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**Committee**            **Environment**  
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## Recreational Water Quality Report 2004/2005

### 1. Purpose

To present the results of recreational water quality monitoring undertaken by the Greater Wellington Regional Council and several of the territorial authorities in the Wellington Region during the period 1 November 2004 to 31 March 2005 inclusive.

### 2. Background

The Greater Wellington Regional Council and the region's territorial authorities undertake a recreational water quality monitoring programme in order to:

- Fulfil their respective legislative responsibilities, and
- Establish background levels of faecal bacteria in surface waters, thereby permitting assessment of environmental contamination.

The results of this programme are assessed against the national recreational water quality guidelines published by the Ministry for the Environment and the Ministry of Health (2003). These guidelines use bacteriological indicators associated with the gut of warm-blooded animals to assess the risk of faecal contamination and therefore the potential presence of harmful pathogens. Compliance with the guidelines should ensure that people using water for contact recreation are not exposed to significant health risks.

### 3. Methods

Recreational water quality monitoring in the western part of the Wellington region was carried out by four territorial authorities and the Greater Wellington Regional Council, and in the Wairarapa by the Greater Wellington Regional Council. Ninety-nine sites were visited weekly during the summer bathing season. On each occasion a single water sample was collected 0.2 metres below the surface in 0.5 metres water depth and analysed for *Escherichia coli* (fresh waters) or enterococci (marine) indicator bacteria. Approximately 20 samples were taken at each site during the summer period.

## 4. Results and discussion

The results are presented in detail in the report "On the Beaches: Recreational Water Quality of the Wellington Region, 2004 to 2005". The main findings of the report are:

### Fresh waters

- Recreational water quality in rivers of the region was reasonably good over the 2004–2005 bathing season (Figure 1). Although 17 of the 23 freshwater sites monitored (74%) had *E. coli* counts above the “action” guideline of 550 cfu/100mL during the bathing season, the majority of these sites (12) exceeded the guideline on only one occasion. Three sites – the Ruamahanga River at Te Ore Ore and at Double Bridges, and Riversdale Lagoon – exceeded the action guideline on three occasions.
- The majority (over 95%) of the cases where freshwater sites exceeded the “action” guideline were associated with rainfall in the 72 hours prior to sampling. This finding is consistent with previous observations; elevated *E. coli* counts in fresh waters are typically related to diffuse-source runoff, urban stormwater, and re-suspension of stream sediment during rainfall events.
- Periphyton (algae) cover generally remained below the Ministry for the Environment (2000) aesthetic and recreation guidelines during the bathing season. The exception was the Ruamahanga River at The Cliffs and Te Ore Ore on occasion in February.

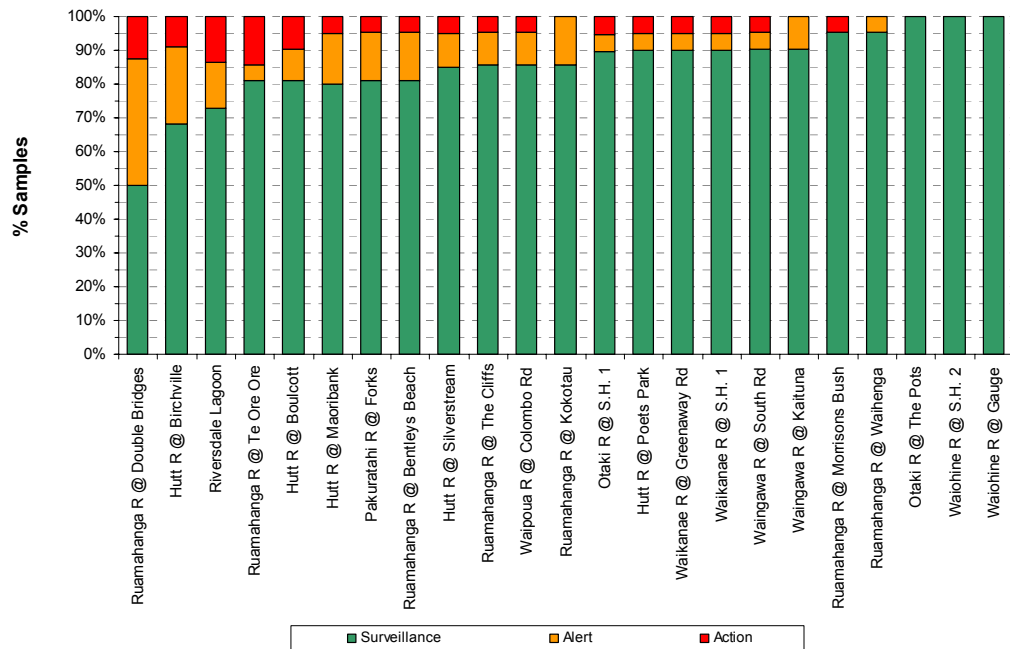


Figure 1: Summary of compliance with the surveillance, alert and action levels of the MfE/MoH (2003) guidelines for freshwater recreational areas, expressed as a percentage of the total number of routine weekly sampling events undertaken over the 2004/2005 summer.

## **Marine waters**

- Recreational water quality was good at the majority of the region's coastal beaches throughout the 2004–2005 bathing season (Figure 2). Although 36 of the 76 sites monitored (47%) exceeded the “action” guideline of 280 enterococci/100mL during the bathing season, the majority of these sites (27) exceeded the guideline on only one occasion. Two sites – Hataitai Beach and Owhiro Bay in Wellington City – exceeded the action guideline on three occasions.
- Thirteen (36%) of the cases where marine sites exceeded the “action” guideline related to sites in Wellington City, 11 (31%) were from sites on the Kapiti Coast and seven (19%) were from sites in Porirua City.
- The majority (over 90%) of the cases where sites exceeded the “action” guideline were associated with rainfall in the 72 hours prior to sampling. This finding is consistent with previous observations; elevated enterococci counts in marine waters are typically related to urban stormwater (including sewer overflows), diffuse-source runoff into rivers and streams, and re-suspension of beach sediment during rainfall events.

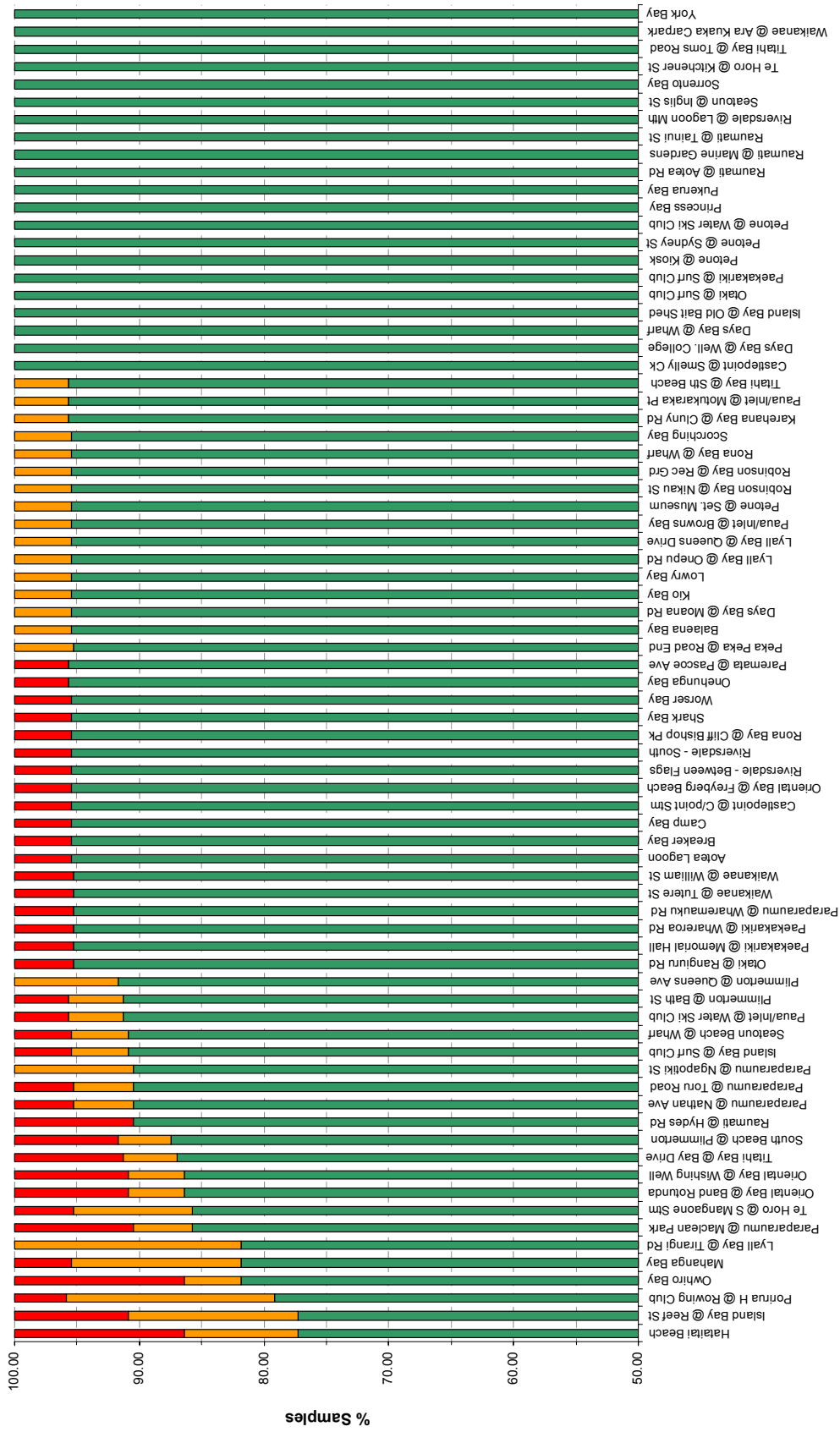


Figure 2: Summary of compliance with the surveillance, alert and action levels of the MfE/MoH (2003) guidelines for marine recreational areas, expressed as a percentage of the total number of routine weekly sampling events undertaken over the 2004/2005 summer.

## 5. Communications

Copies of "On the Beaches: Recreational Water Quality of the Wellington Region 2004-2005" have been sent to all the territorial authorities in the region and to Regional Public Health. Copies of the report are available for councillors who wish to have a copy. The report will also be made available to the public. The brochure describing the recreational water quality programme, details of the monitored sites, and tables and graphs of the bacteriological data, are constantly available on-line at [www.gw.govt.nz/on-the-beaches](http://www.gw.govt.nz/on-the-beaches).

## 6. Strategic context

This report gives effect to the following Take 10 target:

*“By 2103 coastal/water quality does not fall below the standard for which it is being managed i.e., ‘contact recreation standard’ for urban areas and ‘shellfish gathering standard’ for remaining areas.”*

## 7. Looking ahead – 2005/2006

The 2005/2006 bathing season commenced on 1 November 2005. Over this summer, existing sanitary grades for the 99 recreational water quality monitoring sites will be reviewed with input from the appropriate territorial authorities. Sanitary grades provide a measure of the susceptibility of a body of water to faecal contamination from such things as sewage overflows, stormwater discharges, agricultural runoff, and wildlife. In conjunction with water quality monitoring results, sanitary assessments enable us to derive an overall risk-associated grade for each bathing site in the region (referred to as a “suitability for recreation grade” or SFRG). An SFRG provides an indication of what the likely condition of a bathing site will be on any given day.

## 8. Recommendations

*It is recommended that the Committee:*

- 1. Receive the report; and*
- 2. Note the content of the report.*

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