

Selwyn-Waihora Zone Committee (Water Management)

**ORDINARY MEETING OF THE
SELWYN-WAIHORA ZONE COMMITTEE
TO BE HELD IN THE LARGE EXECUTIVE
MEETING ROOM
ON TUESDAY 1 NOVEMBER 2016
AT 3.00 PM**

Assemble for lunch at 12:30pm

**Public Excluded Workshop for Committee Members 1:00 –
3:00pm**

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

Loran Eisely, US Author

PUBLIC AGENDA OF A MEETING OF THE SELWYN WAIHORA ZONE COMMITTEE TO BE HELD IN THE LARGE EXECUTIVE MEETING ROOM, SELWYN DISTRICT COUNCIL ON TUESDAY 1 NOVEMBER 2016 COMMENCING AT 3 PM

TUESDAY 01 November 2016, **Selwyn District Council, Rolleston**
TIMETABLE & ORDER OF BUSINESS

- **12.30pm Lunch at Selwyn District Council, Rolleston**
- **1:00– 3:00pm PUBLIC-EXCLUDED WORKSHOP. Findings from focus group research on current community awareness of zone committee, CWMS and water management in the zone.**

Item	Time	Description	Papers	Presenter
	3.00pm	Meeting commences with karakia and formal order of business: <ul style="list-style-type: none"> • Apologies • Identification of Urgent General Business • Confirmation of minutes from October meeting • Matters Arising from October meeting • Report to and from Regional Committee Meeting • Report on Rakaia Catchment Environmental Enhancement Society • Update from Zone Committee members on activities and meetings attended that relate to the Committee's outcomes for the zone 	(Pages 4 - 7) (Pages 8 - 9) No paper	Ron Pellow Maree Goldring
	3.15pm	General Public Contribution	No papers	
1	3.20pm	Swimmable Selwyn@Coes Ford Ilan Whitehouse and Michaela Rees, Environment Canterbury	(Pages 10 - 12)	Ilan Whitehouse
2	3.45pm	Update from Central Plains Water Susan Goodfellow, CPW	(Pages 13 - 16)	Susan Goodfellow
3	4.30pm	Looking back, looking forward John Sunckell and Pat McEvedy	No paper	John Sunckell & Pat McEvedy
4	4.50pm	Zone Facilitators Report Ilan Whitehouse, Environment Canterbury	(Pages 17)	Ilan Whitehouse
	5.00pm	Meeting concludes (approximate time only)		

**MINUTES OF THE 65th MEETING OF THE SELWYN-WAIHORA ZONE COMMITTEE
HELD AT THE NGATI MOKI MARAE ON TUESDAY 4 OCTOBER 2016 COMMENCING
AT 3 PM**

PRESENT

Bill Lambie (Chair), John Sunckell, Cr Pat McEvedy (Selwyn District Council), Ron Pellow, Maree Goldring, Hayley Moynihan, Victor Mthamo, Christina Henderson (Te Hāpu o Ngati Wheke), Riki Nicholas (Te Rūnanga o Wairewa), Karaitiana Taiuru (Te Rūnanga o Koukourarata) and Commissioner Tom Lambie (Canterbury Regional Council)

IN ATTENDANCE (for part or all of meeting)

Ian Whitehouse (Zone Facilitator ECan), Steve Bragg (ECan), Tami Woods (ECan), Michaela Rees (ECan), Sylvia McAslan (ECan), Hemi Bedggood (ECan), Teaghan Lourie (ECan), Ajay Krishna (ECan), Johannes Welsch (ECan)

The meeting was opened with a karakia by Stephen Bragg. On behalf of the committee Bill Lambie thanked David Perenara O'Connell and Ngāti Moki for their hospitality and for hosting the informative field visit.

APOLOGIES

Apologies from Councillor Tim Scandrett, Allen Lim, George Tikao, Clare Williams, Terrianna Smith* and Charles Crofts were accepted by the meeting.

*Terrianna was present for the field trip preceding the meeting.

Moved: Pat McEvedy/Seconded: Ron Pellow

'That the Committee accept apologies for absence from Councillor Tim Scandrett, Allen Lim, George Tikao, Clare Williams, Terrianna Smith and Charles Crofts

CARRIED

IDENTIFICATION OF URGENT GENERAL BUSINESS

Nil.

CONFIRMATION OF MINUTES

- Minutes of the 64th Meeting of the Selwyn Waihora Zone Committee (Water Management) held on Tuesday 6 September 2016.**

Amendments:

P3 Spelling of Karaitiana Taiuru's name corrected to Taiuru

P3 In attendance: should include Peter Ramsden, who updated the Committee about Charles Croft and acknowledged his contributions over the years.

Moved: John Sunckell /Seconded: Riki Nicholas

'That the minutes of the 64th meeting of the Selwyn Waihora Zone Committee (Water Management) held on Tuesday 6 September 2016 be confirmed as amended.'

CARRIED

MATTERS ARISING FROM MINUTES

Nil.

REPORT FROM REGIONAL COMMITTEE MEETING.

Ron Pellow advised that his 17 September report (Agenda p12) could be taken as read. The October Regional Committee meeting will be the first to include its new community members and Rūnanga representatives, and will include a visit to Tuahiwi, Pegasus and Waimakariri's coastal wetland. Ron cannot attend and asked if another member could go instead.

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

1. Maree Goldring attended The WELRA AGM and the Rakaia Catchment Enhancement Trust meeting. The Rakaia Trust group aims to open applications to the public next month. Criteria have been agreed, and \$477,000 is available. Maree will give a written report to this committee next meeting.
2. John Sunckell, Pat McEvedy, Ron Pellow, Tom Lambie and Victor Mthamo attended the plan national implementation working group meeting.
3. John Sunckell participated in the CPW expert review panel which provided a monitoring report to ECan. Highlights included no environmental degradation; 75% reduction in GW takes in the CPW Stage 1 area in its first season with further reduction expected next season; increased confidence among initially nervous farmers; monitoring well water levels holding though not yet recharging. Stage two is underway. The aim was 20,000ha coverage with 16,000 achieved. The infrastructure will be built to allow for 20,000ha irrigation and full coverage is expected in upcoming years.
4. Ron Pellow hosted new Environment Canterbury staff, and held discussions with Tami Woods on consent applications and good management practice.
5. Tom Lambie briefed the committee on a field trip with Waihora Co-Governors and Allen Lim with Stephen Tindall to talk about philanthropic funds for the next stages of the Whakaora te Waihora programme.

At the conclusion of the reports it was noted that this could be the last meeting for Pat McEvedy, John Sunckell and Tom Lambie depending on Local Body changes. They were thanked for their contributions, knowledge and people skills, and were invited to the next meeting so that the committee could thank them more formally.

GENERAL PUBLIC CONTRIBUTION

Nil.

1. ZONE TEAM QUARTERLY REPORT

Ms Michaela Rees (ECan) spoke to the meeting on the Zone Team's quarterly report (agenda p 13). Highlights included:

Good Management Practices

2.1 GMP is complete, and is forming a large part of the zone team's work plan.

2.9 Compliance managers are now on the zone teams, widening their monitoring scope. Consultations on compliance prioritising have been held with groups such as Fish & Game. Some concern was expressed by zone committee members about the implementation timeline.

Using Alpine Water

2.3 Monitoring has been a little delayed, but a new Project Lead has been appointed.

Ngāi Tahu Values

Wastewater treatment: Current discussions are around the various costings that have been presented on options for new wastewater treatment at Selwyn Huts.

Water Supply

6.2 The drinking water plan is complete.

Recreation

The Coes Ford/Silverstream project has become topical, providing a good opportunity for the zone committee to achieve success visibly. The committee also needs to develop a plan for the Selwyn River in the Coalgate area. Next meeting this committee will discuss a development plan for recreation.

Awareness

The Communications and awareness strategy was signed off by the zone committee in August. Focus groups will measure the community at large's awareness, and the zone committee will be updated at its next meeting.

Moved: Maree Goldring /Seconded: Victor Mthamo

'That the Zone Team Quarterly Report July-September 2016 be received.'

CARRIED

SELWYN-WAIHORA ZONE COMMITTEE MEETING 1st November 2016

Report back from	SWZC representative on CWMS Regional Committee
To	Selwyn-Waihora Zone Committee
By	Ron Pellow [S-W ZC representative on the Regional Committee]
Actions sought	Note

The CWMS Regional Committee met on 11th October 2016 at Rangiora.

Ron Pellow was not able to attend (as discussed at the October Selwyn Waihora Zone Committee Meeting). Bill Lambie attended this meeting as an observer from SWZC.

The following topics were included in the agenda papers for the October Regional Committee Meeting. Clarity should be sought from ECAN on any matters of interest.

1. Key messages from the Regional Committee (history, achievements to date) were presented and discussed for the incoming community members
2. An update was presented on the Recreational and Amenity Work Programme, Immediate Steps Flagship programme, Braided Rivers Programme, Regional Parks, Wilding Pines, and Regional Infrastructure (South Canterbury focus).
3. ECAN responses to Climate Change

Please note my apology for this meeting.

Ron Pellow

25 October 2016

REGIONAL COMMITTEE MEETING 11th October 2016

Agenda Item	Update from Selwyn-Waihora Zone Committee
Regional Committee	Meeting 11th October 2016
By	Ron Pellow [S-W ZC representative]
Actions sought	Note

The Selwyn-Waihora Zone Committee has met twice since the regional committee meeting in August. (6th September and 4th October).

Key aspects from these meetings and related activities include:

1. Meeting with Te Waihora CoGovernance Group

A workshop was held between the Zone committee and the Co-Governance Group of Te Waihora to discuss both groups interest in Te Waihora and its contribution to meeting environmental goals.

2. Discussion on the future of Water Races

- a. The Selwyn Waihora catchment has an extensive network of (former) stock water races that landowners are increasingly asking to be closed (as they are no longer required for provision of stock water). They remain however a significant water distribution network and incur reasonable annual maintenance costs – primarily funded by local ratepayers.
- b. The Sheffield scheme will become piped and contribute to Central Plains Water in that region, noting the existing water take for open channel stock water will not be exceeded when the scheme is piped and it then used for both stock water and irrigation.
- c. Further discussions are required in particular whether funding to maintain former stock water races is the most appropriate ecological investment

3. Ngāti Moki marae, Taumutu

The Zone committee met at Ngāti Moki marae for its October meeting. This included discussion on farming on the lake margin.

4. Discussions continue on the implementation of Plan Change 1

The Selwyn – Waihora Zone Committee Representative is unavailable for the 11th October CWMS regional committee meeting and asks the regional committee to note his apology.

Ron Pellow.

Selwyn-Waihora Zone Committee.
(3 October 2016)

AGENDA ITEM NO: 1	SUBJECT MATTER: Swimmable Selwyn @ Coes Ford
REPORT BY: Ian Whitehouse and Michaela Rees, Environment Canterbury	DATE OF MEETING: 01 November 2016

Swimmable Selwyn @ Coes Ford

PROPOSITION

1. Make “Swimmable Selwyn @ Coes Ford” the rallying cry and the focus of a zone committee-led programme action.
2. **Just do it!** – Actions speak louder words.

BACKGROUND

3. Many Selwyn District residents fondly remember picnicking and swimming at Coes Ford but now see the river as unattractive and unsafe for swimming.
4. The Selwyn River at Coes Ford is currently not in good health:
 - a. There is hardly any flow;
 - b. The recreational water quality at the site is graded “poor.”
 - i. *E. coli* levels exceeded the guideline for swimming on four occasions in 2015/16.
 - ii. The *E. coli* swimming standard has been exceeded once or twice every year since monitoring began in 2000/01.
5. There are a lot of “weeds” (macrophytes) in the river.
6. Phormidium (potentially toxic algae) blooms have occurred and warning signs are in place.
7. The recreational water quality at Chamberlains Ford, not far upstream, is graded “good”.
8. A study about five years ago identified Silverstream as the major contributor to microbial (*E. coli*) contaminants at Coes Ford. Silverstream joins Selwyn River about 200m above the ford.

9. We have worked with Silverstream land owners (farms and life-style properties).
 - a. All farms have FEPs.
 - b. Stock are excluded from over 90% of the main channels of Silverstream.
 - c. There are some riparian planting with native plants, for example immediately upstream of the confluence with Selwyn River.
 - d. There are only two dairy farms in the catchment.
 - e. Immediate Steps funding has helped protect two springheads in the catchment.
 - f. Sylvia McAslan (Zone team Land Management Advisor) is talking with some of the farmers in the catchment as part of the 1:1 visits in the “Farmers at GMP advocacy” programme: 1:1 farm advocacy visits.
 - g. The Zone Team is piloting the whole farm/site approach to monitoring and compliance in the Silverstream Catchment and will work with consent holders for 100% catchment compliance.
10. Snake Creek, one of the tributaries of Silverstream, was historically an important trout-spawning area. Fish and Game are keen to restore it.
11. There are many drains in the Silverstream catchment. Stock are currently not excluded from these (though this is required, for cows, pigs and deer, in the Selwyn Te Waihora plan change.
12. The University of Canterbury CAREX project on drain restoration has one of its key study sites on a drain in the upper Silverstream catchment.

SOME ELEMENTS OF A GAME PLAN

13. The Zone Committee agree at this meeting the goal of “Swimmable Selwyn @ Coes Ford”.
14. Zone Committee champion this goal with community, Environment Canterbury, Selwyn District Council and a wide range of organisations.
15. Zone Committee host a workshop of key people, including staff from Selwyn District and Environment Canterbury, to identify:
 - a. the measurable targets to be achieved and by when (e.g. no exceedance of E.coli swimming standard by 2021);
 - b. the key elements of the work programme to achieve the targets (see below for some elements);
 - c. the organisations and key individuals who will do the work, including how this might be funded.
16. The Zone Committee discuss with the Zone Manager changes to the Zone Team’s work programme, if required, to ensure resources are directed at the “swimmable Selwyn@Coes Ford” programme, including agreeing on planned work that will not be done or will be deferred.

17. Champion the goal of Swimmable Selwyn@Coes Ford with all landowners in Silverstream catchment and galvanise action-on-the-ground (see below) in the catchment. Initial contact with landowners will be through:
 - a. Community meetings;
 - b. 1:1 visits (as part of GMP advocacy programme)
 - c. Community water quality monitoring.
18. Use the CAREX project and the study site in the Silverstream catchment to raise awareness and get action on effective drain margins. Get Professor Jon Harding to advise on pragmatic actions to reduce *E. coli* from Silverstream catchment.
19. Consider “allocating” some Immediate Steps funding to Silverstream catchment for:
 - a. Protecting springheads and wetlands (i.e. projects with high ecological scores);
 - b. Incentivising effective riparian margins on Silverstream and its tributaries and drains (i.e. projects with low ecological scores) through support for up to 30% of the project cost, up to a maximum of \$30,000 per year for next four years.
20. Get funding or in-kind support from organisations for creating effective riparian margins in Silverstream catchment. The following organisations could be targeted: Central Plains Water, Fonterra, Synlait, Selwyn District Council, Te Ara Kakariki (in-kind support).
21. Support Fish and Game with the restoration of the Snake Creek trout fishery.
22. Work with Environment Canterbury River Engineers to look at “tidying up” the willows (to improve access to the river) and whether a swimming “hole” could be constructed.
23. Trial mechanical bed disturbance (above and below the ford) as a way of eliminating Phormidium outbreaks.
24. Erect signage at Coes Ford explaining what is being done to get “Swimmable Selwyn@Coes Ford.
25. Communicate widely the Swimmable Selwyn@Coes Ford programme of action. Establish ways that people can get involved, such as through planting days.
26. Investigate whether the “toxic algae” warning signs could be removed and only erected when there is a Phormidium bloom.

PO Box 9424
Tower Junction 8149
CHRISTCHURCH
Tel: (03) 982 4267
www.cpwl.co.nz



CPWL Stage 1 Water Usage, Quality and Quantity Stats 2015/2016 Season

The inaugural Stage 1 irrigation season commenced on the 1st September 2015 resulting in CPW consented alpine water supplied to 22,163ha of the Stage 1 Area.

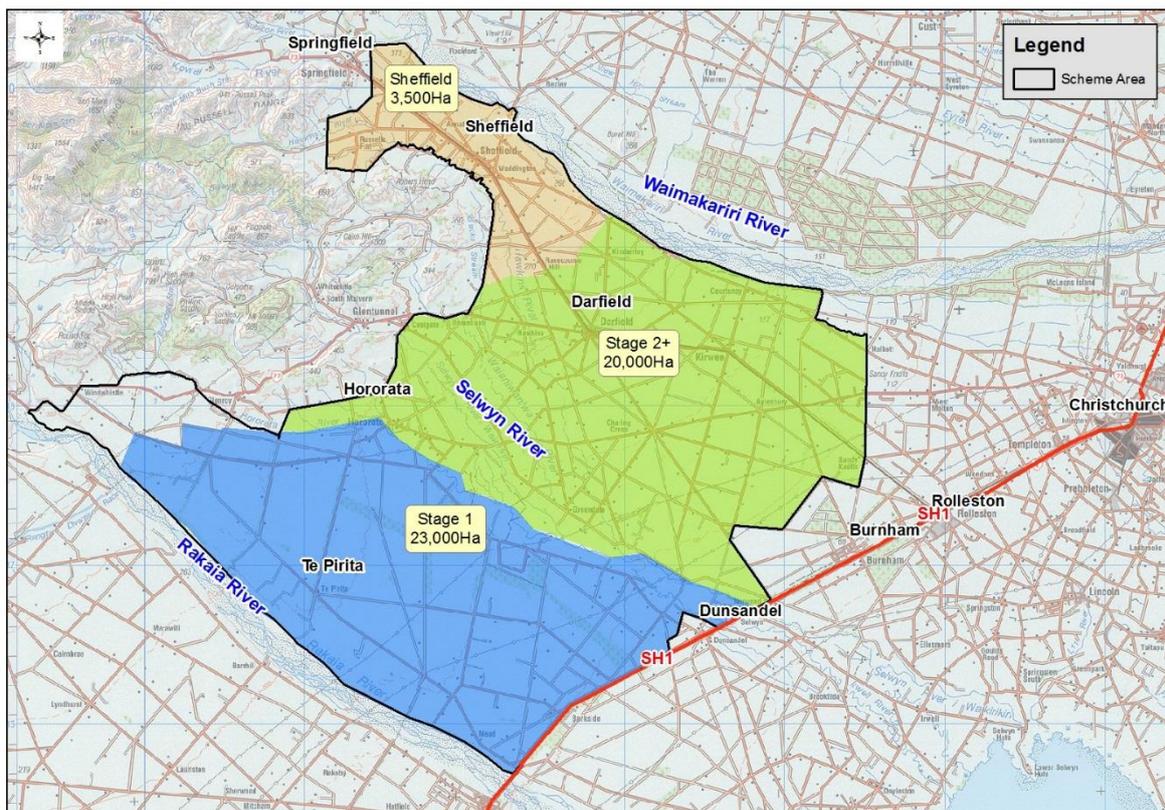


Figure 1 CPWL Scheme Stages

The introduction of low nutrient alpine water into the Selwyn-Waihora catchment alongside a reduction in groundwater abstraction is anticipated to have a positive effect on the base flows in lowland streams and inflows to Lake Ellesmere/Te Waihora. These are key outcomes sought by the community led Selwyn Waihora Zone Implementation Plan to address the over allocated situation for both groundwater and nitrates. These outcomes have been reflected in the operative planning framework - Variation 1 to the Land and Water Regional Plan (V1 LWRP).

- **CPWL Stage 1 Replenishes Groundwater Aquifers**

Groundwater aquifers are replenished from rainfall and snow melt percolating through the ground to the deep aquifers below. It is well documented that the recent consecutive dry years [low in both rainfall and snow melt] has resulted in very little groundwater recharge across the Canterbury Plains.

The Scheme has only been operating for one season, and it is fair to say that it is generally too soon to measure many of the effects the Scheme may be having on the environment. However, some encouraging trends appear to be developing, particularly in relation to groundwater levels in Stage 1.

Instances have been identified where groundwater levels measured in 2016 were found to be greater than that in 2015 for bores located in the Stage 1 area. The same cannot be said for bores located in the proposed Stage 2 area (Darfield/Greendale/Kirwee) which showed less recharge in 2016 compared to 2015. CPWL will not be irrigating the Stage 2 area until September 2018.

The percentage of the consented annual volume used across each of the 54 properties we have collected data from to date represented in Table 3 indicates that 37 property abstractors have reduced their abstraction to between less than 10% and 25% of their consented annual volume.

Groundwater not used during 2015/16 Season

The Stage 1 Scheme compliance covers 24,000ha. This is made up of properties that take 100% of their irrigation water from the scheme, and others that take CPW to supplement their existing groundwater.

Typically, the existing irrigators would use approximately 80Mm³ to 84Mm³ of groundwater during an irrigation season (September to May). For the 2015/2016 irrigation season they abstracted only 21Mm³, which has resulted in 59Mm³ to 63Mm³ (at least 75%) of groundwater not abstracted over the 2015/16 irrigation season.

Figure 2 below illustrates the consented annual volume (blue bar) of each of the groundwater irrigation consents relating to the Stage 1 farms. The red bar illustrates the actual groundwater used.

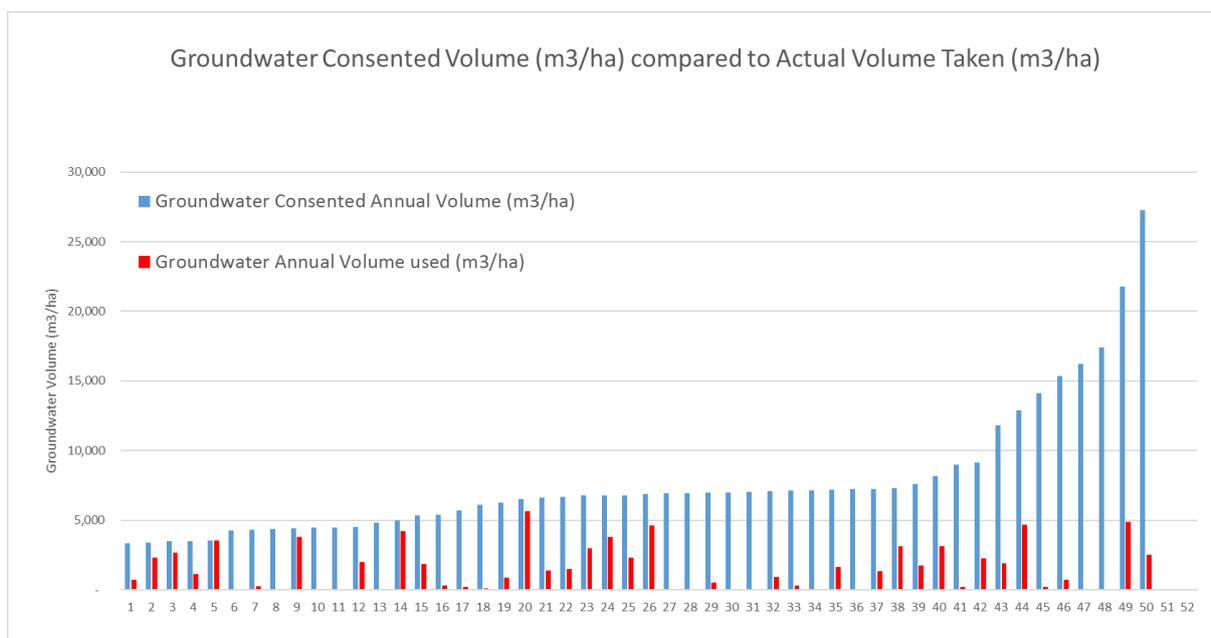


Figure 2. CPW Irrigators use of consented groundwater for 2015/16 season

- **Water Quality**

To enable CPW to supply water to Scheme irrigators, a minimum 2-year record of ground water quality and quantity data was required to be gathered by the Scheme.

A range of environmental trigger values consistent with the levels set within the Selwyn Waihora Plan (Variation 1 LWRP) were adopted by CPW to assess the state of water quality in the Selwyn Waihora catchment.

Key trigger levels set related to *E.coli* and Nitrate Nitrogen. *E. coli* was not detected in bores from within the operational Stage 1 area of the Scheme and although elevated concentrations of nitrate was detected in some Stage 1 bores, they were found to be consistent with results or trends from previous years. There were no examples identified between September 2015 and June 2016 of nitrate concentrations being above 11.3mg/L in the vicinity of any bore used for potable water.

Surface and lake water quality triggers were reached but results were found to be consistent with those from previous years therefore the elevated nutrient concentrations cannot be ascribed to the CPW Scheme.

- **On Farm Compliance – Farm Environmental Plans**

Prior to delivery water, CPWL was also required to ensure all scheme irrigators implemented a Schedule 7 approved Farm Environment Plan (FEP) prepared by a suitably qualified person. Prior to 1 September 2015, the Scheme had 101 FEP's in place. No water was provided to farms that did not have an FEP in place.

Regardless of whether the Scheme irrigator irrigates with groundwater or Scheme water (partially or fully, i.e. supplements their existing groundwater with scheme water), the non-CPW irrigated land (or dryland) part of their farm system can be included in the FEP managed by the Scheme. As such, the total land area managed in Stage 1 under CPW's compliance umbrella is 24,090ha, which is greater than the area supplied Scheme water 22,163. Of that area 16,815ha was existing irrigation that, to varying extents, has converted to Scheme water. 5,349ha of dryland has been converted to CPW made possible by CPW's nitrogen discharge allocation granted via a consent in February 2016 (and is reflective of the allocation included for the Scheme in Plan Change 1 LWRP).

The existing irrigated land was and continues to be predominantly existing dairy/dairy support, with the new irrigation including a mix of dairy, and arable mixed farm systems with dairy/beef and in some cases sheep grazing.

Stage 1 FEP audits commence in August 2016 and we aiming for these to be complete before 1 Jan 2017. The results of these audits will indicate further training for irrigators to assist with the continual improvements required in order to achieve reductions in nitrogen discharge as required by CPW's consent.

Further information:

CPW's Reliability Solution – Stored Water from Lake Coleridge

CPW successfully delivered over 90 Million cubic metres of low nutrient, alpine water to the Stage 1 area of the Scheme.

Central Plains Irrigation scheme is a run of river scheme that is supplemented with stored water. CPW has a contract with TrustPower whereby stored water is released from Lake Coleridge during periods when the Rakaia River is on full or partial restriction. A Shareholder can choose to augment the reliability of Scheme run of river water by entering into a water storage arrangement which increases the available reliability of their water supply.

A full restriction is when CPWL does not have any water available under its consent but it can still supply stored water. A partial restriction means CPWL does not have enough water available under its consents to meet the entire demand required by shareholders. Under a partial restriction scenario,

CPWL Shareholders have the option to top up run of river water they receive with stored water. During periods of ‘no restriction’ CPWL has enough water available under its consents to meet Shareholder demand.

It is typically expected that three-quarters of irrigation water demand will be provided by run of river water, with the remaining quarter being supplied via stored water. **Figure 3** illustrates the run of river water (orange) that was available for CPWL to abstract across the 2015/2016 irrigation season, and time when the river was running low/on restriction and abstraction is enabled by the release of TrustPower stored water (white).

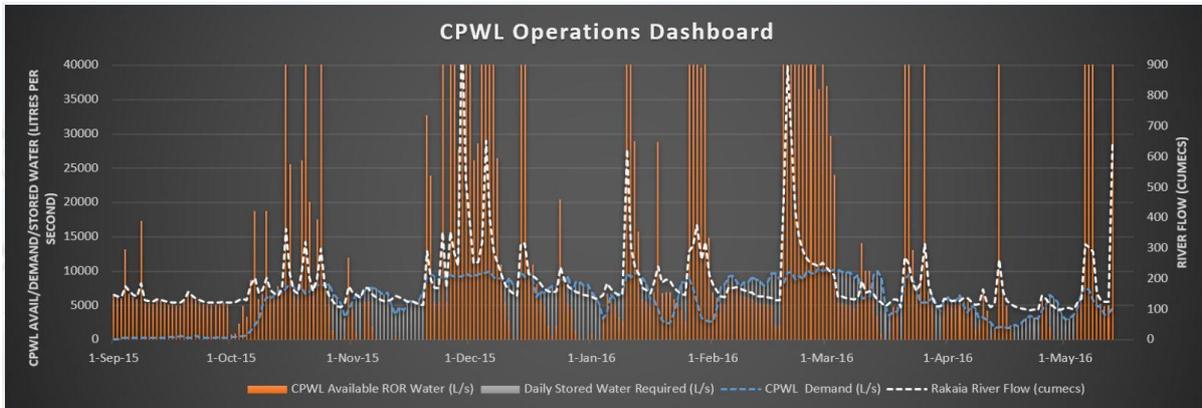


Figure 3. CPWL Take based on available Run of River Water and Stored Water Top Up

Run of River and Stored Water Usage

67 m³ of run of river water was taken by Stage 1 farmers during the first 254-day irrigation season. The Scheme’s run of river take operated under no restriction for 152 days, a partial restriction for 84 days and full restriction for only 18 days. In addition to run of river water, 24m³ of stored water was ordered. This represents 26% of total volume of taken water.

While the scheme could supply water for 254 days, the actual days a farmer would irrigate is in the order of 150 days.

Volume Taken (m ³)	Stored Water Ordered (m ³)	Full Restriction	Partial Restriction	No Restriction
91,092,984	23,878,363	18 Days	84 Days	152 Days

AGENDA ITEM NO: 4	SUBJECT MATTER: Zone Facilitator's Report
REPORT BY: Ian Whitehouse, Environment Canterbury	DATE OF MEETING: 01 November 2016

Action required

1. Note the 06 December zone meeting may include a short visit to Coes Ford. This will be decided at the meeting.
2. Note the changes to zone committee membership.

1 06 December Zone meeting

It has been suggested the December meeting include a short field visit to Coes Ford and Chamberlains Ford on the Selwyn River/Waikirikiri. A decision on this will be made at this (November) meeting.

2 Changing committee membership

Terrianna Smith has informed Taumutu Rūnanga that she will be having a leave of absence from the Selwyn Waihora zone committee. The Runanga will run a process to seek a representative for the zone committee.

John Sunckell has been elected as the Environment Canterbury Councillor for the Mid-Canterbury Regional Constituency. This means he is no longer a community member of the Selwyn Waihora zone committee.

At the time of writing the Regional Council, Selwyn District Council and Christchurch City Council representatives to the zone committee had not been confirmed. Pat McEvedy has previously told the zone committee that he wishes to "pass the baton" to another Selwyn District councillor.

