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## **Banks Peninsula Water Management Zone Committee AGENDA**

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### **Notice of Meeting:**

A meeting of the Banks Peninsula Water Management Zone Committee will be held on:

**Date:** Tuesday 21 March 2023  
**Time:** 5 pm  
**Venue:** Lyttelton Community Boardroom,  
25 Canterbury Street, Lyttelton

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### **Membership**

Chairperson	Gina Waibl - Community Representative
Deputy Chairperson	Trudi Bishop - Community Representative
Members	Andrea Davis - Community Representative
	George Howden - Community Representative
	Elisa Knight - Community Representative
	Ben Manson - Community Representative
	Tyrone Fields - Councillor Christchurch City Council
	Paul Dietsche - Councillor Environment Canterbury
	Aurora Smith - Te Hapū o Ngāti Wheke/Rapaki
	Rik Tainui - Te Rūnanga o Ōnuku
	Jaleesa Panirau - Te Rūnanga o Wairewa
	Erana Riddell - ECan Youth Rōpū

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**16 March 2023**

**Zone Facilitator**  
Shelley Washington  
Tel: 027 294 5219  
**Environment Canterbury**

**Committee Advisor**  
Katie Matheis  
Tel: 941 5643  
**Christchurch City Council**

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**Register of Interests: Banks Peninsula Water Management Zone Committee  
2023**

<b>Representative's Name and Interests</b>	
Gina Waibl, Community Representative	<ul style="list-style-type: none"> <li>• Owner of a forestry block with a number of springs (67ha) and a small flock of sheep</li> <li>• Predator Free Port Hills Steering Committee</li> <li>• Resident of Lyttelton Harbour</li> </ul>
Aurora Smith	<ul style="list-style-type: none"> <li>• Committee Member - Lyttelton Reserves Management Committee</li> <li>• Administration - Natural Resources, Te Hapu o Ngāti Wheke</li> <li>• Te Hapū o Ngāti Wheke Representative on the Coastal Panel for Coastal Adaptation Planning in Lyttelton Harbour/Whakaraupō</li> </ul>
Councillor Paul Dietsche ECan	<ul style="list-style-type: none"> <li>• Founder/Chair Te Puna - Auaaha Lyttelton community shed project</li> <li>• Co-founder and volunteer Lyttelton Library of Tools and Things</li> </ul>
Ben Manson	<p>Farm owner of 400 hectares in Little River Property leased for farming</p> <ul style="list-style-type: none"> <li>• Akaroa "Onuku" - G Hamilton 300 hectares</li> <li>• Akaroa "Onuku Heights" - J Gibbs 250 hectares</li> <li>• Christchurch, McLeans Island - ECan Fulton Hogan 470 hectares</li> </ul> <p>Interests and committees</p> <ul style="list-style-type: none"> <li>• Banks Peninsula Collie Club</li> <li>• Cricket coach for Banks Peninsula girls team</li> <li>• NZ sheep dog trial course inspector</li> <li>• Member of Little River show committee</li> </ul>
Rik Tainui	<ul style="list-style-type: none"> <li>• Chairperson of Ōnuku Marae</li> <li>• Ngāi Tahu Board member</li> <li>• Trustee; Akaroa Health Centre, Positive Direction Trust, Maahanui Kurataio</li> <li>• Banks Peninsula Predator Free Governance Group</li> <li>• Ōnuku Representative @ Tuia</li> <li>• Ōnuku Representative for Te Paiherenga</li> </ul>
Councillor Tyrone Fields, Christchurch City Council	<ul style="list-style-type: none"> <li>• Registered Social Worker, Social Workers Registration Board</li> <li>• Member, Aotearoa New Zealand Association of Social Workers</li> <li>• Member, Banks Peninsula Water Management Zone Committee</li> <li>• Trustee, Canterbury Museum Trust Board</li> <li>• Member, New Zealand Labour Party</li> <li>• Member, Lyttelton Community Association</li> <li>• Trustee, Okains Bay Maori and Colonial Museum Trust</li> <li>• Member, Whaka-Ora Healthy Harbour Governance Group</li> <li>• Deputy Chair, Lyttelton Port Welfare Committee</li> </ul>

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### **Karakia Whakamutunga**

## **Karakia Tīmatanga**

### **Opening Prayer**

Whakataka te hau ki te uru	<i>English translation</i>
Whakataka te hau ki te tonga	Cease the winds from the west
Kia mākinakina ki uta	Cease the winds from the south
Kia mātaratara ki tai	Let the breeze blow over the land
E hī ake ana te atakura	Let the breeze blow over the ocean
He tio, he huka, he hau hunga	Let the red-tipped dawn come with a sharpened air.
Tihei mauri ora!	A touch of frost, a promise of a glorious day.

### **1. Apologies**

At the close of the agenda no apologies had been received.

### **2. Declarations of Interest**

Members are reminded of the need to be vigilant and to stand aside from decision making when a conflict arises between their role as an elected representative and any private or other external interest they might have.

### **3. Updates from Banks Peninsula Zone Committee Members**

An opportunity for members to highlight events/meetings/issues relevant to the Zone Committee.

### **4. Confirmation of Previous Minutes**

That the minutes of the Banks Peninsula Water Management Zone Committee meeting held on [Tuesday, 21 February 2023](#) be confirmed (refer page 6).

### **5. Matters Arising from the Minutes**

### **6. Deputations by Appointment**

#### **6.1 Purau Residents Group, Diamond Harbour Residents Group, Community Advisory Group of Whaka Ora Healthy Harbour**

Paul Dahl will speak on behalf of the Purau Residents Group, Diamond Harbour Residents Group, and the Community Advisory Group of Whaka Ora Healthy Harbour regarding monitoring of water quality for contact recreation around Banks Peninsula (refer Item 10).

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**6.2 Fit & Abel Open Water Swimming Specialist**

Dan Abel, Head Coach, will speak on behalf of Fit & Abel regarding monitoring of water quality for contact recreation around Banks Peninsula (refer Item 10).

**7. Identification of Urgent Items**

**8. Identification of General Public Contributions**

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## **Banks Peninsula Water Management Zone Committee OPEN MINUTES**

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**Date:** Tuesday 21 February 2023  
**Time:** 4.05 pm  
**Venue:** Lyttelton Mt Herbert Community Boardroom,  
25 Canterbury Street, Lyttelton

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**Present**

Members

Gina Waibl - Community Representative  
Trudi Bishop - Community Representative  
Andrea Davis - Community Representative  
George Howden - Community Representative  
Elisa Knight - Community Representative  
Ben Manson - Community Representative  
Tyrone Fields - Councillor Christchurch City Council  
Aurora Smith - Te Hapū o Ngāti Wheke/Rapaki  
Jaleesa Panirau - Te Rūnanga o Wairewa - via Audio / Video link

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**Zone Facilitator**  
Shelley Washington  
Tel: 027 294 5219  
**Environment Canterbury**

**Committee Advisor**  
Katie Matheis  
Tel: 941 5643  
**Christchurch City Council**

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The meeting opened with a Karakia Tīmatanga.

The agenda was dealt with in the following order.

## **1. Apologies**

### **Committee Resolved BPZC/2023/00001**

That the apologies received from Rik Tainui and Erana Riddell for absence and from Jaleesa Panirau, and Aurora Smith for lateness be accepted.

Gina Waibl/Trudi Bishop

**Carried**

## **2. Declarations of Interest**

There were no declarations of interest recorded.

## **3. Updates from Banks Peninsula Zone Committee Members**

Members highlighted events/meetings/issues relevant to the Zone Committee as follows:

- Forestry operations in Port Levy
- Farmers' experience with poplar and willow poles for soil conservation – lack of interest
- Availability of funding to Banks Peninsula farmers – raising awareness
- Planting stream near marae in Koukourārata
- Little River Rating District Meeting – notes to be circulated
- Little River flooding – regular meetings between Christchurch City Council, ECan and community to improve communication and find possible solutions
- Wangan Hills consent application publicly notified
- Christchurch Foundation Report – Tui Corridor Project findings
- Committee display at Little River – misperceptions that Committee is anti-fishing when fish passage actually improves fishing habitat
- Project Lyttelton – carbon neutrality work ongoing, but no longer by carbon coach
- Water conservation on the Peninsula – promotion efforts by the Committee
- Whaka-Ora Frontiers Abroad – U.S. students returning to assist with projects on the Peninsula
- Whaka-Ora work programme – potential for funding of private projects
- Green lip mussels washed up on Purau likely by storm – testing by ECan
- Lack of water at Koukourārata – Christchurch City Council budgeting potential deferral
- Plant maintenance and pest control inclusion in biodiversity projects
- Whakaraupō treated wastewater discharge – no longer to harbour, but to Bromley
- Zone delivery staff – May work programme discussions
- Lack of awareness of rules around waterways and stock exclusion
- Wairewa Rūnanga discussion of project ideas to improve water in Wairewa catchment

Jaleesa Panirau joined the meeting at 4.28 during discussion of Item 3.

Aurora Smith joined the meeting at 4.34 during discussion of Item 3.

## **4. Confirmation of Previous Minutes**

### **Committee Resolved BPZC/2023/00002**

That the minutes of the Banks Peninsula Water Management Zone Committee meeting held on Tuesday, 20 September 2022 be confirmed, noting a correction to the listed membership, changing “Andrea Smith” to “Andrea Davis.”

Trudi Bishop/Gina Waibl

**Carried**

## **5. Matters Arising from the Minutes**

Nil

## **6. Deputations by Appointment**

There were no deputations by appointment.

## **7. Identification of Urgent Items**

Nil

## **8. Identification of General Public Contributions**

Nil

## **9. 2023 Election of Chair and Deputy Chair, and Committee Meeting Dates**

The Committee accepted the Officer Recommendations with the inclusion of the names of the Committee members elected to the roles of Chairperson and Deputy Chairperson.

Gina Waibl was nominated for Chairperson by Trudi Bishop and this nomination was seconded by Aurora Smith.

Trudi Bishop was nominated for Deputy Chairperson by Gina Waibl and this nomination was seconded by Elisa Knight.

The Committee also noted that the start time of the 21 March 2023 meeting may change to 5.30pm rather than 4.00pm.

### **Committee Resolved BPZC/2023/00003**

That the Banks Peninsula Water Management Zone Committee agrees to:

1. Elect Gina Waibl as the Chair and Trudi Bishop as the Deputy Chair for 2023 in accordance with the CWMS Zone Committees Revised Terms of Reference (Attachment A to this report).
2. Meet in 2023 between 4:00-6:30pm on the following Tuesdays (and Thursday):
  - a. 21 February (meeting)
  - b. 21 March (meeting) noting that the meeting start time may change to 5:30pm
  - c. Thursday 27 April (joint workshop with Christchurch West Melton Zone Committee and Whaka Ora Healthy Harbour, with other key stakeholders invited)
  - d. 23 May (workshop)
  - e. 20 June (meeting)
  - f. 15 August (meeting)



- g. 19 September (meeting)
- h. 17 October (workshop)
- i. 21 November (meeting)

George Howden/Aurora Smith

**Carried**

## **11. Co-option to Banks Peninsula Water Management Zone Committee Committee Resolved BPZC/2023/00004**

### **Original Officer Recommendation Accepted Without Change**

That the Banks Peninsula Water Management Zone Committee:

1. Agrees to co-opt Tori Peden as an advisory member from March 2023 until the completion of the next refresh process, taking place in 2024.

Elisa Knight/Aurora Smith

**Carried**

## **10. Canterbury Water Management Strategy Action Plan Budget**

The Committee generally supported the Club's planting proposal but raised some concerns about the existing boundary fence and its state of repair. The Committee raised other questions and requested additional information before making a determination on the funding allocation.

### **Officer Recommendations**

That the Banks Peninsula Water Management Zone Committee:

1. Provide the Little River Pony Club with \$8,370 towards their Okana River fencing and planting project.

### **Committee Resolved BPZC/2023/00005**

That the Banks Peninsula Water Management Zone Committee:

1. Defer the decision to provide the Little River Pony Club with funding towards their Okana River fencing and planting project and request that staff and Committee members gather additional information from the applicant regarding the types of natives being planted, whether the boundary fence will be fixed, and that Christchurch City Council approval has been received for the planned project to occur before the project begins.

Ben Manson/Gina Waibl

**Carried**

Before concluding the meeting, the Committee further discussed issues around funding resources, noting that a future workshop agenda item would be useful.

Item - 11. Co-option to Banks Peninsula Water Management Zone Committee - has been moved to another part of the document.

Councillor Fields left the meeting at 5.57pm.

The meeting closed with a Karakia/Whakamutunga.

**Meeting concluded at 6.30pm.**

**CONFIRMED THIS 21<sup>st</sup> DAY OF MARCH 2023**

**GINA WAIBL  
CHAIRPERSON**

Unconfirmed

## **9. Canterbury Water Management Strategy Action Plan Budget**

**Reference Te Tohutoro:** 23/354504

**Presenter(s) Te Kaipāhō:** Shelley Washington, Zone Facilitator  
shelley.washington@ecan.govt.nz

### **1. Purpose of Report Te Pūtake Pūrongo**

- 1.1 The purpose of this report is for the Banks Peninsula Water Management Zone Committee to discuss and recommend the allocation of the remaining Canterbury Water Management Strategy (CWMS) Action Plan budget for the 2022-2023 financial year.

### **2. Officer Recommendations Ngā Tūtohu**

That the Banks Peninsula Water Management Zone Committee recommends to Environment Canterbury the following allocations of the Canterbury Water Management Strategy Action Plan Budget 2022-2023 for the Banks Peninsula Zone:

1. \$8,370 as an additional contribution for operational support to the Banks Peninsula Conservation Trust.

### **3. Report Te Pūrongo**

- 3.1 There is \$8,370 remaining in the CWMS Action Plan Budget for 2022-2023 in the Banks Peninsula zone.
- 3.2 The Operational Support project has previously been recommended an allocation of \$10,000 by the Committee and subsequently decided by Environment Canterbury. As this contributes to all of the work programmes of this Trust, providing an additional allocation of budget will be useful.
- 3.3 It was mentioned at the February 2023 Committee meeting that the Hukuhuka Turoa Stream (Martin Property) project that has previously been recommended an allocation of \$2,130 by the Committee would benefit from an additional allocation of funding because the landowner's official quote from a fencing company is greater than the preliminary figure provided by the landowner. However, Environment Canterbury's zone delivery team confirmed on 16 March that they have some operational budget that they can provide amongst the projects they are supporting in Wairewa Catchment, so an additional amount is not needed from the CWMS Action Plan Budget.
- 3.4 Since the February 2023 Committee meeting, the Little River Pony Club has been advised that they need to update the information they provided about their Okana River fencing and planting project and submit this to the Committee again for consideration for a future financial year, once they are ready.
- 3.5 Diane Shelander made some enquiries within the Christchurch City Council. The Council's Property Unit is aware of the project and will reduce the license area (assuming the fence and planting are installed), under staff delegation when the current lease expires in 2025.
- 3.6 The Pony Club had made an application to the Council's Parks Unit to undertake fencing and planting in the reserve. The Parks Unit supports the proposal but has requested further information for the Three Waters Unit. Once the Parks Unit has received this information from

the Club, they'll share that with the Three Waters Unit and then decide whether they give written approval. The Council also confirmed that the Pony Club would be using the reserve for many years into the future, but that if one day the use changes, the fence and width of land planted would not be a problem.

## 4. Background

- 4.1 The other projects that have been funded during this financial year are:
- 4.1.1 Biodiversity enhancement planting Hukahuka Turoa Stream - Rimmell property - \$1,000;
  - 4.1.2 Biodiversity enhancement planting and fencing Hukahuka Turoa Stream - Martin property - \$2,130;
  - 4.1.3 Opuahou and Hukahuka Turoa Streams biodiversity and bank protection planting maintenance - Stanbury property - \$7,000;
  - 4.1.4 Banks Peninsula Pekapeka (longtail bat) survey project multi-organisation, coordinated by Environment Canterbury - \$5,500;
  - 4.1.5 Pest and weed control around stream, Pigeon Bay - Lear property - \$3,500;
  - 4.1.6 Farm Biodiversity Planning and Monitoring Programme – Banks Peninsula Conservation Trust - \$5,000;
  - 4.1.7 Feral Pig Control on Banks Peninsula – Banks Peninsula Conservation Trust - \$7,500; and
  - 4.1.8 Operational Support – Banks Peninsula Conservation Trust - \$10,000.

## Attachments Ngā Tāpirihanga

There are no attachments to this report.

## **10. Monitoring of Water Quality for Contact Recreation around Banks Peninsula**

**Reference Te Tohutoro:** 23/355386

**Presenter(s) Te Kaipāhō:** Shirley Hayward, Science Team Leader - Water Quality and Ecology  
Emily Gray, Senior Science Analyst, Surface Water Science

### **1. Purpose of Report Te Pūtake Pūrongo**

- 1.1 The purpose of this report is to inform the Banks Peninsula Water Management Zone Committee of the Contact Recreation Monitoring Programme operated by Environment Canterbury around Banks Peninsula.
- 1.2 It is also to provide information to the Committee on how Environment Canterbury, along with te Mana Ora (Community and Public Health) and Christchurch City Council utilises Ministry of Health and Ministry for the Environment guidelines on contact recreation monitoring to inform the public on the health risk, if any, of swimming at various sites around Banks Peninsula.
- 1.3 Finally, to also update the Committee on the latest results from the 2022-23 summer.

### **2. Officer Recommendations Ngā Tūtohu**

That the Banks Peninsula Water Management Zone Committee:

1. [Receive the information provided on monitoring of water quality for contact recreation around Banks Peninsula.](#)

### **3. Report Te Pūrongo – Key Points**

- 3.1 Environment Canterbury’s Contact Recreation Monitoring Programme’s primary focus is on understanding and communicating public health risks associated with recreational activities at freshwater and coastal swimming sites.
- 3.2 In conjunction with Te Mana Ora (Community and Public Health) and city and district councils, we follow guidelines set out for monitoring and managing microbial and cyanobacterial risks in recreational waters.
- 3.3 This season, five of the eight sites in Whakaraupō/Lyttelton Harbour were graded as Poor. This understandably caused considerable concern for communities that use those sites. We have initiated investigations into the causes of poor water quality at these sites. One site out of seven in Akaroa Harbour was also graded as Poor.
- 3.4 We will also be investigating approaches that could be used in future seasons where predictable health risks, such as rainfall-driven poor water quality, can be adequately managed.

### **4. Background**

- 4.1 Environment Canterbury, along with all other Regional and Unitary Councils in New Zealand, runs a summertime programme to monitor the water quality at swimming sites within the region.

- 4.2 The contact-recreation monitoring programme is based upon the monitoring of faecal indicator bacteria (*Escherichia coli* (*E. coli*) in rivers or enterococci in coastal waters. The bacteria indicate the likely presence of pathogens (disease causing microorganism) in the water.
- 4.3 Monitoring for faecal indicator bacteria assesses the human health risk of becoming ill from ingesting or inhaling pathogens in recreational waters. The methods that we use to monitor, analyse, and report on contact recreation data follow joint guidelines from the Ministry of Health and the Ministry for the Environment.
  - 4.3.1 Microbiological water quality guidelines for marine and freshwater recreational areas | Ministry for the Environment (2003)  
<https://environment.govt.nz/publications/microbiological-water-quality-guidelines-for-marine-and-freshwater-recreational-areas/>
  - 4.3.2 Cyanobacteria Interim Guidelines (environment.govt.nz) (2009)  
<https://environment.govt.nz/assets/Publications/Files/nz-guidelines-cyanobacteria-recreational-fresh-waters.pdf>
- 4.4 The results from our contact-recreation monitoring are reported to the public through the “Can I swim here?” pages of the LAWA (Land, Air & Water Aotearoa) website:  
<https://www.lawa.org.nz/explore-data/swimming>. Throughout the summer we run awareness campaigns promoting LAWA as the place to view swimming water quality data.
- 4.5 As set out in the guidelines, operation of the contact-recreation monitoring programme involves three different agencies working closely together:
  - 4.5.1 Environment Canterbury carries out the monitoring, reports on the data and leads investigations of causes of problems at sites.
  - 4.5.2 Te Mana Ora issue health warnings to the public based on their medical assessment of the risk.
  - 4.5.3 Local territorial authorities (i.e. district and city councils) put up signage at sites where there is a need to warn public of the risk of swimming at particular sites.
- 4.6 Each year before the summer monitoring starts, staff from the agencies meet to ensure all the responsibilities are understood via an agreed protocol. This is also an opportunity to review the results from the previous years’ monitoring and the long-term grades (based on previous five years monitoring). We have a well-established relationship with the public health staff in these agencies and appreciate the engagement and support they give to the programme.

## **5. Faecal Indicator Bacteria Monitoring and Grading**

- 5.1 There are two types of monitoring results that are reported on from the contact recreation programme:
  - 5.1.1 Weekly surveillance monitoring - these show the latest monitoring result for a site and whether it is above or below health warning levels. Due to sampling frequency and time required for laboratory analysis, the results displayed on LAWA can be up to nine days old.
  - 5.1.2 Long-term grades - these recognise that one sample does not always reflect the overall quality, as water quality can be subject to short term changes. The long-term grades work out the health risk at sites based upon the past five years of samples and known risk factors at a site (e.g., stock access or sewage discharges).

## 6. Weekly surveillance monitoring

- 6.1 We sample 57 freshwater (river or lake) and 46 coastal (beach, harbour, or estuary) sites weekly from late November to early March for faecal indicator bacteria in Canterbury. The results are automatically reported on LAWA when they become available from the laboratory.
- 6.2 For sites that have a long-term grade of Fair or better (i.e., graded as generally suitable for swimming), if a result exceeds alert or action guidelines, we resample as soon as is practical and inform Te Mana Ora of the results (see Table 1).
- 6.3 Temporary health warnings may be issued by Te Mana Ora at these sites if the results exceed action levels. For coastal waters, this is usually after two consecutive high results. However, Te Mana Ora has discretion to issue temporary health warnings based on one high result in accordance with their protocols. The city or district council is advised by Te Mana Ora that a health warning has been issued, and that temporary signage is required. Rūnanga are also advised of any results that exceed guideline values within their takiwā.
- 6.4 While we aim to resample sites with temporary health warnings daily, it is not always practical to do so. For rainfall affected results, we delay resampling for 1-2 days after rainfall.
- 6.5 Sites with long-term grades of Poor or Very Poor are generally not resampled after high results, as existing health warnings and signage are already in place. Weekly sampling continues at these sites.
- 6.6 Table1: Response modes for weekly sampling results at sites with long-term grades of Fair or better

<b>Mode for weekly sampling responses</b>	<b>Coastal waters – enterococci/100 ml</b>	<b>Freshwaters – <i>E. coli</i>/100 ml</b>
Acceptable/Green – routine monitoring	<130	<260
Alert/Amber — increase sampling	≤260	≤550
Action/Red – elevated health risk – resample and inform public	>260	>550

## 7. Long-term Grades

- 7.1 The microbial quality of natural waters can vary greatly from day to day. Sample collection, analysis and reporting of results can take 1-3 days after samples have been collected. For these reasons, relying on weekly or even higher frequency data cannot tell us what the risks are today at a site. Therefore, the guidelines include a risk-based approach to assess overall risk to human health. This uses a combination of the past five years of sampling results and a site assessment to determine long-term grades, called Suitability for Recreation Grades. The site assessment includes assessing likely factors influencing water quality at the site, such as stormwater discharges, treated sewage discharges, and rural land run-off.
- 7.2 Rainfall affected data - rainfall causes increased run-off of contaminants from land into water, and therefore, water quality is often poorer for short periods (1-2 days) after rainfall. The guidelines outline where management interventions (such as effectively communicating predictable risks so that swimmers are deterred during high-risk times) can be demonstrated to effectively manage known and predictable risks, and where long-term grades can be modified.

- 7.3 For sites where it is determined that recent rainfall impacts on water quality, and interventions can discourage swimming after rainfall, long-term grades can be modified by removing rainfall affected data. This is our approach for assessing long-term grades for river sites where water quality is impacted by rainfall AND we can be confident that conditions after rainfall can sufficiently deter swimmers (e.g., high flows and turbid waters). These sites have permanent warnings signs erected to advise that swimming should be avoided for up to 48 hours after rainfall.
- 7.4 In coastal waters and lakes, we have historically taken the same approach (removing rainfall affected results and having signage in place). However, we have observed that conditions at a beach or lake do not necessarily show that it has rained recently, and we have observed swimmers using these sites after recent rainfall. Therefore, since the 2020/21 season, we have not modified lake or coastal long-term grades by removing rainfall affected data.
- 7.5 In assessing grades, we use the past five years of results to calculate a 95th percentile value and compare that to guidelines. What this statistic essentially means is that no more than 5% of samples (or 5 samples in 100) can exceed the long-term health-based guidelines (550 E. coli/100ml in freshwaters – 500 enterococci/100 ml in coastal waters). These thresholds represent a risk of >5% Campylobacter infection in freshwaters, and >10% risk of gastrointestinal illness in marine waters. These guidelines are based on well-established risks of infection or illness and are intended to protect the more vulnerable members of our communities.
- 7.6 For the 2021/22/23 season, long-term grade assessments have determined that 62.5% of coastal sites in Banks Peninsula are generally suitable for primary contact recreation. Of these, 87.5% are suitable in Akaroa Harbour (including Okains Bay) and 37.5% in Lyttelton Harbour. Notably, the proportion of harbour sites considered as suitable for primary contact recreation has reduced from 90% to 60%. Rainfall events last summer likely contributed to some of the grade changes, but not at all sites or on all occasions. These results are presented in the Water Quality for Contact Recreation Annual Summary Report 2021/22 Season.

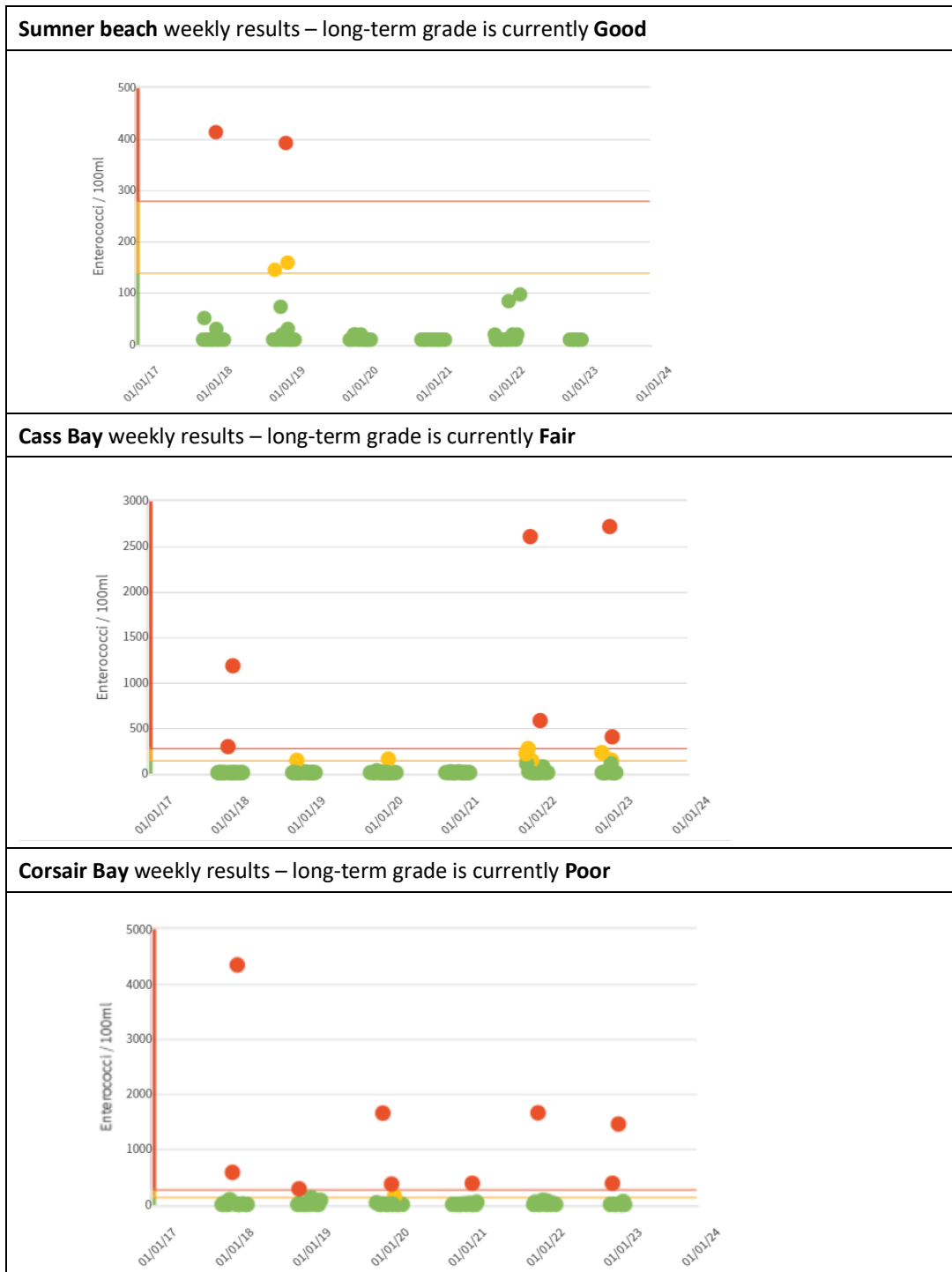
## **8. Whakaraupō/Lyttelton Harbour results this year**

- 8.1 At the start of the season, the annual reassessment of long-term grades resulted in five out of eight monitored sites in Whakaraupō/Lyttelton Harbour being graded as Poor. These sites are: Corsair Bay; Sandy Bay; Purau Bay; Diamond Harbour; and Rāpaki Bay. Akaroa Main beach site in Akaroa harbour was also graded Poor. A Poor grade means there is an elevated health risk, and these sites are considered generally unsuitable for swimming. This is a change from the previous year, whereby only one site, Sandy Bay, had a long-term grade of Poor.
- 8.2 Three sites (Cass Bay, Charteris Bay and Church Bay) have grades ranging from Fair to Good.
- 8.3 Many of the sites graded as Poor have been affected by rainfall, but not all “action level” exceedance results are because of rainfall events. This is demonstrated by the high enterococci results that occurred in Corsair Bay (1,467 enterococci/100 ml) and Cass Bay (2,720 enterococci/100 ml) this season on the 29th December 2022.
- 8.4 Sheltered coastal bays, such as Corsair and Cass bays, are generally calmer and shallower waters than open coastal bays such as Sumner Beach. However, these features also make them more vulnerable to contaminants from a variety of sources and activities.
- 8.5 Figure 1 shows that high enterococci results at Sumner Beach are generally less frequent and at lower concentration than that found in more sheltered bays such as Cass and Corsair bays. As human use of these areas increases, so does the risk of occasional or more frequent contamination. This can include faecal wastes from people and children swimming, dog



walkers and recreational boating. Stormwater runoff from residential and rural areas are also significant contributors to short term poor water quality after rainfall.

- 8.6 The very high enterococci results found in samples taken on the 29th December 2022 at Corsair and Cass bays occurred during a dry period but with very high number of people using these bays. It is unlikely we will be able to identify the source(s) of contamination at that time. However, developing messaging about responsible use of these areas is important to managing future risks.
- 8.7 Figure 1 - Weekly enterococci results at two bays in Whakaraupō/Lyttelton harbour and at Sumner beach. N.B. these graphs have different vertical scales.



- 8.8 Figure 1 – Weekly enterococci results at two bays in Whakaraupō/Lyttelton harbour and at Sumner beach. N.B. these graphs have different vertical scales.

## 9. This summer's results so far - key results and investigations

- 9.1 The following temporary health warnings were issued by Te Mana Ora because of elevated faecal indicator bacteria concentrations. These sites have long-term grades of fair or better.
- 9.1.1 Cass Bay - health warning issued on 30 December 2022 and removed on 10 January 2023 (note that Corsair Bay also had high results during the same period but did not need temporary health warnings because of its Poor long-term grade).
- 9.2 We have undertaken further investigations into sources and causes of poor grades in Whakaraupō/Lyttelton Harbour bays. This includes taking additional samples for faecal source tracking (FST) analyses, and further sampling during wet weather events. These investigations need to occur during times when the specialist laboratory (ESR) can accept FST samples and when elevated concentrations of bacteria are present. The full suite of results will not be available for a couple of months. We expect to be able to report the findings of this investigation about July 2023.
- 9.3 Te Roto o Wairewa/Lake Forsyth has health warnings in place because of potentially toxic planktonic cyanobacterial blooms.

## 10. Climate Change Impacts

- 10.1 Climate change may impact on a number of aspects of our contact recreation monitoring programme. This includes predictions of more intense rainfall events affecting water quality. But also, with more hot days predicted, increased demand for access to safe swimming sites is likely.

## 11. Next Steps

- 11.1 The Contact Recreation monitoring ends for this season finishes in early March and these data will continue to be displayed on LAWA.
- 11.2 Over the Autumn and Winter, the data from this summer will be analysed and new long-term grades assigned ready for next Summer.
- 11.3 In response to concerns raised by the community this summer we will also:
- 11.3.1 Investigate a new approach so whereby rainfall affected results can be predicted (e.g., exploring a predictive modelling approach).
- 11.3.2 Look at new ways to and to communicate the public health risks adequately to the community. This approach would need the support of Te Mana Ora and the city and district councils for managing public health risks and consistent messaging (including signage) of those risks.
- 11.3.3 Continue with faecal source tracking and other investigations of why sites have degraded.
- 11.3.4 Work with Territorial Authorities and nearby landowners to improve water quality for contact recreation.

## Attachments Ngā Tāpirihanga

There are no attachments to this report.

## **Karakia Whakamutunga**

### **Karakia Whakamutunga**

#### **Closing Prayer**

<p>Unuhia, unuhia Unuhia ki te uru tapu nui Kia wātea, kia māmā te ngākau, te tīnana, te wairua i te ara tangata Koia rā e Rongo, whakairia ake ki runga Kia tina! TINA! Hui ē! TĀIKI Ē!</p>	<p><i>English translation</i> Draw on, draw on, Draw on the supreme sacredness To clear, to free the heart, the body and the spirit of mankind Rongo, suspended high above us (in ‘heaven’) Draw together! Affirm!</p>
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## **Karakia mō te kai**

### **Prayers for food**

<p>Nau mai e ngā hua O te wao O te ngakina O te wai tai O te wai Māori Nā Tāne Nā Rongo Nā Tangaroa Nā Maru Ko Ranginui e tū iho nei Ko Papatūānuku e takoto nei Tūturu whakamaua ki a tina Tina, haumi ē, hui ē Tāiki ē</p> <p>E Rongo, e Rongo Hōmai ngā tipu Hei whakakī i te tīnana Hei oranga Au eke, au eke Hui ē, tāiki ē!</p>	<p><i>English translation</i> Welcome the gifts of food From the sacred forests From the cultivated gardens From the sea From the fresh water The food of Tāne Of Rongo Of Tangaroa Of Maru I acknowledge Ranginui above me Papatūānuku who lies beneath me Let this be my commitment to all Draw together Affirm!</p> <p>Rongo, Rongo Give us the foods, with which to fill the body, and have health That I may ascend Affirm!</p>
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