

**78TH ORDINARY MEETING OF THE
SELWYN-WAIHORA ZONE COMMITTEE
TO BE HELD AT THE
LINCOLN EVENTS CENTRE
ON TUESDAY 5 DECEMBER 2017
AT 2.00 PM**

"If there is magic on this planet, it is contained in water..."

Loran Eisely, US Author

78th Meeting of the Selwyn Waihora Zone Committee - Outline of Agenda

DATE: TUESDAY 5 December 2017
TIME: 2.00pm
VENUE: Bayliss Lounge, Lincoln Event Centre, Meijer Drive, LINCOLN

Item	Time	Description	Pages	Presenter
	2.00pm	Meeting commences with karakia and formal order of business: <ul style="list-style-type: none"> • Apologies • Identification of Urgent General Business • Confirmation of minutes 7 November 2017 • Matters Arising & actions from last meeting • Report to and from Regional Committee Meeting (Karaitiana Taiuru) • Update from Zone Committee members on activities and meetings attended that relate to the Committee's outcomes for the zone • Meeting dates for 2018 • Acknowledging retiring community members 	3 - 7 8	
	2.20pm	General Public Contribution		
1.	2.25pm	Selwyn Waihora Zone Delivery verbal update		<i>Michaela Rees, Environment Canterbury</i>
2.	2.40pm	Committee discussion on addressing feedback from final seminar and on next steps following the seminar series	9 - 20	<i>Ian Whitehouse, Environment Canterbury</i>
	3.00pm	Break		
	3.25pm	Committee discussion continues		
	4.15pm	Approximate finish time		

**MINUTES OF THE 77th MEETING OF THE SELWYN WAIHORA ZONE COMMITTEE
HELD IN THE EXECUTIVE ROOM 1, SELWYN DISTRICT COUNCIL HEADQUARTERS,
ROLLESTON, ON TUESDAY 7 NOVEMBER 2017 COMMENCING AT 1.00 PM**

AGENDA SUMMARY

Item	Time	Description	Pages	Presenter
	1 pm	Meeting commences with karakia and formal order of business: <ul style="list-style-type: none"> • Apologies • Identification of Urgent General Business • Confirmation of minutes 3 October 2017 • Matters Arising & actions from last meeting • Report to and from Regional Committee Meeting (Karaitiana Taiuru) • Update from Zone Committee members on activities and meetings attended that relate to the Committee's outcomes for the zone 		
	1.15pm	General Public Contribution		
1	1.20pm	Proposal for Youth Zone Committee		<i>Hannah Dunlop and Johannes Welsch, Environment Canterbury</i>
2	1.25pm	Next steps following the seminar series		<i>Ian Whitehouse, Environment Canterbury</i>
3	1.45pm	Outline of Zone Committee Annual Report 2017		<i>Ian Whitehouse, Environment Canterbury</i>
	2.00pm	Approximate finish time		

The meeting was opened with a karakia by laean Cranwell.

The Chair welcomed everyone to the meeting.

PRESENT

Allen Lim (Chair), Cr Murray Lemon (Selwyn District Council), Victor Mthamo (Community Member), Ron Pellow (Community Member), Bill Lambie (Community Member), Maree Goldring (Community Member), Cr laean Cranwell (Environment Canterbury) and Les Wanhalla (Te Rūnanga o Taumutu).

IN ATTENDANCE

Stephen Bragg, David Murphy, Mananui Ramsden, Johannes Welsch, Dr Stefanie Rixecker, Michaela Rees, Chris House, Tony Benny and Ian Whitehouse (Canterbury Regional Council); Cr Nicole Reid, Cr Craig Watson and Therese Davel (Selwyn District Council); John Benn, (DOC), Scott Pearson (Fish and Game)

APOLOGIES

Apologies received from Hayley Moynihan (Community Member), George Tikao (Te Rūnanga o Ōnuku), Karaitiana Taiuru (Te Rūnanga o Koukourāata), Yvette Couch-Lewis (Te Hapu o Ngati Wheke) and Cr Anne Galloway (Christchurch City Council) were accepted by the meeting.

Moved: Cr Iaeen Cranwell /**Seconded:** Cr Murray Lemon

That the Committee accept apologies for absence as noted.

CARRIED

IDENTIFICATION OF URGENT GENERAL BUSINESS

None

CONFIRMATION OF MINUTES

Minutes of the 76th Meeting of the Selwyn Waihora Zone Committee (Water Management) held on Tuesday 3 October .

Update from members on activities: Amended to read Ron Pellow met with Lincoln Agritech regarding their nitrate sensors.

Item 4 CWMS Targets: Amended to read Ron Pellow commented on the potential conflict with PC5 and the definition of water use efficiency ...

Moved: Bill Lambie / **Seconded:** Ron Pellow

That the minutes of the 76th meeting of the Selwyn Waihora Zone Committee (Water Management) held on Tuesday 3 October 2017, as amended, be confirmed.

CARRIED

MATTERS ARISING FROM MINUTES

In response to a question from Bill Lambie about any update on Upper Selwyn Huts, Cr Murray Lemon noted that it was part of Selwyn District Council's Long-Term Plan discussions and that there was nothing formal to report yet.

REPORT TO AND FROM REGIONAL WATER MANAGEMENT COMMITTEE MEETING

No update.

UPDATE FROM ZONE COMMITTEE MEMBERS ON ACTIVITIES AND MEETINGS ATTENDED THAT RELATE TO THE COMMITTEE'S OUTCOMES FOR THE ZONE

Zone committee members reported on meetings attended that relate to the work of the zone committee including:

Les Wanhalla – attended meetings of the Christchurch West Melton Zone Committee and two of the appointment committees.

Allan Lim – attended the Zone Committee Chairs' Forum and had a meeting about the pumpkin project.

CORRESPONDENCE

None.

GENERAL PUBLIC CONTRIBUTION

None.

1. PROPOSAL FOR YOUTH ZONE COMMITTEE

(Johannes Welsch, Environment Canterbury)

(Refer page 10)

Johannes Welsch informed the Committee that the age group 5 to 22 was a group they were struggling to engage with. It is suggested that the Youth engagement team, EnviroSchools and members of the Selwyn Waihora Zone Team explore existing youth and school projects that align with zone committee priorities. Having a dedicated Youth Zone Committee meeting at the end of 2018 will potentially provide a platform for that age group where the Chair and Co-chair can give the children insight in how meetings are run. It will also reach a group of young people who may not have heard a lot about the Zone Committee and its work.

Some of the ideas for discussion at the meeting include biodiversity, mahinga kai and importance of water.

Cr Murray Lemon requested that Selwyn Youth Council be included too and suggested the Lincoln University may be interested as well.

Moved: Cr Iaeen Cranwell / **Seconded:** Ron Pellow

The Committee resolved that it supports the initiative of a youth zone committee; agrees to a proposed youth zone committee meeting in October 2018; and wished to be kept informed of the project along the way.

CARRIED

2. NEXT STEPS FOLLOWING THE SEMINAR SERIES

(Ian Whitehouse, Environment Canterbury)

(Refer pages 11 – 12)

Taking the report as read, Ian Whitehouse facilitated a brief discussion about how the Committee might want to address the questions and points raised in the feedback. Responding to each individual will be quite time consuming and not necessarily reach a wide audience.

The Committee agreed it will be useful to have a workshop in December to go through the questions and respond as a united group. These answers can be added to social media as part of Frequently Asked Questions. At the same workshop the Committee could look at what it has been doing so far and what more it could be focussing on, identifying a few key areas to put its efforts into. This will include projects already identified and any additional projects that may have come out of the seminar series. Funding and resourcing to progress those will also be discussed at the workshop.

It would also be a good opportunity for new zone committee members to attend the workshop so that they get up to speed quickly and can contribute.

At this point Scott Pearson (Fish and Game) added it was important to continue having dialogue with the community to better explain what the Zone Committee is working on. He suggested a number of smaller focus meetings which will facilitate open conversation between communities and the Zone Committee. Scott added he would be willing to be involved in responding to some of the queries which related to Fish and Game activities.

3. OUTLINE OF ZONE COMMITTEE ANNUAL REPORT 2017

(Ian Whitehouse, Environment Canterbury)

(Refer pages 17 - 23)

Ian Whitehouse asked the Committee for guidance on the contents of its 2017 Annual Report. The Committee will be asked to sign-off on the annual Report at its February 2018 meeting. A draft will be presented to the Committee at its December 2017 meeting.

The Committee discussed what they would like to see in the Annual Report and the following are some of the notes covered:

- To list the Immediate Steps projects under Key achievements 2017
- To add support for projects related to Port Hills fire recovery in “biodiversity”
- To add photos of earlier Immediate Steps projects to show the before and after progress
- Add wilding pines / conifer control
- Add the entire Waikirikiri, and not only focus on Coes Ford
- Request a presentation from Co-Governors about their strategic direction for Whakaora Te Waihora

Subject Matter: 2018 Meeting Dates	
Report to: Selwyn Waihora Zone Committee	Date of meeting: 5 th December 2017
Prepared by: Therese Davel	Action: For approval

Action required:

The Zone Committee agree to the 2018 meeting schedule and advise on possible field trips to be undertaken during the year.

Discussion:

It is proposed that 2018 meetings continue to be held on the first Tuesday of the month, apart from February where the first Tuesday is Waitangi Day.

Meetings will be scheduled to start with lunch at 12.30pm, followed by a public excluded workshop from 1pm – 2pm. The public meeting will commence at 2pm.

The Bayliss Lounge, Lincoln Event Centre is available for all the dates as set out below.

At today's meeting, members will have an opportunity to advise staff on any potential field visits they wish to undertake during the year.

13 th February	5 th June	2 nd October
6 th March	3 rd July	6 th November
3 rd April	7 th August	4 th December
1 st May	4 th September	

AGENDA ITEM NO: 2	<p>SUBJECT MATTER:</p> <p>Response to feedback at final Selwyn seminar and next steps following the seminar series</p>
REPORT BY: Ian Whitehouse, Environment Canterbury	DATE OF MEETING: 05 December 2017

Action required

1. Discuss and progress a response to the feedback received at the final Selwyn Water seminar;
2. Identify new areas of work prompted from the feedback received at the final Selwyn Seminar;
3. Confirm the two or three key areas of work (new and existing) that will be the focus of the zone committee's 2018 efforts for increased funding and resourcing.
4. Discuss and agree the other next steps following the seminar series such as:
 - a. Communicating the committee's response to the feedback at the final seminar;
 - b. A workshop in April/May with a focus on sharing what is currently being done to address water issues;
 - c. A workshop where the committee makes a call for help (including how to increase funding) to progress two or three key work areas;
 - d. Considering establishing a subcommittee to progress the next steps.

1 Background

The committee hosted a successful Selwyn Water seven-topic seminar series at Lincoln University from June to September with between 70 and 130 attendees per session. The videos on YouTube have been viewed by more than 1900 people.

2 Collated feedback from final seminar

Participants at the final seminar (panel discussions) provided their thoughts on what more needed to be done to address the water issues in Selwyn Waihora.

The collated feedback was provided to the committee at its November meeting. The committee asked that time be set aside at (this) December meeting for discussion on the responses to the points raised in the feedback.

To prompt this discussion possible responses are provided for some of the points raised (attached).

2.1 The committee and others at the meeting are asked to discuss and develop responses to the points raised in the feedback.

3 New areas of work identified from the feedback from final seminar

Most of the points raised should be familiar to the committee – such as fewer cows and changing to different farming systems/land uses.

Some points raised in the feedback may be new and could suggest new work areas, for example:

- Encouraging testing of domestic water supplies
- Storm water management
- Set up a native plant supply as done by Taranaki Regional Council
- Ensure public access to water ways

3.1 The committee and others at the meeting are asked to possible new work areas identified from consideration of the points raised in the feedback.

The committee has previously identified the “Swimmable Selwyn@Coes Ford” Project as something that the zone committee will strongly advocate for and try to get more funding and resourcing.

3.2 From consideration of possible new work areas (identified from the discussion above) and of existing key projects (such as Coes Ford), the committee and others at the meeting are asked to identify the two to three areas of work (or projects) that the zone committee will focus on in 2018 in terms of advocacy and in leading effort to get more funding and resourcing.

4 Next steps

Possible next steps:

- i. Address the points raised in the feedback from the final seminar.

Selwyn District Council and Environment Canterbury technical staff review the responses and correct errors.

Provide the responses, via email, to the mailing list of seminar participants. Responses could also be added to the FAQs for Selwyn Waihora zone.

This would show the Zone Committee is following up on the feedback from the final seminar although experience to date would suggest this may not be particularly effective in communicating what is being done in the zone to address water issues.
- ii. Zone Committee hosts a workshop in April or May 2018 that provides briefings on what is being done to address the water issues and why some things are not being done.

This may be a more effective way of communicating what is being done to address water issues. The following could be covered in terms of what is being done on-the-ground:

 - Restoring Snake Creek (Water and Wildlife Habitat Trust project);
 - Living Water (Fonterra/DOC);
 - Whakaora Te Ahuriri;
 - Selwyn River/Waikirikiri near-river recharge;

- Farming to better than GMP – consents, audited FEPs;
- Farming and mahinga kai;
- Reducing N losses by 30% from dairying (indicating how this is likely to reduce cow numbers);
- Transitioning to lower-impact land uses (Our Land and Water Challenge).

If this approach were supported, an email update would be sent to everyone who participated in the seminar series.

- iii. Zone Committee identifies two or three key areas of work/initiatives (from 3.2 above) and focusses its efforts on how to get more funding and resources to progress these. This could include hosting a workshop in 2018 where the committee makes a “call for help to progress action on water issues”.

If this approach were supported, an email update would be sent to everyone who participated in the seminar series.

- iv. Zone Committee appoints a subcommittee to progress the next steps.

4.1 The committee and others at the meeting are asked to identify and agree the next steps.

5 Attachment

Collated feedback provided by participants at the final seminar panel discussion with possible responses.

Feedback from participants at final Selwyn Seminar and possible responses

	Feedback from participants at final seminar	Possible response
1	<i>Farming practices, farming systems and changing land use</i>	
	<ul style="list-style-type: none"> • Work to change land use, reducing dairying and increasing the production of other foods. • De-Stocking • Less intensive farming • Reduce stocking rates (less cows) in sensitive area • Reduce autumn and winter cow numbers on light soils. • Does farming at significantly better than GMP mean reducing some herds is inevitable on some (wetland) soil types? • Look at type of farming on the right type of land. Is high intense farming on grass suitable? 	<p>The approach taken by the zone committee and given effect to in the Selwyn Te Waihora Plan has been to set limits and put in place rules to manage the environmental impacts of farming and other land uses rather than attempting to pick land use “winners” or to manage inputs (such as fertiliser use or stock numbers). The rules and limits include the requirement for dairy farms to reduce nitrogen losses by 30% and adoption of good management practices through consents to farm with independently-audited farm environmental plans on about 900 farms.</p> <p>Farmers can choose the practices, systems and land use that will achieve the limits and rules on their property.</p> <p>Some dairy farms have already chosen to reduce cow numbers particularly in the autumn to reduce nitrogen losses.</p>
	<ul style="list-style-type: none"> • Suggesting that the future of farming as-it-is is seriously being questioned. Are some landowners willing to “transform” their way of farming? • Demonstration farming systems of alternative practices with lower emissions/losses to support new technologies and support famers in change. 	<p>There is a long history in Canterbury of land use change – for example, the rapid expansion of irrigation in 2000 – 2010. “Alternative” land uses have come (and often gone) such as ostrich farming, olives and viticulture. There has been rapid uptake of some farming technologies such as baleage and fodder beet. The tough farming rules and limits are one of the drivers for land uses and ways of farming with a smaller environmental footprint. The “transformation” of a farm depends on many factors including economics and the farmer’s goals.</p>

Feedback from participants at final seminar	Possible response
	<p>The Lincoln University Dairy Farm is one example of a farm demonstrating alternative practices with lower nutrient losses. There are many events every year where farmers visit farms and see good management practices. These events are run by organisations such as DairyNZ, Foundation for Arable Research, Ellesmere Sustainable Agriculture, Beef and Lamb, Synlait and Fonterra.</p> <p>The “Our Land and Water” research challenge is looking at alternative land uses (provide web link).</p>
<ul style="list-style-type: none"> • Level of nitrates can be dramatically reduced by changing ryegrass dominated pasture to a mixed sward. See research by Dr Christine Jones. 	<p>There are many ways that nitrate losses can be reduced including through different pasture species, and by improving irrigation, effluent and fertiliser management.</p>
<ul style="list-style-type: none"> • Hi. I’m new to your plan and have been interested to learn what your scenarios might be. I didn’t hear an option where you considered reducing dairying/incentivising farmers to convert to other options which are more suited to our soils. Where is this discourse? 	<p>A range of scenarios were explored as part of developing rules and limits for the Selwyn Te Waihora catchment (and summarised in the Section 32A report https://www.ecan.govt.nz/document/download?uri=1987813). The scenarios include options that significantly changed the nature and location of different land uses (including dairying) in the catchment. The scenarios with significant land use change resulted in substantial economic costs and considerable community disruption.</p> <p>The approach taken is to set environmental limits for farming and allow land owners to change land use and farming practices as required on a farm-by-farm basis to achieve these limits.</p>
<ul style="list-style-type: none"> • By increasing plant based protein, vegetable based protein, however the outcome of this plan change in fact penalises vegetable growing. • Improved fertiliser use not based on sales but needs of plants. Use of foliar nutrients which are less concentrated than bulk fertilizers. So improved fertilizer management. Combined with enhancement of soil organic matter. • Apply fertiliser little and often. 	<p>The Selwyn Te Waihora Plan sets limits and rules for farming. The nitrogen loss reductions required differ from sector to sector with vegetable growers required to reduce by 8%, arable by 7% and dairy by 30%.</p> <p>Good fertiliser management is part of managing nutrient losses. The farm environment plans (FEPs) required as part of the farming consents include good fertiliser management. The FEPs are independently audited.</p>

Feedback from participants at final seminar	Possible response
<ul style="list-style-type: none"> Shut down intensive pig farming on the banks of the Selwyn. 	<p>The pig farm on the banks of the Selwyn River/Waikirikiri must comply with farming rules and limits. If there are specific concerns about the environmental impacts of this or any other farm people can raise these concerns with the Selwyn Zone Delivery Team (contact info).</p>
<ul style="list-style-type: none"> What is an acceptable level of profitability for different types of farming? (from what level this would become greed) 	<p>The Selwyn Waihora zone committee does not consider it has a role in defining the acceptable level of farm profitability. Meeting the Selwyn Te Waihora Plan requirements will cost farmers. In developing the plan it was assessed that the nitrogen reductions would have, on average, a 5% impact on profitability across the different types of farming.</p>
<ul style="list-style-type: none"> Review the system of 'grandparenting' (many farmers don't want it). 	<p>The farming rules and limits in the Selwyn Te Waihora Plan result in a "modified" grandparenting system of nitrogen allocation in the catchment. Farms must meet the nitrogen losses under good management practices by 2017 and then make further reductions by 2022. This means that a dairy farm will be "allocated" more N losses (i.e. grandparented) than a cropping farm on the same soils and with the same rainfall.</p> <p>In the development of the Plan other nutrient allocation approaches were evaluated including those, such as equal allocation and land use capability, that are considered to be fairer (give web link). The evaluation highlighted the very high economic (and social) cost of moving from the current "grandparenting" to another allocation framework.</p>
<p>2 Wetlands and biodiversity</p>	
<ul style="list-style-type: none"> Create more wetlands Creating (re-creating?) wetlands within the catchment is a very good idea! Identifying the optimal locations for efficient impact is essential. Use DOC land on lake fringe for wetlands. 	<p>Wetlands are commonly referred to as the "kidneys of the landscape" because of their ability to intercept, store, assimilate and transform contaminants lost from the land.</p> <p>Wetland enhancement and creation is recognised as an important component of the package of solutions to address water management issues in the zone. The challenge is how to fund this.</p> <p>As the first stage in determining the feasibility of re-introducing wetlands to reduce the impact of land-use on the water quality, ecology and cultural values of Te Waihora, the Whakaora Te</p>

Feedback from participants at final seminar	Possible response
	<p>Waihora partners (Ngāi Tahu, Environment Canterbury and the Ministry for the Environment) commissioned NIWA to evaluate the areas of wetlands in the catchment that would be needed to meet nitrogen load reduction targets of 20% and 40% in surface inflows to the lake (give web link to NIWA report). Potential locations in the Te Waihora catchment suitable for restoration or creation of wetlands were identified. In addition to conventional surface-flow wetlands, the potential use of floating treatment wetlands was assessed and potentially suitable locations identified.</p> <p>Paragraph on Whakaora Te Ahuriri</p>
<ul style="list-style-type: none"> Set up a plant supply for biodiversity planting as done by the Taranaki Regional Council. 	<p>This is something that was not considered or costed as part of developing the water management solutions package for the catchment. The committee considers the DOC Nursery at Motukarara can supply plants for biodiversity planting. The challenge is how to fund, beyond the investment by landowners, the hundreds of kilometres of plantings needed on stream and drain margins.</p>
<p>3 <i>Monitoring and research</i></p>	
<ul style="list-style-type: none"> More funding for research to both understand the current situation, and to also give solutions. 	<p>Yes.</p>
<ul style="list-style-type: none"> Focus on science-based decisions. 	<p>To date decisions have been well-informed by science. For example, a large body of technical evidence was presented to and tested through the RMA hearing on the Selwyn Te Waihora Plan (provide link)</p>
<ul style="list-style-type: none"> Is TLI a suitable index when the lake remains open for long period of time? 	<p>The trophic lake index (TLI) is only one of many indicators that are used to monitor the health of Te Waihora including ecosystem health, lake-margin vegetation, birdlife, and fish - see for example, the State of the Lake 2017 http://www.wet.org.nz/projects/2017-state-of-the-lake/</p>

	Feedback from participants at final seminar	Possible response
	<ul style="list-style-type: none"> Control all sources of contaminants. Greater vigilance and monitoring of all farm wells not just for water take but for potential contamination (e.g. during flooding events where wells are covered) reaching ground water. 	
	<ul style="list-style-type: none"> Improve Environment Canterbury monitoring/regulation of installation of new wells drilled into aquifers. 	<p>Summarise current rules and monitoring for new wells.</p> <p>New water takes are prohibited except for drinking water or stock water. Therefore most new wells will be for drinking water or to replace existing wells.</p>
	<ul style="list-style-type: none"> In monitoring the situation very little has been said about people's well-being and animal welfare. A healthy catchment is a catchment with happy people can live next to each other without lashing out at each other – GPs / mental health practitioners as well as Vets (for animals) need to be involved. 	<p>People's wellbeing and animal health are important. Some health- and wellbeing-related information is collected by health and welfare agencies and the police. Animal welfare information is collected by MPI.</p> <p>The state of some indicators, such as the incidence of water-born diseases, can be linked to water quality however there are many factors that contribute to "happy" people.</p>
4	<i>Nitrate risks to human and ecosystem health</i>	
	<ul style="list-style-type: none"> If nitrates are an issue in shallow water supplies then testing regime must be an option – programme to implement 	<p>People can test their domestic drinking water wells by providing samples to testing laboratories such as Hills Laboratories.</p> <p>The Ashburton Zone Committee has recently organised through the Zone Team a mail-out telling people how they can get their domestic water wells tested. The response to the mail-out has been poor and other ways are being looked at to help people know how to get their water tested.</p>

	Feedback from participants at final seminar	Possible response
	<ul style="list-style-type: none"> Regarding nitrate health risks. The MAV of 11.5mg/L set by who is relevant for infants up to the age of 4 months. This is a quote from a report authorised by Dr Alastair Humphrey. This is because the digestive system of very young babies is especially sensitive to nitrates. Above this age, as the digestion system matures, infants and adults become more tolerant. Therefore the risk to human health overall is probably overstated. On the other hand, my understanding is that stream ecosystems are far more sensitive to nitrates than the humans are. Critical level about 1mg/L. This factor seems to be completely over looked. 	<p>High nitrate concentrations can cause “blue baby” syndrome. This means the issue has a media profile.</p> <p>High nitrate concentrations are also of concern for fish and insects. The Selwyn Te Waihora Plan sets nitrate limits in streams and lakes that relate to ecosystem health and toxicity.</p>
5	<i>Urban stormwater and wastewater</i>	
	<ul style="list-style-type: none"> Make sure Pines Waste Water Treatment Plant stage 2 has some storage to allow irrigation of nitrate rich water to cease during times of high soil moisture. 	<p>Discharged water must meet strict water quality parameters and water quality is tested monthly by SDC plus audit checks by ECan. The treatment plant is fitted with alarms which alert staff in case of failures of any of the critical treatment components. The nitrogen concentration of the discharged wastewater must be below the median of 7 g/m³. The October results showed a total nitrogen concentration of 2.8 g/m³.</p> <p>Soils are free draining in the discharge field and there are also restrictions placed on the maximum application of wastewater per day and over a consecutive 5 day period. Ponding of wastewater is not permitted and to date there has been no indication that the discharge to land is inadequately managed.</p> <p>Additional irrigation areas are available on site and they will be commissioned in 2019/2020 to cope with the residential growth in the area.</p>
	<ul style="list-style-type: none"> Stormwater Enforcement 	

	Feedback from participants at final seminar	Possible response
	<ul style="list-style-type: none"> Enforce stormwater pollution like how Auckland did 10 years ago. Industrial Stormwater pollution is the hidden perpetuator, Oh and less cows! 	
	<ul style="list-style-type: none"> Increase awareness of the effect of small lands holders (townies-lifestyle blocks) and how they need to change the way they garden/grow lawns etc. 	
6	<i>Climate change</i>	
	<ul style="list-style-type: none"> How will the district deal with the impacts of climate change? The potential huge impact that could result from climate change on the lower part of the catchment seems to be underestimated in the plan. Is it not? 	<p>Overall, projections indicate that the Canterbury region will experience increasing rainfall in the ranges, and less rainfall on the plains. This has particular significance for groundwater recharge and foothills-fed rivers such as the Waikirikiri /Selwyn River. Less predictable rainfall combined with higher summer temperatures and increased evapo-transpiration would lead to higher irrigation demand and potential increased pressure on groundwater and the Waikirikiri /Selwyn River.</p> <p>Technical work undertaken as part of the Whakaora Te Waihora Programme indicates that with sea level rise opening Te Waihora will become increasingly difficult unless the trigger for lake opening is raised.</p>
7	<i>Water takes</i>	
	<ul style="list-style-type: none"> Start a discussion around how much should all water users be charged. 	The new government appears to have taken this off the agenda at this time.
	<ul style="list-style-type: none"> CPW was set up to reduce use of wells within the zone as the groundwater is overallocated. Will the current CPW uptake (half of area potentially irrigated) be enough to reduce the early indication of 40% overallocated? 	The zone committee recommended setting the groundwater allocation limits to provide for a volume that improves ecological and cultural flows in the lowland streams and the lower and mid reaches of the hill-fed rivers in the zone.

	Feedback from participants at final seminar	Possible response
		<p>Without CPW replacing groundwater takes on about 30,000ha with water from Rakaia River and Lake Coleridge, the groundwater allocation limits would need to be reduce to 18% of the current allocation. With CPW they need to reduce to about 70%.</p> <p>With CPW and the new groundwater allocation limits flows in lowland streams will improve, however this will not be enough for all streams or in dry seasons and targeted stream augmentation is needed (such as the near-river recharge for Waikirikiri/Selwyn River)</p>
	<ul style="list-style-type: none"> Will the irrigations consents be reduced for all wells by 40% regardless whether the farmer took CPW or not? 	<p>The Selwyn Te Waihora Plan has reduced the groundwater allocation limits. The water allocation to farmers will reduce as consents are renewed however 80% of the 1,700 groundwater consents in the catchment do not expire until 2030 – 2039. In addition, on average only about half of the water allocated in a consent is actually used so the reduction on amount consented my not reduce the water taken.</p>
8	<i>Recreation</i>	
	<ul style="list-style-type: none"> Ensure secure public access to waterways. 	
	<ul style="list-style-type: none"> How to create more areas for recreation to enable the Selwyn community to reconnect with the lake and its tributaries. Including local Iwi. 	
9	<i>Public awareness and engagement</i>	
	<ul style="list-style-type: none"> We need to have a discussion as a community. 	<p>The Zone committee and community groups, such as SWIMM, have provided opportunities for community discussions. The challenge is to get community discussions beyond anger and blaming.</p>

Feedback from participants at final seminar	Possible response
<ul style="list-style-type: none"> Involve all parties in the “real” decision making. 	<p>Water management rules and limits were decided as part of the RMA process that led to the Selwyn Te Waihora Plan. Any organisation or person can submit as part of this process.</p> <p>The Plan has made many of “decisions” for water management in the catchment over the next decade.</p>
<ul style="list-style-type: none"> Alongside Maori traditional knowledge, the knowledge gathered by generation of farmers should be shared more widely. Work on move effective communication with news media 	<p>Environment Canterbury is supporting journalists, such as Tony Benny, to record such farming stories in print and video.</p> <p>The news media prefers stories with “conflict” and on issues that can be portrayed as “black and white”.</p> <p>The zone committee chair has a regular column in the local newspaper.</p> <p>Information on water issues in the zone is provided through social media and a wide range of publications (not just newspapers).</p>