

Key points

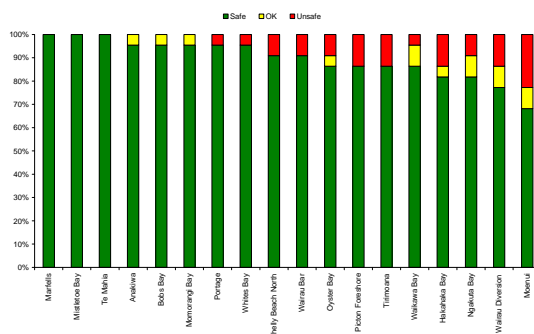
- 31 popular swimming sites are regularly monitored every summer
- Swimming should be avoided during and after wet weather, particularly in urban and intensively farmed areas
- A wet summer resulted in poorer compliance with the bathing water guidelines compared with the previous year.
- Two beach sites and one river site showed an improvement in their beach grade.
- One beach site showed a deterioration in its beach grade.
- Microbial source tracking has shown that cattle are the source of faecal contamination at Rai Falls and Moenui.
- Diffuse pollution and in particular pollution from agricultural areas is the biggest threat to recreational water quality.

Why we monitor

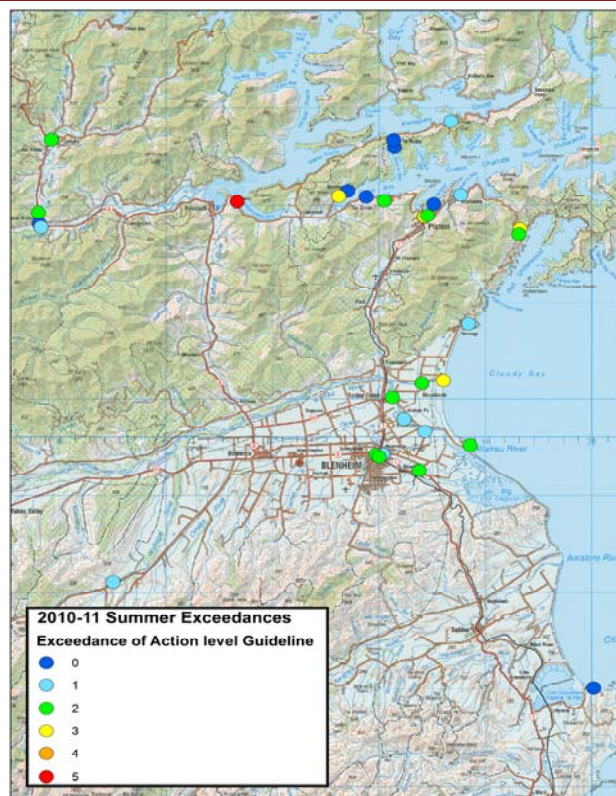
Every summer 13 river swimming spots and 18 coastal beaches are sampled for the presence of bacteria (*E. coli* in freshwaters and Enterococci in coastal waters). The number of bacteria present in the sample gives an indication of the risk of contracting illness or infection from being in contact with the water. The numbers are based on the Ministry for the Environment's (MfE's) bathing water guidelines. Sampling takes place once a week from November to March. Results are published once a week on the Council's website. The purpose of the monitoring is to inform the public of the relative safety of our popular swimming sites.

Coastal water results 2010-11

Our coastal water quality is generally very good in terms of compliance with the recreational water quality standards. However a wet 2010-11 summer led to numerous exceedances. Only 44% of monitored beaches were safe to swim at for over 95% of the summer time, this compares with 80% in 2009-10.



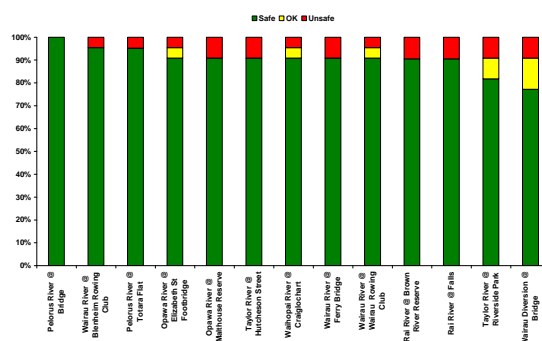
The deterioration at coastal sites is largely due to heavy rainfall over the Christmas and New Year period, in addition a number of sewage pump stations failed contributing to the bacteria load in the coastal environment. Poorest water quality was at Moenui, the Wairau Diversion and Hakahaka Bay.



The best water quality was at Marfell's Beach, Mistletoe Bay and Te Mahia. There were no exceedances at any of these sites in 2010-11.

Freshwater results 2010-11

Only 23% of monitored river sites were safe to swim at for more than 95% of the time. The best water quality was recorded for the Pelorus Bridge where it was safe to swim for 100% of the time, this is despite the heavy rainfall over the summer period. The Taylor River and the Wairau Diversion at Neals Road bridge had the poorest water quality.



Beach Grades (SFRG's):

Our swimming sites are graded each year to reflect the general water quality that can be expected from them. Beaches and rivers are graded using the Ministry for the Environment's methodology. The Grade incorporates data from the most recent 5 years of sampling in addition to incorporating a risk assessment for the site. Beach grades are thus a good indicator of long term water quality or water quality that can be expected from a particular site.

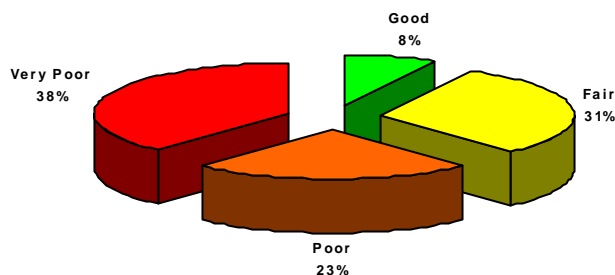
The quality of our river sites are typical of that seen throughout New Zealand. Although there is a perception that our rivers are generally safe for swimming they often suffer from high bacteria loads during wet weather. Water quality is generally better for the coastal sites, although extreme wet weather, as seen this summer (see photo) can result in exceedances at sites that are normally very good. There have been some improvements made to bathing water quality in Marlborough. Three sites made an improvement in their beach grade over the 2009-10 grades, whilst one deteriorated. In the past two years there has been an overall improvement in five beach grades whilst only one has deteriorated.



Ngakuta Bay during the floods in December 2010.

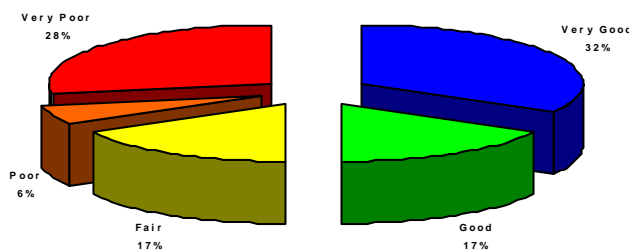
<p>Acceptable 'Green Mode' <140 /100mL</p> <p>Highly likely to be uncontaminated</p> <p>Safe 😊</p>	<p>Acceptable 'Green Mode' <260 /100mL</p> <p>Highly likely to be uncontaminated</p> <p>Safe 😊</p>
<p>Alert 'Amber Mode' >140 /100mL <280 / 100mL</p> <p>Potentially contaminated</p> <p>OK 😐</p>	<p>Alert 'Amber Mode' >260 /100mL <550 / 100mL</p> <p>Potentially contaminated</p> <p>OK 😐</p>
<p>Action 'Red Mode' >280 / 100mL</p> <p>Highly likely to be contaminated</p> <p>Unsafe 😞</p>	<p>Action 'Red Mode' >550 / 100mL</p> <p>Highly likely to be contaminated</p> <p>Unsafe 😞</p>

Suitability for Recreation Grades (SFRG's)



2010-11 River Grades

Suitability for Recreation Grades (SFRG's)



2010-11 Coastal Water Grades

Microbial Source Tracking to determine Sources

Microbial source tracking looks at the DNA of bacteria to determine what animal those bacteria came from. Testing was done at three bathing water sites: the Rai Falls, Moenui and Momorangi. It was found that cattle were the primary source of contamination at Rai Falls and Moenui. These results are interesting as they tell us that farming in the catchments of the Pelorus Sound is negatively impacting on water quality in the coastal area, thus not only do good farm management practices improve river water quality they also help improve coastal water quality. Results for Momorangi were inconclusive but neither human or cattle sources were detected.

What can you do to help protect our waterways?

- Keep stock out of waterways to prevent faecal contamination
- Ensure sewage from boats and campervans is correctly disposed of
- Ensure septic tanks are properly maintained and can cope with increased volumes, particularly important during the summer months.

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For more information on recreational water quality go to

www.marlborough.govt.nz

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