

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

on

Monday 6 March 2017

1pm

**Waihi Lodge Function Centre
16 Shaw Street
Geraldine**

ORARI-TEMUKA-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 6 March 2017 at 1pm in the Waihi Lodge Function Centre, 16 Shaw Street, Geraldine.

Committee Members:

John Talbot (Chairman), David Anderson, Kylee Galbraith, John Henry, Mandy Home, Ivon Hurst, Richard Lyon, Hamish McFarlane, Anne Munro, James Pearce, Lan Pham, Ad Sintenie and Mark Webb

ORARI-TEMUKA-OPIHI-PAREORA WATER ZONE MANAGEMENT COMMITTEE

6 MARCH 2017

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**ORARI-TEMUKA-OPIHI-PAREORA WATER ZONE MANAGEMENT COMMITTEE
FOR THE MEETING OF 6 MARCH 2017**

Report for Agenda Item No 3

**Prepared by Joanne Brownie
Secretary**

Confirmation of Minutes – Committee Meeting 30 January 2017

Minutes of the January 2017 Committee meeting.

Recommendation

That the minutes of the Committee meeting held on 30 January 2017, 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 COUNCIL CHAMBER, TIMARU DISTRICT COUNCIL, 2 KING GEORGE PLACE, TIMARU, ON MONDAY 30 JANUARY 2017 AT 1PM

PRESENT John Talbot (Chairperson), Kylee Galbraith, Ivon Hurst (until 2.50pm), Richard Lyon, Anne Munro, James Pearse, Lan Pham, Ad Sintenie and Mark Webb

APOLOGIES David Anderson, Mandy Home, Hamish McFarlane

IN ATTENDANCE Olivia Smith (Facilitator), Dan Clark (Senior Hydrology Scientist and Technical Lead), Raymond Ford (Principal Planner), Michael Hide (Zone Implementation Team Manager), Alexia Foster-Bohm (ECan), John Benn (Department of Conservation), Chanelle O'Sullivan (Landcare Trust), Rhys Taylor (Community Engagement Coordinator), Julia Crossman (Opuha Water Ltd), Tom Henderson (Federated Farmers), Prue Thirkettle (National Council of Women), Jan Finlayson, Helen Tatham (media).

1 REGISTER OF INTERESTS

There were no additional interests advised.

2 COMMUNITY FORUM

Rangitata South Irrigation Project

Jan Finlayson queried the requirement for Rangitata South Irrigation to carry out plantings at the site of the ponds at Arundel. She feels with such a large project an example should be set in the irrigation world, and for ecological and visual amenity reasons, plantings should be undertaken to soften the look of the artificial ponds.

This raises the issue of what is required with existing consents, in terms of biodiversity, and what the OTOP Committee can do to ensure that biodiversity is incorporated in the consent process for future consents.

Michael Hide clarified for the meeting that the landscaping requirement would lie with the Timaru District Council and as he understands it, RSIL is *encouraged*, rather than required, to undertaking landscaping at the site.

3 CONFIRMATION OF MINUTES

Proposed Mark Webb
Seconded Anne Munro

"That the minutes of the Orari-Temuka-Opihi-Pareora Water Zone Management Committee meeting held on 5 December 2016 be confirmed as a true and correct record."

MOTION CARRIED

4 FACILITATOR UPDATE

Emerging Contaminants

The Facilitator advised that the issue raised in previous community forums in regard to emerging contaminants, is being pursued and a scientist will be invited to the March Committee meeting to speak to the Committee, to provide information and explain what action the Committee could take.

Timaru District Council District Plan Review

Feedback is being invited on the Timaru District Council District Plan review. A number of factors may be of interest to OTOP eg biodiversity. It is suggested that draft feedback be prepared for the Committee's approval, based on the outcomes in the Zone Implementation Programme as well as issues that have been raised since the ZIP was prepared (ie Orari Gorge erosion, amenity values, biodiversity). The Facilitator, OTOP Chairman and Deputy Chairman will work with ECan's Planner who is liaising with the District Council, to prepare draft comments for circulation to the Committee.

Zone Delivery Update

In the past a monthly report has been provided to the Committee on practical actions in regard to zone delivery. It has now been decided to prepare the report on a quarterly basis, unless there is an issue that arises which requires greater frequency.

Opuha Water Ltd

ECan has been working closely with Opuha Water on the development of a draft regime for management of the Opuha Dam that can be assessed as part of the Healthy Catchments Project. Opuha is interested in updating the Committee on a regular basis and therefore this will be a regular agenda item for OTOP monthly meetings from now on.

5 CATCHMENT GROUP UPDATE

Rhys Taylor presented a report by the South Island Team Leader for NZ Landcare Trust updating the Committee on catchment group activities in the last 3 months and activities planned for the next period. Rhys Taylor advised that he and Janet Gregory will be meeting with each catchment group to discuss the direction in which the groups want to head. A new location is being sought for the information posters Rhys had on display at the meeting.

6 N CHECK – ALTERNATIVE TO OVERSEER

Consideration of this report has been deferred until the next OTOP meeting.

7 DRAFT ANNUAL REPORT

The Facilitator invited the Committee to provide feedback on the Annual Report which will be presented to the Timaru District Council and to ECan. The final document will be adopted at the next meeting.

8 2017 WORK PROGRAMME FOR HEALTHY CATCHMENTS PROJECT

Examples of key challenges identified at the previous meeting included –

- How are we going to reduce the over allocation of groundwater?
- How are we going to resolve the nitrate issue?
- How are we going to address low flows?

- How are we going to address phormidium?
- How are we going to manage drinking water supplies?
- How are we going to develop practical actions?
- How are we going to protect the braided river habitat?

Since that meeting, officers have met to formulate a draft work programme for the Committee to consider. The programme will address the work to be undertaken over the next 9 months. It does not include community engagement as this is a separate discussion. Some of the timing of the conversations is dependent on the timing of the technical work.

It was agreed to discuss the work programme in a workshop, in February if possible, with 2 options for a date to be circulated and agreed via email. A request was made to have information to read and contemplate prior to the workshop, rather than be expected to contribute based on information presented on the day.

The purpose of the workshop will be to

- Discuss if there is anything major missing in terms of content.
- Gain a shared understanding of
 - ❖ the requirements of the National Policy Statement
 - ❖ how Plan Change 5 (Land and Water Regional Plan) allocates nutrients
- Learn what changes the Committee has scope to make in terms of nutrient limits and allocation.

9 UPDATE ON TECHNICAL WORK AND SCENARIOS FOR THE OTOP HEALTHY CATCHMENTS PROJECT

In response to a query at the previous meeting in relation to externalities (costs that impact on people who are not gaining benefit from the activity), the meeting was advised that some externalities can be captured numerically and therefore can be included in the economic analysis. However some of the costs do not easily have a monetary value. These are often more subjective things and as such, can be included in the social impact assessment.

The Committee considered a report and presentation by Dan Clark on the technical work and scenarios for the Healthy Catchments Project. He summarised what has already been presented and what the Committee has already recommended, and the progress made to date.

The current state has been presented to the Committee and to the public. The current pathway was presented to the community in November, modelling of in zone gains is under way at present, then the new water scenario will be started.

We have learnt that the community is not satisfied with the low flows and poor water quality in some of our streams, the community wants to keep water quality good where it is currently good. The current plans and rules in place will be effective in stopping the decline in water quality but will only provide small increases in water quality.

The major issues identified in assessments include –

- Overallocation of groundwater especially in the Pareora and Rangitata Orton allocation zones. The community wants to see this improved.
- Some of the Lowland streams, particularly in the Orari catchment, do not meet the National Policy Statement bottom line for nitrate. This has to be addressed.
- High groundwater nitrates exist in some areas eg Ashwick Flat, Levels Plain and the lower Orari
- With the current pathway expect to see continued low flows
- Decrease in reliability of supply for abstractions
- Phormidium is likely to continue with the current pathway.

How these issues are to be addressed, is currently being investigated.

In regard to In Zone gains (the scenario being worked on at present), some of the key components are reducing the over allocation of groundwater, reducing the catchment loads that feed those streams that don't meet the bottom line to meet the instream NPS requirements, also reducing catchment loads of nitrate down to a level to meet drinking water standards, Opihi flow regime is also a main component for in zone gain modelling (working with OEFRAG).

For the New Water scenario, there are 2 sub scenarios – small scale and large scale (eg Hunter Downs). Being investigated are replacement of groundwater or surface water in some areas using an irrigation scheme and new additional areas of irrigation - both of these have different consequences on water quality and quantity. Modelling will include some land use intensification to take advantage of new irrigation areas. Once this scenario is completed, a possible solutions package can be looked at.

Additional technical work is being done alongside other scenarios, including tussock cover and forestry in the upper catchments, minimum flows and allocation regimes, Opihi flow and Opuha dam releases (comparing current and proposed regimes).

Proposed Clr Richard Lyon
Seconded Clr Anne Munro

“That the Committee notes the work underway and how this will assist in answering the questions that have been raised following the ‘Current State’ and ‘Current Pathway’ assessments.”

MOTION CARRIED

10 DEFINING FRESHWATER MANAGEMENT UNITS

The Committee considered a report by the Principal Planner Raymond Ford advising of ECan's preferred option for defining the OTOP zone into Freshwater Management Units. Five Freshwater Management Units for the zone are proposed – 4 surface water and one groundwater.

Once the FMU's are identified for our zone, objectives for each FMU (some being compulsory) and once these are in place, the Committee can think about what methods are to be used to achieve these objectives (on the ground actions,

setting limits). The final step is monitoring the progress towards meeting the objectives.

There are no clear guidelines on the size of the FMU's. Suggested FMU's for the zone reflect the management catchments in the OTOP zone. The Committee queried how the dynamics of the coastal marine area would be addressed. As one option, Raymond Ford suggested the Committee has input into the Coastal Environment Plan.

The Committee was of the view that consideration should be given to separating out Temuka as an FMU, based on strong representations from Arowhenua. The Committee was advised that Temuka could be a sub unit of a larger FMU. For example you can have special areas within an FMU with different objectives or 2 different allocation zones within the same FMU ie there is a fair degree of flexibility.

It is also important to be aware that there will be a monitoring programme and catchment accounting, which is more easily done with larger units. The Committee sought reassurance that having bigger blocks does not mean things are missed in a smaller area, and commented that water quality and ecosystem biodiversity are more important in considering the formation of FMU's, rather than the accounting/monitoring process.

Proposed Ivon Hurst
Seconded Kylee Galbraith

"That the Committee endorses 5 proposed Fresh Water Management Units as a working draft."

MOTION CARRIED

Ivon Hurst retired from the meeting.

11 COMMUNITY ENGAGEMENT

A series of workshops will be arranged for April covering the in zone gains and new water scenarios. Then a plan will be formulated for the solutions package.

The Committee suggested that sometimes there can be too much information provided at public meetings to get the best engagement; increased social media activity could attract more people; try using different language.

The meeting concluded at 2.50pm.

Chairperson

ORARI-TEMUKA-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE
FOR THE MEETING OF 6 MARCH 2017

Report for Agenda Item No 6

Prepared by **Olivia Smith**

Committee Roles and Election

Purpose of Report

To outline the role of the Zone Committee chair, deputy, and regional committee representative.

Background

The role of the chair is to: chair zone committee meetings, liaise with the facilitator on zone committee workplanning, speak for the zone committee outside of including public meetings, and liaise with the media.

The role of the deputy is to fill the above roles when the chair is absent.

The role of the regional committee representative is to represent the OTOP Zone Committee at and contribute to the working of, the regional committee. The regional committee provides a regional perspective on the CWMS and meets four times a year, progressing work through its working groups (e.g. Biodiversity, Infrastructure). The OTOP regional committee representative is expected to update the OTOP Zone committee on the regional committee progress.

The term of each position is negotiable but can be for no longer than one year, with no limit on re-election.

Recommendation

That the Committee elects a representative for each of the above positions.

ORARI-TEMUKA-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE
FOR THE MEETING OF 6 MARCH 2017

Report for Agenda Item No 8

Prepared by **Dr Tim Davie**
 Chief Scientist
 ECan

Emerging Organic Contaminants (EOCs)

Purpose

To inform the OTOP zone committee on issues around emerging organic contaminants and what monitoring is being done for emerging contaminants by Environment Canterbury.

Definition

Emerging Organic Contaminant(EOC) is a broad term that is defined by the United States Geological Survey as:

Any synthetic or naturally occurring chemical or any microorganism that is not commonly monitored in the environment but has the potential to enter the environment and cause known or suspected adverse ecological and (or) human health effects

There are potentially thousands of EOCs. Included are flame retardants, plasticisers, surfactants (wetting substance used in detergents, cosmetics and other substances), musk fragrances, pesticides, herbicides, insecticides, pharmaceuticals (humans and animals) and their metabolites, personal care products, corrosion inhibitors, preservatives, antifouling paints, illicit drugs, food additives, household chemicals, industrial chemicals, sun screens, insect repellents and steroid hormones.

General Information

A recent report, partially commissioned by Environment Canterbury, gives guidance on how Regional Councils can monitor for these contaminants¹. The pathways by which EOCs get into the environment are complicated but sources include: sewage outfalls; stormwater; landfill leachate; recreational activity (e.g. washing off of sunscreen or insecticides during swimming); antifouling paints; animal husbandry, horticulture and aquaculture.

The dairy industry is a potentially significant source of steroid hormones (one form of EOC). Steroid hormones in irrigated oxidation pond effluents and oxidation pond slurry

¹ Stewart, M., Northcott, G., Gaw, S and Tremblay, L.A. 2016. *An update on emerging organic contaminants of concern for New Zealand with guidance on monitoring approaches for councils*. Prepared for Auckland Council, Greater Wellington Regional Council and Canterbury Regional Council. Auckland Council Technical report TR2016/006 available by searching for "Emerging Organic Contaminants" at <http://www.aucklandcouncil.govt.nz/>

spread to pasture can migrate through soil into groundwater or be transported from pasture into nearby waterways; however they are subject to microbial breakdown during this time. Oestrogenic steroid hormones have been detected at very low concentrations in groundwater and stream waters of intensively farmed dairy catchments in New Zealand².

Humans are exposed to EOCs from multiple immediate contact uses as well as EOCs in the environment including drinking water. The most sensitive exposure period to EOCs is during critical periods of development (i.e. children and adolescents). However, a World Health Organisation working group on pharmaceuticals in drinking water did not consider it necessary to develop health-based guideline values for pharmaceutical contaminants in drinking water.

Monitoring Options

Samples of fresh and sea water can be collected and analysed for a range of EOCs but laboratory analysis is expensive. An estimated analysis cost for a wide range of contaminants is \$4,000 per water sample. In addition to the laboratory costs, stringent sampling procedures are required to minimise the risk of contamination of the samples, so it requires well-trained sampling staff.

The concentrations in water samples are normally very low, so mussels (as water filterers) have been used as a means of monitoring for a range of contaminants in water. The mussels are left in the environment for a set period of time and then the flesh is analysed.

There are ANZECC (2000) guideline trigger values (fresh water and marine) and other international standards against which some measured EOC concentrations can be compared. The New Zealand Drinking Water Standards (NZDWS, MoH, 2008) also have MAVs for several pesticides and other hydrocarbons. Some US states and the Netherlands have limits for perfluorinated compounds that are not included in the NZDWS.

For sediment there are Environment Canada Federated Environmental quality guidelines for Polybrominated Diphenyl Ethers (PBDEs) in sediment and Norwegian classification values for a limited number of EOCs in sediment.

Environment Canterbury Monitoring

At present Environment Canterbury has no monitoring specifically targeted at all EOCs. Samples of fresh and sea water can be collected and analysed for a range of EOCs but laboratory analysis is expensive. An estimated analysis cost for a wide range of contaminants is \$4,000 per water sample. In addition to the laboratory costs, stringent sampling procedures are required to minimise the risk of contamination of the samples, so it requires well-trained sampling staff.

In light of the Stewart et al. (2016) report Environment Canterbury is considering how EOC monitoring could be done. Due to the high costs involved this will require consideration under the 2018 Long Term Plan (i.e. costs cannot be absorbed into present monitoring), The first step of monitoring would be an analysis of representative EOC 'markers' at a large number of sites to assess whether there is a particular site or EOC that needs further investigation. The monitoring should be done in conjunction with key partners: Ngāi Tahu and TLAs.

² Gadd, J.B., 2008. *Steroid estrogens and estrogenic activity in farm dairy shed effluents*. PhD thesis. University of Canterbury

It is worth noting that Environment Canterbury has carried out surveys of pesticides (a subset of EOCs) and is part of a national programme of pesticide monitoring run by Environmental Science Research (ESR). The last region-wide Environment Canterbury pesticide survey was in 2008. A total of 97 wells were sampled, located across the region from Kaikoura to the Waitaki River area. Pesticides were detected in 14 wells. Most concentrations were very low, but one dieldrin detection was above the MAV. Overall, the results were comparable to those from the mid-1990s pesticide survey and the next survey is planned for 2018.

The ESR nationwide pesticide survey³ was last carried out in 2014, with the next also planned for 2018. In 2014 165 wells were sampled with none of the five from Canterbury having any detectable pesticides. The ESR report concludes:

This information, combined with the similar levels of detections in the last four surveys, indicates similar levels of pesticide detections in groundwater over the last 12 years, with higher levels of detections before that time. The majority of wells sampled in each national survey have detected no pesticides and the concentrations of pesticides detected are mostly very low.

2012 Rangitata Survey

I have been asked to comment on the study done by Dr Nick Wall on the Rangitata River. I understand that Dr Wall sampled every 2 km from St Winifreds hut in the gorge to the Rangitata mouth over a 12 month period June 2012 to July 2013. This was over 200 samples per week and these were analysed for a wide range of EOCs and nutrients.

I have seen a brief summary of the results of this study but it is difficult to comment further as I have not seen the methods and the quality assurance used in the analysis. In the 2015 report on the possible Opuha pesticide contamination⁴ where results from different laboratories were compared (including Dr Wall's laboratory) it was concluded:

Results from the different laboratories showed us the value of using accredited laboratories that have strong quality assurance of their procedures and results.

As a result of this the Canterbury Regional Council agreed to continue to use accredited laboratories for analysis of water quality and sediments, especially where matters of public health are at stake.

Recommendation

That the update be received and noted.

³ Humphries B & Close M (2014) *National Survey of Pesticides in 2014*. ESR Client CSC 15003

⁴ Davie T and Clarke G (2015), *Opuha pesticide investigation 2015*. ECan Report R15/147.

ORARI-TEMUKA-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE

OR THE MEETING OF 6 MARCH 2017

Report for Agenda Item No 9

Prepared by Julia Crossman
Environmental Manager, Opuha Water Ltd

Tony McCormick
Chief Executive, Opuha Water Ltd

Adaptive Management Working Group (AMWG): Introduction and Update

Purpose of Report

To introduce the Zone Committee to the Adaptive Management Working Group (AMWG) and their work to date in developing an adaptive river management regime for the Opihi River, for consideration as part of the Healthy Catchment Project.

Recommendation

The Zone Committee receive the report and endorse the continuation of the work of the AMWG.

Background

The Adaptive Management Working Group (AMWG) wishes to engage with the OTOZ through the Healthy Catchment Project to assist in the development of an adaptive river management regime for the Opihi River intended to achieve the best environmental outcomes, consistent with the expectations of the communities within the Zone.

The AMWG welcomes the opportunity to present to the Zone Committee as a standing item on the monthly meeting agenda. The first presentation will introduce the AMWG and provide an overview of the key principles (as opposed to actual numbers) of the flow and restriction regime that has been in development by the AMWG over the last three months.

The AMWG understands that the regime they are developing will be modelled alongside the current regime and also the original (2008) OEFRA proposed river management regime. We also understand that a full technical assessment will be undertaken against the outcomes the ZC is wanting to achieve for the river and the wider zone.

The regime developed to date by AMWG is very much a 'version 1' and will continue to evolve as the group continues its discussions and is informed by the modelling and technical assessment.

The following is a summary of the presentation for the 6th March 2017

INTRODUCTION TO THE ADAPTIVE MANAGEMENT WORKING GROUP

The Adaptive Management Working Group (AMWG) was initiated as a technical group to develop an adaptive river management regime for the Opihi River to recommend to the Zone Committee for their consideration as part of the Healthy Catchments Project. The group recognised the value of bringing together the learnings and research of the last 18 years of dam operation, and particularly the last two years of low flows, to make the most of this opportunity to make positive changes to the regime for the benefit of both instream values and out of stream users.

The AMWG consists of representatives of Opuha Water Ltd (OWL), Central South Island Fish and Game (F&G), Timaru District Council (TDC), NIWA, and Environmental Consultancy Ltd (ECS), all of whom have considerable experience and understanding of the Opihi River system and most of who are long standing OEFRAG participants. The Department of Conservation (DOC) have also been invited to attend. The group acknowledge that the lack of an Arowhenua Rūnanga representative at this stage is a concern and are actively seeking their involvement.

The AMWG have met three times to date to discuss the fundamental components of a river management regime, including a flow regime, an irrigation and community supply restriction regime, and the role of OEFRAG. The group is working well together, and there is a sense of momentum, collaboration and trust at the table, built on the solid foundations of OEFRAG.

The AMWG acknowledge the crossovers in membership with OEFRAG and OEFRAG is considered to be a member. The working of the AMWG is reported back to Environment Canterbury monthly, in recognition of the technical challenges involved in writing an adaptive management regime into a Plan. ECan have offered some useful and interesting insights into what other factors need to be considered in order to ensure the package being presented to the OTOP ZC is as robust as possible. The work of the AMWG will now also be regularly presented at Zone Committee meetings. OWL representatives will present initially on behalf of the AMWG and may co-present with other AMWG members at future ZC meetings.

STRAWMAN OF THE OPIHI ADAPTIVE RIVER MANAGEMENT REGIME

Adaptive management

Experience of operating the dam over the last 18 years, and in particular over the last two unusually dry summers, has demonstrated that an adaptive management of the Opuha Dam can likely provide better environmental, economic, cultural and recreational/amenity outcomes for the Opihi River than the current prescriptive regime in the ORRP.

The purpose of incorporating an adaptive management framework in the OTOP Healthy Catchments Project is two-fold:

1. To preserve lake storage with the purpose of retaining continuity/reliability of supply for both the river and irrigators
2. To improve river health.

While the AMWG's proposal is aimed at enabling as much flexibility as possible in the operating regime, the group acknowledges the need for some prescription to provide

legal certainty and comfort to the wider community that there are constraints and boundaries around the operation of the river regime. The group are, therefore, seeking to develop a regime that balances the need for such certainty while being adaptive enough to respond to various climatic and river health situations.

The Flow Regime

The current flow regime for the Opihi River is set out in the Opihi River Regional Plan (ORRP). This sets monthly minimum flow requirements for OWL to meet at Saleyards Bridge (SYB) near Pleasant Point. It also sets out a flow and restriction regime that is triggered when the lake falls to 375m ASL (note the operating range of the dam is 392.2m to 370m). At 375m there is only 10% of storage left in the lake and, reflective of such low flow conditions, the minimum flow requirements reduce, and OWL shareholders are placed on a 50% restriction.

Experience has highlighted three key issues with the ORRP regime. Firstly by the time the lake reaches 375m, it is 'too late' to get any benefit from imposing restrictions, as the 10% remaining will last only a very short period of time (< two weeks). Secondly, there are other factors additional to the lake level – snow pack and lake inflows in particular - that should be taken into account when deciding when restrictions are imposed. Thirdly, there would be benefit from introducing more 'tiers' into the restriction system to reflect the varying degrees of severity of the low flow situation.

In response to these issues, the AMWG propose a 3-tiered environmental flow regime – '*Full Availability*', '*Conservative*' low flow, and '*Extreme*' low flow, to replace the current 2-tiered ORRP approach. This 3-tiered regime recognises that there are a number of factors influencing water availability and storage capacity in the Opuha catchment and a single flow regime is not adequate for such a dynamic system. Figure 1 illustrates the AMWG proposed flow regime compared to the existing ORRP regime. Key points to note:

- The 3-tiered environmental flow regime continues to mimic the river in its more natural state
- Variability within months is provided for through both a minimum (instantaneous) flow and a monthly average flow. This instantaneous minimum prevents the river dipping too low at any time, safeguarding its values. The use of average monthly flows provides OWL with greater (though still restricted) operational flexibility and allows OWL to 'bank' some water to be used for artificial freshes.
- While the distribution of flows across months changes, an important aspect of the proposed regime is that the total annual environmental flow volume under the 'full availability' scenario (average flows) is the same for the current ORRP (minimum flows).

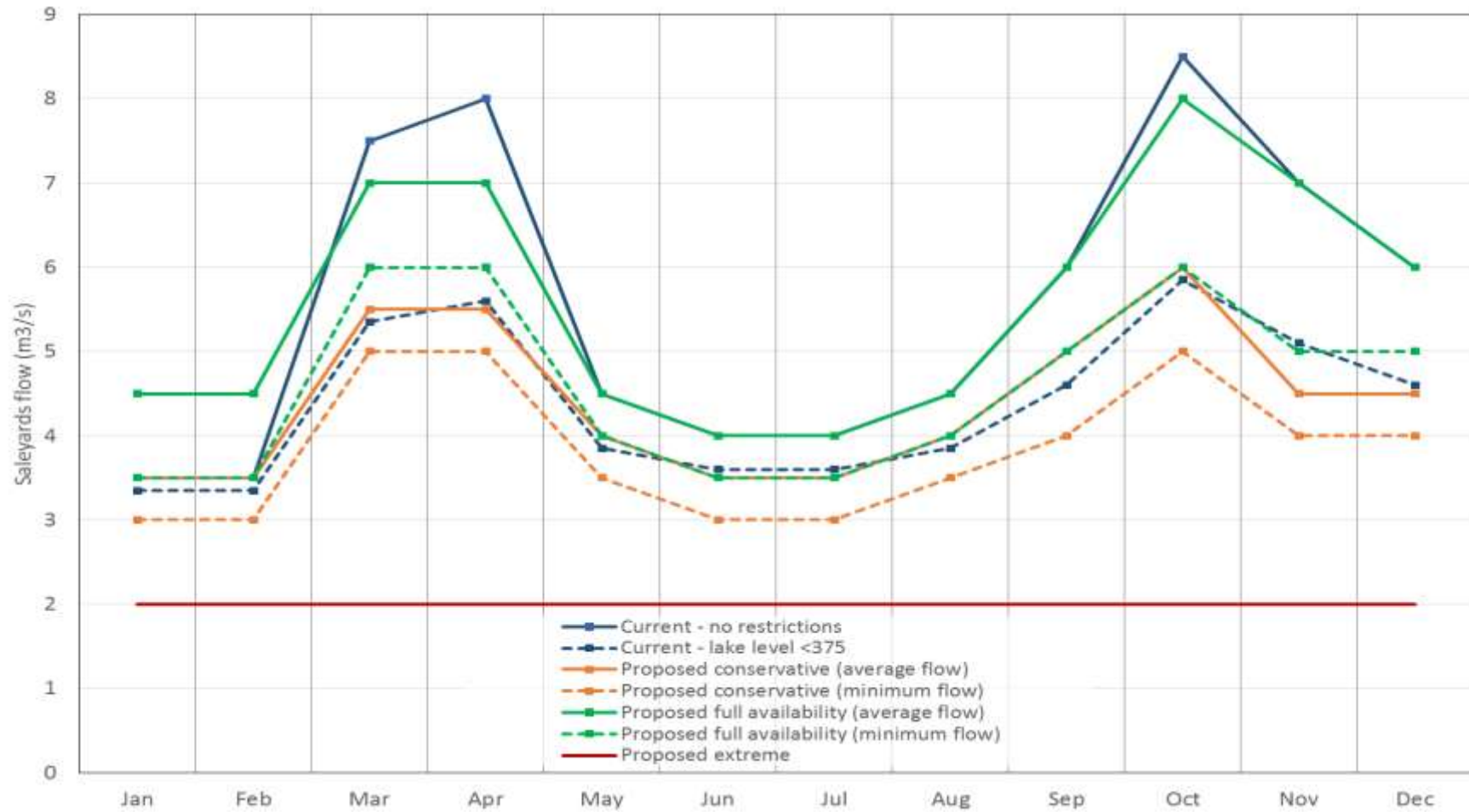
As previously mentioned, while the lake level is the most logical and straightforward factor to base a flow and restriction regime upon, there are also other factors also need to be assessed. The AMWG propose there are both PRIMARY and SECONDARY factors that can be used in evaluating the need for the imposition of restrictions (on both the river and irrigators). The group also believes that OEFrag (or an equivalent) should continue to have a role to play in determining when the restrictions should be imposed, based on the following approach (also illustrated in the flow chart attached):

- Each month the CEO of OWL will provide OEFrag with an update report on the state of these PRIMARY assessment factors:
 - Lake level
 - Snow pack

- Monthly inflows
- If the report shows any of these primary assessment factors are below the historical 'best available' long-term average for that particular month, OEFRAG will convene to determine whether there is a need to move between the flow and restriction regimes set in the Plan for that month.
- In making this determination, OEFRAG will also take into account the SECONDARY assessment factors:
 - Soil moisture conditions/ irrigation demand
 - Long term climatic cycle predictions
 - Short term weather forecast
 - River connectivity
 - River mouth health
 - Periphyton cover
 - General river health
- It is OEFRAG's role to recommend to ECan the movement between the 3 regimes, however ECan will retain ultimate decision making authority.
- While any *Conservative* or *Extreme* regime is in place, OEFRAG will continue to meet fortnightly.

The AMWG believe that by specifying environmental flow numbers in the plan for each of the 3 tiers of environmental flow (i.e. *Full Availability*, *Conservative* and *Extreme*) but having a more flexible approach to imposing restrictions in time of low flows, that the desired balance between certainty and flexibility can be achieved.

Figure 1 Current and Proposed Flow Regime (v1)



Restriction Regime

Alongside the environmental flow regime is the need for a restriction regime for irrigators and community supplies. The AMWG propose an irrigation restriction framework that reflects the different criticalities between irrigation and river demand for different times of the year. As the irrigation season progresses, there can be months where maintaining higher flows/supplies are more critical than others and similarly for the river. Restriction levels are therefore set out on a monthly basis for each of the 3 environmental flow tiers. The regime recognises that the best restriction outcome is not necessarily a 'one-for-one' reduction all the time – in some months irrigators will be restricted more than the river and vice versa for other months. Alongside irrigation restrictions, it is proposed that community supply restrictions remain at 50% of the irrigation restrictions, as is currently in the ORRP.

The AMWG propose an irrigation cut off at a lake level of 373m (5% lake storage) rather than 370m (0% lake storage) which is in the ORRP. The 373m cut off reflects the fact that at that very low level of remaining storage, maintaining the connectivity of the river is paramount and the remaining 5% should be used for that purpose. In return for this 'concession' (compared to current ORRP) it is proposed that the irrigators are able to continue to irrigate at a restricted level in certain months at a higher lake level even if an 'extreme' flow regime is imposed.

It is proposed that the restriction regime be based on a volumetric constraint rather than an instantaneous flow restriction. A monthly volumetric restriction provides for greater flexibility on farm and enables irrigators to make decision that best suit their crop/pasture requirements. Placing restrictions on a monthly volumetric entitlement means, however, that OWL must be able to demonstrate that water savings are being achieved and that the restricted annual volumetric entitlement is not being exceeded. In order to provide reassurance, there is an expectation that OWL will produce a report of water usage across the scheme at the end of each irrigation season (and will likely provide monthly updates to OEFrag).

The role of the Opuha Environmental Flow Release Advisory Group (OEFrag)

As already alluded to, under the AMWG's proposal, OEFrag would continue to play a fundamental role in managing the proposed river management regime. A draft Terms of Reference for OEFrag has been drafted by the AMWG to outline the function and membership of OEFrag, and specify procedures to be followed in their deliberations and operation.

The AMWG propose the objectives of OEFrag are as follows:

1. Through best practice river management, protect the environmental, economic, cultural and social values of the Opihi River;
2. To utilise lake storage with the purpose of retaining continuity and reliability of supply for both the river and irrigators;
3. To ensure the best possible information, knowledge and experience is considered when decisions are made;
4. To consider the interests of all stakeholders in decisions about the Opihi river management regime;
5. To adopt an adaptive approach to decision making where accumulating experience and knowledge is consistently applied improve decision making outcomes.

Under these objectives, the key role of OEFrag is to recommend to Environment Canterbury the movement between the three environmental flow regimes in times of water shortage (as has been explained above). Additional to this function, it is proposed that OEFrag also have an advisory/liason role in terms of the following:

- i. the need for artificial freshes;
- ii. the operation of the river system within the prescribed river management regime, including variability of flows within each month and the transition between months;
- iii. the need to lower the lake for the purpose of flood buffering; and
- iv. Communicating the rationale for any decisions made

Since a key aspect of adaptive management involves 'learning' the AMWG felt it was worthwhile to clearly state in the TOR for OEFrag, the requirement for diligent recording the information contributing to, and justification for, all decisions.

The 2014-15 irrigation season revisited

OWL is currently attempting to 'revisit' the 2014/15 season and assess the outcome if the Opuha scheme was managed under the proposed regime in comparison with the actual events of that period.

It is intended that preliminary results at least will be presented to the Zone Committee on March 6th.

Artificial Freshes

Artificial freshes (flushing flows) are a tool to manage nuisance periphyton, and also have a role (though limited) in improving river mouth health. Freshes have been trialled in the Opuha/Opihi system in an initial programme in 2004-06 and more latterly since 2013, with varying degrees of success. The recent modifications to the downstream weir now enable a fresh of greater magnitude to be released into the Opuha River and monitoring is showing significant benefits in terms of substrate movement and periphyton removal.

The AMWG are convening the week prior to the ZC meeting to discuss the requirements and triggers for artificial freshes to compliment the environmental flow and restriction regime developed to date. This will be reported on at the ZC meeting.

Conclusion

The Adaptive Management Working Group (AMWG) is a technical group working to develop a river management regime for the Opuha and Opihi Rivers to recommend to the OTOZC for their consideration. A broad range of interests are represented on the AMWG, including OEFrag, and the group is benefiting from the solid platform of collaboration and trust developed in OEFrag. THE AMWG is interacting directly with ECan's planning staff to address the technical challenge of incorporating an adaptive management regime into a (normally prescriptive) plan.

The Healthy Catchments project presents an important opportunity to make changes to the Opihi flow regime for the benefit of instream values and river users. The AMWG wish to use the learnings and experience gained from the last 18 years of dam operation to develop a regime with the best environmental outcomes, consistent with the expectations of the communities within the Zone.

The AMWG seek endorsement from the OTOZC to continue in its deliberations. The work done to date will continue to evolve and be informed by technical modelling and assessment and feedback.

The group welcome the opportunity to present to the ZC on the 6th March and at subsequent ZC meetings.

Recommendation

That the Committee endorses the AMWG to continue work to develop an adaptive river management regime to be modelled as part of the Healthy Catchments Project.

ORARI- TEMUKA- OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE
FOR THE MEETING OF 6 MARCH 2017

Report for Agenda Item No 10

Prepared by **Nic Newman**
 Zone Facilitator, Environment Canterbury

Waitarakao Washdyke Taskforce Report

Purpose of Report

The purpose of the report is to update the Zone Committee on the actions of a Waitarakao Washdyke Taskforce and ensure integration with the OTOP Healthy Catchments project (HCP).

A. Background

Waitarakao Washdyke lagoon has a long history of cultural significance to local rūnanga as an important site for traditional food gathering. Today a Mataitai reserve covers the area of the greater lagoon and restricts commercial fishing. Areas of particular importance, include not only the lagoon itself, but the coastal area opposite the lagoon outlet. The greater catchment of the lagoon is a key industrial zone and home to regionally significant industry and infrastructure. The lagoon and catchment is also home to a variety of wading birds and waterfowl and is an important link in the network of coastal wetlands in Canterbury. The two main freshwater inputs to the lagoon are the Seadown Drain and Washdyke Creek. Water quality is influenced by the management of contaminants in the catchment and the management of the drainage infrastructure. Ongoing coastal processes and hydrology changes in the catchment will put increasing pressure on the function of the lagoon over time.

A joint agency taskforce group was established in June 2016 to identify priority actions to achieve improved outcomes for Waitarakao and to oversee and co-ordinate joint agency actions. It involves membership from Timaru District Council, Environment Canterbury, Te Rūnanga O Arowhenua, Department of Conservation, and the Zone Committee. The group considered ***the need for immediate actions and the need to look at long-term planning*** to take into account the effects of coastal processes and other changes in the catchment.

B. Actions

The taskforce has developed an action plan and is working to oversee and integrate the following actions.

Action	Outcome sought	Lead	Other / Support	Status/Comment	Delivery Timing
Delivery of a Pollution Prevention Education Campaign in the catchment	Reduction in pollutants entering the lagoon	ECan	TDC	Scope complete, awaiting staff availability.	Q1 2017
Secure public access over the bridge at Smithfield	Improved public access to the lagoon	TDC	DOC	COMPLETE	Complete
Initiate a water quality monitoring program for the lagoon	Improved understanding of current water quality and input sources to the lagoon	ECan	TDC	Monitoring sites established for monthly monitoring, and auto samplers installed for event sampling. Data collection underway.	Ongoing
Development of a Wildlife Habitat	Improved biodiversity and habitat	Private and TDC jointly		Consent issued.	2016 - 2020
Enhancement of inanga spawning habitat at a site at the Seadown drain cut	Improved biodiversity and habitat	ECan	Private	Funding approved. Enhancement works to be completed by 1 March.	Q1 2017
Develop future management options for the hydraulic operation of the lagoon and catchment	Improved management of flooding, water quality, habitat, and contaminants	ECan	TDC	Step one - fill in missing knowledge gaps about lagoon hydraulics. Complete. Next step - develop scope and scale of work required to analyse options.	Q1 2017
Potential development of a shared walking / biking track	Improved public access to the lagoon	TDC	DOC	Concept under development. Next steps include: discussion with partner organisations and landowners	2017-2020

C. Future Management

The Taskforce has been focused on filling in knowledge gaps with regards coastal erosion and predicted sea level rise, and the implications of these for the catchment. Future changes in catchment hydraulics are imminent and there is the opportunity to look at creative options for better management across a range of outcomes. As a next step the taskforce are seeking to contract analysis of a range options for future management. This initial analysis of options would form a base for community engagement and integration into the HCP.

D. Integration with HCP

Concrete actions detailed in the action plan could form part of a solution package.

Any potential changes to groundwater management in Levels Plain, would need to be factored into the consideration of catchment management options.

Future options for catchment management could form part of a HCP solution - to assess and engage on, alongside wider Zone Committee recommendations for the catchment.

Recommendations

- 1 That the report be received and noted.**
- 2 That the action plan be endorsed.**
- 3 That consideration be given to how to integrate the actions into the Zone Committee solution package and community engagement through the Healthy Catchments Project.**

ORARI-TEMUKA-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE
FOR THE MEETING OF 6 MARCH 2017

Report for Agenda Item No 11

Prepared by **Dan Clark**
 Senior Hydrology Scientist and Technical Lead
 Environment Canterbury

Saltwater Creek Water Level Management; Issues and Options

Purpose of Report

To update the committee on the water level management issues in Saltwater Creek, and seek a recommendation on how to progress options within the OTOP Healthy Catchments Project.

Background

Saltwater Creek is located in southern Timaru (location indicated in Figure 1). It is fed from the range of hills in the North-west of the catchment which are drained by the two branches of Otipua Creek. Below the confluence of the two branches of Otipua Creek, the waterbody becomes called Saltwater Creek. This reach has a low gradient down to the coast and beach barrier.

Saltwater Creek has a weir located near to the beach barrier separating it from the sea (location shown in Figure 2). This weir was constructed in 1995 to prevent the complete drainage of the creek when the mouth to the sea is open. Prior to the construction of the weir Saltwater Creek would drain, exposing the bottom when the mouth to the sea was opened. The weir also has ports below the crest of the weir which are to allow exchange of water and fish passage at times when the water level is not above the weir crest. This design provides a throttling effect preventing the creek from draining rapidly rather than a standard weir design which would hold all water above the weir at times of low creek level. This exchange of water is important for maintaining water quality and prevents a large difference in 'head' between the water level above and below the weir.



Figure 1 Saltwater Creek catchment



Figure 2 Aerial image of lower Saltwater Creek with key locations marked

Below the weir Saltwater Creek runs north parallel to the coast forming a lagoon which filters through the beach barrier into the sea. At times when the water level in Saltwater Creek is high there can be a risk to neighbouring land due to flooding, particularly in heavy rainfall. For this reason Environment Canterbury manually opens the mouth to the sea to mitigate this risk. This mouth opening will close again naturally. Environment Canterbury is able to open the mouth when the water level in Saltwater Creek is above 1.8m at the water level recorder at State Highway 1.

Saltwater Creek has high recreational values, with surrounding land providing walking and cycling opportunities. The creek itself has a popular rowing reach which is used by

the Timaru Rowing Club. The creek and surrounding catchment also have significant ecological and biodiversity values, of note are the wetland areas located within this catchment.

Historic Issues

In a 1994 review of issues and options for Saltwater Creek, a number of water level and quality issues were identified and it was acknowledged that many of these had extended back generations. Following this review work has been done to improve a number of these, including the construction of the weir.

For a number of years concerns have been raised about the water levels and water quality within Saltwater Creek. The Timaru Rowing Club have presented these concerns to the OTOZ Zone Committee. The concern around water level is, that at low levels the club is no longer able to row on Saltwater Creek and club members have to travel further afield to train. Abstraction from the catchment and the functioning of the weir have been highlighted as key issues. Water quality has also been raised as an issue as the creek has low dissolved oxygen, high phosphorus and ammonia concentrations, and has had algal blooms. After heavy rainfall E.coli measurements have also been high.

Consented abstraction from Saltwater Creek has remained at approximately 26 l/s since the 1960s. This abstraction occurs upstream of the weir and the reach used by the rowing club. This abstraction is controlled by conditions relating to a minimum depth of water at the point of take. No allocation blocks have been set for Otupua and Saltwater Creeks. Measuring the flow in a deep, slow moving water body is problematic and is a reason minimum flows have not been developed for Saltwater Creek.

Current state and recent concerns

We have been measuring the water level in Saltwater Creek since 1993, and have rainfall records from nearby. Water metering data of the abstractions is also available from 2011. A log of mouth openings has been completed since 2007.

As there is a water level recorder on Saltwater Creek we have completed a desktop analysis looking at how often the water level may be suitable for rowing. The crest of the weir is at approximately 1.5m; from discussion with the rowing club it was estimated that they could row in Saltwater Creek until water levels drop more than 300mm below the weir. Using this information we were able to estimate the number of days the club was unable to row in each season (the end of August to April). Figure 3 shows that in recent years there have been a large number of days where there was not sufficient water depth to row. The 2014 and 2015 seasons were particularly low. This coincided with dry years around the rest of the zone, with low flows and insufficient water in many areas. Through the 2000s there were a number of years when the club had sufficient water depth to row for most of the season, but in previous dry seasons in the mid-1990s water levels were also low restricting the ability to row.

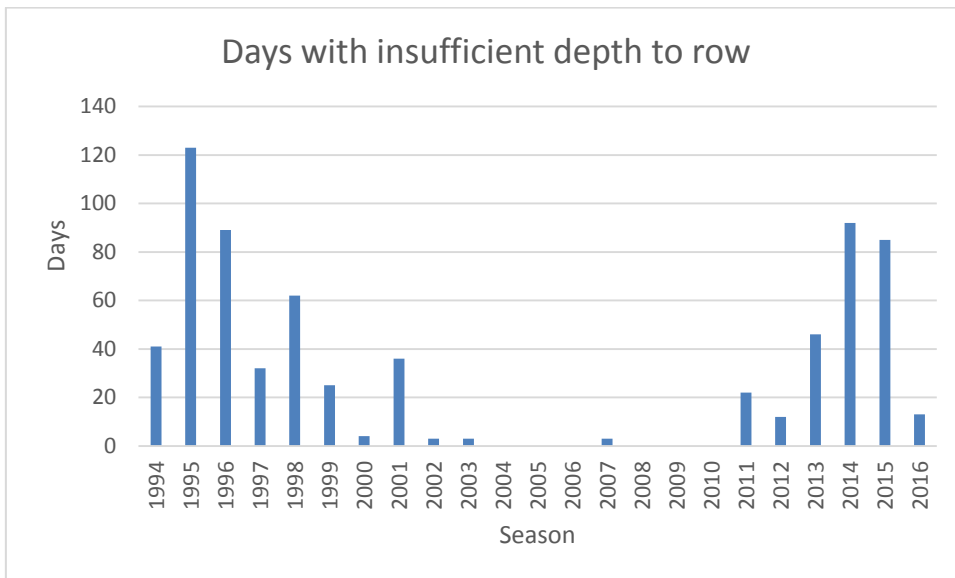


Figure 3 Number of days with insufficient depth to row, estimated from Environment Canterbury's water level recorder.

Water level is not the only concern for Saltwater Creek, water quality and weed growth also have caused issues. As weed grows within the creek it can pose a threat to rowers, this is worse when the water level is low. The creek has low dissolved oxygen, which can be common in slow moving weedy waterbodies. This may be contributing to high ammonia, phosphorus and dissolved organic carbon. There is very little saline influence above the weir. The positioning of the ports in the weir are designed to allow the transfer of water without saltwater intrusion.

Options

There are a number of options as to how the management of Saltwater Creek could be included in the Healthy Catchment Project. These have differing resource requirements and provide different levels of community engagement.

Option 1

Environment Canterbury deals with Saltwater Creek issues as part of the wider zone and catchment assessments

This ensures consistency with surrounding catchments and keeps on the existing timelines. This approach does not allow for local site-specific investigation or collaboration with all parties at a level which they may desire.

Any further detailed local assessments may pose a risk to the delivery of the zone-wide assessment due to time constraints and technical staff availability.

Option 2

A working group is set up to investigate Saltwater Creek issues and how to integrate these into the wider project.

As the management of Saltwater Creek can be seen as a discreet component of the zone it is possible to review this alongside the core OTOP Healthy Catchment Project. Doing this will allow the project team to continue to progress the wider zone analysis while a separate group investigates this catchment.

As water level management appears to be driving a number of the water quality issues, it is important that these issues are considered in the discussion and potential solution. It is important to recognise that this group would be constrained to looking for solutions to the instream issues as the wider catchment management will be assessed in the OTOH Healthy Catchment Project zone and catchment-wide assessments.

Potential working group members could be as follows:

- Timaru District Council
- Local Rūnanga
- Timaru Rowing Club
- Environment Canterbury Engineering
- Water Quality Scientist
- Hydrologist
- Fish and Game/Department of Conservation.

This working group would investigate the options for management of Saltwater Creek and report back to the Zone Committee and Environment Canterbury with recommendations which may be incorporated into the ZIP addendum or planning documents.

Option 3

Status Quo, abstraction is managed through the existing consent process and water level management continues.

The operation of the weir and lake openings continue as they do currently, as managed by Environment Canterbury. This may result in continued issues for insufficient depth for rowing in dry seasons.

As the current abstraction within Saltwater Creek is consented it already has a number of conditions applied to protect the existing environment. When this consent expires a renewal may be applied for and this could have a different set of conditions.

This option is likely to result in the current issues continuing.

Recommendation

That the Zone Committee recommends one of the three above options on how to include Saltwater Creek into the OTOH Healthy Catchments Project

ORARI-TEMUKA-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE
FOR THE MEETING OF 6 MARCH 2017

Report for Agenda Item No 12

Prepared by Ian Lyttle, Shirley Hayward, Lex Foster-Bohm

Managing Risks In Community Drinking Water Protection Zones

Purpose of Report

To provide the Committee with:

- An overview of contaminant risks to Community Drinking Water Supplies (CDWS)
- An outline how the Canterbury Land and Water Regional Plan (LWRP) manages these risks
- Proposed actions to address risks in the OTOP Zone.

Overview

Contaminant risk to drinking water supplies

Lessons learned in overseas jurisdictions (and more recently in NZ) tell us that effective drinking water management needs to involve multiple interventions at many levels so that, if one part of the system fails, the other interventions are in place to manage risks to the community. The creation and management of a community drinking-water protection zone is one of the multiple interventions that the water supplier relies on to provide safe drinking water to their community. Other main interventions include treatment of water supplies to remove contaminants such as pathogenic organisms and chemical contaminants, testing of water supplies at levels appropriate to risks, and management of the distribution network. Adequate controls on the source waters for drinking water supplies can help manage and reduce the following risks:

- Overloading of contaminants (particularly pathogens) that exceed the treatment capability
- In the event of treatment failure, unacceptably high human health risks (particularly from pathogens)
- Contaminants that are not treated by current treatment facilities (e.g., nitrates)
- Contaminants that interfere with treatment effectiveness (e.g., contaminants that cause turbidity that reduce the effectiveness of UV treatments).

Community drinking water protection zones identify areas most critical to managing contaminant inputs to source waters of drinking water supplies. These zones are generally in the immediate upstream or upgradient area of the supply take, and the extent of the protection zone will depend on a number of geophysical and hydrological aspects.

How the Land and Water Regional Plan manages contaminant risk to community drinking water supplies

Community Drinking Water Supplies (CDWS's) and Community Drinking Water (CDW) Protection Zones are defined in the Canterbury Land and Water Regional Plan (LWRP).

Environment Canterbury announced on 23rd February that Plan Change 4 to the LWRP, the Omnibus plan change, would be made operative on 11 March 2017. This plan change adjusts the population thresholds that define a Community Drinking Water Supply. The definition has changed to include any supply listed on the Ministry of Health's drinking water register that provides drinking water to no fewer than 25 persons per year for 60 days or more. Under the previous definition, protection zones only applied to supplies that served more than 500 people.

CDWPZ is a defined area of land around the community drinking water supply point, where certain restrictions apply to activities that pose a risk to water quality. These zones are identified in maps in the LWRP (refer to Figure 1 for CDWPZ in the OTOP zone).

Plan Change 4 allows owners of a Community Drinking Water Supply to apply for a specified protection zone to replace the existing provisional protection zones as mapped in the LWRP. This change provides an opportunity for further technical information and local environmental characteristics to be taken into account when determining the size of a protection zone. This means that if a consent holder of a water permit for an existing community drinking water supply considers the existing protection zone is not adequate for the level of protection required for that supply, an application for resource consent to amend the conditions of that water permit can be made.

There are policies and rules in the Canterbury Land and Water Regional Plan to protect Community Drinking Water Supplies from discharges of contaminants that have actual or potential adverse effects on the quality of the drinking water supply. There are rules to manage activities in CDWPZ's, such as:

- Stock exclusion
- Stormwater discharges
- Onsite wastewater systems
- Industrial and trade waste discharges.

CDWPZ in the OTOP Zone

Environment Canterbury has identified 32 Community Drinking Water Protection Zones in the OTOP Zone (see attached map). These drinking water supplies are mostly managed by Timaru, Mackenzie and Waimate District Councils.

Concerns raised about Community Drinking Water supplies in the OTOP Zone

In 2016, a number of community members in the OTOP Zone raised concerns with Environment Canterbury about water quality in some CDWS's. Two of these concerns related to dairying activities in CDW Protection Zones, and one related to a leaking septic tank posing a risk to a community drinking water surface water take. All concerns were followed up either by a Resource Management Officer or a Land Management Advisor and actions were taken to address the issues.

Timaru, Waimate and Mackenzie District council have also expressed concerns about activities occurring in protection zones. Concerns are predominately about risks of nitrate and *E.coli* contamination.

For example, Timaru District Council has raised concerns about the land use intensification around and in protection zones in Geraldine and the protection zone in Rangitata. In response to these concerns, Environment Canterbury and Timaru District Council are hosting a workshop on March 2nd to inform landowners in Geraldine and Pleasant Point about the sources of contamination, the risks to drinking water quality and actions they can take to reduce risk. In addition, a meeting is also planned with concerned community members from the Rangitata hut community to discuss a long term solution for water quality issues with their shallow groundwater supply.

Opportunities to improve risk management in OTOP CDWPZs

Regional work is underway to develop an inventory which identifies the activities occurring within CDWPZ's and any information gaps. It is yet to be confirmed when this information will be available and it is likely it will results in some regional recommendations.

To complement this work there is an opportunity to develop and implement a more comprehensive plan to better manage risk specially in the OTOP CDWPZs. Key concerns and potential actions to address these are outlined in the below table:

Key concerns	Actions to address concerns
<p>Lack of awareness about:</p> <ul style="list-style-type: none"> • Location of OTOP CDWPZs • Activities that pose risk to supplies • Actions that can be undertaken to reduce risk 	<p>Communication and Awareness</p> <ul style="list-style-type: none"> - Identify suitable sites for signage around the zone - Ensure maps of zones are easily accessible by the community - Host community workshops to improve awareness of zones, risk and actions landowners can take. - Finalise farming and household waste guidelines to distribute to landowners. - Actively promote well head protection <p>Practical Actions</p> <ul style="list-style-type: none"> - Ensure that landowners within zones identify actions to reduce risks in their FEP - Target Land Management Advisor support and compliance resource in CDWPZ. This could include site visits to identify non-statutory actions that will reduce high risk to drinking water.

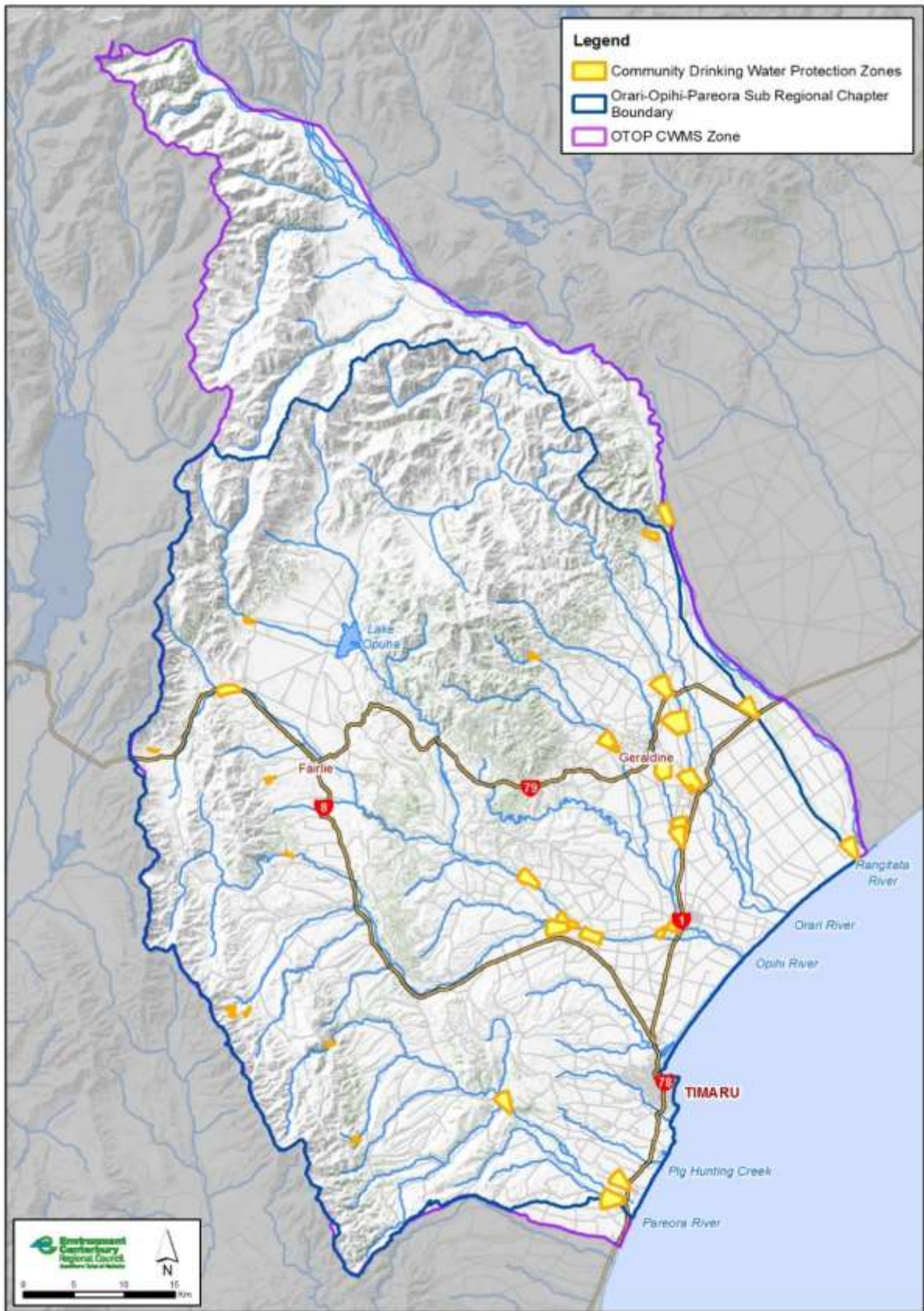
	<p>Planning</p> <ul style="list-style-type: none"> - Explore the potential for planning tools to assist with improved protection for community water supplies - Working with district councils and other suppliers to confirm that the boundaries of existing protection zones are appropriate i.e. they reflect the most up-to-date technical information. - Recommend appropriate nutrient limits in the Healthy Catchment Project
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Attachment: Map of Community Drinking Water Protection Zones in the OTOP Zone.

Recommendations

That the Committee:

- **Notes the information about CDWPZ and concerns in the OTOP zone.**
- **Considers and provide feedback on the potential actions outlined above and identify any additional actions.**
- **Agrees on a recommendation(s) to be included in the OTOP Healthy Catchments Project Solution Package.**



ORARI-TEMUKA-OPIHI-PAREORA ZONE WATER MANAGEMENT COMMITTEE
FOR THE MEETING OF 6 MARCH 2017

Report for Agenda Item No 13

Prepared by Alexia Foster-Bohm

Healthy Catchments Project: Update on Community Engagement

Purpose of Report

To update the Committee on upcoming engagement in March and April in the OTOP Zone.

Background

As discussed at the last Zone Committee meeting there are a number of workshops coming up in the OTOP Zone.

Beef & Lamb NZ (B+L NZ)

B+L NZ is hosting a workshop to provide an overview of the OTOP Healthy Catchments project. The aim of this meeting is to:

- Provide an overview of what the Healthy Catchments Project is
- Discuss the key science information presented so far in the Project and to understand where the Project is heading in 2017
- Understand how farmers can get involved and what support B+L NZ can offer.

This workshop will be held on 15th March in Fairlie (location TBC). *Please note that this date was originally set for the 8th but has now changed.*

Information sharing session on stream depletion

Environment Canterbury is hosting two meetings in March to discuss stream depletion in the Opihi and Temuka catchments.

In these two catchments, stream depletion is currently assessed (under the Canterbury Land and Water Regional Plan) on a 30 day pumping test, however as part of the Healthy Catchments Project the committee need to explore what the likely impacts would be if this were to change to a 150 day pumping test (which applies in most parts of Canterbury, including the Orari and Pareora).

The aim of this meeting is to share information about what stream depletion is and what the likely implications will be if the 150 stream depletion rule applied. The Zone Committee will then consider this information and work with the community this year to find solutions that will best deliver the community outcomes.

These meetings will be held on:

- Monday 20th March (10am-11.30am) at the Geraldine Domain Pavilion, Hislop Street, Geraldine

- Wednesday 22nd March (6.30pm-8pm) at the Pleasant Point Rugby Club, Tengawai Road, Pleasant Point

OTOP Healthy Catchments Project Public Workshops

The Zone Committee will be hosting the public workshops to seek feedback on the key findings from Scenario 2 (In-Zone gains) and Scenario 3 (New Water). These workshops will be held at 7pm-9pm on:

- Monday 10th April
- Tuesday 11th April
- Wednesday 12th April.

** Please note these dates are still tentative at this stage.*

Recommendation

That the Committee receives the update.