# RECREATIONAL BATHING WATER QUALITY



# Recreational bathing water quality performance targets:

Continue to implement and improve a prioritised State of the Environment (SOE) 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 – ACHIEVED.
- Annual median compliance of the 20 representative bathing sites to be more than 95 percent compliant with the Ministry of Environment Guidelines – **NOT ACHIEVED** (92 percent in 2010-2011: affected by heavy rainfall events).
- 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 -NOT ACHIEVED (loaded four weeks late).

## **Key points 2010-2011**

Twenty-four freshwater and 61 popular coastal swimming sites were monitored through the programme from November 2010 to March

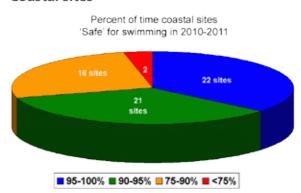
- 22 coastal sites met the safe criteria 100 percent of the time.
- 21 met the safe criteria on all but one occasion
- 16 met the safe criteria on all but two
- Four freshwater sites met the safe criteria 100 percent of the time
- Two met the safe criteria on all but one occasion
- Nine sites met the safe criteria on all but two
- 17 sites were investigated to find the source of faecal contamination.

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 so the public can make informed decisions about where to swim.

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 rainfall. This 'effluent' can contain illness-causing organisms and swimming in contaminated water can lead to skin, eye and ear infections, and stomach and respiratory illness.

## 2010-2011 results

#### Coastal sites

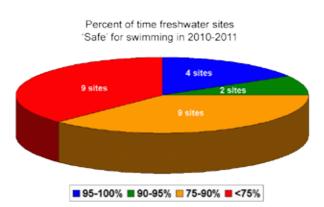


The level of compliance for coastal sites was lower in 2010-2011 compared to 2009-2010 This was largely due to three major rainfall events during the summer, which increased the amount of contamination entering freshwater systems - and ultimately the coast accounting for 44 percent of coastal non-compliance.

When compared to guidelines, 22 coastal sites met the safe criteria for swimming 100 percent of the time in 2010-2011. A further 21 met the safe criteria on all but one occasion and 16 were safe on all but two sampling occasions. Only two sites – Ōpua foreshore and Kerikeri Inlet at Skudders Beach - did not meet the safe criteria on more than two occasions during the season.

### Freshwater sites

Overall, fewer freshwater sites met the safe criteria for swimming 100 percent of the time in 2010-2011 compared to 2009-2010. This was also largely due to three major rainfall events which accounted for 35 percent of the noncompliance results due to increased rainfall-runoff entering freshwater systems.



In 2010-2011, four freshwater sites met the safe criteria for swimming 100 percent of the time. Two sites met the safe criteria on all but one sampling occasion and nine met the safe criteria on all but two sampling occasions. Nine freshwater sites did not meet the safe criteria on more than two occasions during the season. These sites were Mangakāhia River, Ocean Beach Stream, Otaua Stream, Kerikeri River, Whāngārei Falls, Kapiro Stream, Ōtamure Bay Stream, Coopers Beach Stream and Langs Beach Stream.

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# What is being done?

The council investigates poor water quality at problem sites within the region. This includes identifying the source(s) of contamination, sanitary surveys at sites where there is human contamination, follow-up sampling at coastal sites with non-compliant results, and additional monitoring after rainfall to determine when sites are 'safe' for swimming again.

Where these actions show the permanent source of contamination is natural (i.e. from birds), the sites will be removed from the programme and permanent signs erected. Also, if sites are always 'safe' for swimming, they too may be removed from the programme so other sites can be monitored.

A total of 17 sites have now been investigated. Source tracking to isolate the sources of contamination at these sites has shown that 14 are intermittently contaminated by wildfowl, e.g. ducks and/or gulls. Ten sites are contaminated by ruminant (herbivore) faecal material; five sites with dog faecal material and two sites by a human source of pollution.

Where the source of faecal contamination is natural (i.e. from birds), little can be done to correct the problem and permanent signage is developed. In areas where the source of contamination is non-avian, regional council staff work with landowners to implement land management options and ultimately reduce contamination. Further monitoring including sanitary surveys will continue in 2011-2012.

In 2007 and again in 2011, all sites with sufficient data were given a Suitability for Recreation Grade (SFRG) which was calculated by reviewing both water quality data, and potential and actual sources of contamination available for a site. This grade shows how suitable a site is for swimming.

SFRG grading for coastal and freshwater sites in 2010-2011.

SFRG	Coastal	Freshwater	
Very good	17	2	
Good	15	1	
Fair	7	2	
Poor	13	6	
Very Poor	4	10	

For more information, or a breakdown of the past bathing water quality results go to: www.nrc.govt.co.nz/swimming



#### Source tracking results

Site	FWA	Human	Ruminant	Dog	Avian
Otamure Bay Stream			•		•
Coopers Beach Stream			•	•	•
Langs Beach Stream (mid)					•
Langs Beach Stream (toilets)			•	•	•
Pacific Bay Stream					•
Whāngārei Falls			•	•	•
Waipū Cove Stream				•	•
Ocean Beach Stream		•	•	•	•
Kaihū River			•		
Kapiro Steam			•		•
Kerikeri River			•		•
Ngunguru by school					•
Mangawhai motor camp					•
Ōmāmari Beach Stream			•		
Matapouri 1st bridge					•
Matapouri 2nd bridge			•		•
Pahi at stormwater	•	•			•