Recreational bathing

Introduction

The Recreational Bathing Water Quality Programme is a joint project between the Regional Council, the Northland District Health Board (DHB) and the three district councils – Far North (FNDC), Kaipara (KDC) and Whāngārei (WDC). The aim of the programme is to provide information on how safe the water is for swimming at the most popular freshwater and coastal swimming spots in Northland.

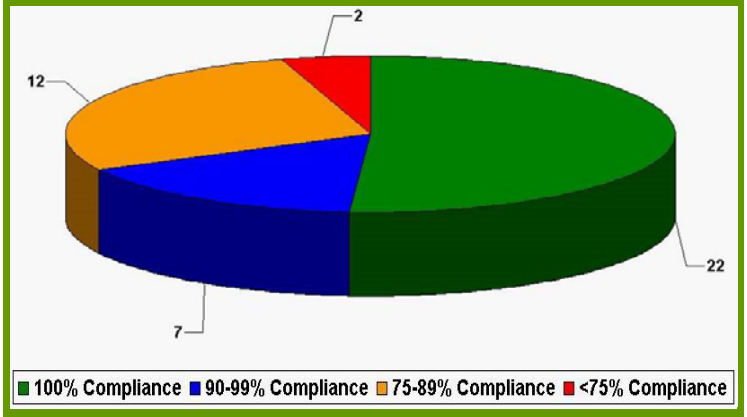
In Northland, swimming sites – particularly those in freshwater or with a freshwater input (such as estuaries) – are not always safe for swimming. Water can sometimes be contaminated with human or animal waste, particularly after heavy or prolonged rainfall. This 'effluent' contains large numbers of illness-causing organisms and swimming in contaminated water can lead to skin, eye and ear infections, and stomach and respiratory illness.

From November 2008 to February 2009, 19 freshwater and 43 coastal swimming sites were monitored through the programme. Water samples were taken from each site once a week and analysed in a laboratory for pollution-indicating bacteria. Each site was then given a weekly grading based on the results, indicating the site's suitability for swimming.

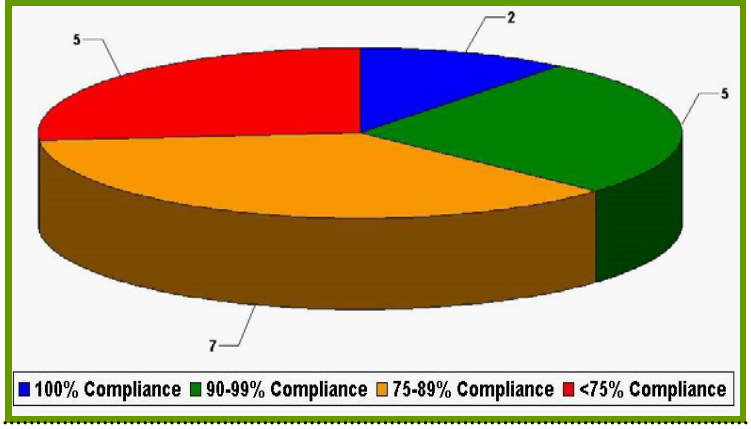
Sites were graded 'green' for safe, 'amber' for caution or 'red' for unsafe. These gradings, along with bacterial counts, were displayed on the Council website at the end of each week.
For more information go to **www.nrc.govt.nz/swimming**

Results were also forwarded at the end of each week to the DHB and district councils. The district councils and DHB take action for any 'caution' or 'unsafe' results, either by undertaking further investigative sampling or by erecting public warning signs.

Compliance rates for coastal sites 2008-09



Compliance rates for freshwater sites 2008-09



Recreational bathing water quality performance targets

- Carry out sampling and reporting on summer coastal and freshwater bathing water quality.
- Report to the Council annually on environmental monitoring activities within three months of the end of the financial year.
- State of the Environment monitoring programmes and findings are reported annually on the Council's website.

Water quality guidelines

Results from weekly sampling are compared to the Ministry for the Environment (MfE) and Ministry of Health (MoH) *Microbiological Water Quality Guidelines*.

Freshwater samples are graded according to the number of *E. coli* bacteria present and coastal samples according to the number of enterococci bacteria present.

At the end of the sampling season, each site is also given an overall score based on the number of samples that complied with the guidelines during the monitoring period.

Results are colour-coded based on whether the water sampled is unsafe, a caution or safe to swim in.

Freshwater sites

- **Unsafe: >550 E.coli/100ml**
- **Caution: 260-550 E.coli/100ml**
- **Safe: <260 E.coli/100ml**

Coastal sites

- **Unsafe: >280 Ent/100ml**
- **Caution: 140-280 Ent/100ml**
- **Safe: <140 Ent/100ml**

What can you do to avoid getting sick?

There are a few simple rules you can follow to avoid getting sick from swimming in contaminated water.

- Stagnant or murky water contains more bugs than clear or flowing water. Only swim in water when you can see your feet when standing in knee deep water.
- Avoid swimming in water if it is discoloured, smells or if there is foam or a slick on the surface.
- Wait for 48 hours after heavy rainfall before swimming in freshwater or semi-enclosed coastal sites, such as harbours and estuaries.

For more information or a break-down of the past bathing water quality results go to:

www.nrc.govt.nz/swimming

The contaminated stream in the Ngunguru estuary.

Key points

- **22 coastal sites were safe for swimming 100% of the time**
- **7 safe on all but one occasion**
- **12 safe on all but two occasions**
- **2 freshwater sites safe 100% of the time**
- **5 safe on all but one occasion**
- **5 sites safe less than 50% of the time**

2008-09 results

In 2008-09, 22 coastal sites were safe for swimming 100% of the time. A further seven were safe on all but one sampling occasion (90-99% compliance) and 12 were safe on all but two sampling occasions (75-89% compliance).

Two coastal sites were unsafe for swimming 50% of the time – Ngunguru at the toilets and Tinopai below the creek. These two sites are both in enclosed coastal locations and have a freshwater input, which appears to be the source of contamination.

In 2008-09, two freshwater sites were safe for swimming 100% of the time, five were safe on all but one sampling occasion and seven on all but two sampling occasions. Five freshwater sites were safe for swimming for less than 50% of the time. These sites were Otaua Stream, Otamure Beach stream, Lang's Beach stream, Kerikeri River at the Stone Store and Coopers Beach stream.

In addition to sampling for swimming water quality, fifteen sites were also sampled in 2008-09 to test their suitability for recreational shellfish gathering. Of these fifteen sites only one, Oakura, was found to have water quality that complied with the recommended guidelines for shellfish gathering.

Investigating 'unsafe' results

During the sampling season, where a 'caution' result is recorded from a site, sampling is increased to daily until a 'safe' result is recorded. A 'sanitary survey' is also done to find the source of the contamination. If an 'unsafe' result is recorded, a warning sign is erected and the public are informed through a media release.

In addition to the above action, the Council, along with the district councils, investigates sites that consistently have poor water quality.

In 2008-09, the Council investigated two problem sites – Ngunguru at the toilets and the Coopers Beach stream.

Contamination at Ngunguru toilets was found to come from a small stream next to the sample site. Further investigation traced the contamination back to a long-drop toilet on private land dug too close to the water. This toilet is now closed.

An investigation of Coopers Beach stream showed that levels of *E.coli* bacteria were also high at two sites upstream of the sample site, including a site outside the main settlement. Samples were taken at the end of the season to identify the source of contamination (livestock, humans, wild birds, etc), however on this occasion, bacterial counts were too low to undertake an analysis. Further investigation will be carried out in 2009-10 if there still appears to be a problem at this site.

Providing accurate monitoring will ensure residents and visitors continue to enjoy using Northland's rivers and beaches.