

**ORARI-TEMUKA-OPIHI-PAREORA WATER ZONE
MANAGEMENT COMMITTEE**

on

Monday 2 May 2016

1pm

**Council Chamber
Timaru District Council
Timaru**

ORARI-OPIHI-PAREORA WATER ZONE MANAGEMENT COMMITTEE

Notice is hereby given that an Orari-Temuka-Opihi-Pareora Water Zone Management Committee meeting will be held on Monday 2 May 2016 at 1pm in the Council Chamber, Timaru District Council, 2 King George Place, Timaru.

Committee Members:

John Talbot (Chairman), David Caygill, Kylee Galbraith, John Henry, Mandy Home, Ivon Hurst, Richard Lyon, Hamish McFarlane, James Pearse, Ad Sintenie, Mark Webb and Evan Williams

ORARI-TEMUKA-OPIHI-PAREORA WATER ZONE MANAGEMENT COMMITTEE

2 MAY 2016

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| 1 | 1pm | | Apologies |
| 2 | | | Register of Interest |
| 3 | 1.10pm | | Community Forum |
| 4 | 1.20pm | 1 | Confirmation of Minutes |
| 5 | 1.25pm | | Zone Team Update |
| 6 | 1.30pm | 7 | Zone Implementation – IMS Biodiversity Projects |
| 7 | 1.45pm | 16 | Zone Implementation – Annual Compliance Summary & 2016/2017 Approach |
| 8 | 2.15pm | | Zone Implementation – Work Programme |
| 9 | 2.30pm | 20 | Update on Phormidium Research |
| 10 | 3.10pm | | BREAK |
| 11 | 3.25pm | 22 | Catchment Group Update |
| 12 | 3.35pm | 23 | OTOP Project – Understanding the NPSFW 2014 |
| 13 | 4.05pm | 26 | OTOP Project – Finalising Community Outcomes |
| 14 | 4.25pm | | OTOP Project - Logistics |
| 15 | | | Close |

ORARI-TEMUKA-OPIHI-PAREORA WATER ZONE MANAGEMENT COMMITTEE
FOR THE MEETING OF 2 MAY 2016

Report for Agenda Item No 4

Prepared by Joanne Brownie
Secretary

Confirmation of Minutes – Committee Meeting 4 April 2016

Minutes of the April Committee meeting.

Recommendation

That the minutes of the Committee meeting held on 4 April 2016, be confirmed as a true and correct record.

ORARI-TEMUKA-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE

MINUTES OF AN ORARI-TEMUKA-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE MEETING HELD IN THE FISH AND GAME OFFICES, 32 RICHARD PEARSE DRIVE, TEMUKA ON MONDAY 4 APRIL 2016 AT 1PM

PRESENT John Talbot (Chairperson), David Caygill, Kylee Galbraith, John Henry, Mandy Home, Ivon Hurst (from 1.10pm), Richard Lyon (from 1.15pm), Hamish McFarlane, James Pearse, Ad Sintenie, Mark Webb and Evan Williams (from 1.10pm)

APOLOGIES Mark Webb and Mandy Home

IN ATTENDANCE Olivia Smith (OTOP facilitator), Dan Clark (Senior Hydrology Scientist and Technical Lead), Rhys Taylor (Community Engagement Coordinator), Phil Roberts (ECan Communications Advisor), Lyn Carmichael (ECan Planner Community Lead), Nic Newman (ECan facilitator), Alice Spencer (ECan Planner), Michael Hide (Zone Implementation Team Manager), Gerald Raymond (Lead Advisor CWMS – Communications and External Relations), Brian Reeves (Resource Management Officer), Zella Smith (Team Leader Consents and Planning)(from 2.50pm), Mike Exner-Kittridge (Senior Hydrologist), Katherine McCusker (Agribusiness Group), John Benn (Department of Conservation), Chanelle O'Sullivan (NZ Landcare Trust), Koren Allpress (Timaru Herald), Prue Thirkettle (National Council of Women), J Graybill (Fish and Game)(from 2.50pm), Ad Hendriks (public)

The meeting began with a karakia from John Henry.

1 REGISTER OF INTERESTS

There were no interests to declare.

2 CORRESPONDENCE – BRAIDED RIVERS WORKSHOP

A communication from Phil Driver of Open Strategies was received, suggesting a re-wording of OTOP's Community Outcomes.

Proposed Kylee Galbraith
Seconded Ad Sintenie

"That the communication from OpenStrategies be received and noted."

MOTION CARRIED

3 CONFIRMATION OF MINUTES

Proposed Kyle Galbraith
Seconded Ad Sintenie

"That the minutes of the Orari-Temuka-Opihi-Pareora Water Zone Management Committee meeting held on 7 March 2016 be confirmed as a true and correct record."

MOTION CARRIED

4 FACILITATOR UPDATE

The Facilitator advised that ECan has prepared annual reports for each of the zones on compliance rates. The Committee agreed that it would be interested in receiving this information, at a high level, at the next meeting.

Evan Williams and Ivon Hurst joined the meeting.

5 COMMUNITY ENGAGEMENT UPDATE ON OTOP HEALTHY CATCHMENTS PROJECT

Lyn Carmichael updated the Committee on the community engagement programme following meetings with the catchment groups.

Richard Lyon joined the meeting.

Discussion took place on the concern at the need to balance environmental goals with increased irrigation in the zone. It was suggested that more context is required around this and it could be noted that all outcomes are subject to CWMS targets and subject to the requirements of the RMA, Regional Policy Statement and the National Policy for Freshwater Management etc.

Any possible confusion needs to be lessened in regard to the terminology and interpretations, further commentary would be helpful in some areas and the context needs to be clearly communicated.

As the Opihi Catchment Group has not yet reviewed the Community Outcomes, it was agreed to await feedback from this group and in the meantime commentaries can be included and minor changes made.

In regard to the workshops planned, the Committee would like to see a minimum number of presentations – perhaps two evening sessions and one daytime session, looking at the third week of June. Proposed locations include Timaru, Geraldine and Fairlie. Proposed dates will be emailed to committee members.

In addition, a meeting with iwi will be held on 8 May.

6 UPDATE ON SCIENCE PROGRESS IN THE ZONE AND DRAFT SCENARIOS

The Committee considered a report by Dan Clark providing an update on the technical work underway – most of which involves key modelling projects on surface and groundwater water quality and water quantity. Dan explained the outcomes assessments which his technical team will undertake as part of the Healthy Catchment Project. Three outcome assessments were proposed including current state and two scenarios – ‘business as usual’ and ‘new water’. The current state assessment will be completed first followed by the scenario assessments.

He explained that the ‘new water’ scenario would integrate the outputs of the infrastructure modelling project which is exploring the possibility of bringing Rangitata water south into the OTOP Zone. It was explained that integrating the infrastructure project into a scenario, enables the technical team to fully assess the implications of ‘new water’ for the community outcomes. It was also noted that for a ‘new water’ scenario to be modelled, the opportunity for new water has to exist now and be considered viable.

Proposed Hamish McFarlane
Seconded John Henry

- a “That the technical work underway be noted
- b That the Committee supports the approach proposed for scenario assessment
- c That the Committee endorses the two initial scenarios being investigated - ‘business as usual’ and ‘new water’.”

MOTION CARRIED

7 LANDCARE TRUST QUARTERLY REPORT

Katherine McCusker presented the Landcare Trust quarterly report highlighting items of significance and answering questions from the Committee. Landcare is currently planning for the next 12 months and any feedback would be welcome on where the gaps might be that are not covered elsewhere. With the OTOP Committee’s focus on the Healthy Catchment Project over the next couple of years, it was suggested that Landcare may have some crossover focus that could help with this work. It was clarified that Landcare could assist up to a point by helping to increase understanding and developing good on-farm practice which may feed into the Healthy Catchment Project.

8 CATCHMENT GROUP UPDATES

Given the Landcare Trust’s comprehensive newsletter which was included in the agenda for this meeting, and details catchment group activities, a full report on catchment group activities can be deferred until the next meeting.

9 COMMUNITY FORUM

Overseer – the facilitator reported back on the issues raised at the previous community forum regarding the discrepancy between how kale and fodder beet are modelled in Overseer. The Committee was assured that the Overseer team is currently working to resolve this issue. It is anticipated that the ‘fix’ will be integrated into the next version of Overseer which is thought to be released around May.

Emerging Contaminants – the facilitator advised that ECan supports a project that Auckland University is undertaking around the presence and implications of emerging contaminations on the marine environment. Internationally, emerging contaminants is still a growing research space and is yet to become a key focus area for research in New Zealand.

Timing of Forum – it was suggested that the community forum be held earlier in the meeting to be more convenient for members of the public. The Committee agreed to change the time slot for the public forum to the beginning of the meeting, and adhere to the 5min restriction for each speaker.

Contaminated Sites – a follow up is needed on the Committee’s request to be the next priority after Christchurch City, then Selwyn District, for the contaminated sites group investigations.

10 ZONE DELIVERY UPDATE

Michael Hide, the Zone Implementation Manager gave a brief update –

- advising of the Velvet Leaf pest issue. A number of sites with velvet leaf have been identified within the OTOP zone. He advised that any

landowners who suspect they may have the pest plant, should contact MPI immediately and not remove it themselves.

- dairy waste found on the beach near the Opihi mouth. This situation will continue to be monitored.
- Saltwater Creek water quality issues raised by the Timaru Rowing Club are being investigated.
- the draft work programme for the OTOP's 5 year outcomes and milestones, is being developed.

11 FLOW AND ALLOCATION

The Committee received a presentation from Dan Clark on flow and allocation, including how minimum flows are set, how allocation limits are worked out and when restrictions are applied and information on stream depletion.

It was agreed that more information on this would be helpful for catchment groups.

12 OPIHI RIVER REGIONAL PLAN

Zella Smith provided background information on the Opihi River Regional Plan and how it works. Issues highlighted included:

- Opihi B Block – is there benefit in capping the block?
- Environmental flows/minimum flows – will some of these need to be reviewed?
- Adaptive management
- Looking at appropriateness of some of the allocation limits especially in case of substantial change in land use or irrigation type
- Considering if there is a need to have prohibitive rules in the plan
- Ensuring a consistent approach is applied to above dam water users.

These issues were noted and will be given further consideration by the committee at a later stage in the Healthy Catchments Project.

As part of the discussion, it was also noted that the project provides an excellent opportunity to review water quantity rules whilst developing water quality provisions, thereby enabling a more holistic approach to water management.

OEFRAG - Mike Hide briefly explained how OEFRAG (Opuha Environmental Flow Release Advisory Group) works and its composition. OEFRAG was specifically allowed for in the ORRP with its purpose being –

- Ramping flows – the Plan sets a series of minimum flows that change every month. OEFRAG has the ability to manage the transition from one minimum flow to another over a number of hours or days
- Managing freshes – the ramping up or down of the water through the system
- Releasing water out of the dam to reduce flooding impacts.

Over the last few years OEFRAG has also been used to manage water during periods of low rainfall having sought water storage directions from ECan, which allows overriding of the rules in regional plans to dictate how water is allocated in dry periods. Over the last 2 years the river has been managed through this process. The water storage directions allow for flow below the minimum flow which means that at times the ecological values cannot be met. However if water storage directions were not used at critical times the river may have run dry at some point. This raised the issue of those consent holders with groundwater

bores still being able to use their consented amount of water, when it would be helpful if at times of very low rainfall, all water users are restricted.

The OEFrag model has proved to be successful and some of its key features will be considered during the Healthy Catchments Project.

The meeting closed at 4.15pm with a karakia from John Henry.

Chairperson

ORARI-TEMUKA-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE
FOR THE MEETING OF 2 MAY 2016

Report for Agenda Item No 6

Prepared by Robert Carson-Iles (Biodiversity Officer, Environment Canterbury)

IMS Biodiversity Projects

Purpose

- To propose 2 Immediate Steps (IMS) projects for zone committee decision.
- Provide an updated OTOP IMS project summary.

Recommendation

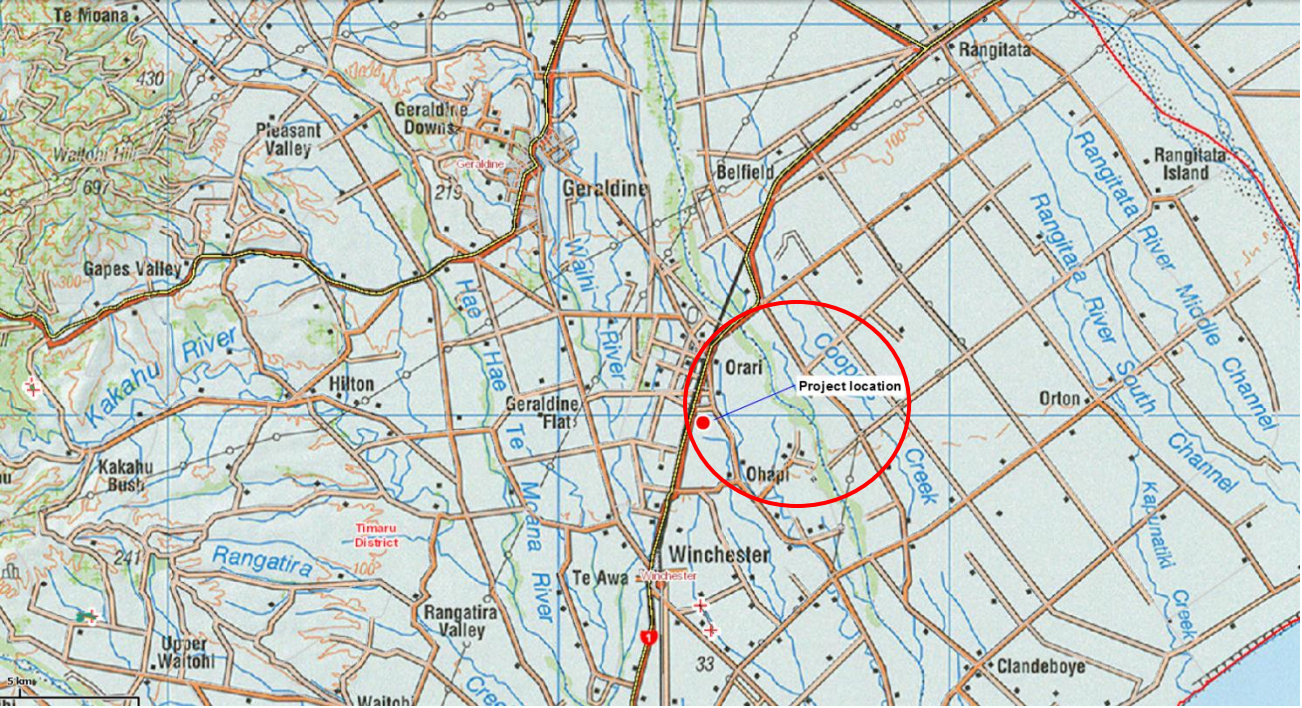
That the Committee receives the summary update and supports funding the 2 projects proposed.

Attached

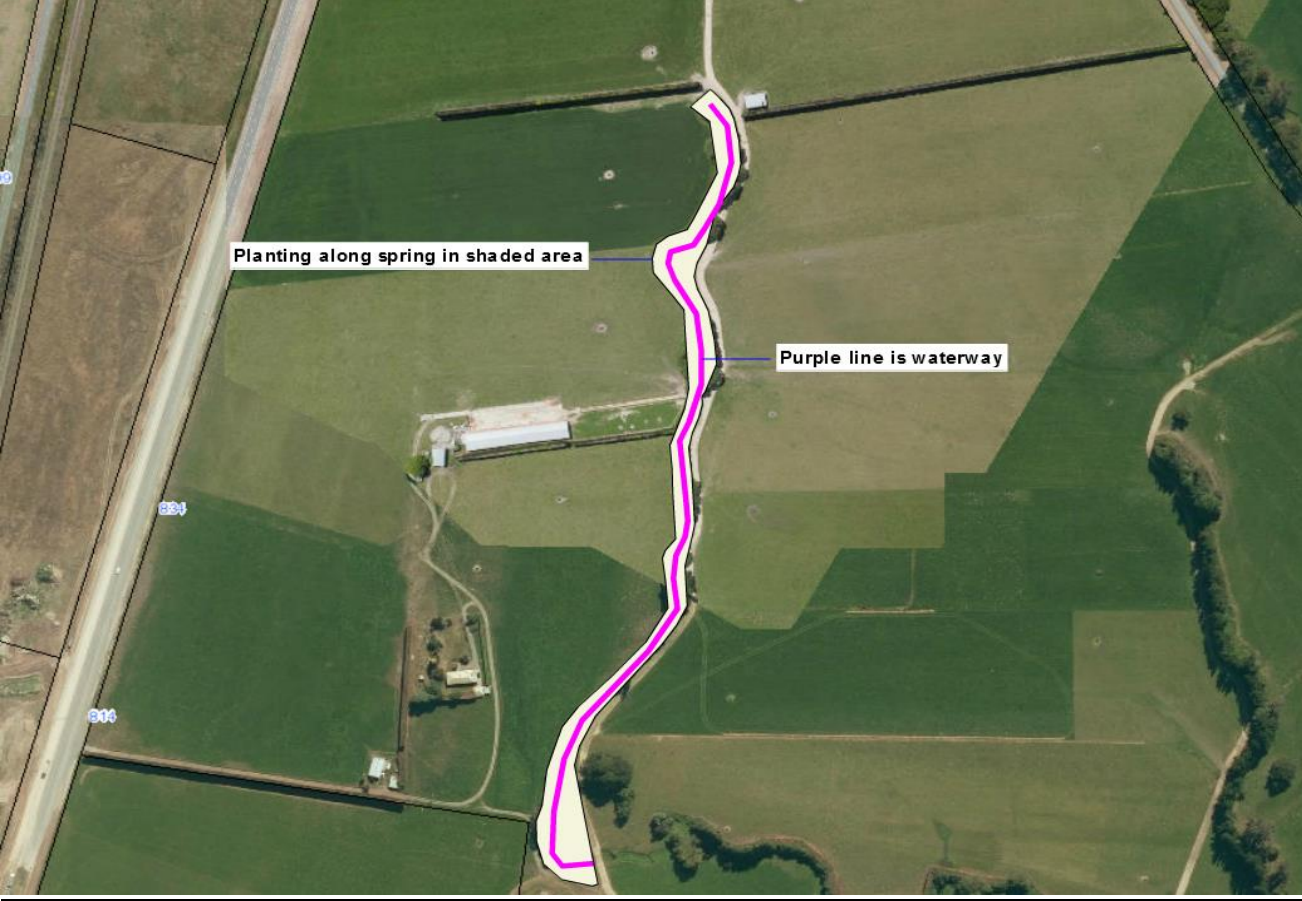
- Background project information on the Ohapi Springs IMS Project
- Background project information on the Clarke Flat Sycamore Control Project (Stage 1)
- Updated OTOP IMS project summary.

Attachment 1: Background Information on Ohapi Springs Project

Project site: Ohapi Springs



Project area



| Proposed project* | Project details in brief | Land tenure | Cultural Value** | Ecological score | Funding requested (Total cost in brackets) |
|---|--|-------------|------------------|------------------|--|
| Ohapi Springs <i>Restore a spring head and tributary of the Ohapi Stream</i> | Threat: High water temperatures, Sediment Proposed activities: planting approximately 3,600 riparian plants. Comments: The landowners have fenced off the spring head and waterway with a generous setback. This project aims to increase shading of the waterway to moderate water temperatures, increase the species diversity of the site, and decrease sediment inputs. The waterway provides habitat for Koura, long finned eel and in places freshwater mussels | Private | - | 20/39 | \$9,000 (\$25,763) |
| Recommendations: The recommendation is to support this project. The landowner has fenced off all the waterway with a generous setback on the property and is keen that all riparian areas are planted. This has already been started. The land owner is paying for the cost of planting the plants, maintenance and guards which make up the greater proportion of the project cost and is seeking assistance with cost of purchasing plants. The waterway provides habitat for threatened species. Environment Canterbury has also provided funding for other projects on the Ohapi Stream. The project is aligned with the Zone Implementation Plan (see below) 2.3.1 invest in projects that...protect and enhance ecosystem integrity and function. Priorities are remnant habitats and their unique flora and fauna. | | | | | |

** Cultural assessment of the project is not completed prior to presentation to the zone committee – any comments from the cultural rep are appreciated during the meeting.



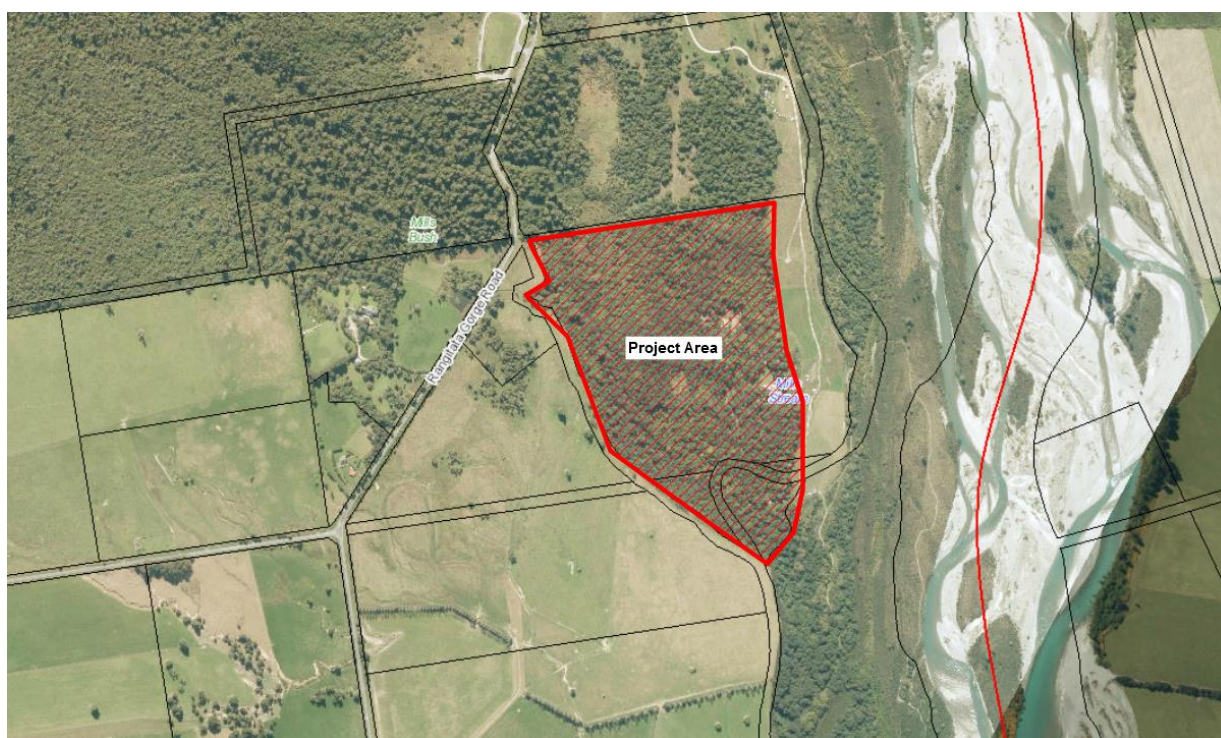
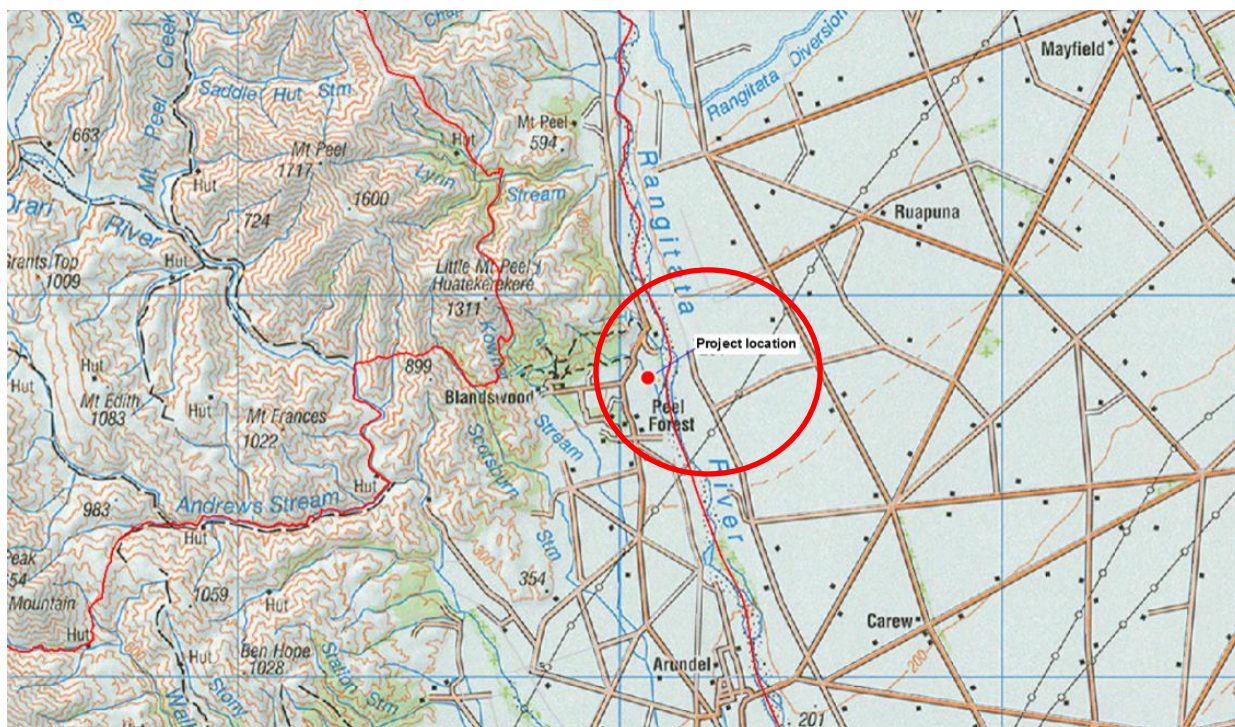
Koura



Ohapi Stream

Attachment 2: Background Information on Clarke Flat Sycamore Control Project (stage1)

Project site: Clarke Flat



| Proposed project* | Project details in brief | Land tenure | Cultural Value** | Ecological score | Funding requested (Total cost in brackets) |
|---|--|----------------------------|------------------|------------------|--|
| Clarke Flat Sycamore Control (stage 1) <i>Protecting one of the largest remaining alluvial plain podocarp forests in Canterbury</i> | Threat: Sycamore, Ash and other weed species Proposed activities: Sycamore, Ash and priority weed control Comments: Sycamore is a significant threat to this alluvial plain podocarp forest remnant. This remnant has a core of dense sycamore with spreading outliers. This project focusses on removing the outliers to prevent the podocarp forest from becoming sycamore dominated. The land owner is investigating other funding options to control the core area of sycamore. | Private with QEII covenant | - | 33/39 | \$50,000 (\$70,000) |

Recommendations: The recommendation is to support this highly valuable project. This forest remnant represents an ecosystem that is now very rare in Canterbury, provides habitat for threatened species and is classified as a Significant Natural Area. Without intervention to control sycamore and other weed species it will be lost.

The project is aligned with the Zone Implementation Plan (see below)

2.2.3 - protect dry land remnants.

2.3.1 - Immediate steps funding : invest in projects that:

- provide early and multiple biodiversity gains
- have sufficient scale to make long term impact
- protect and enhance ecosystem integrity and function
- not required under a regional plan.

Priorities are remnant habitats and their unique flora and fauna.

2.3.8 Significant indigenous vegetation and indigenous fauna - support initiatives to protect and manage remnant habitats and flora and fauna specific to this zone including weed and pest control.

View looking over Clarke Flat



Attachment 3: OTOP Immediate Steps Project Summary

Table 2: Immediate Steps Project Summary Update

| Application Year | Applicant | ECan Funding | External Funding | Status |
|------------------|--|--------------|------------------|--------------|
| 2011/2012 | Old Orari Lagoon | 12,472 | 10,012 | Completed. |
| 2011/2012 | Otipua Dune Restoration - Stage 1 | 8,645 | 23,808 | Completed. |
| 2011/2012 | Deep Stream Year 1 | 20,000 | 10,000 | Completed. |
| 2011/2012 | Henriksen's Bush | 11,000 | 5,500 | Completed. |
| 2011/2012 | Horseshoe Lagoon - Willow Control | 5,607 | 3,293 | Completed. |
| 2011/2012 | Peel Forest Wetland Yr 1 | 20,000 | 10,000 | Completed. |
| 2011/2012 | Pit Road Lizard Sanctuary - Stage 1 | 20,360 | 12,694 | Completed. |
| 2012/2013 | Deep Stream Year 2 | 20,000 | 15,000 | Completed. |
| 2012/2013 | Opihi Catchment Environmental Protection Group | 1,560 | 1,060 | Completed. |
| 2012/2013 | Horseshoe Lagoon Fencing & Planting | 10,000 | 5,000 | In progress. |
| 2012/2013 | Otipua Dune Restoration - Stage 2 | 5,450 | 9,500 | Completed. |
| 2012/2013 | Pareora Scenic Reserve Fencing Yr 2 | 20,000 | 21,000 | Completed. |
| 2012/2013 | Peel Forest Wetland Year 2 | 19,500 | 10,000 | Completed. |
| 2012/2013 | Albury Springs Enhancement | 5,706 | 5,706 | Completed. |
| 2012/2013 | Pit Road Lizard Sanctuary - Stage 2 | 10,000 | 5,070 | In progress. |
| 2012/2013 | Pit Road Reserve Pine Tree Removal | 10,000 | 4,500 | Completed. |
| 2012/2013 | Rangitata Stone Row Relocation | 2,131 | 2,400 | Completed. |
| 2012/2013 | Upper Old Orari Lagoon | 6,150 | 6,780 | In progress. |
| 2013/2014 | Upper Old Orari Lagoon 2014 Planting | 4,400 | 2,200 | In progress. |
| 2013/2014 | Old Orari Lagoon 2014 Planting | 1,335 | 1,675 | In progress. |
| 2013/2014 | Opihi Catchment Environmental Protection Group 2013 Planting | 3,863 | 2000 | Completed. |
| 2013/2014 | Orakipaoa Tributary Plantings | 2,500 | 4000 | In progress. |
| 2013/2014 | Awarua Wetland Restoration | 14,000 | 7,100 | Completed. |
| 2013/2014 | Coopers Creek Willow Control | 5,500 | 3,740 | In progress. |
| 2013/2014 | Craigmore Covenant Fencing | 22,266 | 11,134 | In progress. |
| 2013/2014 | Hanging Rock Wetland Restoration | 17,704 | 14,610 | In progress. |
| 2014/2015 | Pit Road Lizard Sanctuary - Rabbit proof fencing | 10,140 | 12,060 | In progress. |
| 2014/2015 | White Rock Tributary Fencing | 10,800 | 5,400 | Completed. |
| 2015/2016 | Awarua Wetland Restoration Year 2 | 14,500 | 8,840 | In progress |

| | | | | |
|-----------|--|----------------|----------------|--------------|
| 2015/2016 | Connells Wetland enhancement | 16,500 | 16,500 | In progress |
| 2015/2016 | Upper Rangitata Predator control Project | 20,000 | 176,091 | In progress |
| 2015/2016 | Chamberlain wetlands restoration | 13,445 | 6,723 | In progress |
| 2015/2016 | Stanton Wetland | 1,910 | 3,330 | In progress |
| 2015/2016 | Springfield Wetland | 26,310 | 22,771 | In progress |
| 2015/2016 | Awarua Wetland Restoration Year 3 | 4,402 | 4,725 | In progress. |
| | TOTAL ALLOCATION | 398,156 | 464,222 | |

ORARI-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE

FOR THE MEETING OF 2 MAY 2016

Report for Agenda Item No 7

Prepared by Michael Hide

Compliance Monitoring Reports and Approach for 2016/17

Purpose

To update the Zone Committee on:

- 1) The 2014/2015 Compliance Monitoring Annual Report (Regional and OTOP Zone)
- 2) Proposals to improve the effectiveness of consent monitoring in the southern zones (Upper Waitaki, Lower Waitaki, and Orari, Temuka, Opihi and Pareora (OTOP) zones).

Annual Compliance and Monitoring Reports

The committee will be provided with a summary of the Councils role in compliance and enforcement and an overview of the regional results for the 2014/2015 season. This will be followed by a summary of the Councils compliance and enforcement actions in the OTOP Zone over this period.

Proposed changes to the consent monitoring programme in the Southern Zones

A series of proposals have been developed to ensure that the monitoring of resource consents in the southern zones is effective in delivering the committees priority outcomes.

These proposals are as follows:

- 1) Adopt a series of changes to the compliance monitoring programme for dairy shed effluent in the southern zones to both increase rates of compliance while also reducing the amount of Resource Management Officer (RMO) time spent on this activity.
- 2) Increase the availability of RMO's to monitor and enforce the requirements of water permits with complex consent requirements and/or located in highly allocated catchments. The focus of this additional resource will be on the ground monitoring in the zone.
- 3) Develop monitoring guidelines that express the zone committees high-level priorities for compliance and enforcement activity in the zone.
- 4) Target full compliance with Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 in the zone by the start of the next irrigation season. (Project currently underway).
- 5) Develop data management systems to ensure water usage data is monitored and followed up on where non-compliance is identified. (Project currently underway).

Further detail will be provided to the Committee during the course of the meeting.

Recommendations

- 1) The Committee receives the Regional and OTOP reports for the 2014/2015 year.**
- 2) Committee members discuss and provide feedback on the proposals to improve the effectiveness of consent monitoring in the southern zones.**

Attached

- Regional Compliance Monitoring Annual Report
- OTOP Water Management Zone Compliance Monitoring Annual Report and Plan



Compliance Monitoring Annual Report

1 July 2014 – 30 June 2015

Monitoring resource consents

One of Environment Canterbury's responsibilities is to facilitate sustainable development in the Canterbury region. The Canterbury Water Management Strategy, including the 10 zone implementation programmes, and the Air Quality Programme have sharpened our compliance focus in areas identified as priorities by the community. We have translated these priorities into work programmes both regionally and in the separate zones. Monitoring the level of compliance and the effective use of enforcement tools are part of these work programmes and provide incentives towards achieving a high level of voluntary compliance.

Accompanying this regional annual report are 10 zone annual reports that further illustrate the compliance monitoring, complaint response and enforcement efforts in each zone. Please refer to those reports for zone-specific information.

Compliance monitoring is more than assessing compliance against rules and consent conditions. It is an opportunity to deliver community-agreed messages on air quality, water quality and water quantity outcomes and to collaborate with industry in promoting good management practice. Staff also determine when resource users are below an agreed bottom line and provide encouragement, deterrence and penalties to achieve compliance.

There are nearly 24,000 resource consents in Canterbury. This number has remained reasonably constant over the last eight years. With this many consents, we need to be very clear about our priorities. Most consents do not require monitoring every year; however, higher risk consents could require several monitoring events a year. Consents are scored according to the scale of the activity, environmental effect, mechanism of damage, compliance history and the quality of management.

In the year to 30 June 2015 we monitored 3,990 consents (16%) and undertook 6,890 monitoring events. As part of a more focused approach, we concentrated on consent holders that had a history of non-compliance as well as those activities that could have a greater impact on the environment (high-risk sites). This resulted in fewer consents monitored than last year (24% of consents were monitored in 2013-14), a reflection of a more targeted response. There has also been an increase in the number of larger, more complex consents which now include nutrient management provisions.

Not all monitoring requires a site visit. More than half of our monitoring events are 'desktop' monitoring. Reviewing groundwater or surface water data, sampling results for wastewater treatment plants, certificates of construction for on-site wastewater systems, gravel returns and bore completion reports make up the majority of the 'desktop' monitoring work. Dairy effluent, stormwater and works in waterways and the coastal marine area resource consents make up the highest proportion of site visits.

Our approach to compliance

Our aim is to achieve a high level of voluntary compliance. If this is unsuccessful we have several tools we can use to make sure the rules are complied with.

We start with education and suggestions to resolve non-compliance. When there is repeat non-compliance, or the impact of an incident on the environment is significant, enforcement action will be taken.

This action can take several forms - abatement notice, enforcement order, infringement notice, prosecution.

Environment Canterbury won't hesitate to apply these tools if required. We use abatement notices and infringement notices often and prosecute when appropriate.

CONSENT MONITORING KEY POINTS

3,990

total consents monitored

41% site visits

59% desktop monitoring

6,890 total monitoring events

(site visits or desktop monitoring)

Main types of events monitored

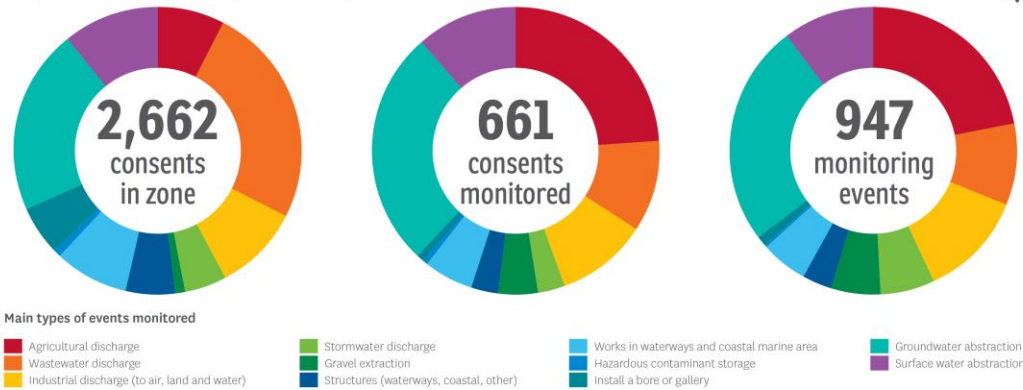
- Agricultural discharge
- Wastewater discharge
- Industrial discharge (air, land and water)
- Stormwater discharge
- Gravel extraction
- Structures (waterways, coastal, other)
- Works in waterways and coastal marine area
- Hazardous contaminant storage
- Install a bore or gallery
- Groundwater abstraction
- Surface water abstraction

45% site visits

55% desktop monitoring

Orari-Temuka-Opihi-Pareora Water Management Zone Compliance Monitoring Annual Report and Plan

Consent monitoring summary for 2014-15



Compliance summary for 2014-15



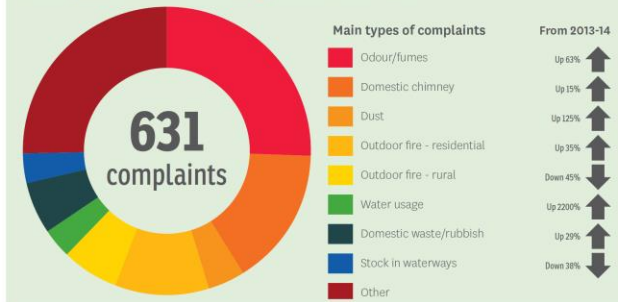
Annual summary for 2014-15

Over-application and poor management of dairy effluent causing ponding were the main causes of non-compliance for dairy effluent resource consents (agricultural discharge category). These farms were a high priority for monitoring and any significant non-compliance had further site visits until resolved. With an increase in monitoring frequency combined with promotion of industry agreed Good Management Practices and leadership from industry, we hope to move these farms above the compliance bottom line next season.

Non-compliances relating to surface or ground water abstraction were either the result of water being taken on restriction, being taken over the allocated amount, having a faulty water measuring

device or for data not being submitted. These non-compliances will be a high priority for monitoring at the end of this irrigation season. Next season we will have a new data management system in place and we will be encouraging consent holders (through their industry providers) to provide real time data which will enable us to have immediate intervention following non-compliance. Real time data will alert farmers to system failures and help reduce the occurrence of technical non-compliance. Early intervention may reduce the occurrence of significant non-compliances due to water being taken over the allocated amount or being taken on restriction. We will also continue to work closely with our service providers.

Complaints summary for 2014-15



Enforcement summary for 2014-15



There were 11 abatement notices issued, 4 for discharge of odour, 3 for bores, 2 for discharge of dairy effluent, 1 for works in waterways and 1 for discharge of contaminants to land. There were 5 infringement notices issued, 2 for discharge of treated sewage, 1 dairy effluent discharge, 1 discharge of sediment to water, 1 discharge of oil in coastal marine area. Other non-compliances have been, or are being resolved through increased site visits, advice, education and/or the involvement of industry partners.

Complaints response plan for 2015-16

Prioritise complaints response in line with Zone Committee priorities:

1. Unauthorised discharges to water
2. Stock exclusion
3. Animal effluent discharges
4. Works in the bed of waterways (including drains)
5. Unauthorised and/or non-compliant water abstraction
6. Sediment contamination of waterways from earthworks
7. Domestic home heating (Timaru)

Consents monitoring plan for 2015-16

Dairy: Compliance monitoring focus is on bringing all dairy farms up to the compliance bottom line and industry-agreed Good Management Practices (GMP). Farms with a good compliance history and good systems, processes and procedures may not require a monitoring visit this year. Those with inadequate systems, poor processes and procedures and significant non-compliances will have increased monitoring. Also work with industry and other Environment Canterbury staff (Land Managers, Biodiversity Officers, etc.) to assist with promoting compliance and GMP.

Gravel extraction: Continue monitoring gravel extraction resource consents based on risk rating focussing on the significantly non-compliant operators. Remind all gravel operators of their bird survey obligations before the nesting season.

Water abstraction: Ensure all water takes >10 l/s have meters in accordance with the national regulations. Prioritise and monitor consented water abstraction takes in accordance with region-wide procedures. All schemes and water user groups are assigned to the Zone monitoring officer.

Farming: Use our existing contacts with farmers to educate and promote GMP, establish baselines and maintain nitrogen loss calculations, and, for farms requiring a resource consent, develop Farm Environment Plans in preparation for obtaining a resource consent before 2017 and the FEP audit.

Other (stormwater, industrial, wastewater, works in waterways): Continue to monitor based on risk rating.

ETL4909-9



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ORARI-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE
FOR THE MEETING OF APRIL 2016

Report for Agenda Item No 9

Prepared by Olivia Smith

Update on Phormidium Research

Purpose

- To build the committees understanding of Phormidium occurrence in Canterbury and receive an update on the latest research being undertaken at Canterbury University.
- To encourage the committee to begin considering the links/implications of Phormidium and the research findings, for the Healthy catchment Projects.

Background

Potentially toxic, naturally-occurring cyanobacteria (blue-green algae) such as Phormidium are found in rivers throughout the country, but only form problematic thick blooms at some sites under the right flow conditions. Problematic thick blooms, in the form of thick dark-brown/black mats, are known to occur in waterways in Canterbury.

Tara McAllister, a PHD student at Canterbury University, is undertaking research on the effect of nutrients and flow on Phormidium accrual cycles in cobble-bedded rivers in Canterbury.

Tara first spoke with the OTOP committee in March 2014, in the early stages of her research. Since then, Tara's research study has progressed and she will update the committee on her findings to date. Below is a summary of Tara's research study.

Blooms of the benthic cyanobacterium Phormidium are becoming increasingly prevalent in New Zealand's rivers. Phormidium can produce potent neurotoxins and has consequently resulted in approximately 100 dog deaths in the last five years. Despite the significant health risk, the development of effective management strategies is hampered by a limited understanding of how physiochemical factors influence Phormidium.

The study aimed to investigate spatial and temporal variation of Phormidium in Canterbury rivers and to elucidate the importance of physiochemical factors in regulating Phormidium accrual. Eight sites were sampled weekly for 30 weeks. Samples were collected for species identification, biomass estimation, molecular and toxin analyses, nutrients and metals analysis.

Preliminary analysis indicated that water column nutrients are a poor predictor of Phormidium biomass. Nitrate concentrations, across all sample sites, varied

between 0.02–1 mg/L, whereas dissolved reactive phosphorus (DRP) was consistently <0.01 mg/L. We have previously shown that Phormidium mats may access sources of P other than river-water DRP, and here we explore the hypothesis that nitrogen-fixing microorganisms may be present within Phormidium mats and that the quantity of these varies according to surrounding nutrient concentrations, which in turn influence Phormidium accrual.

Two patterns were observed between river flow and Phormidium cover: (1) as flow decreased Phormidium cover increased; (2), as flow decreased Phormidium cover also decreased. The results of this study highlight the complex interplay between river flow, nutrient dynamics and Phormidium accrual in Canterbury rivers. Only by untangling these interactions can we hope to understand, and therefore manage increasing Phormidium proliferations.

Shirley Hayward will give an update on last summer's monitoring of phormidium blooms in the OTOP zone and Canterbury region.

Recommendation

That the Zone Committee receives the update and begins to consider the links/implications of this research for the OTOP Healthy Catchments Project.

ORARI-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE

FOR THE MEETING OF 2 MAY 2016

Report for Agenda Item No 11

Prepared by **Olivia Smith**
Facilitator

Catchment Group Update

Purpose

To update the committee on recent catchment group meetings and upcoming events in the OTOP Zone.

Update

Opihi Catchment Steering Group, 13 April 2016, Fairlie

- Alice Spencer (ECan) introduced the **Healthy Catchments Project** and discussed the scope of project and timeframe.
- John Talbot sought feedback from group on the 'Community Outcomes' developed for the Healthy Catchments Project.
- Steering group members corrected out of date information on some land use maps provided by Dan Clarke (ECan). These maps will be used for modelling in the Healthy Catchments Project. Irrigated land maps have also been supplied by Opuha Water Limited.

Waihi River Catchment Group

- The group, in conjunction with Geraldine Photography Club and Geraldine Museum are organising a photography competition which closes on the 13 June.
- The competition is about capturing photographs showing the multiple benefits we gain from water whilst raising awareness around protecting these values as part of the Healthy Catchments Project.

Upcoming Catchment Group Meeting and Events

| | |
|----------|---|
| 26 April | Orari Catchment Group Meeting - 4pm, location TBC |
| 28 April | Pareora Catchment Group Meeting |
| 3 May | Landcare Trust Facilitators Meeting |
| 4 May | Overseer Field Day- Geraldine 9.30-11.30am, Cave Hall 1-3pm |
| 6 May | Wintering Field Day, Wainono. |

ORARI- TEMUKA- OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE
FOR THE MEETING OF 2 MAY 2016

Report for Agenda Item No 12

Prepared by: Jason Holland
Principal Planning Advisor
Environment Canterbury

National Policy Statement for Freshwater Management 2014

Purpose of Report

To update the Zone Committee about the National Policy Statement for Freshwater Management (NPSFM) 2014, and discuss how it aligns locally with the Orari, Temuka, Opihi and Pareora (OTOP) Healthy Catchments Project 'Community Outcomes'.

Background

The OTOP Healthy Catchments Project must give effect to the NPSFM, which came into effect on 1 August 2014.

The NPSFM is about recognising the national significance of fresh water and Te Mana o te Wai (the mana of the water). The key features of the NPSFM are:

- maintaining or improving overall water quality within a region;
- safeguarding the life-supporting capacity of freshwater, and the health of people and communities;
- the efficient use and allocation of water;
- protecting significant values of wetlands and outstanding freshwater bodies;
- improving the integrated management of land and fresh water in catchments; and
- involving iwi and hapu in decision making and ensuring tangata whenua values and interests are reflected in freshwater management.

The NPSFM requires regional councils to:

- identify fresh water management units (FMU)¹;
- set freshwater quality and quantity objectives for the FMU that describe the desired state of the water bodies
- set water quality and quantity limits for the FMU (maximum amount of the resource available for use)

¹ FMU are defined as “the water body, multiple water bodies or any part of a waterbody determined by the regional council as the appropriate spatial scale for setting freshwater objectives and limits and for freshwater accounting and management purposes” (NPSFM, 2014; 7)

- implement methods to achieve the freshwater objectives and limits, including taking into account all freshwater takes and discharges.

Environment Canterbury must consider the ‘Values’² set out in the NPSFM, and develop plans that recognise and protect these values. There are two compulsory values in the NPSFM that council must incorporate; ecosystem health and human health for recreation. There are also other optional national values that Council must consider, which are listed in Appendix 1.

The NPSFM also highlights a range of Attributes³ that must be considered, to ensure the Compulsory Values are measurable and maintained within certain critical thresholds that ensure ecosystem health and human health for recreation.

Update

On Thursday 14 April, Environment Canterbury staff met to explore how the draft Community Outcomes and Indicators aligned with the NPSFM compulsory and optional national values. There was also discussion about FMUs, which can encompass a sub-catchment or a whole zone.

The conclusion was that the OTOP Community Outcomes already closely align with NPSFM values (Attachment 1), and that OTOP Zone would be regarded as a single FMU.

Recommendation

That the Zone Committee considers the update, and that the committee consider the NPSFM compulsory and national values when making any amendments to the Community Outcomes and Indicators.

² Value is defined as “a) any national value; and b) includes any value in relation to fresh water, that is not a national value, which a regional council identifies as appropriate for regional or local circumstances” (NPSFM, 2014; 8).

³ Attribute is defined as “a measurable characteristic of fresh water, including physical, chemical and biological properties, which supports particular values” (NPSFM, 2014; 7).

Attachment 1: OTOP Outcomes and NPSFM Values

| OTOP Outcomes | NPSFM Value |
|--|---|
| 1. Safe and reliable drinking water for community and domestic supplies both now and in the future. | Water supply |
| 2. Maintain and improve economic value in the zone and provide for community wellbeing | Commercial and industrial use Hydro-electric power generation |
| 3. Protect and enhance indigenous biodiversity Ki uta Ki Tai, particularly high naturalness areas, coastal lagoons, and wetlands and springs in the upper parts of catchments. | Ecosystem health |
| 4. Maintain or increase the reliability of water available for drinking water supply, industry and irrigation in the zone. | Irrigation and food production Water supply Animal drinking water |
| 5. Maintain or increase the area of land irrigated in the zone. | Irrigation and food production |
| 6. All surface waterbodies safe for recreation and gathering mahinga kai. | Human health for recreation Mahinga Kai Fishing |
| 7. Increase recreational opportunities in the zone by ensuring appropriate management of river flows. | Human health for recreation Transport and tauranga waka |
| 8. Rectify loss and improve opportunities for mahinga kai gathering in the zone. | Mahinga Kai Fishing |
| 9. Achieve ecosystem health and natural river mouth dynamics. | Ecosystem health Natural form and character |
| 10. Protect and enhance the natural character and function of the zone's braided rivers whilst providing a sufficient level of flood protection. | Water supply Commercial and industrial use Natural form and character |
| 11. Protect and enhance sites of cultural significance. | Wai tapu Mahinga kai |

ORARI-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE

FOR THE MEETING OF 2 MAY 2016

Report for Agenda Item No 13

Prepared by **Olivia Smith**
 Facilitator

Finalising Community Outcomes for Healthy Catchments Project

Background

Purpose of Community Outcomes

Establishing a set of community outcomes is the first stage in the Healthy Catchment Project. Community outcomes will be used to guide the development of a package of practical water management solutions that deliver community aspirations.

Throughout the Project, community outcomes will be used to undertake technical assessments. Firstly, a suite of technical indicators will be developed for each outcome. These indicators will enable technical staff to then complete outcome assessments for current state and different scenarios. These assessments are useful for developing solutions as they provide an indication of how different scenarios (i.e. different land use configurations) are likely to affect each outcome.

Given the specific way community outcomes are used in the project, for technical assessments and decision making, it is vital that they are 'fit for purpose' for the project;

- ***Reflect the collective aspirations of the community.***
- ***Are simple and can be measured using meaningful technical indicators.***
- ***Outcomes that can be addressed by the Project.***
- ***Align with the compulsory and national values in the National Policy Statement for Freshwater Management (NPSFM 2014).***

Development Draft Community Outcomes

In late 2015 the OTOP Zone Committee began developing a set of community outcomes for the Healthy Catchments Project.

Draft outcomes were established to reflect the OTOP Zone Implementation Programme and were refined in a workshop with the 'planning working group' in November 2015. Following this, the Committee made some further amendments before agreeing to seek feedback from catchment groups.

In April 2016, the Zone Committee agreed to some minor amendments to reflect the summary of feedback provided by catchment groups (excluding feedback from the Opuha Catchment Group). Please see amended outcomes attached.

In April, the Committee also agreed to consider the feedback from the Opuha Catchment Group at the May meeting and subsequently finalise the outcomes. Below is a summary of feedback from the Opuha Catchment Group:

- There was some discussion about capturing the importance of braided rivers, while others have felt that by adding “braided” we miss capturing all the other waterways.
- It was noted that Lake Opuha, albeit manmade, has not been explicitly included.
- Soil erosion was identified as a gap in the outcomes.

Recommendations

- 1 That the Zone Committee considers the feedback provided by the Opuha Catchment Group.**
- 2 That the Committee notes the purpose and use of community outcomes in the Health Catchment Project when considering final amendments.**

Attached

Draft Community Outcomes for OTOP Healthy Catchment Project (amended March 2016)

Attachment 1: Draft Community Outcomes for OTOP Healthy Catchments Project

Note: The community outcomes have been amended post the March 2016 zone committee meeting to reflect the discussion that occurred during the meeting. Please note the outcomes do not incorporate any feedback provided recently by the Opuha Catchment Group.

The aim of the Healthy Catchments Project is to develop a package of water management solutions which best delivers environmental, cultural, economic and social outcomes together (“Parallel development”).

1. Achieve ecosystem health and natural river mouth dynamics.
2. Protect and enhance the natural character and function of the zone’s rivers and waterways whilst providing a sufficient level of flood protection.
3. Safe and reliable drinking water for community and domestic supplies both now and in the future.
4. All surface waterbodies safe for recreation and gathering mahinga kai.
5. Increase recreational opportunities in the zone by ensuring appropriate management of river flows.
6. Rectify loss and improve opportunities for mahinga kai gathering in the zone.
7. Protect and enhance sites of cultural significance.
8. Protect and enhance indigenous biodiversity Ki uta Ki Tai, particularly high naturalness areas, coastal lagoons, and wetlands and springs in the upper parts of catchments.
9. Maintain or increase the reliability of water available for industry and irrigation in the zone.
10. Maintain or increase the area of land irrigated in the zone.
11. Maintain and improve economic value in the zone and provide for community wellbeing