affect wetlands, animal access, undesirable plant species)

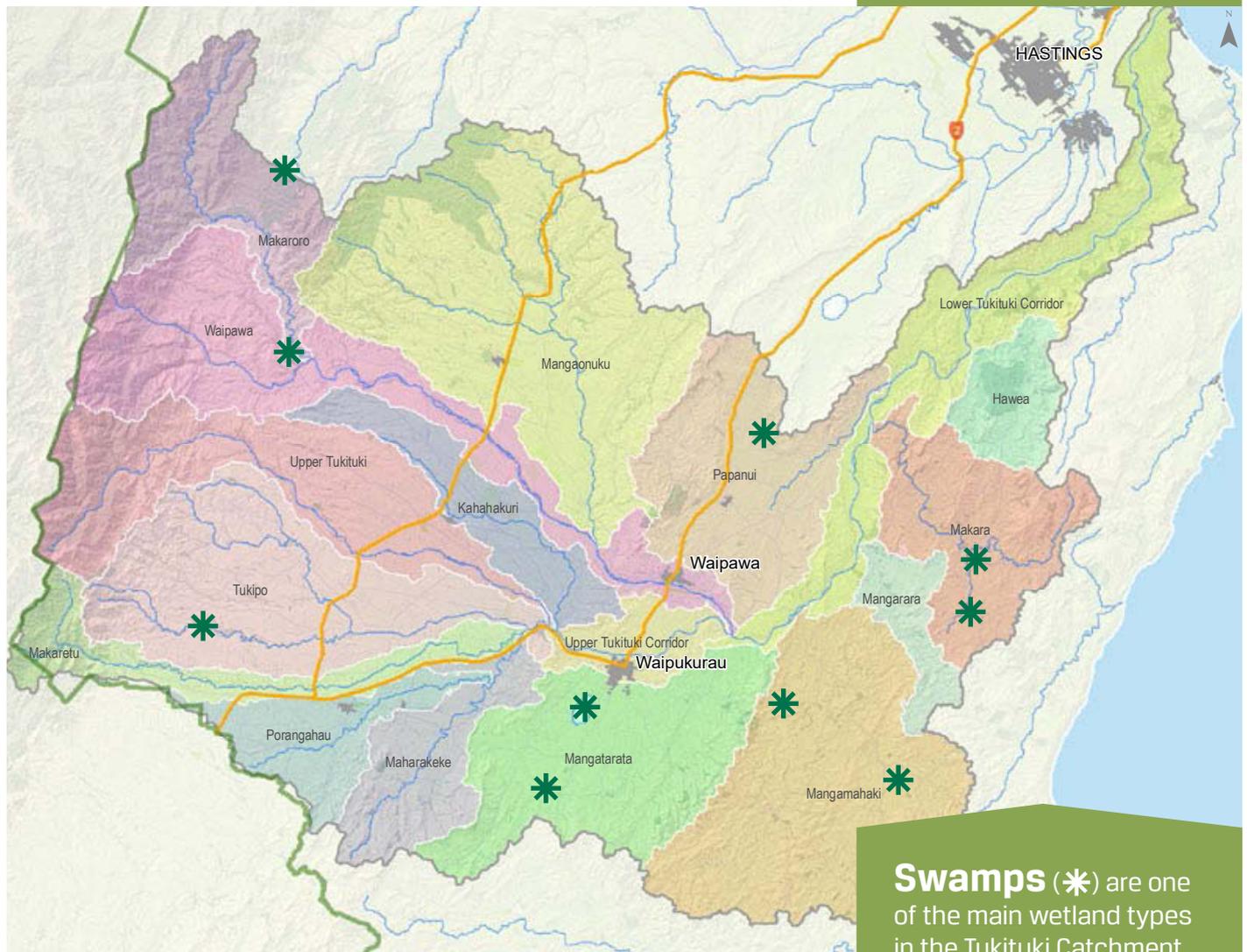
QUICK FACTS

Wetlands are grouped into different 'classes': bog, fen swamp, shallow water, and marsh

Monitoring sites

HBRC monitors 10 freshwater wetlands in the Tukituki Catchment.

Monitoring will extend to different catchments in coming years.



Swamps (*) are one of the main wetland types in the Tukituki Catchment

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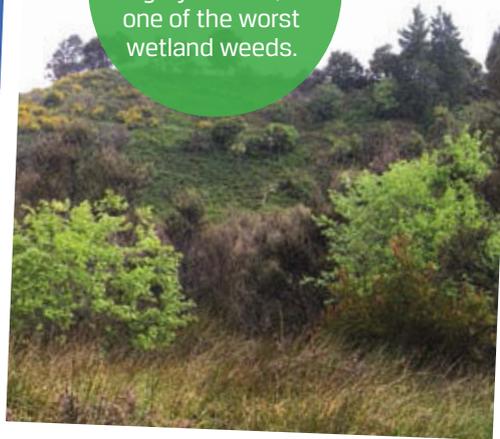
What's threatening our wetlands?

Many wetlands in New Zealand suffer from varying degrees of modification. Weed invasion is one of the biggest threats.

One of the biggest threats are exotic and undesirable plant species, including grey and crack willows.

Wetlands are also easily damaged by browsing and trampling by animals such as cattle and deer.

These light green small trees are grey willows, one of the worst wetland weeds.



Above: Spanish Heath is a vigorous invasive plant. It forms dense stands to the detriment of other species.

Below: Fernbird (*Bowdleria punctate*) is a cryptic bird species which favours dense wetland vegetation. Fernbirds are found in good numbers at Wakarara Road Oxbow.

Photo: Rod Dickson



State of the Environment Case Study

Wakarara Road Oxbow

Living example of good swamp

Wakarara Road Oxbow is an abandoned channel of a near -by river and a typical 'oxbow' shape. The land surrounding it is in pasture with remnants of kahikatea swamp forest and manuka/kanuka shrubland.

This wetland is classed as a 'swamp', a wetland with relatively high concentration of nutrient supplied via surface water and groundwater from surrounding land. Swamps are typically formed in basins, valley floors and plains. Swamps are one of the main wetland types in the Tukituki Catchment.

The wetland consists of a mosaic of different vegetation types, including tall manuka shrubland, and low sedgeland full of *Machaerina* and *Carex* with smaller areas of raupo reedland and open water areas. Such multi-tiered and diverse vegetation is a good habitat particularly for fernbird (threatened species).



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

