

---

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

---

### **Notice of Meeting:**

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

**Date:** Tuesday 16 July 2019  
**Time:** 4pm  
**Venue:** Little River Service Centre, State Highway 75,  
Little River

---

### **Membership**

Chairperson Dr Benita Wakefield - Te Rūnanga o Wairewa  
Deputy Chairperson Gina Waibl - Community Representative  
Members  
Rima Herber - Community Representative  
Elizabeth Macpherson - Community Representative  
Ben Manson - Community Representative  
Paula Smith - Community Representative  
Garrick Thorn - Community Representative  
Andrew Turner - Deputy Mayor Christchurch City Council  
Elizabeth Cunningham - Councillor Environment Canterbury  
Manaia Cunningham - Te Runanga o Koukourarata  
Pere Tainui - Te Runanga o Onuku  
Aurora Smith - Te Hapū o Ngāti Wheke/Rapaki

---

**10 July 2019**

**Zone Facilitator**  
Lesley Woudberg  
Tel: 027 706 4273  
**Environment Canterbury**

**Committee Advisor**  
Liz Ryley  
Tel: 941 8153  
**Christchurch City Council**

**Principal Advisor**  
Peter Kingsbury  
Principal Advisor Natural Resources  
Tel: 941 8487  
**Christchurch City Council**

**To view copies of Agendas and Minutes, visit:**

<https://www.ccc.govt.nz/the-council/meetings-agendas-and-minutes/>  
<https://www.ecan.govt.nz/get-involved/council-and-committee-meetings/>



## Banks Peninsula Zone Action Plan 2018-2021 – Finalised 16 October 2018, updated 25 June 2019, updates by GinaW, OliviaS, GillJ, BradB, ShelleyW & other ECan staff

This 3-year plan includes the key actions to be delivered by councils, agencies and the community to help make progress toward achieving the priority outcomes from the Banks Peninsula ZIP. The Zone Committee play a key role in supporting the delivering this action plan through:

- **Engaging the Banks Peninsula community**– make connections, be a contact for community members to discuss issues/solutions, be a community voice.
- **Hosting events, workshops, public meetings, fieldtrips** to share information, seek input/feedback, and celebrate success.
- **Using media** to build the profile of the committee, share information and celebrate success.
- **Supporting and celebrating** the work of landowners and community groups.
- **Allocating the IMS biodiversity fund.**
- **Making recommendations** to councils to influence work programmes and influence the priorities of agencies.
- **Reporting** to Councils, Ngai Tahu and the Banks Peninsula Community Board.

Table 1 Banks Peninsula Water Zone Committee 3 Year Plan including year-by-year actions, and the Zone Committee’s approach to achieving each action

ZIP and ZIPA Outcomes	Priority actions for 2018-2021	Actions Underway	Year 1 June 2019 - June 2020	Year 2 June 2020 – June 2021	Year 3 June 2021 – June 2022	ZC Approach
<p><b>1. Kaitiakitanga</b> All waterbodies in Banks Peninsula have Kaitiakitanga as an overarching value and reflect Ki Uta Ki Tai, Mauri, mahinga Kai, Wahi Tapu and Waihi Tonga.</p> <p>Wairewa ZIPA Outcome -All streams that flow into the lake are flourishing ecosystems reflecting mauri, kaitiakitanga and mahinga kai values.</p>	<p>1. <b>Support the implementation of the Whakaraupō Catchment Management Plan project to complete riparian planting on four streams Ki Uta Ki Tai.</b> <i>ZC Role: To be advised once more certainly about the structure for implementing the WCMP plan.</i></p>	<p>Head of the Harbour led by Ngati Wheke has received matching funding from MfE of \$150,000 to the \$127,000 contribution from the partnership over two years. Update received from Yvette Couch-Lewis at May 2019 ZC meeting. All landowners with stream boundaries have been visited. The next stage is to interview those with forestry blocks. The first six monthly report to MfE has been completed.</p>	<p>A. ZC Rep on Community Advisory Group (underway). B. Karen Banwell (Whaka Ora Implementation Manager) will provide regular progress updates at WZC meetings (i.e. every 2 months). C. Stall at Orton Bradley Spring Fair with Whaka Ora Healthy Harbour theme, co-host with Whaka Ora (TBC).</p>	<p>A. ZC Rep on Community Advisory Group (ongoing). B. Review whether additional support from ZC can be given. C. Karen Banwell (Whaka Ora Implementation Manager) will provide regular progress updates at WZC meetings (i.e. every 2 months).</p>	<p>A. ZC Rep on Community Advisory Group (ongoing). B. Review whether additional support from ZC can be given. C. Karen Banwell (Whaka Ora Implementation Manager) will provide regular progress updates at WZC meetings (i.e. every 2 months).</p>	<p><b>WZC to promote what is happening through Communications Plan rather than take an active role</b> <b>WZC Rep to inform WZC when opportunities to contribute arise.</b></p>
	<p>2. <b>Mahinga Kai is used as an indicator to help monitor the health of Banks Peninsula Waterways</b> <i>Contributors: Rūnanga, ECan</i> <i>ZC Role: Recommend that ECan integrate this into the science monitoring programmes.</i></p>	<p>In response to ZC recommendation, a paper went to ZC in March 2019 which outlined how Environment Canterbury is currently working with Gail Tipa to develop a framework for monitoring using mātauranga. Also, the science team at ECan are going to undertake some additional Mahinga Kai monitoring on Banks Peninsula with support from rūnanga. This is a pilot project.</p>	<p>A. Trial eCan Science Team pilot mahinga kai indicators which have been incorporated in waterway health monitoring (underway). B. Mātauranga based monitoring framework being developed by eCan (underway) C. WZC to contribute to the update to the Mahaanui Iwi Management Plan.</p>	<p>A. Review eCan Science Team trial Mahinga Kai indicators. B. Trial and review Mātauranga based monitoring framework</p>	<p>A. Review and finalize ECan Science Team trial Mahinga Kai indicators. B. Trial and review Mātauranga based monitoring framework</p>	<p><b>WZC Mahinga Kai Working Group</b> to consider.</p>

ZIP and ZIPA Outcomes	Priority actions for 2018-2021	Actions Underway	Year 1 June 2019 - June 2020	Year 2 June 2020 – June 2021	Year 3 June 2021 – June 2022	ZC Approach
	<p>3. <b>Increase community understanding of Mahinga kai through FEP workshops, Nature Agents Programme, landowner advice and public events.</b> <i>Contributors: Rūnanga, ZC, landowners,</i> <i>ZC Role: Rūnanga reps input to FEP workshops and nature agents programme, ZC promote info card, share new research e.g. Whakaraupō Mahinga Kai research.</i></p>	<p>ZC hosted stall at the Little River A&amp;P in Jan 2019 which included Mahinga Kai. Mahinga kai was integrated into FEP workshop in Okains Bay in early 2019</p>	<p>A. Mahinga Kai incorporated in FEP workshops (underway). B. Stall with Mahinga Kai theme held at Banks Peninsula A&amp;P show Jan 2019. C. Increase WZC understanding through marae visit and intro to Ngai Tahu structure</p>	<p>A. Mahinga Kai incorporated in FEP workshops (ongoing). B. Stalls at 2 fairs/community events with at least one with mahinga kai theme.</p>	<p>A. Mahinga Kai incorporated in FEP workshops (ongoing). B. Stalls at 2 fairs/community events with at least one with mahinga kai theme.</p>	<p><b>WZC Mahinga Kai Working Group</b> to develop more ideas</p>
	<p>4. <b>Each year, showcase an example of a Ki Uta Ki tai approach on Banks Peninsula.</b> <i>Contributors: ZC, Rūnanga, landowners</i> <i>ZC Role: Each year ZC select example, advise on communication approach (article, public fieldtrip etc) and contribute to content.</i></p>	<p>ZC suggested to ECan communications staff that Orton Bradley or Living Springs would be a good feature for 2019. Zone Facilitator to follow up with ECan communications staff.</p>	<p>A. Canterbury Water facebook post on Koukourarata IMS project completed. B. Showcase Orton Bradley Park catchment</p>	<p>A. Showcase Koukourarata catchment and/or consider Living Springs</p>	<p>A. Whakaraupō waterway to be nominated and showcased.</p>	<p><b>WZC</b> to nominate a project each year, and to consider holding an event that showcases the waterway.</p>
<p><b>2. Water Quality</b> <i>People have access to safe drinking water.</i></p> <p><i>Water quality is monitored, and rules are developed to maintain and improve it where appropriate</i></p> <p><i>Wairewa ZIPA Outcome - Te Roto o Wairewa is a nationally significant project showcasing outstanding environmental restoration.</i></p>	<p>5. <b>Support communities to have safe and secure drinking water sources.</b> <i>Contributors: CPH, CCC, ECan,</i> <i>ZC Role: Help advocate with communities where required/appropriate.</i></p>	<p>Update received from Mike Bourke (CCC) regarding Okains Bay and drinking water supply in late 2018. Brief updates on the Duvauchelle water supply have also been provided.</p>				<p>WZC to respond to enquiries from the community and to provide support where needed</p>
	<p>6. <b>Assessment of BP marae drinking water supplies and actions plans to address issues.</b> <i>Contributors: Runanga, CPH, ECan Tuia Team.</i> <i>ZC Role: Receive regular updates</i></p>	<p>ECan commissioned Mahaanui Kurataiao Ltd to hui with five rūnanga whose marae drinking water supplies are not connected to community supplies. Taumutu, Ōnuku and Koukourarata were included within the five. ECan received MKT's report setting out the current situation at each marae, and outlining their concerns and future aspirations. ECan is currently developing stage 2 of this project which will be to work with rūnanga to help them find a way to improve the reliability of their supply.</p>	<p>A. WZC to receive updates from WZC Runanga Reps on progress</p>	<p>A. WZC to receive updates from WZC Runanga Reps on progress</p>	<p>A. WZC to receive updates from WZC Runanga Reps on progress</p>	<p>WZC to receive updates as work programme is underway</p>

ZIP and ZIPA Outcomes	Priority actions for 2018-2021	Actions Underway	Year 1 June 2019 - June 2020	Year 2 June 2020 – June 2021	Year 3 June 2021 – June 2022	ZC Approach
	<p>7. <b>Share in depth annual water quality and ecosystem health monitoring results and relevant research with the Banks Peninsula community.</b> <i>Contributors: Councils, DOC, Nature Agents, Research Institutes, Industry Groups, Community</i> <i>ZC Role: Share information with communities, advise research institutes of local research gaps/opportunities.</i></p>	<p><b>The results will be available in September/October. The ZC need to start thinking about how they might want to share this information with the community.</b> Alice West has agreed to present her findings on her masters ecological assessment of various privately owned BP catchments. She is currently finalising her work and seeking approval to share her findings as currently her access has been on the basis of confidentiality with UC.</p>	<p>A. Annual WZC presentation and discussion of results (ongoing). B. Communication of results with the community (include in Communications Plan). Request that ECan scientists discuss with ECan communications staff the best options for communicating the results with the community and share this at WZC meeting. C. Hold public interest meeting with water quality research presentations e.g. Alice West (schedule for 2 months after ECan water quality results presentation)</p>	<p>A. Annual WZC presentation and discussion of results (ongoing). B. Communication of results with the community (include in Communications Plan).</p>	<p>A. Annual WZC presentation and discussion of results (ongoing). B. Communication of results with the community (include in Communications Plan).</p>	<p>WZC to encourage research and the sharing of it. WZC members and ECan to tie in with research groups. <b>1 or 2 ZC members to act as research Reps? Communication, Education &amp; Youth Working Group</b> to develop further ideas</p>
	<p>8. <b>Host two FEP workshops per year which effectively incorporate biodiversity and mahinga kai.</b> <i>Contributors: Beef and Lamb, CCC, ECan</i> <i>ZC Role: Host workshop with Beef and Lamb and encourage landowners to attend using your network of contacts.</i></p>	<p>FEP workshop hosted in early 2019. One workshop hosted with a Biodiversity and Mahinga Kai component, delivered by Mananui Ramsden. Second workshop ear marked for October. Details to be arranged closer to the date with Beef &amp; Lamb.</p>	<p>A. FEP held in Okains Bay March 2019. B. Second FEP location to be agreed by WZC.</p>	<p>A. Review community appetite for two FEPs/year, and substitute for another type of workshop if two FEPs/yr aren't going to be worthwhile. B. Workshop locations to be agreed by WZC.</p>	<p>A. Review community appetite for two FEPs/year, and substitute for another type of workshop if two FEPs/yr aren't going to be worthwhile. B. Workshop locations to be agreed by WZC.</p>	<p>1 or 2 WZC members to work with Land Management Advisor to plan each workshop, and to contact farmers to invite them directly.</p>
	<p>9. <b>Support all Wairewa landowners to exclude stock from waterways by 2020.</b> <i>Contributors: ECan, landowners</i> <i>ZC Role: Strategies a way to best influence CCC and provide advice on how to communicate these new requirements to ensure people understand the reason why.</i></p>	<p>ECan's LMA has been having conversations with affected landowners. <i>One section along the Okana Catchment (south of SH7 on police creek) needs a stock crossing culvert installed which the farmer is currently working on and has recently worked alongside ECan engineers to have the channel cleared. One block on the Okuti needs some further fencing to ensure no stock access but the conversations are currently being had with the land owner, they are aware of their obligations.</i></p>	<p>A. Land Management Advisor available in Little River, and has contacted affected landowners. LMA to follow up with landowners that are still to comply (ongoing). B. CCC Information cards to be finalised and distributed</p>	<p>A. Land Management Advisor available in Little River, to follow up with with landowners that are still to comply (ongoing).</p>	<p>A. Land Management Advisor available in Little River, to follow up with with landowners that are still to comply (ongoing).</p>	

ZIP and ZIPA Outcomes	Priority actions for 2018-2021	Actions Underway	Year 1 June 2019 - June 2020	Year 2 June 2020 – June 2021	Year 3 June 2021 – June 2022	ZC Approach
<p><b>3. Water Quantity</b> <i>There is enough water available in the Banks Peninsula Zone to meet the needs of daily living, stock water, and for fighting storage as a priority, and allow allocation for other uses where these priority needs are already being met.</i></p> <p><i>Allocation of water required to meet these needs is subject to flow and allocation limits so that the unique values of the Banks Peninsula streams are protected.</i></p>	<p><b>10. Promote water efficiency and provide advice to ensure people understand how they can be more efficient and the reasons why water efficiency is important.</b> <i>Contributors: landowners CCC ECan, ZC Role: Provide advice on an effective communication approach to engage community and share messages through networks. Consider public opportunities/events to promote messaging over summer.</i></p>	In late 2018, ZC were provided with an update on the communications CCC were undertaking - this was significantly reduced due to the focus on reducing water use in the city for the well head improvement programme. <b>WZC to start discussion in Oct about priorities and approach for 2019/2020 summer campaign.</b>	A. WZC to receive and contribute to water efficiency campaign/communications developed by CCC.	A. WZC to receive and contribute to water efficiency campaign/communications developed by CCC.	A. WZC to receive and contribute to water efficiency campaign/communications developed by CCC.	<a href="#">ZC Water Efficiency Working Group</a> or full WZC to work with CCC
	<p><b>11. Encourage landowners to develop stock water systems.</b> <i>ZC Role: Help promote information and advice.</i></p>		A. Include in FEP workshops (ongoing). B. eCan Land Management Advisor and WZC members to talk to farmers as part of informal community interactions (ongoing)	A. Include in FEP workshops (ongoing). B. ECan Land Management Advisor and WZC members to talk to farmers as part of informal community interactions (ongoing)	A. Include in FEP workshops (ongoing). B. eCan Land Management Advisor and WZC members to talk to farmers as part of informal community interactions (ongoing)	Informal community interactions. Do 1 or 2 <a href="#">WZC Reps</a> with good connections to the farming community need to be nominated??
	<p><b>12. Continue investigations into minimum and environmental flows on Banks Peninsula and their relationship to consented and permitted water takes.</b> <i>ZC role: Recommend that ECan undertake this work.</i></p>	Tim Davie is aware of this and is prepared to discuss this with ZC if required.	A. WZC meeting with presentation from Tim Davie to explain the options for undertaking these investigations, and their consequences. WZC to then work with Tim to agree on what is feasible.	A. TBD following Year 1 meeting	A. TBD following Year 1 meeting	<a href="#">WZC meeting to determine approach – could include setting up a WZC Water Quantity Working Group</a>  Could consider revising permitted take definitions for perched springs (currently allowed 2m <sup>3</sup> /day if take is above ground, 100m <sup>3</sup> /day if below)
<p><b>4. Biodiversity</b> <i>Banks Peninsula is recognised in the region for showcasing flourishing biodiversity. Protection of biodiversity is promoted, supported and celebrated and enhancement undertaken where appropriate. Flag projects are</i></p>	<p><b>13. IMS biodiversity fund is strategically allocated and progress celebrated.</b> <i>Contributors: ZC, ECan, landowners ZC Role: Approve projects, encourage and support landowners and celebrate projects.</i></p>	IMS biodiversity fund for 18/19 year was fully allocated. Allocation of the fund for 19/20 year was decided at the May 2019 meeting.  Get ZC to decide how to celebrate progress. ECan communications did social media posts on Canterbury Water on the recent immediate steps funding.  Lesley has drafted IMS Q&A.	A. WZC requested greater input to enquiries chosen for development into projects at May 2019 WZC meeting. WZC to receive updates from Biodiversity Officer throughout the year to improve transparency, to be more meaningfully involved and provide strategic direction. B. IMS fund allocated by ZC workshop meeting each April/May (ongoing) C. WZC has suggested Whaka Ora Healthy Harbour projects be given priority. D. IMS print ad with link to new Q&A section on eCan website	A. WZC to receive updates from Biodiversity Officer throughout the year and decide on strategic approach (ongoing). B. IMS fund allocated by WZC workshop meeting each April/May (ongoing) C. <a href="#">Celebration of progress to be included in Plan (ongoing)</a> D. <a href="#">WZC to request that comment or assessment of level of protection provided along each catchment and identify gaps in otherwise well protected catchments</a> E. <a href="#">Update from CCC on Sites of Ecological Significance Biodiversity Fund</a>	A. WZC to receive updates from Biodiversity Officer throughout the year and decide on strategic approach (ongoing). B. IMS fund allocated by WZC workshop meeting each April/May (ongoing) C. <a href="#">Celebration of progress to be included in Communications Plan (ongoing)</a> D. <a href="#">Update from CCC on Sites of Ecological Significance Biodiversity Fund</a> E. <a href="#">Advocate for research on stock impacts on biodiversity on high country and potential management</a>	<a href="#">WZC meetings</a> to provide input to project selection early on, and to provide strategic direction e.g. whether specific catchments or types of projects should be prioritised e.g. covenants.  <a href="#">WZC Reps</a> to help convince landowners where gaps in a catchment are identified.  <a href="#">Biodiversity Working Group</a>

ZIP and ZIPA Outcomes	Priority actions for 2018-2021	Actions Underway	Year 1 June 2019 - June 2020	Year 2 June 2020 – June 2021	Year 3 June 2021 – June 2022	ZC Approach
<p><i>showcased as examples of excellent biodiversity achievement.</i></p>			<p>E. WZC to brainstorm how to address biodiversity problems.</p> <p>F. WZC to request someone provide an analysis of biodiversity opportunities and issues on BP, so WZC can focus on filling gaps within scope, and being more strategic.</p> <p>G. Update from CCC on Sites of Ecological Significance Biodiversity Fund</p>	<p>F. WZC presentation on koura translocation research</p> <p>G. WZC update from BPCT incl Pest Free BP</p> <p>H. WZC to advocate for independent audit of the IMS programme and freshwater biodiversity management and protection on BP</p>	<p>solutions e.g. fencing, exclusion of certain stock types, stocking levels</p>	
	<p><b>14. Improve and update the IMS Project Booklet annually with a coordinated map showing all biodiversity projects and reserves on Banks Peninsula (including IMS, CCC, Trust, DOC reserves etc).</b> <i>Contributors: ECan, CCC, DOC, BPCT, QEII</i> <i>ZC Role: Use the booklet to celebrate success and utilise the map for helping prioritise projects.</i></p>	<p>There is no time available to do this. Helen suggests engaging a student to do it. Shelley's comment: perhaps better lead by BPCT?</p>	<p>A. IMS Project booklet updated annually (ongoing).</p>	<p>A. IMS Project booklet updated annually (ongoing).</p>	<p>A. IMS Project booklet updated annually (ongoing).</p>	<p>WZC to receive updated booklets, and eCan to make them available to the public (include in Communications Plan).</p>
	<p><b>15. Address native fish barriers on public land and educate landowners.</b> <i>Contributors: ECan, DOC, CCC, NZTA</i> <i>ZC Role: Work with Council staff to ensure that new barriers are not constructed, and that existing infrastructure is upgraded to 'best fish passage practice'.</i></p>	<p>Walnut Creek barrier has been remediated. Aylmers Stream barrier is going to be repaired by CCC.</p>	<p>A. WZC meeting to receive report on 2019 improvements and WZC input into prioritising barriers for 2020 work programme.</p> <p>B. CCC Information Card about fish barriers to be finished and distributed widely.</p>	<p>A. WZC meeting to receive report on improvements and WZC input into prioritising barriers for work programme.</p>	<p>A. WZC meeting to receive report on improvements and WZC input into prioritising barriers for work programme.</p>	<p><b>WZC Fish Barriers Working Group or WZC meeting</b> to provide input into prioritising barriers work</p>
<p><b>5. Erosion and Sediment</b> <i>Sediment discharge into waterways are minimised.</i></p> <p><i>Sediment build in the harbours is managed sustainably to prevent damage to mahinga kai and Kai Moana from erosion and sedimentation.</i></p>	<p><b>16. Complete the Whakaraupō Road Cutting Trial by 2021 to determine effective erosion control techniques</b> <i>Contributors: CCC, ECan, EoS Ecology</i> <i>ZC Role: ZC representative on working group.</i></p>	<p>The first site (at Chch Adventure Park) for this project was installed during May 2019 and will require two years of monitoring. (Note from Shelley: the outcome of the project will be a detailed set of guidelines so CCC can implement on roadside cuttings.)</p>	<p>A. WZC to advocate for funding through Whakaraupō Catchment Plan and assist Peter Kingsbury with finding CCC budget.</p>	<p>B. WZC to receive update and provide feedback on proposed CCC guidelines</p>	<p>A. WZC meeting to receive trial results and guideline</p> <p>B. WZC to consider how this work can be disseminated – include in Communications Plan</p>	<p><u>WZC Erosion Control Working Group or WZC Meeting</u></p>
	<p><b>17. The Wairewa bank stabilisation pilot project is completed by 2021 and funding is secured to extend the pilot.</b> <i>Contributors: Rūnanga, ECan, DOC, landowners</i> <i>ZC Role: Encourage landowners to participate in project and work with rūnanga to secure funding to scale up the project.</i></p>	<p>Initial works have been started as some banks have been shaped. Planting work is scheduled for August 2019.</p>	<p>A. WZC public site visit held April 2019</p> <p>B. Public planting day to be held Aug 2019</p> <p>C. Request ECan to get a map showing the areas that are part of the project and what has been done so far.</p> <p>D. WZC to work with ECan and Rūnanga to secure funding to</p>	<p>A. Work with ECan and Rūnanga to secure funding to extend the pilot.</p>	<p>A. WZC to receive update on Wairewa Bank Stabilisation pilot; possible site visit.</p>	<p><b>Wairewa Working Group</b> to explore options for larger scale projects in Wairewa catchment e.g. sediment trap and Wairewa wetland, consider developing a catchment plan by utilising the sub-regional plan and complimenting it with components it doesn't</p>

ZIP and ZIPA Outcomes	Priority actions for 2018-2021	Actions Underway	Year 1 June 2019 - June 2020	Year 2 June 2020 – June 2021	Year 3 June 2021 – June 2022	ZC Approach
Wairewa ZIPA Outcome- Sediment discharges into waterways is reduced.			<p>extend the pilot. Identify what is needed to secure funding.</p> <p>E. Wairewa Working Group to explore options for larger scale projects in Wairewa catchment</p>			include, consider Mahinga Kai Cultural Park concept.
	<p><b>18. Support forestry landowners and operators to understand the National Environmental Standard for Plantation Forestry and ensure that erosion susceptibility is integrated into any forestry resources.</b></p> <p><i>Contributors: ZC, Industry, ECan, CCC</i> <i>ZC Role: Engage community and provide advice to industry/councils on how to best communicate requirements with the local community.</i></p>	<p>ECan has employed a full time forestry resource management officer to work with landowners and the forestry industry to ensure that the NES is followed.</p>	<p>A. Whaka Ora contact with each landowner in the Head of the Bay catchment in Whakaraupo (underway).</p> <p>B. WZC to receive update on eCan forestry compliance monitoring, incl Teddington legal case following 2017 floods</p> <p>C. Host billion trees &amp; carbon farming / forestry and erosion control public workshop, possibly in conjunction with Beef + Lamb and FEP workshops, and/or Whaka Ora.</p> <p>D. News article on forestry monitoring</p>			<p><u>WZC Erosion Control Working Group</u> to develop ideas</p> <p>1 or 2 <u>WZC Reps</u> to work with ECan to plan public workshop</p>
	<p><b>19. Forestry activities and high-risk construction sites are prioritised for monitoring.</b></p> <p><i>Contributors: ECan</i> <i>ZC Role: Influence ECan monitoring programme and receive regular updates on compliance.</i></p>	<p>These activities are monitored. Major sites to date have included the Sumner Rd and Haul Rd rebuilds and the wastewater pipe laying around the harbour.</p>	<p>A. ECan monitoring staff member monitors all harvesting activities (ongoing).</p> <p>B. WZC to receive update on eCan compliance monitoring</p>	<p>A. ECan forestry monitoring staff member monitors all harvesting activities (ongoing).</p> <p>B. WZC to receive update on eCan compliance monitoring</p> <p>C. <u>Publicise environmental incident number and information on what people should look out for at construction sites.</u></p>	<p>A. ECan forestry monitoring staff member monitors all harvesting activities (ongoing).</p> <p>B. WZC to receive update on eCan compliance monitoring</p>	<p><u>WZC Erosion Control Working Group</u> to develop ideas to hold CCC and ECAN to account for contribution to sediment load. Include ideas on construction site monitoring.</p>
	<p><b>20. Continue to undertake soil mapping on Banks Peninsula.</b></p> <p><i>Contributors: ECan, CCC, Landcare Research</i> <i>ZC Role: Receive updates on project progress and help build community awareness about work.</i></p>	<p>The final stage of soil mapping is nearing completion for the Whakaraupō catchment. Stage 1 was finished last year, and entered into Smap at the start of this financial year. The remainder of the catchment will be entered into Smap over the next few months. If demand can be demonstrated, we are currently considering options for further soil mapping on the Peninsula.</p>			<p>A. WZC to consider how completed Whakaraupo soil mapping can be utilised in Whaka Ora projects e.g. hillside erosion projects, public communications.</p> <p>B. WZC to advocate that Landcare Research extend soil mapping on BP</p>	

ZIP and ZIPA Outcomes	Priority actions for 2018-2021	Actions Underway	Year 1 June 2019 - June 2020	Year 2 June 2020 – June 2021	Year 3 June 2021 – June 2022	ZC Approach
<p><b>6. Wastewater</b> Wastewater is not discharged to the harbour but reclaimed to land. Wastewater is treated to a high quality and promoted as an innovative water and irrigation source for the Peninsula.</p>	<p><b>21. Complete a research project on the impacts of onsite domestic wastewater systems on Wainui waterways. Consider research findings and develop an action plan.</b> Contributors: Waterways Centre and Wainui community. <i>ZC Role: Support researcher with contacts, encourage community participation, consider research findings and suitable actions.</i></p>	<p>Project brief was jointly developed by ECan and CCC and there was an agreement to co-fund this. Brief was provided to Tim Davie who passed it on to Jenny Webster Brown to see if a student was interested. Zone Facilitator to check progress with Tim.</p>	<p>A. WZC to encourage research and ECan to follow up on uptake as a student project</p>	<p>A. WZC to receive research findings and develop an action plan</p>		<p><a href="#">WZC Wastewater Working Group</a> or <a href="#">WZC meeting</a></p>
	<p><b>22. Raise public awareness about the need to regularly maintain onsite wastewater systems</b> Contributors: ZC, ECan, community <i>ZC Role: Provide advice on how to best communicate this message locally, share information through networks, and recommend ECan prioritise consent monitoring.</i></p>		<p>A. CCC Information Card on septic systems being developed (underway). B. Distribute CCC Information Card on septic systems to landowners. C. Include as an item in Communications Plan.</p>	<p>A. Include as an item in Communications Plan. B. Consider septic tanks as a theme at a stall e.g. A&amp;P show stall</p>	<p>A. Include as an item in Communications Plan.</p>	<p><a href="#">WZC Wastewater Working Group</a> to develop ideas for how to raise public awareness</p>
	<p><b>23. Advocate for a successful resolution of the Akaroa Wastewater Scheme.</b> Contributors: CCC, community <i>ZC Role: Provide input/advice where appropriate.</i></p>	<p>WZC are provided with update on this and are welcome to attend any public consultation meetings.</p>	<p>A. WZC to receive update on Akaroa wastewater scheme</p>	<p>A. WZC to receive update on Akaroa wastewater scheme</p>	<p>A. WZC to receive update on Akaroa wastewater scheme</p>	<p><a href="#">Should a WZC Rep be more involved?</a></p>
<p><b>7. Climate Change</b> Climate change effects are taken into account in all infrastructure upgrades and planning on Banks Peninsula. As the climate changes there is adequate water available and flooding is mitigated.</p> <p>Wairewa ZIPA Outcome- Risks of flooding are known and understood and flood hazards reduced.</p>	<p><b>24. Consider climate change effects on all actions.</b></p>		<p>A. Input into Banks Peninsula Climate Change Strategy being developed by CCC. B. Remind WZC to consider in every decision. C. <a href="#">Collaborate with Ngāi Tahu</a></p>	<p>A. Remind WZC to consider in every decision. B. <a href="#">Collaborate with Ngāi Tahu</a></p>	<p>A. Remind WZC to consider in every decision. B. Collaborate with Ngāi Tahu</p>	<p><a href="#">WZC Climate Change Working Party</a> or <a href="#">WZC meeting</a> to brainstorm specific actions and public communications.</p>
	<p><b>25. Promote the development of a contestable fund for flood management.</b> Contributors: ZC, ECan, community <i>ZC Role: Recommend to ECan that a contestable fund be established as part of LTP and provide advice on how this could work.</i></p>	<p>There are river rating districts including Wairewa. BPZC have been advised that a river rating district is not suitable for BP and that a contestable fund is not something that ECan would look to establish. WZC would like this in writing. Zone Facilitator to request this from Jenny/Shawn in river engineering.</p>	<p>A. WZC have advocated for a contestable flood management fund – this was unsuccessful. WZC to receive response from eCan in writing</p>			<p><a href="#">WZC Climate Change Working Party</a> or <a href="#">WZC meeting</a> to brainstorm specific actions and public communications.</p>

ZIP and ZIPA Outcomes	Priority actions for 2018-2021	Actions Underway	Year 1 June 2019 - June 2020	Year 2 June 2020 – June 2021	Year 3 June 2021 – June 2022	ZC Approach
<b>8. Education and Communication</b> <i>The Banks Peninsula community is empowered by education in environmental management. Environmental success in the zone are appropriately recognised and publicised.</i>	<b>26. Develop and implement 6 monthly zone communication plans. This is to include a range of communication channels including social media.</b> <i>Contributors: ZC, ECan, CCC</i> <i>ZC Role: Input to plan and assist with the content and delivery.</i>	Tania prepared a plan which was included in the March WZC agenda. WZC endorsed this. Gill/Lesley need to work with communications re implementing this.	A. ECan Communications and WZC to develop and implement Communications Plan (ongoing).	A. ECan Communications and WZC to develop and implement Communications Plan (ongoing).	A. ECan Communications and WZC to develop and implement Communications plan (ongoing).	<b>Communication, Education &amp; Youth Working Group</b> to work with schools and universities, use wider range of social media, and ask public for feedback and their ideas.
	<b>27. Support and promote freshwater education programmes and community led projects.</b> <i>ZC Role: Support groups through attendance at events, raise profile in community through inviting to ZC meeting and sharing information/photos using social media.</i>		A. WZC supported Okuti River Project by having presentation and field trip with this group in April 2019.	A. WZC to identify and support community led projects B. WZC to host a youth event	A. WZC to identify and support community led projects	<b>Communication, Education &amp; Youth Working Group</b> to work with educators and develop ideas for a youth event
	<b>28. Zone Committee to provide updates to CCC, ECan, Community Boards and the wider community.</b> <i>ZC Role: Quarterly reporting to CCC, annual reporting to ECan, initiate regular reporting to community board.</i>	WZC has reported to CCC Councillors quarterly. Community board are happy to receive quarterly updates from WZC (this just needs to be arranged each quarter).	A. WZC presentations scheduled (ongoing). B. WZC members to write regular articles for local newspapers and social media	A. WZC presentations scheduled (ongoing). B. WZC members to write regular articles for local newspapers and social media	A. WZC presentations scheduled (ongoing). B. WZC members to write regular articles for local newspapers and social media	Confirm that Community Board presentations are scheduled
	<b>29. Recommend that 15 streams on Banks Peninsula are labelled.</b> <i>Contributors: CCC</i> <i>ZC Role: Effectively influence CCC priorities to fund signage.</i>	Zone Facilitator to check progress with Peter Kingsbury.	A. Raised with CCC Infrastructure Transport and Environment Committee April 2019, and is now being investigated by CCC staff.	A. Receive update at WZC meeting, and advocate if necessary.		
<b>9. Coastal</b> <i>The harbours are a natural extension of the rivers and streams. The marine biodiversity of the harbours is protected and restored.</i>	<b>30. Ongoing research in the coastal environment to inform the Coastal Plan Review.</b> <i>Contributors: DOC, ECan, CCC, Universities</i> <i>ZC Role: Revise and share updates on research where appropriate. ZC participate and contribute to the development of the Plan.</i>	There is currently no specific research being done by Environment Canterbury to inform the Coastal Plan Review. There is no budget in the Annual Plan to review the Coastal Plan. Planning may be able to start in the 2020/21 financial year. In the meantime ECan's usual water quality and coastal hazards monitoring programme will continue to provide information. Olga Pantos from ESR has set up samplers in the port area.	A. WZC to receive update on water quality and coastal hazards monitoring programme B. Communicate with research organisations to encourage research projects on BP	A. WZC to receive update on water quality and coastal hazards monitoring programme B. Communicate with research organisations to encourage research projects on BP C. WZC to receive update on Coastal Plan Review.	A. WZC to receive update on water quality and coastal hazards monitoring programme B. Communicate with research organisations to encourage research projects on BP C. WZC to receive update on Coastal Plan Review.	<b>WZC Research Rep</b> and ECan to work with research organisations to encourage research  Opportunities for more WZC involvement??

**Banks Peninsula Water Management Zone Committee**

**Members' Register of Interests at 17 December 2018**

<b>Representative's Name and Interests</b>	
<b>Updated:</b>	13 February 2019
Paula Smith	<ul style="list-style-type: none"> <li>• Member of the Canterbury Aoraki Conservation Board Te Rūnanga Papa Atawhai o Waitaha me Aoraki</li> <li>• Chair of Stoddart Cottage Trust, Diamond Harbour</li> <li>• Friend of Orton Bradley Park</li> <li>• Residential landowner, Diamond Harbour</li> </ul>
Gina Waibl	<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>
Garrick Thorn	<ul style="list-style-type: none"> <li>• Resident of Sumner</li> <li>• Operations Engineer at Dept of Chemical and Process Engineering, University of Canterbury,</li> <li>• Experienced: Researcher, Project manager, Process engineer, Environmental engineer (wastewater treatment)</li> <li>• Passionate about science/engineering outreach, engagement and education.</li> </ul>

---

## **TABLE OF CONTENTS**

### **Karakia/Timatanga**

<b>1. Apologies.....</b>	<b>13</b>
<b>2. Updates from Banks Peninsula Zone Committee Members.....</b>	<b>13</b>
<b>3. Confirmation of Previous Minutes.....</b>	<b>13</b>
<b>4. Matters Arising from the Minutes.....</b>	<b>13</b>
<b>5. Deputations by Appointment .....</b>	<b>13</b>
<b>6. Identification of Urgent Items .....</b>	<b>13</b>
<b>7. Identification of General Public Contribution.....</b>	<b>13</b>

### **STAFF REPORTS**

<b>8. Zone Implementation Programme and Addendum Outcomes - Kaitiakitanga, Mahinga Kai and the Wairewa Catchment.....</b>	<b>21</b>
<b>9. Verbal Updates -     <b>Ngai Tahu Structure - Councillor Elizabeth Cunningham</b>     <b>Mahinga Kai - Pere Tainui</b>     <b>Recent Hui Onuku - Youth Hui Members</b></b>	
<b>10. Facilitator's Update - 16 July 2019 .....</b>	<b>29</b>

### **Karakia Whakamutunga**

The meeting will be opened with a Karakia/Timatanga and closed with a Karakia/Whakamutunga

**1. Apologies**

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

**2. Updates from Banks Peninsula Zone Committee Members**

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

**3. Confirmation of Previous Minutes**

That the minutes of the Banks Peninsula Water Management Zone Committee meeting held on [Tuesday, 18 June 2019](#) be confirmed (refer page 14).

**4. Matters Arising from the Minutes**

**5. Deputations by Appointment**

There were no deputations by appointment at the time the agenda was prepared.

**6. Identification of Urgent Items**

**7. Identification of General Public Contributions**

---

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

---

**Date:** Tuesday 18 June 2019  
**Time:** 4pm  
**Venue:** Lyttelton Community Boardroom, 25 Canterbury Street, Lyttelton

---

### **Present**

Chairperson Dr Benita Wakefield - Te Rūnanga o Wairewa  
Deputy Gina Waibl - Community Representative  
Chairperson  
Members Rima Herber - Community Representative  
Elizabeth Macpherson - Community Representative  
Ben Manson - Community Representative  
Paula Smith - Community Representative  
Garrick Thorn - Community Representative  
Elizabeth Cunningham - Councillor Environment Canterbury  
Aurora Smith - Te Hapū o Ngāti Wheke/Rapaki

In Attendance: ECan - Gillian Jenkins, Birdlings Flat resident - Patsy; DOC – John Benn.

---

17 June 2019

**Committee Advisor**  
Liz Ryley  
Tel: 941 8153  
**Christchurch City Council**

**Principal Advisor**  
Peter Kingsbury  
Principal Advisor Natural  
Resources  
Tel: 941 8487  
**Christchurch City Council**

**Zone Facilitator**  
Lesley Woudberg  
Zone Facilitator  
Tel: 027 706 4273  
**Environment Canterbury**

**To view copies of Agendas and Minutes, visit:**  
[www.ccc.govt.nz/the-council/meetings-agendas-and-minutes/](http://www.ccc.govt.nz/the-council/meetings-agendas-and-minutes/)  
[www.ecan.govt.nz/news-and-notice/minutes/Pages/Default.aspx](http://www.ecan.govt.nz/news-and-notice/minutes/Pages/Default.aspx)

Dr Benita Wakefield opened the meeting with a Karakia/Timatanga.

The agenda was dealt with in the following order.

## **1. Apologies**

### **Committee Resolved BPZC/2019/00022**

That apologies for absence from Manaia Cunningham, Deputy Mayor Turner, and Pere Tainui, be accepted.

Benita Wakefield/Elizabeth Cunningham

Carried

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

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

### **Rima -**

1. The weed, Yellow-horned Poppy is establishing down the sides of the canal, and infesting the southern bays. This matter was discussed at the Weed Liaison meeting held on 5 June 2019 involving DOC, ECan and weed contractors. It may be eradicated by grubbing out. Two other weeds noted are Chilean Mayten similar to a native and Great Willow Herb, an issue in wetland areas.
2. Noted that the surfactant in glyphosate spray affects lizards.
3. The possibility of a Catchment Management Plan could be considered at some time in the Wairewa Catchment.
4. Lake Forsyth/Te Roto o Wairewa is often above 2.7metres and inundates neighbouring property. A photograph showed the inundation when the lake was at 2.6m. Benita advised that other strategies in relation to this matter would be discussed by the Wairewa Rūnanga. The meeting noted that the ECan website shows a graph of lake measurements.

**Liz Macpherson** – Reported on a visit from PhD student Aisling about her freshwater kākahi (freshwater mussels) species project, about moving them between waterways to try and increase numbers. This is about Increasing taonga species in freshwater streams and rivers, improving mahinga kai outcomes and as an indicator of water quality. Students would be happy to present the information to the Committee. Consideration should be given to barriers to this happening, such as legislation or funding. Note a permit from DOC is required to transfer species. Liz will circulate the information about this. Contacts in this area may be a PhD student with Mahaanui Kurataiao, and Peter Ramsden, Koukourārata Rūnanga.

### **Gina -**

1. Attended the Biosecurity Advisory Meeting covering Regional Pest Management Plan pest species, e.g. Old Man's Beard, not new incursions. ECan are seeking community representatives for groups, applications close 26 July. (Note page 24 of the Banks Peninsula Zone Committee's agenda regarding the Biosecurity Advisory Group).
2. Wrote article on possum control and forwarded it to newspapers, Akaroa Mail and Bay Harbour News.
3. Noted that a ship unloading urea is currently at the Lyttelton Port.

### **Garrick -**

1. Met with David Norton, Ecology Advisor to the Banks Peninsula Trust, about using Living Springs covenants as satellites to grow forests to attract biodiversity. David works with Beef and Lamb regarding Farm Environment Plans and communications about those plans. Many groups have an interest in this, such as Pest Free Banks Peninsula.
2. Garrick is assisting at work teaching bi-cultural competencies.

**Aurora -**

1. Reported on the Art of Living programme, and about work being carried out in India to revive rivers.
2. Noted that a trip from Rapaki to Ripapa Island last week was postponed.

**Ben -**

Has talked to Adam Thacker about Okains Bay. Removal work being carried out has had no impact.

**Benita -** The Zone Committee work weaves in and out of other Boards Benita sits on. In future she will share information about the work Ngāi Tahu does across many areas. What makes us unique and special in this zone. Thirty percent of biodiversity remaining is here in Banks Peninsula.

**Elizabeth Cunningham -**

1. Offered to provide an update on Ngai Tahu structure.
2. Reported on the Whakaraupō-Lyttelton Harbour next step of the implementation plan, there are four funders. Lyttelton Port Company, Environment Canterbury, Christchurch City Council, Te Wheke and Ngai Tahu who have signed an MOU. Segments of this Plan could inform work on harbours. Karen Banwell is implementing the Plan, and will arrange for someone to co-ordinate all the groups working in the area. A report will be provided to the Zone Committee every two months.
3. Koukourārata Rūnanga – DOC worked with residents on Horomaka Island pine trees replacement.

In relation to the matters raised by a concerned resident, Adam Thacker, regarding the Opara River at Okains Bay, Peter Kingsbury advised that the work involves various units at Council relating to drainage, parks, roading and traffic engineering. Traffic Engineering has assessed the bend identified by the community as acceptable, and not a blind corner, if people are driving to the conditions. Work carried out in the waterway is to ensure flood carrying capacity of the stream is maintained and the banks remain stable. This is not a road safety matter and there is no need to remove any further vegetation. There is no intention to remove fencing, no further changes are to be made.

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

Birdlings Flat resident, Patsy Gibson, raised the matter of high speed power boats on Lake Te Roto o Wairewa-Lake Forsyth. She has spoken to Gary Manch, in the Harbourmaster's Office, about this, and queried how navigation rules are being accommodated. The definition of a circuit racing boat is that it does 60km/hour with a top end speed of 235km/hour. The speed boat club had temporary exemption from the Navigation Safety Bylaw to race 12 days per year (this number of race days is seldom reached). Neighbours were unaware of any posts to Facebook or notices about lake closure for the power boat racing. There is concern that possibly the club is not meeting the conditions required. From 14 October to 7 April there are nine race days planned. Concern has been expressed that if the lake is closed it complies with health and safety for other users. Concerns are that the

area is narrow with significant wetlands near the boathouse, the effect the boat wake may have on those wetlands, the effect on birdlife and the issue of noise.

The meeting noted that the ZIP Addendum, page 24, 6.9 promotes this as a low speed area.

The Zone Committee recognises this issue in the ZIPA, and suggests during the next Quarterly Report to the Christchurch City Council it raises this matter. The Zone Facilitator will report any further advice from Harbourmaster to the next meeting.

## **9. Facilitator's Update - 18 June 2019**

### **Committee Comment**

1. Lesley spoke to her Facilitator's report. She advised that plantings would be undertaken on 4 August 2019 at Orton Bradley Park, and on 25 August 2019 at Okuti River. Plantings at Koukourārata Marae were being organised in terms of the Immediate Steps project funding.

### **Committee Resolved BPZC/2019/00023**

That the Banks Peninsula Water Management Zone Committee:

1. Receive the Facilitator's Report.

Elizabeth Cunningham/Elizabeth Macpherson

**Carried**

## **3. Confirmation of Previous Minutes**

### **Committee Resolved BPZC/2019/00024**

That the minutes of the Banks Peninsula Water Management Zone Committee meeting held on Tuesday, 21 May 2019 be confirmed, subject to the following addition:

- Item 9.2 – to note that there are two projects from the Zone Committee's current Action Plan that are fully aligned with the Whakaraupō Catchment Management Plan. These are Priority Action 1: *Support the implementation of the Whakaraupō Catchment Management Plan project to complete riparian planting on four streams ki uta ki tai*, and Priority Action 16: *Complete Whakaraupō Road cutting Trial by 2021 to determine effective erosion control techniques.*

Paula Smith/Benita Wakefield

**Carried**

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

The issue of the Te Roto o Wairewa-Lake Forsyth opening level of 2.7 metres and providing feedback to Joe Power, the Manager of Kinloch, was raised. It was noted that there were graphs of lake levels available from the ECan website. Ben will provide Joe with a copy of the graphs. Benita advised she had passed information to Councillor Iaeen Cranwell about the lake opening issue. Councillor Cunningham will also raise this matter with Deputy Mayor Andrew Turner.

In relation to Immediate Steps funding, Lesley referred the meeting to a Draft Questions and Answers for Landowners document.

## **5. Deputations by Appointment**

There were no deputations by appointment.

## **6. Identification of Urgent Items**

There were no urgent items identified.

## **8. Banks Peninsula Zone Committee - Quarterly Update Committee Comment**

1. Gill Jenkins spoke to the Quarterly Update report that had been separately circulated.
2. The meeting noted that Brad Baxter, Land Management Advisor for ECan, has been seconded to another area of ECan and a replacement for his role would be filled soon.
3. In relation to bank stabilisation and plantings in the Wairewa catchment, Paula suggested it would be helpful to have a plan of what is being achieved, i.e. 80% of stream banks. The possibility of volunteers to assist with plantings from the Art of Living group was suggested.
4. CCC Information cards – Peter Kingsbury responded that these were not currently a priority for CCC.
5. Benita referred to the matter of fencing in higher areas that was too expensive. Because these areas were too steep there was natural stock exclusion. Rules around stock exclusion are to be provided to members. There is landowner concern that fencing in higher areas will be too expensive.
6. In managing septic tanks, Gill advised there was no change to the work, and that the progress of information cards had been delayed.
7. There was a suggestion of possibly developing a project around waterways in Wainui.
8. In response to an enquiry regarding compliance around sediment discharges, Gill advised she would check and provide advice on the number of on the spot infringements issued, including the issue of sediment from construction at Norwich Quay, Lyttelton.

### **Committee Resolved BPZC/2019/00025**

That the Banks Peninsula Water Management Zone Committee:

1. Receive the information in the Quarterly Update report.

Benita Wakefield/Gina Waibl

**Carried**

The formal meeting concluded at 6.20pm and a workshop followed.

## **10. Workshop - Review of the Banks Peninsula Zone Committee's 3-Year Action Plan**

Following the formal meeting a workshop was held to review the Zone Committee's 3-Year Action Plan.

**At 8.05pm the meeting/workshop closed with a Karakia/Whakamutunga.**

**CONFIRMED THIS 16TH DAY OF JULY 2019**

**DR BENITA WAKEFIELD  
CHAIRPERSON**

Unconfirmed



## 8. Zone Implementation Programme and Addendum Outcomes - Kaitiakitanga, Mahinga Kai and the Wairewa Catchment

Reference: 19/778781

Presenter(s): Lesley Woudberg, Zone Facilitator

### 1. Purpose of Report

- 1.1 The purpose of this report is to provide a platform for the Banks Peninsula Water Management Zone Committee to:
  - 1.1.1 Learn about kaitiakitanga, mahinga kai and the Wairewa catchment.
  - 1.1.2 Learn about the structure of Ngāi Tahu; and
  - 1.1.3 Identify actions the Committee wishes to take to contribute to:

#### Kaitiakitanga on Banks Peninsula

*“All waterbodies on Banks Peninsula have kaitiakitanga as an overarching value and reflect K Uta Ki Tai, Mauri, mahinga kai, Wahi Tapu and Waihi Tonga”*

#### Wairewa ZIPA Outcome

*“All streams that flow into the lake are flourishing ecosystems reflecting mauri, kaitiakitanga and mahinga kai values”*

- 1.1.4 Identify opportunities to grow enthusiasm and resources.



### 2. Staff Recommendations

That the Banks Peninsula Water Management Zone Committee:

1. Identifies the following actions it will take over the next 12 months to:
  - a. Promote Kaitiakitanga on Banks Peninsula; and
  - b. Drive on ground action in the Wairewa catchment.

### 3. Report

- 3.1 The Banks Peninsula Zone Committee identified as priorities:

**Kaitiakitanga**

*All waterbodies in Banks Peninsula have kaitiakitanga as an overarching value and reflect ki uta ki tai, mauri, mahinga kai, wahi tapu and waihi tonga.*

**Wairewa ZIPA Outcome**

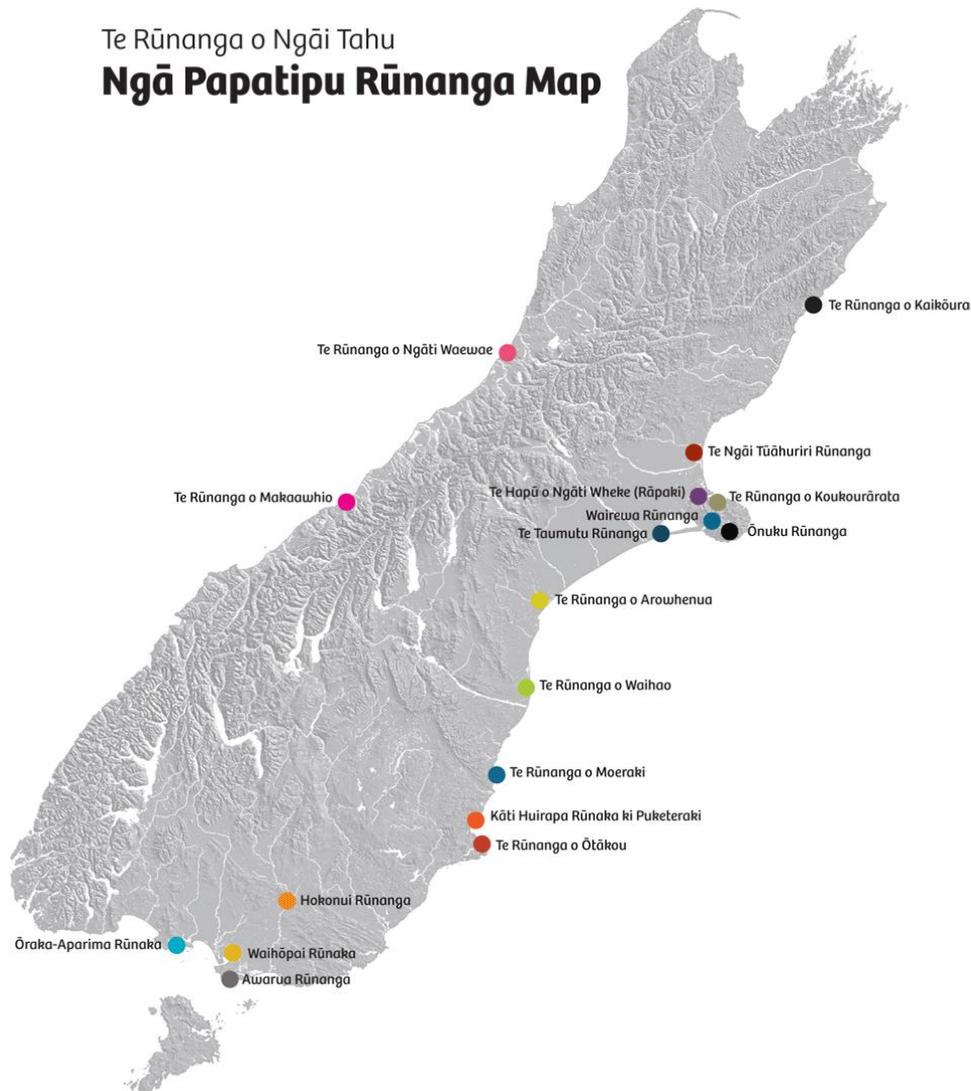
*All streams that flow into the lake are flourishing ecosystems reflecting mauri, kaitiakitanga and mahinga kai values.*

- 3.2 This session will be an opportunity for the Committee to learn about the structure of Ngāi Tahu and explore concepts such as kaitiakitanga and mahinga kai. It will also be an opportunity discuss the progress that has been made to implement the Wairewa Zone Implementation Programme Addendum.
- 3.3 By the end of the session the Committee will have identified three actions that it will take between now and the end of the year to progress these priority outcomes.

## **4. Papatipu Rūnanga**

- 4.1 A Ngāi Tahu individual stands within their whānau. That whānau lives within a clan, or groups of whānau known as a hapū.
- 4.2 Collectively, in its simplest form, the various hapū come together and unite as an iwi or a tribe. Overlaid on this paradigm is the Papatipu Rūnanga structure. In the case of Ngāi Tahu, 18 regional Papatipu Rūnanga exist to uphold the mana of their people over the land, the sea and the natural resources.
- 4.3 Spread throughout Te Waipounamu each of the 18 Rūnanga appoints a tribal member to represent its interests at Te Rūnanga o Ngāi Tahu, the governing council overseeing the tribe's activities.
- 4.4 Those people that live and participate within the Rūnanga community take on the responsibility of keeping the home fires burning. They are part of the continuum that is Ngāi Tahu, they maintain the marae, greet and look after the visitors, bury the dead, help to raise the next generations and keep alive the traditions and stories of their culture.
- 4.5 Each Rūnanga has its own governance structure and it is through this mechanism that the collective Ngāi Tahu voice in the region is represented and heard at local government and community level.
- 4.6 No Rūnanga is the same, each has opportunities and challenges shaped by the land, the environment, the towns and cities and the people that make the region home. The Rūnanga is the face of Ngāi Tahu at regional level, wanting better education for their children, safer communities and less pollution at the beach.
- 4.7 Te Rūnanga was created to manage the collective assets of the tribe and in doing so support Rūnanga in a way that allows each of them to exercise rangatiratanga – to determine their own destiny so they can build and sustain their communities as they have done so successfully for generations.

Te Rūnanga o Ngāi Tahu  
**Ngā Papatipu Rūnanga Map**



## 5. Wairewa Rūnanga

- 5.1 The Ngāi Tahu Claims Settlement Act 1998 has seen the recognition of Ngāi Tahu's mana in relation to Wairewa and guaranteed tribal involvement in the future management of the site. The rehabilitation of Te Roto o Wairewa is a major focus for the Wairewa Rūnanga today.
- 5.2 In the past, Wairewa provided a rich supply of tuna to Māori communities who did not have their own sources. The harvesting and preparation of tuna at Wairewa continues today though numbers are greatly reduced.

## 6. Environmental Kaitiakitanga

### The Vision:

- 6.1 Our dream is that our ancestral landscape is protected, and our people have living relationships with their whakapapa and traditions through the environment. The goal is that Ngāi Tahu is a principled kaitiaki (steward) of our takiwā (tribal territory).
- 6.2 Survival in the harsh climate of Te Waipounamu demanded the wise use of all available resources, processing and preserving these for times of need. Whānau travelled the takiwā to gather food and other resources on a seasonal basis and in the process helped weave together the social structure of the iwi through alliances and intermarriage.

- 6.3 Our lands have always been fundamental to our tribal identity. We know our place in the world through our whakapapa to our takiwā, it carries our stories of creation, warfare, marriage and times of change. Restoring our tribal footprint to our ancestral landscape, in both traditional and contemporary forms, is a galvanising force within the iwi.
- 6.4 Our relationship with the natural environment was at the heart of Te Kerēme – The Ngāi Tahu Claim, and much of the Ngāi Tahu Settlement gives expression to our relationship with the takiwā. The Settlement restored our place names, recognised our histories, vested ownership of tribal taonga in the iwi and provided for Ngāi Tahu people to be members of important decision making bodies, such as the New Zealand Conservation Authority. These tools are immensely significant to the iwi as symbolic recognition of our whakapapa, but more importantly, they allow us to honour our values of kaitiakitanga (environmental guardianship).
- 6.5 Kaitiakitanga is expressed in many different ways. Papatipu Rūnanga plant native species, negotiate how development can ensure that fish and eels can still travel from spawning grounds to the sea, put detailed submissions into government planning processes and closely monitor the health and wellbeing of the environment. The responsibility of kaitiakitanga is felt deeply by our whānau and Rūnanga because our landscape and its resources are the main inheritance we will leave future generations.
- 6.6 Our people also need opportunities to reclaim their heritage and to express our values in this rapidly changing world. Te Rūnanga is using the 21st century technology of Geographic Information Systems (GIS) to record and map ancient place names and oral histories. We also support Rūnanga to come together to collectively manage resources, such as fisheries. Outwardly how Ngāi Tahu practices kaitiakitanga will continue to change, but the reasons for doing so and the values associated with it will remain constant across generations.

## **7. Mahinga Kai**

See Attachment 1.

## **8. Wairewa ZIP Addendum - Progress**

See Attachment 2.

### **Attachments**

<b>No.</b>	<b>Title</b>	<b>Page</b>
A <a href="#">↓</a>	Mahinga Kai - Fact Sheet	25
B <a href="#">↓</a>	Wairewa Addendum	27



# An introduction to Mahinga kai for Canterbury farmers

This information sheet has been put together to explain the concept of mahinga kai and its relevance in today's farming environment.

## Why is mahinga kai important today?

Te toto o te tangata, he kai; te oranga o te tangata, he whenua *Food supplies the blood of people; their welfare depends on the land*



The area around Te Waihora/Lake Ellesmere is of enormous historical significance to Ngāi Tahu. Traditionally, the lake and its surrounds were a plentiful gathering ground and a remarkable tribal resource.



Pātiki (flounder) are a taonga, and a prominent species.

Do you have freshwater crayfish in your drain? Lizards in your flax? Whitebait in your creek?

There is a term for these treasures and the habitats that support them – in Māori, it is mahinga kai.

Mahinga kai relates to the traditional value of food resources and their ecosystems, as well as the practices involved in producing, gathering and protecting these resources.

Mahinga kai is about more than just survival for Ngāi Tahu, it is about thriving, and maintaining those things that sustain and nourish us, and that bring us wellbeing – clean water, clean air, clean soil and sufficient shelter. Access to and being able to gather clean and healthy kai, as the ancestors did, and doing this in a sustainable way, is also important. These things are the essence of kaitiakitanga, mana and manaakitanga or what many people today call guardianship.

This practice remains a foundation of Ngāi Tahu values today, although it has become increasingly difficult as sites, species and habitats are lost, degraded or compromised.

These days, farmers and landowners are also custodians of the land and the resources they contain. For many, an affinity for land and resources ensures that they now assume responsibility for protection of mahinga kai, as Ngāi Tahu tūpuna or ancestors did before them.

Farmers' reasons for doing so are not that different – there is something special about providing the best environment for these treasures, and watching them do well.

[canterburywater.farm](http://canterburywater.farm)

## What exactly is mahinga kai?

*Ka hāhā te tuna ki te roto; ka hāhā te reo ki te kaika; ka hāhā te takata ki the whenua*

*If there are no fish in the lake; there will be no language or culture resounding in the home; and no people on the land; however, if there are fish in the lake; language and culture will thrive; and the people will live proudly on the land - Nā Charisma Rangipuna i tuhi.*

Mahinga kai areas are likely to be those special areas of your property that you are already actively taking care of for their environmental or biodiversity significance – but it could also be for things that you were not aware of – the little things.

Because it refers to numerous species rather than something specific, there is no one list of exactly what is mahinga kai for any given property. Mahinga kai includes things such as species, natural habitats, materials and practices used for harvesting food, and places where food or resources are, or were, gathered. This can include:

- All waterways, drains (with water), wetlands, and springs
- Native vegetation and riparian areas
- Areas with specific mahinga kai species and their habitats.

By way of example, inanga, or whitebait, are an important mahinga kai species. Today they are valued by most people, not just Māori, and can live and spawn in all waterways, including farm drains. Much of their critical spawning habitat occurs along vegetated waterways, particularly near the coast. Their habitat is susceptible to disturbance, particularly from grazing animals and farm operations, which is why its protection is essential. Some of the steps you can take include simple fencing, and adjusting farming practices when spawning occurs in Autumn.

## Whose responsibility is mahinga kai protection?

*Toitū te marae o Tāne; toitū te marae o Tangaroa; toitū te iwi*

*If the forests of Tāne are protected; and the oceans of Tangaroa are protected; so too are the people*

Everyone has a part to play in protecting and enhancing mahinga kai, although as the current guardians of the land, there are clear responsibilities on land owners.

While the active protection of mahinga kai is a key foundation of the Treaty of Waitangi, it is also simply part of wider environmental stewardship or kaitiakitanga. Looking after mahinga kai sits alongside ecosystem health and biodiversity as an essential environmental objective in our region.



Pātiki (flounder) provides a great harvesting experience for the whole whānau. Photo courtesy of Te Rūnanga o Ngāi Tahu.

Farmers are now required to achieve a mahinga kai target when implementing their Farm Environment Plans. This means you need to identify and understand mahinga kai values and risks on your farm, and respond to these when carrying out good management practice.

The management targets will not necessarily limit the way you use your land, but they do require you to manage the risks of farming on mahinga kai.

## What should I be doing?

Your Farm Environment Plan actions will need to take mahinga kai values into account. This will include actions such as:

- protecting mahinga kai species and habitats when waterways are managed or cleared; and
- sustaining mahinga kai through management of remnant native vegetation and wetlands.

The Industry Agreed Good Management Practices you are already working on will also contribute to restoring mahinga kai, through improving water quality and habitats.

## How do I find out exactly what to do?

Find out more about mahinga kai values and species that might be on your farm at [www.canterburywater.farm](http://www.canterburywater.farm).

***Together, we can restore the strong cultural and natural values in this land.***

## We can help



Call Environment Canterbury  
Customer Services on 0800 324 636



Visit our website at  
[canterburywater.farm](http://canterburywater.farm)

ET/6450-2

July 2019

## WAIREWA ZIP ADDENDUM – What has been achieved? What is missing???



1948

*Ka hāhā te tuna ki te roto  
If the lake is full with eels*

*Ka hāhā te reo ki te kāika  
If the home resounds with speaking*

*Ka hāhā te takata ki te whenua  
The land will be inhabited by people*



March 2014

*"This morning, Little River presented a scene of desolation. Masses of rocks, shingle, silt, tree trunks, and flood debris were strewn everywhere. A creek was running full force down the main street. Dead sheep, hares, rabbits and dogs lay where the flood had left them. To add to the miseries of residents, a fine rain started to fall this morning. The rainfall for the period 9am Saturday to 9am Monday was 17.80 inches."*  
*The Christchurch Star-Sun Tuesday 22 May 1945*

**Desired Outcomes**

*CATCHMENT*

Sediment discharges into waterways is reduced

All streams that flow into the lake are flourishing ecosystems reflecting mauri, kaitiakitanga and mahinga kai values

*FLOOD HAZARD*

Risks of flooding are known and understood

The flood hazard is reduced

*THE LAKE*

Te Roto o Wairewa is a nationally significant project showcasing outstanding environmental restoration

Annual Average TLI = 4 within 20 years (2035)

No more than 30% of water quality samples in a year have chlorophyll-a levels above 20µg/l

Chlorophyll a levels should not exceed 50 µg/l

The lake supports mahinga kai and contact recreation all year round

	Wairewa Rūnanga	Community	Christchurch City Proposed District Plan	Christchurch City Drainage/Wastewater Infrastructure	Environment Canterbury Land and Water Regional Plan	Environment Canterbury Erosion and Rehabilitation	Environment Canterbury Monitoring and Research Programme	Universities Research Programmes	Department of Conservation	NZ Transport Authority Operational Plans
TOOLS	Investigations, research. May 2016 Rūnanga/CCC Lake opening consent granted 35 yr period	<b>Community nursery – community planting Ōkana</b>  <b>Wairewa flood Rating District July 2015</b> Reduce the damage from flooding by actively managing the Ōkana and Ōkuti approx \$133,000 over 7 years  <b>Okuti Rivercare Group - \$30,000 IS funding, UoC, DoC and CCC support</b>  <b>Community Board Little River -BIG IDEAS</b>	Introduces a <b>Floor Level and Fill Management Area</b> – new dwellings need to be at xx above CC datum	<b>Maintenance and improvements</b> scheduled – Long-Term Plan  <b>Reserve staff</b>	<b>Plan Change 6 Wairewa</b> Decisions 25 August 2016  <b>Enabling</b> – stabilisation of river banks on the valley floor, sediment retention basin, research, lake opening  <b>Restrict</b> – stock access to riparian margins in the valley floor, minimise phosphorous from wastewater, prevent inundation of septic tanks  <b>Limits</b> and targets for water quality for both lake and catchment are set	<b>Pilot project</b> – bank stabilisation and treatment (up to \$60,000 IS funding)  <b>Reports - Rob Blakely</b> - map and prioritise sites for bank stabilisation est cost  <b>Farm Environment Plans</b>	<b>Upgraded Lake monitoring equipment</b> – continuous monitoring temp, salinity, dissolved oxygen, turbidity, chlorophyll a, and cyanobacteria  <b>Catchment monitoring</b> water quality, quantity, ecosystem health  <b>Ōkana Flow modelling completed</b>	Physical and social science??	DOC Catons Bay	



## 10. Facilitator's Update - 16 July 2019

Reference: 19/779251

Presenter(s): Lesley Woudberg, Zone Facilitator

### 1. Purpose of Report

- 1.1 The purpose of this report is to inform the Banks Peninsula Water Management Zone Committee of:
- 1.1.1 Recent and upcoming community engagement events
  - 1.1.2 Update on matters raised and actions from previous meetings.
  - 1.1.3 Information and inspiration matters.

### 2. Staff Recommendations

That the Banks Peninsula Water Management Zone Committee:

1. Receive the Facilitator's Report.

### 3. Report

#### 1. RECENT EVENTS

Event	Target Audience
<b>CWMS Chairs and Deputy Chairs meeting – 10 July</b>	Chairs and Deputy Chairs from Zone Committees around the region.

#### 2. UPCOMING EVENTS

Event	Target Audience
<b>Local Govt nominations Open 19 July – closes 16 August</b>	
<b>Fools and Dreamers - The Story of Hinewai Reserve</b>  Available on YouTube from 28 July	Public
<b>4 August Orton Bradley Park community Planting 10:00am-12:00noon</b>	<b>Trees for Canterbury</b> is planting over 400 native plants at Orton Bradley Park on Sunday 4th August beginning at 10.00am as part of their continuing community revegetation and biodiversity enhancement project. The planting will start near the main buildings. Park by the historic school house. This key event is part of an ongoing partnership between the community, Trees for Canterbury and the Orton Bradley Park Board.  Come and make a day of it. There is plenty to see and do

	<p>in the Park. There are excellent walks to various special features, wonderful collections of mature trees, picnic areas and a children’s playground. If a more sedate day is needed, there are the wonderfully restored buildings and displays of old machinery, a working water wheel installed in 1887 and used to generate electricity from 1901.</p> <p>What to bring: A spade, a picnic lunch, and lots of family and friends.</p>
<p><b>20 August Banks Peninsula ZC meeting Birdlings Flat</b></p>	<p>Focus – biodiversity and ecosystem health (TBC)</p>
<p><b>Okuti River Project Planting Day</b></p> <p>Sunday 25 August 2019</p>	<p>Wairewa community, ZC and friends</p> 
<p><b>Little River – Banks Stabilisation project planting August (date TBC)</b></p>	
<p><b>Koukourārata planting day (September date TBC)</b></p>	<p>30-50 volunteers needed Hi All</p> <p>It looks like we will have the fences installed by the end of August at the latest. To these ends a September date for the volunteer plant out would work well for us. We have approximately 1000 moist forest seedlings to be installed along the valley bottoms and 2000 dry forest seedlings on the slopes. My plan is to have the moist forest seedlings installed throughout the valley bottoms prior to the volunteer event. This will provide a straightforward process for the volunteers to work on the remaining areas with dry forest seedlings. The plantings positions will be pegged with green (tall trees) orange (subcanopy small trees and large shrubs) and purple pegs (understory small shrubs etc) and the seedlings packed into boxes of each colour. We will also install our new EcoGuards onto the seedlings at our nursery prior to them being boxed up. To these ends the volunteers will be used to do the planting with no need to the time consuming CombiGuarding as before.</p> <p>I will supply all the planting tools and resources and have my staff on site to manage the event. My expectation is</p>

	<p>that if we had 30-50 volunteers, we should be able to get 2000 seedlings installed. That is my suggestion on how things will work and I look forward to your input.</p> <p>All the best, Steve Brailsford,</p>
<p><b>17 September Banks Peninsula ZC meeting Living Spring (TBC)</b></p>	<p><b>Request to change date (TBC)</b></p> <p><b>Option</b> – change date Host an open community forum Focus – Erosion and Sediment (Landcare soil mapping, Forestry rules/compliance, MPI Billion Trees)</p>
<p><b>12 October Local Government Elections</b></p>	
<p><b>15 October Banks Peninsula ZC meeting Wainui (TBC)</b></p>	
<p><b>19 November Banks peninsula ZC meeting ?? Marae (TBC)</b></p>	

**3. UPDATE ON MATTERS RAISED AT PREVIOUS MEETINGS**

<b>Matter</b>	<b>Update</b>
<p><b>ZC Communications</b></p> <p>Article on last meeting's catch up on the Little River Rating District and Okuti River Project</p>	<p>Lesley Woudberg (ECan) – pending</p>
<p><b>Q&amp;A's for Landowners</b></p> <ul style="list-style-type: none"> <li>• Immediate Steps funding</li> <li>• What landowners can do without consent</li> </ul>	<p>Ben, ECAN and CCC staff – final draft completed</p> <p>Clarify stock exclusion rules – Gillian Jenkins</p> <p>CCC brochures - Peter Kingsbury pending</p>
<p><b>Communication</b></p>	<p>Climate emergency and Banks Peninsula – Paula Smith</p>
<p><b>Te Roto o Wairewa</b></p> <ul style="list-style-type: none"> <li>○ New Brighton Boat Club</li> </ul>	<ul style="list-style-type: none"> <li>• The New Brighton Powerboat Club (NBPBC) has been running a series of high speed powerboat races on Lake Forsyth for many years, they have a reservation issued by the Harbourmaster's Office to run 12 races a year. The reservation is on the Harbourmaster's ECan webpage (<a href="https://ecan.govt.nz/do-it-online/harbourmasters-office/recreational-boating/">https://ecan.govt.nz/do-it-online/harbourmasters-office/recreational-boating/</a>) in the four and a half years I</li> </ul>

	<p>have been here this is the first complaint in relation to their operation.</p> <ul style="list-style-type: none"> <li>• Patsy Gibson contacted the HM office on 16<sup>th</sup> June 2019. She had concerns about the NBPBC club’s operation on Lake Forsyth, her concerns were, the NBPBC had not notified residents of the race days, the racing was too close to housing, she was concerned at the wake and damage to shoreline and birdlife this may cause. I asked her if she was representing the residents, and if so she should have a chat to the Banks Peninsula community board advisor as some of her concerns were not the Harbour Master’s area of operation, I explained to her we only dealt with the Navigation Safety side of things. On the 22<sup>nd</sup> June 2019, Patsy contacted our office again and asked lots of questions, I asked her to e-mail me with them and then I could reply to her with the detail that the Harbour Master is responsible for. I also contacted Rob Knoef, the NPBBC secretary and outlined Patsy’s concerns to him.</li> <li>• On speaking to Rob, the course has remained the same for years, they had put the dates on the Local Power Boat Club website and the National one, signs advising of race days had been placed in the past on the club house but were taken away by persons unknown.</li> <li>• The NBPBC have agreed to ensure the residents are better advised of race days, this will include Facebook, signs placed on the clubhouse, and the Power boat web sites, we have also put the race dates on the Harbour Master’s website.</li> <li>• From a navigation safety point of view, we have no concerns about the operation of this club, they have a good safety record, are overseen by a national body and manage their events well, the only area that requires attention is the race date notification, which is being addressed.</li> <li>• To date no further requests from Patsy have been received.</li> </ul> <p style="text-align: right;">Gary Manch Navigation Safety Office Harbour Master Office 9 July 2019</p>
--	---

**4. FOR YOUR INFORMATION AND INSPIRATION**

**Whakaora Te Ahuriri**

- The Whakaora Te Ahuriri project will create a constructed wetland at Ahuriri Lagoon to improve water quality, biodiversity and mahinga kai values.

**Background**

- Ahuriri Lagoon was once an open body of water stretching to the hills and surrounded by a rich wetland, which had been a significant place and mahinga kai/food resource for Ngāi Tahu.
- Over the years the Lagoon was completely drained and the ecological and mahinga kai values were all but lost. However, because the site is an Environment Canterbury reserve, and there is community desire to see the Lagoon restored, the Whakaora Te Ahuriri project was initiated to create a constructed wetland at this site.



The paddock that will become the constructed wetland (image taken in June 2018). Te Waihora/Lake Ellesmere can just be seen at top right.



The paddock (image July 2019)

**Where is Ahuriri Lagoon?**

- Ahuriri Lagoon is situated between Tai Tapu and Motukarara. It can be accessed via the Little River Rail Trail, which runs adjacent to the Whakaora Te Ahuriri project site.
- The nearest road access is Neills Road: Cars can be parked at the end of Neills Road, near where the Little River Rail Trail runs beside the Huritini/Halswell River. The main body of the constructed wetland is some 900m along the trail to the right/east.

**Who is involved in the project?**

- The Whakaora Te Ahuriri project is all about working together.

- The desire to restore the wetland came from local Papatipu Rūnanga and the community. They are represented on the Ahuriri Lagoon Steering Group, which advises on the project.
- The project is:
  - Governed by the [Te Waihora Co-Governance Group](#);
  - Funded by Environment Canterbury, the Government's Freshwater Improvement Fund, and NIWA;
  - Managed through the [Whakaora Te Waihora programme](#); and having works delivered by a range of partners.

### **ESR Research 3 July 2019**

#### **Impacts of plastic pollution measured in new Lyttleton trial**

Scientists are investigating the impact of plastics on our marine environment in a new project that has recently got underway in Lyttleton harbour.

The project – called Aotearoa Impacts and Mitigation of Microplastics (AIM<sup>2</sup>) is the first comprehensive research investigating the impact of microplastics on New Zealand's environment.

Scientists from ESR have deployed plastics onto a pontoon in Lyttleton Harbour to see what grows on them, what chemical pollutants are taken up and concentrate upon them, and the changes that occur to the plastic itself.

It is estimated there are over 15 trillion pieces of microplastic debris in the world's oceans, 80 per cent of which originate from land-based activities.

Lead ESR scientist Olga Pantos says the problem is similar to climate change due to its global scale and the broad array of potential risks it poses to ecosystem health and resilience, human health and biosecurity.

Two types of plastic are being trialled - nylon and polyethylene - both commonly found in the marine environment, often in the form of fishing gear and food packaging.

As well as measuring the impacts, Dr Pantos says scientists are also looking at bacteria and fungi that may be degrading the plastics and the mechanisms they are using, with the hope of finding some solutions to the plastic pollution problem.

The trial is part of a five-year MBIE funded project investigating the impacts of microplastics and the threat to New Zealand's ecosystems, animals and people.

The project led by ESR and Northcott Research Consultants includes scientists from University of Auckland, University of Canterbury, Scion and the Cawthron Institute along with primary industry, regional councils, iwi and communities.

Research programmes in Europe, Australia and North America have confirmed the presence of microplastics in a range of environments, and their long-term impacts on organisms. In New Zealand, scientists, regulators and Māori are increasingly concerned about the impacts of microplastics on our unique species and ecosystems, tāonga, and human health. While initial national data shows that New Zealand's coastal and freshwater environments and biota are contaminated, there is limited information to assess the risk microplastics pose.

## **Attachments**

There are no attachments for this report.