

Recreational Bathing Water Quality

The Recreational Bathing Water Quality Programme is a joint project between the Northland 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 water is for swimming.

In Northland, swimming sites – particularly freshwater sites – are not always safe for swimming. Water can sometimes be contaminated with human or animal waste, particularly after heavy or prolonged rainfall. This ‘effluent’ can contain large numbers of illness-causing organisms and swimming in contaminated water can lead to skin, eye and ear infections, and stomach and respiratory illness.

Water quality guidelines

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

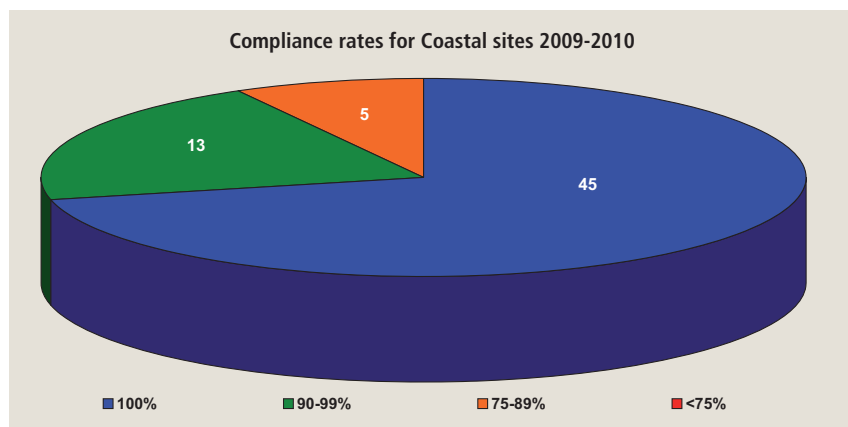
Freshwater Sites		Coastal Sites	
UNSAFE	>550 <i>E.Coli</i> /100ml	UNSAFE	>280 <i>Enterococci</i> /100ml
CAUTION	260-550 <i>E.Coli</i> /100ml	CAUTION	140-280 <i>Enterococci</i> /100ml
SAFE	<260 <i>E.Coli</i> /100ml	SAFE	<140 <i>Enterococci</i> /100ml

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.

2009-2010 results

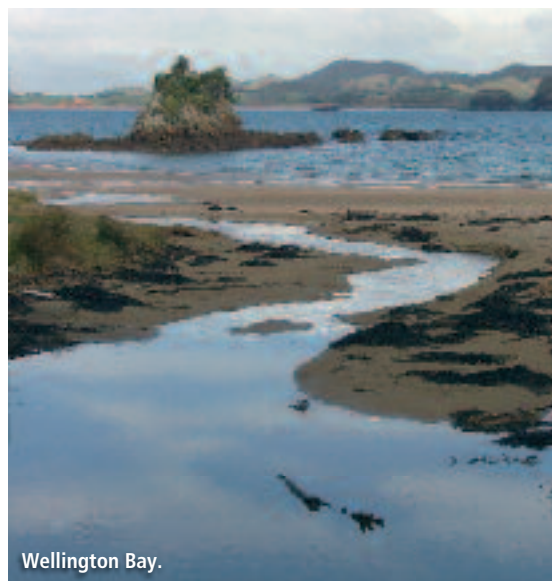
Compliance rates for coastal sites 2009-2010

In 2009-2010, 45 coastal sites were safe for swimming 100% of the time. A further 13 were safe on all but one occasion (90-99% compliance) and three were safe on all but two sampling occasions. Two sites, Ōpua Foreshore at the shop end of the beach, and Ngunguru at the toilets were safe for swimming on all but three and four occasions respectively (75-89% compliance). No coastal sites had compliance of <75%. The level of compliance for coastal sites was higher in 2009-2010 compared to 2008-2009. This is most probably related to the lower levels of rainfall received across the region during the summer of 2009-2010.



Compliance rates for freshwater sites 2009-2010

In 2009-2010, six freshwater sites were safe for swimming 100% of the time. Two sites were safe on all but one sampling occasion and four were safe on all but two sampling occasions. Overall, more freshwater sites had a compliance rate of 100% in 2009-2010 compared to 2008-2009. This may be attributable to lower rainfall over the summer this year, which in turn



Wellington Bay.

Recreational Bathing Water Quality performance targets

Continue to implement and improve a prioritised State of the Environment monitoring programme and monitor compliance with, and the effects of, the exercise of resource consents and Regional Plans by:

- Monitoring and reporting on summer coastal and freshwater bathing water quality and water quality for the collection of shellfish.
- Annual median compliance of 20 representative bathing sites to be more than 95% compliant with the Ministry of Environment Guidelines.
- Report the results from the SoE monitoring programmes in the annual monitoring report and make available on the Council’s website at www.nrc.govt.nz/soe by 31 October (loaded six weeks late).

Key points 2009-2010

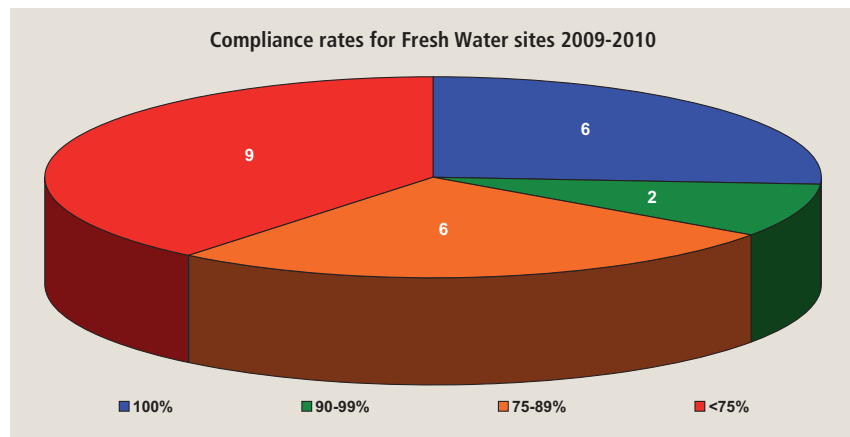
23 freshwater and 63 coastal swimming sites were monitored through the programme from November 2009 to April 2010.

- 45 coastal sites were safe for swimming 100% of the time.
- 13 were safe on all but one occasion.
- 3 safe on all but two occasions.
- 6 freshwater sites safe for 100% of the time.
- 2 safe on all but one occasion.
- 4 sites were safe on all but two occasions.
- 7 sites were investigated to find the source of faecal contamination.

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reduced the amount of contamination entering freshwater systems from rainfall run-off.

Nine freshwater sites were safe for swimming for less than 75% of the time. These sites were Ocean Beach Stream, Waipū Beach Stream, Kerikeri River at the Stone Store, Pacific Bay Stream, Whāngārei Falls, Kapiro Stream, Otamure Bay Stream, Coopers Beach Stream and Langs Beach Stream.



In addition to sampling for swimming water quality, 15 sites were also graded for their suitability for recreational shellfish gathering. Only two sites, Oakura and McLeod Bay, complied with the microbiological water quality guidelines during the summer months.

Site investigations

During 2009-2010, investigations were undertaken at seven sites where there was consistently poor water quality in order to try and isolate the source(s) of contamination. Investigation work included collecting samples for faecal source tracking, undertaking sanitary surveys, collecting and analysing water samples from up the catchment and catchment land-use mapping.

Results received to date from these sites indicate that the main source of contamination is from avian (bird) sources. Coopers Beach Stream showed a source of contamination as dog faeces; Otamure Bay Stream showed a source of contamination to be herbivore (livestock) faeces and Pahi – near the campground – showed a source of contamination to be human faeces. Sanitary surveys will be done in Pahi to isolate the source of contamination.

Where the source of faecal contamination is natural (i.e. from birds), little can be done to rectify the problem. In Otamure Bay, Coopers Beach and Pahi, where the source of contamination is non-avian, Regional Council staff have been liaising with landowners to discuss and implement land management options and ultimately reduce contamination. Further monitoring will continue in 2010-2011.

Site	FWA	Human	Herbivore	Dog	Avian
Otamure Bay Stream			✓		✓
Coopers Beach Stream				✓	
Langs Beach Stream (mid)					✓
Langs Beach Stream (toilets)					✓
Pacific Bay Stream					✓
Whāngārei Falls					✓
Waipū Cove Stream					✓
Pahi at stormwater	✓	✓			

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 water's 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 breakdown of the past bathing water quality results go to www.nrc.govt.co.nz/swimming



Ngunguru estuary.