

Selwyn-Waihora Zone Committee (Water Management)

**86TH ORDINARY MEETING OF THE
SELWYN-WAIHORA ZONE COMMITTEE
TO BE HELD AT THE
LINCOLN EVENTS CENTRE
ON TUESDAY 4 SEPTEMBER 2018
AT 2.00 PM**

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

Loran Eisely, US Author

1pm – 2pm Public Excluded Committee Workshop: “Telling the Farming Story” – contributing to Irrigation New Zealand’s Sustainable Farming Fund Project

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 August 2018 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 Correspondence – letter from Chair to SDC re water races 	4 - 27 28	
	2.40pm	General Public Contribution		
1.	2.45pm	Verbal Report on Snake Creek		<i>Emily Arthur-Moore</i> Fish and Game
2.	3.15pm	Verbal report: Selwyn Waihora Zone Delivery		<i>Chris House</i> Environment Canterbury
	3.25pm	Break		
3.	3.45pm	Environment Canterbury's Annual Compliance Report for the Selwyn Waihora Zone	29 - 64	<i>Chris House</i> Environment Canterbury
4.	4.15pm	Selwyn Te Waihora Good Management Practice Nitrogen Loss Rates	65 - 72	<i>Tami Woods</i> Environment Canterbury
5.	4.40pm	Selwyn River Waikirikiri Plan Working Group update	73 - 79	<i>Paul Hodgson</i>
6.	4.50pm	Zone Facilitator's Report	80 - 83	<i>Miria Goodwin,</i> Environment Canterbury
	5.00pm	Approximate finish time		

**MINUTES OF THE 85TH MEETING OF THE SELWYN WAIHORA ZONE COMMITTEE
HELD ON NGĀTI MOKI MARAE, TAUMUTU ON TUESDAY 7 AUGUST 2018
COMMENCING AT 4:00 PM**

AGENDA SUMMARY

Item	Time	Description	Pages	Presenter
	4.00pm	Meeting commences with karakia and formal order of business: <ul style="list-style-type: none"> • Apologies • Identification of Urgent General Business • Confirmation of minutes 3 July 2018 • 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 		
	4.20pm	General Public Contribution		
1.	4.25pm	Verbal update: Selwyn-Waihora water quality and flow monitoring information		<i>Tim Davie, Environment Canterbury</i>
2.	4.55pm	Verbal update: "Plan for Selwyn River" Working Group		<i>Paul Hodgson</i>
	5.00pm	Approximate finish time		

The meeting was opened with a welcome and karakia by Cr Iaeen Cranwell.

The Chair welcomed everyone to the meeting.

PRESENT

Allen Lim (Chair), Dr Benita Wakefield (Wairewa Rūnanga), Megan Hands (Community Member), Paul Hodgson (Community Member), Ron Pellow (Community Member), Councillor Iaeen Cranwell (Canterbury Regional Council), Councillor Murray Lemon (Selwyn District Council)

IN ATTENDANCE

Mayor Sam Broughton (Selwyn District Council), Johannes Welsch, Miria Goodwin, Ian Whitehouse, Gaye Stanley, David Perenara-O'Connell, Tim Davie and Stefanie Rixecker (Canterbury Regional Council)

APOLOGIES

Apologies received from George Tikao, Kylie-Jane Phillips, Councillor Anne Galloway, Les Wanhalla, Karaitiana Taiuru and Maree Goldring.

Moved: Councillor Iaeen Cranwell / **Seconded:** Paul Hodgson

That the Committee accept apologies for absence as noted.

CARRIED

IDENTIFICATION OF URGENT GENERAL BUSINESS

None.

CONFIRMATION OF MINUTES

Minutes of the 84th Meeting of the Selwyn Waihora Zone Committee (Water Management) held on Tuesday 3 July 2018.

Moved: Megan Hands / **Seconded:** Paul Hodgson

That the minutes of the 84th meeting of the Selwyn Waihora Zone Committee (Water Management) held on Tuesday 3 July 2018, be confirmed.

CARRIED

MATTERS ARISING AND ACTIONS FROM MINUTES

None.

REPORT TO AND FROM REGIONAL WATER MANAGEMENT COMMITTEE MEETING

The Committee requested the updates from the Regional Water representative as discussed at the last meeting.

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:

Cr Murray Lemon – chaired the Biodiversity Working Group

Ron Pellow – meeting with the Minister of Agriculture, Hon Damien O'Connor, with farming industry leaders at Kai for Canterbury - an event celebrating good farming practices for a sustainable region; Selwyn Awards; Selwyn River/Waikirikiriki Plan Working Group meeting

Paul Hodgson – meeting with Minister of Agriculture, Hon Damien O'Connor, with farming industry leaders at Kai for Canterbury – an event celebrating good farming practices for a sustainable region; Selwyn River/Waikirikiriki Plan Working Group meeting; Assessment and Monitoring of Nutrient Management Agriculture for Groundwater Quality Protection meeting at NIWA

Allen Lim – Selwyn Awards; meeting with Minister of Agriculture, Hon Damien O'Connor, with farming industry leaders at Kai for Canterbury – an event celebrating good farming practices for a sustainable region; Horticulture New Zealand Conference

Megan Hands – meeting with the Minister of Agriculture, Hon Damien O'Connor, with farming industry leaders at Kai for Canterbury – an event celebrating good farming practices for a sustainable region; State of the Environment speech by Tā Mark Solomon

Iaeen Cranwell – Visit of the Governor-General

Benita Wakefield – meeting with the Minister of Agriculture, Hon Damien O'Connor, with farming industry leaders at Kai for Canterbury – an event celebrating good farming practices for a sustainable region

GENERAL PUBLIC CONTRIBUTION

None.

1. VERBAL UPDATE: SELWYN WAIHORA WATER QUALITY AND FLOW MONITORING INFORMATION

(Dr Tim Davie, Environment Canterbury)

Dr Tim Davie presented information on flows in the Selwyn/Waikirikiriki River and water quality in Te Waihora [*PowerPoint presentation attached*]. Allen Lim asked Tim what the water balance for the zone is to which Tim replied he would have to look into that and come back to the committee.

2. VERBAL UPDATE: “PLAN FOR SELWYN RIVER” WORKING GROUP

(Paul Hodgson)

Paul Hodgson summarised the first meeting of the Selwyn River/Waikirikiriki Plan Working Group [*notes attached*]. Paul said there was a diverse range of people at the meeting, and it was focused on building connections and identifying what success would look like. Paul has received several post-meeting phone calls where attendees said they appreciated the fact that everyone seemed to come with an open mind and there was no focus on blame. It felt genuine. Ron Pellow described some of the

success factors, including seeing progress, collating data, and focusing on good progress rather than throwing everything out and starting again. Allen Lim thanked those who went to the meeting and acknowledged that it is a big commitment.

3. LETTER OF SUPPORT FROM SELWYN WAIHORA ZONE COMMITTEE

(Allen Lim, Chairperson)

Allen Lim tabled a proposed letter of support *[attached]* from the Zone Committee of an Environment Canterbury funding application to CPWLs Environmental Management Fund for long-term mudfish protection. Ron Pellow asked about the Rakaia Fund but Johannes Welsch said that the zone is out of scope to receive monies from that fund. The Committee supported the letter to be sent.

4. GENERAL BUSINESS

Iaeen Cranwell asked for an update on changes in spending on water races in the new Selwyn District Council Long Term Plan. Mayor Sam Broughton explained the changes that have gone from ten different rates to three, a public good rate for everyone of \$20 and two new rates for those serviced by the network - an annual charge of \$300 plus a per hectare charge of \$17.

Megan Hands asked about the inclusion of biodiversity considerations on the SDC water race committee. A discussion followed about ways of improving communication between the Zone Committee and the SDC water race committee. It was agreed that the Zone Committee will request a permanent seat on that committee.

There was a short discussion about the pre-zone committee meeting with the Te Waihora Co-Governors. Benita Wakefield suggested that a conversation could be started amongst rūnanga representatives as one avenue to identify a pathway forward – towards improved communication.

Councillor Cranwell closed the meeting with a karakia.

The meeting closed at 5.00pm.

DATED this day of 2018

CHAIR

ACTIONS FROM MEETING

Name	Action
ECan / Fish and Game	Arrange a briefing from Fish and Game on Snake Creek project – <i>no date yet</i>
ECan	Provide progress report against ZIP Addendum (and Selwyn Te Waihora Plan) outcomes / targets
ECan	Lake margin wetlands and wet pasture – <i>update at December meeting</i>
DOC	LINZ land adjacent to Rakaia River near Te Pirita with high biodiversity values. Andy Thompson, DOC, to come back to the committee with updates
ECan Zone Team	Possible purchase of land in lower Silverstream. <i>Updates to be provided early 2019</i>
ECan	Arrange Open Days for biodiversity project sites
ECan	Arrange briefing on water balance for the Zone
SWZC Facilitator and Chair	Request permanent seat on SDC Water Race Committee

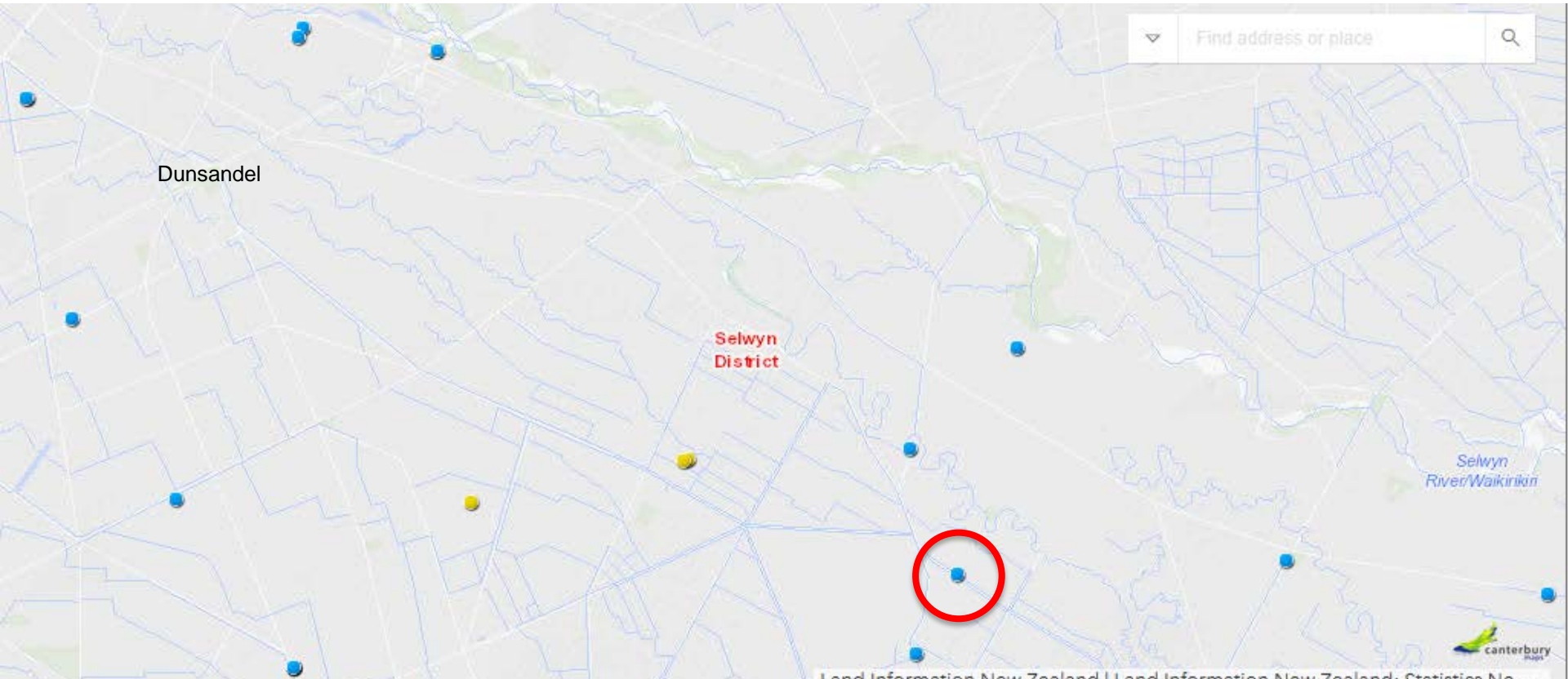
Groundwater levels, river flows and lake water quality update

August 2018

Tim Davie

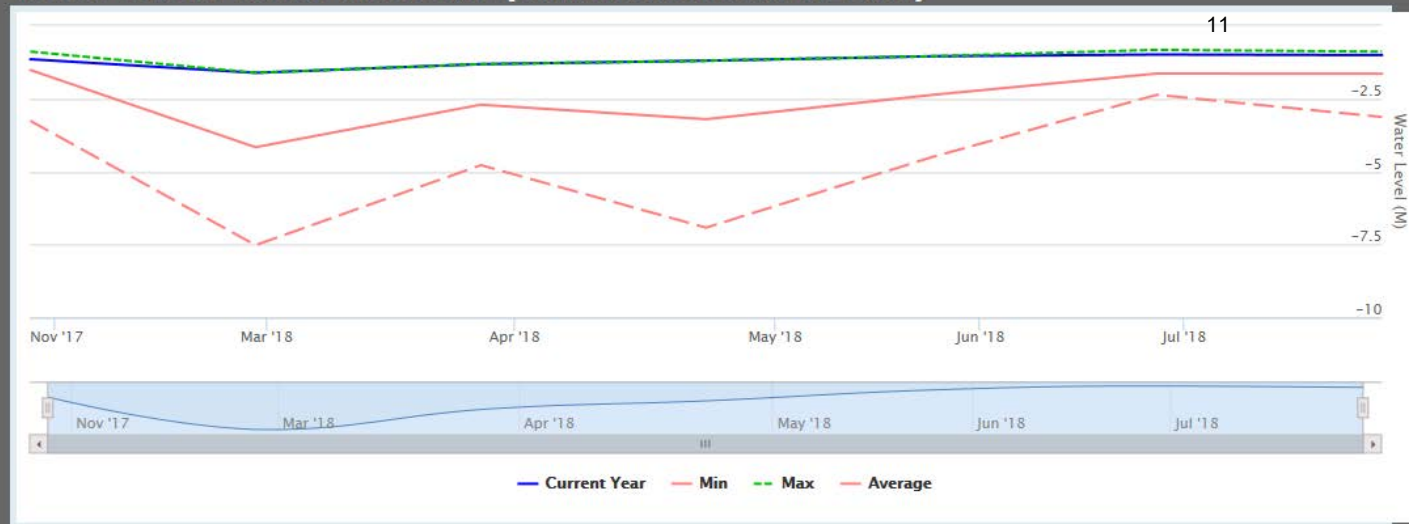
Water levels

10

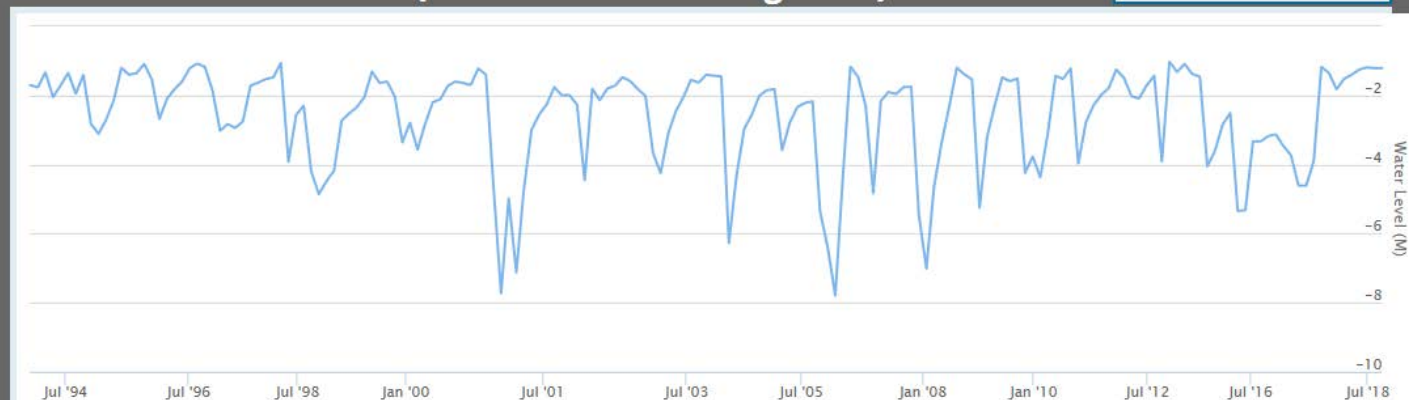


Water levels

Water Level Plot for M36/1902 (Relative to Ground Level)

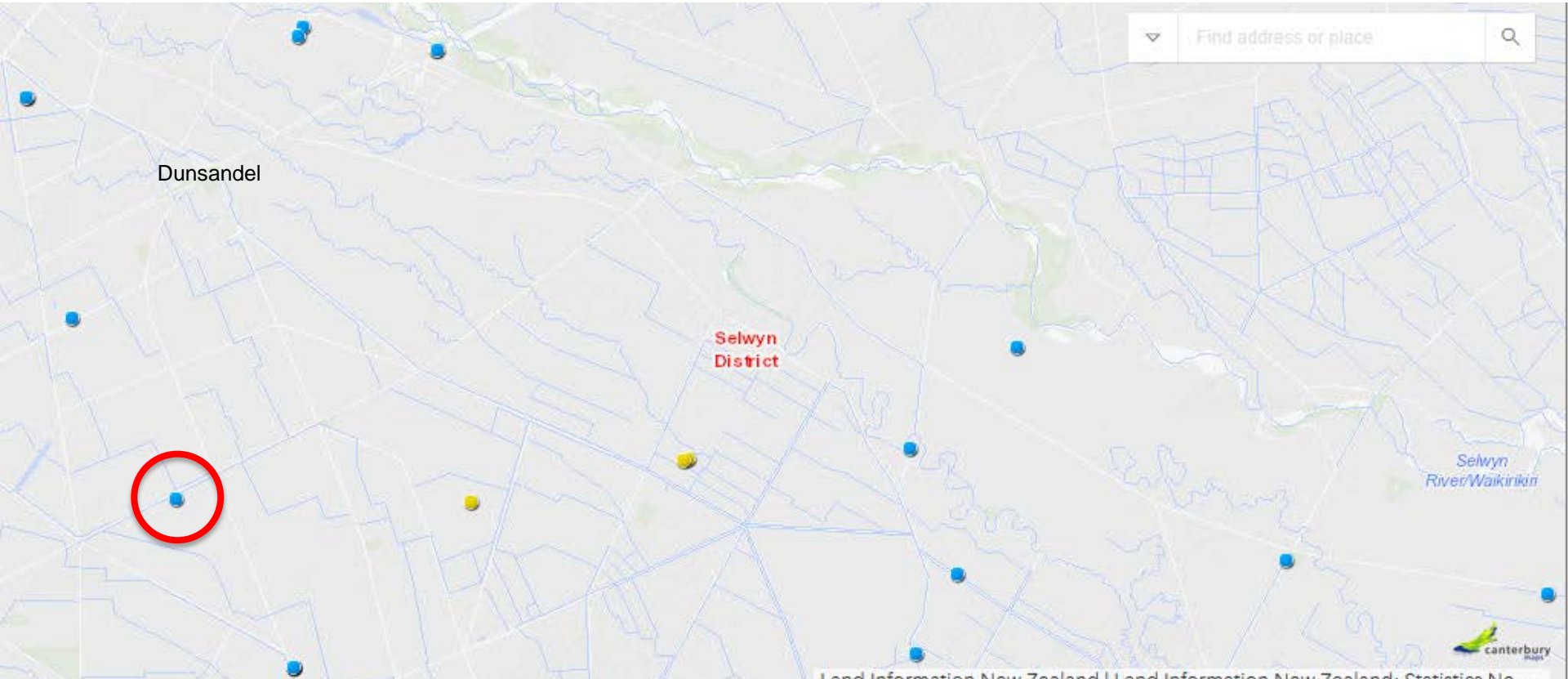


Full Record for M36/1902 (Relative to Measuring Point)

[Download Water Level Data](#)

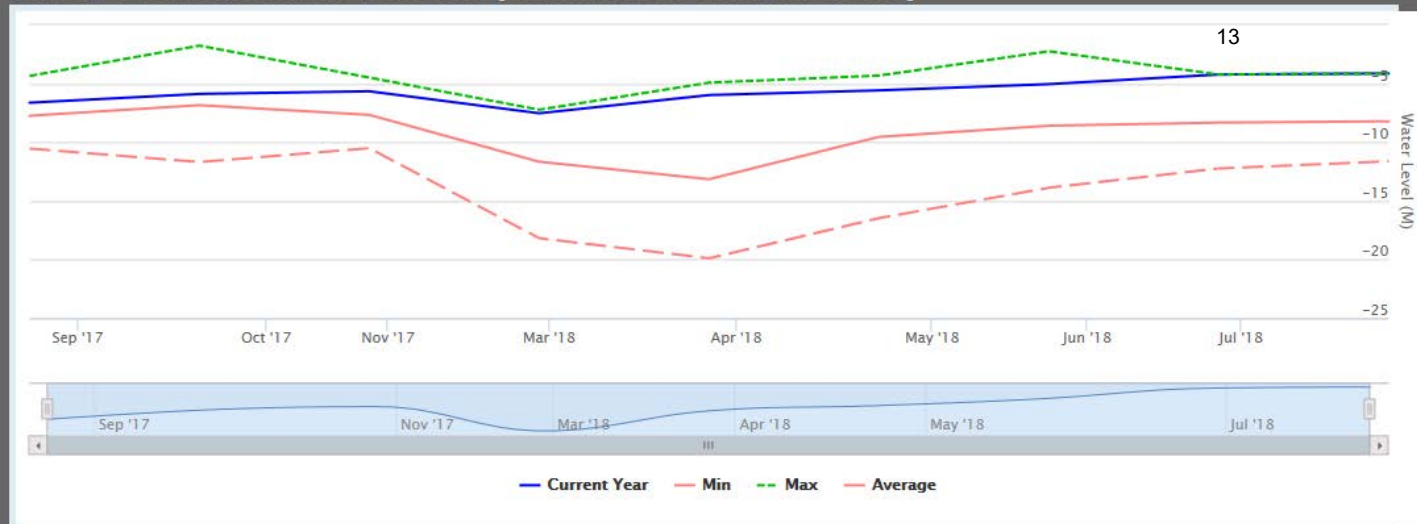
Water levels

12



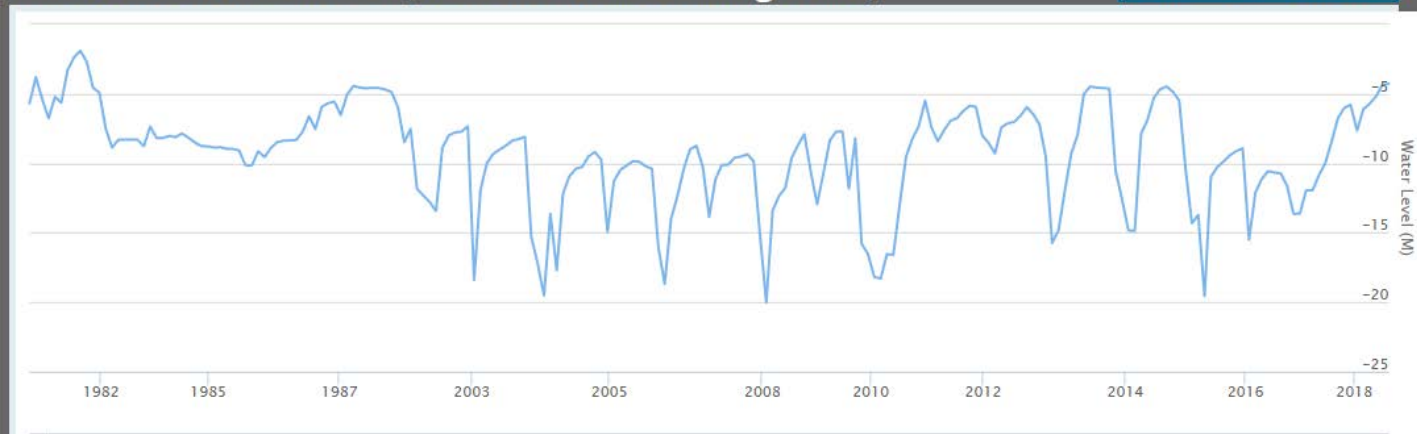
Water levels

Water Level Plot for L36/0176 (Relative to Ground Level)



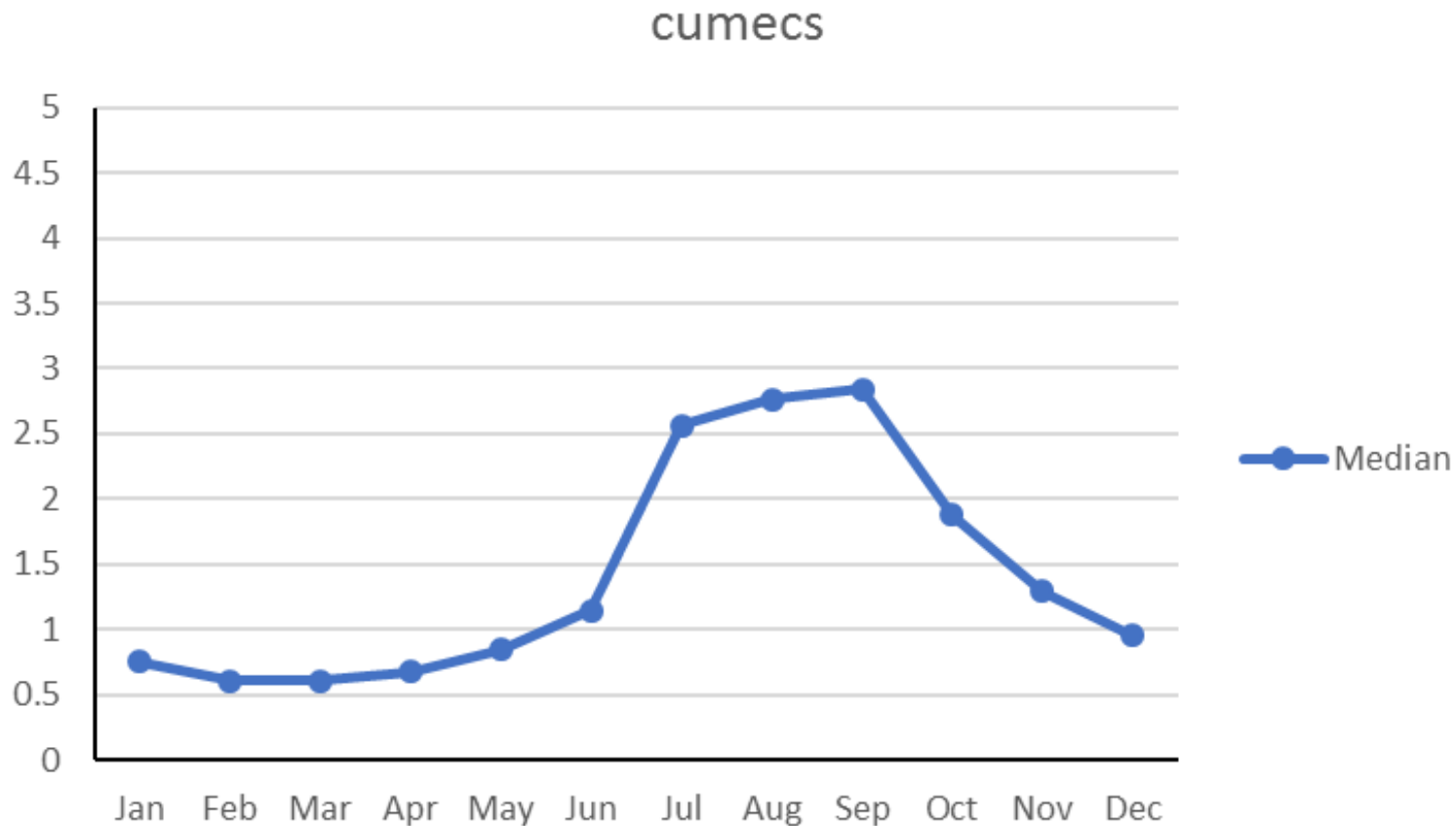
Full Record for L36/0176 (Relative to Measuring Point)

[Download Water Level Data](#)



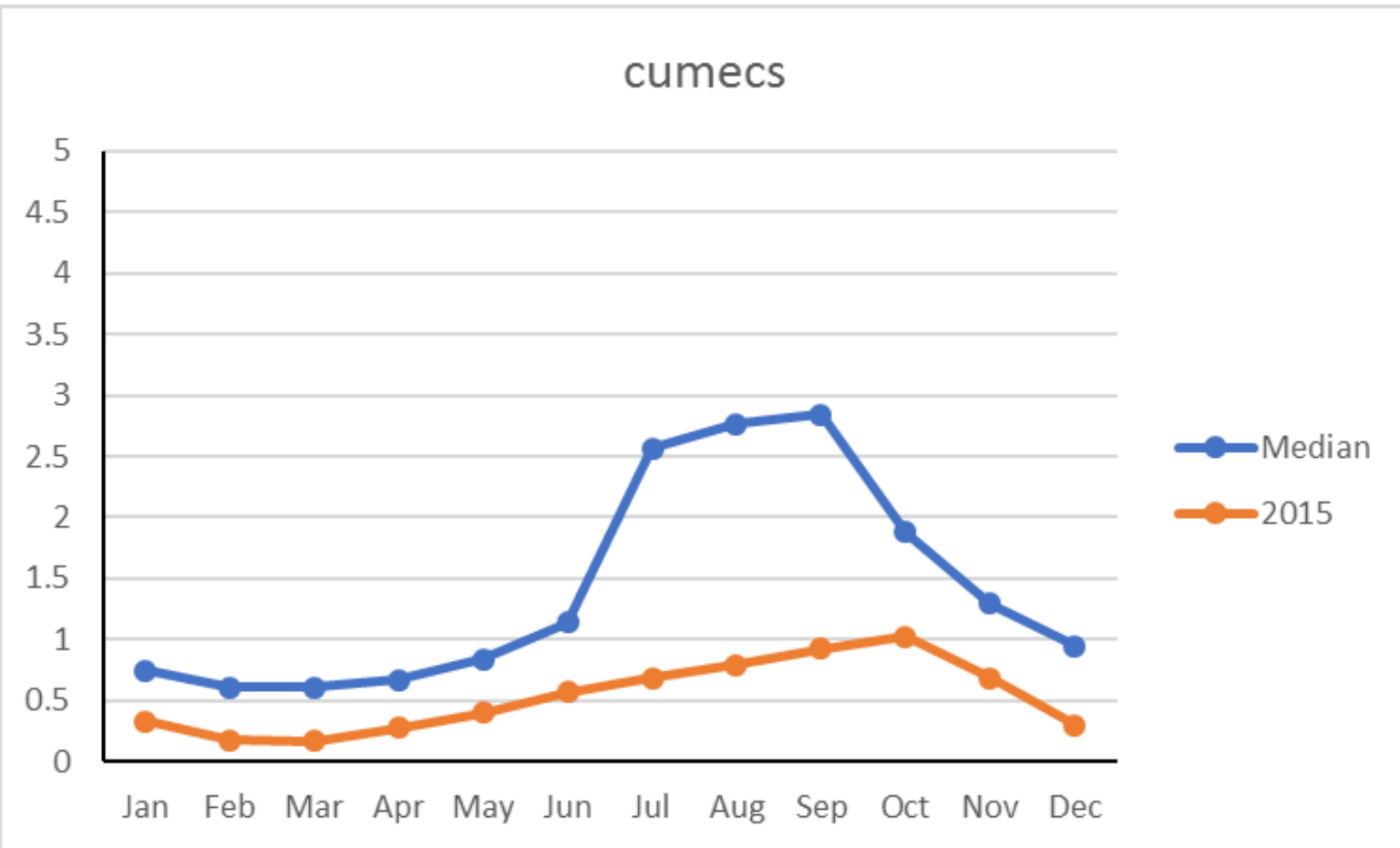
Selwyn/Waikirikiriri river flows

14



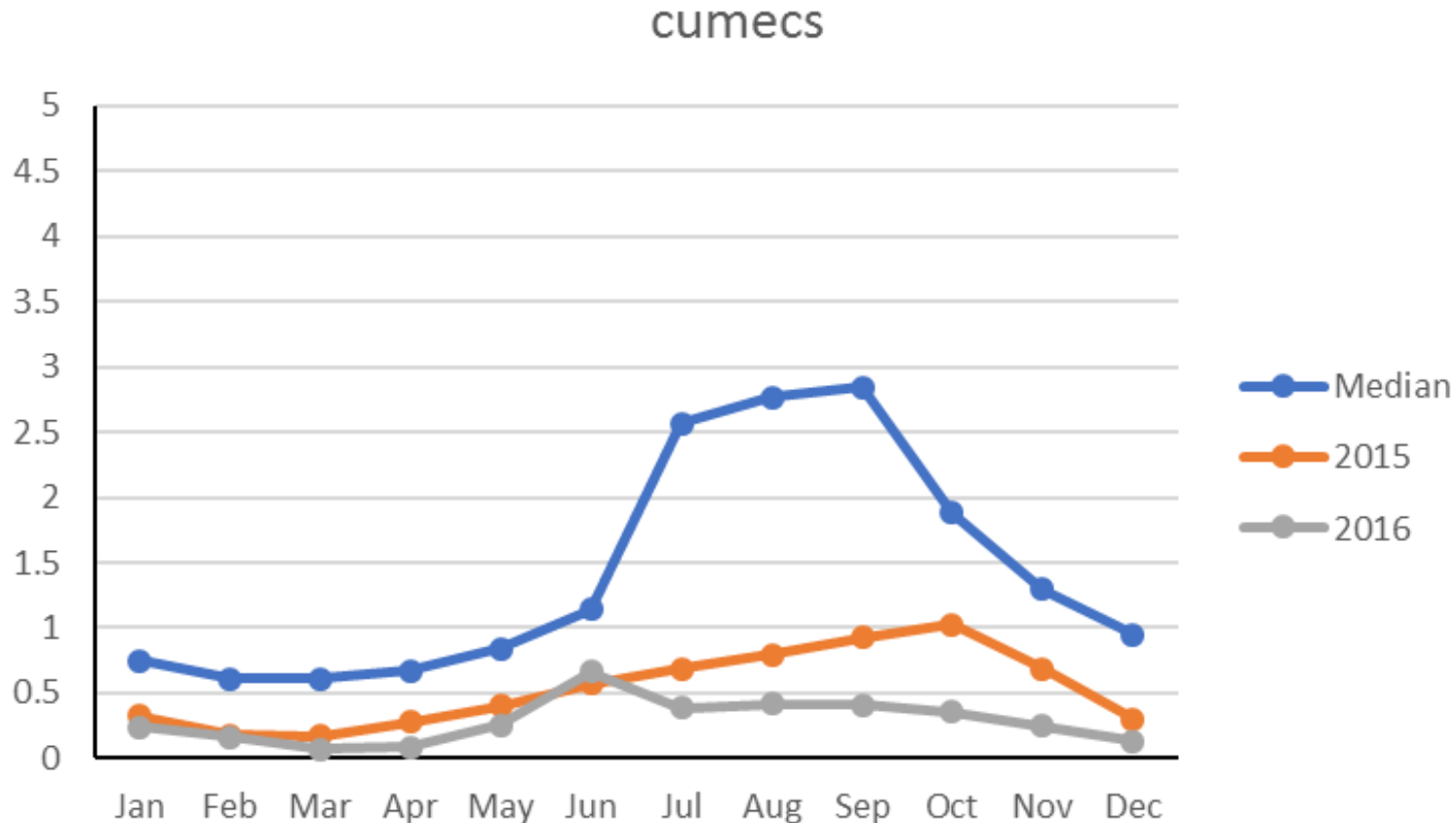
Selwyn/Waikirikiriri river flows

15



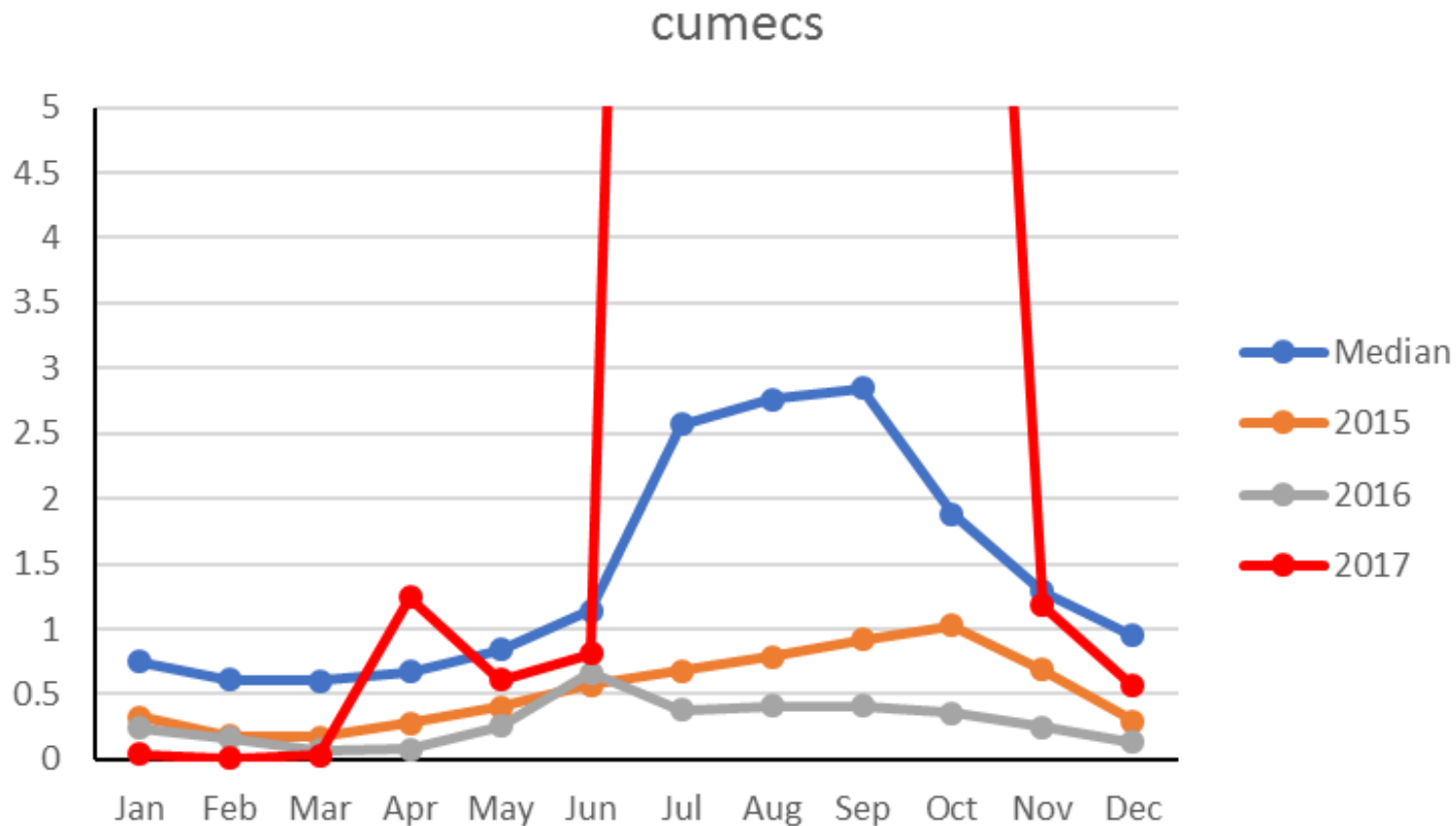
Selwyn/Waikirikiriri river flows

16



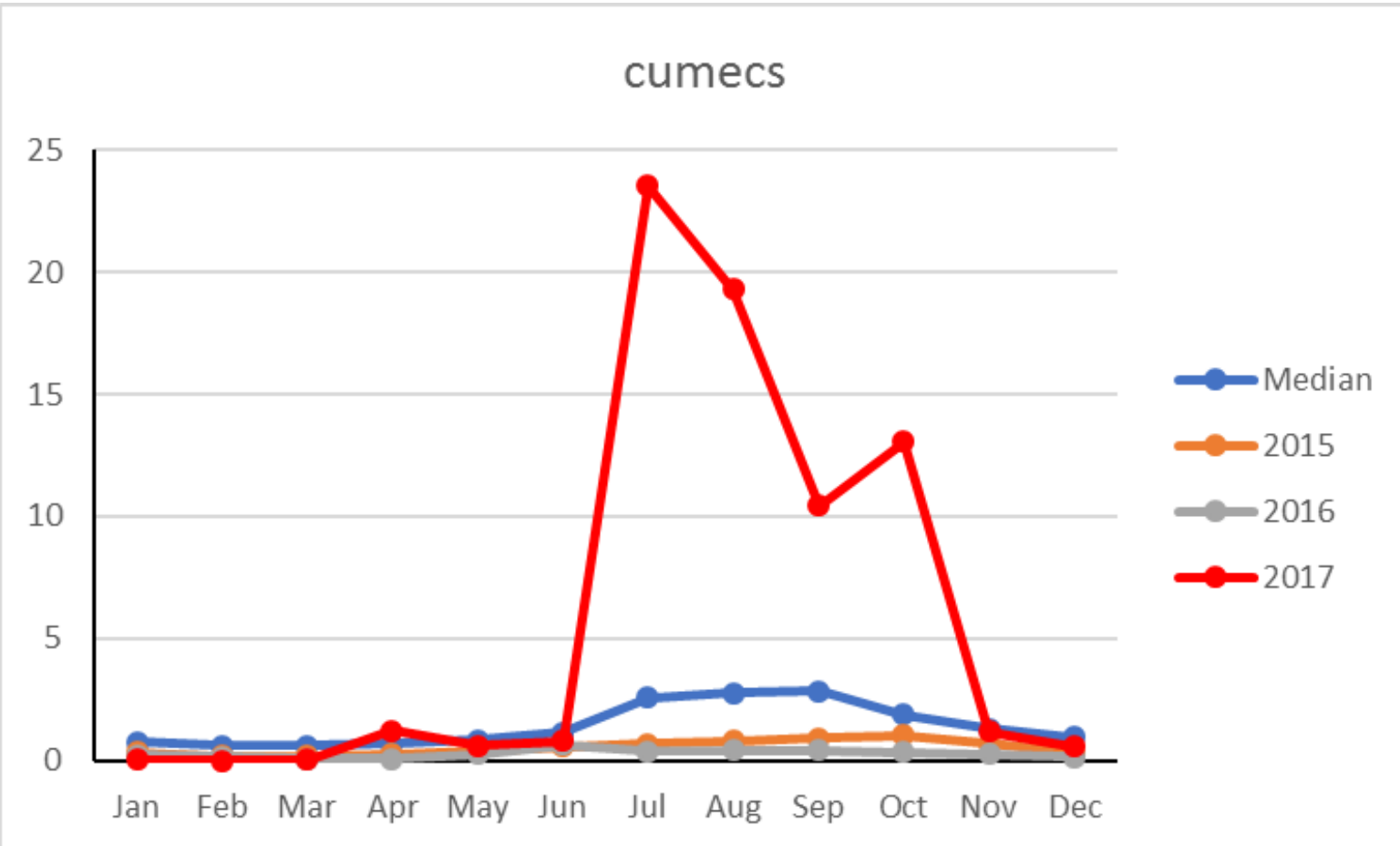
Selwyn/Waikirikiriri river flows

17



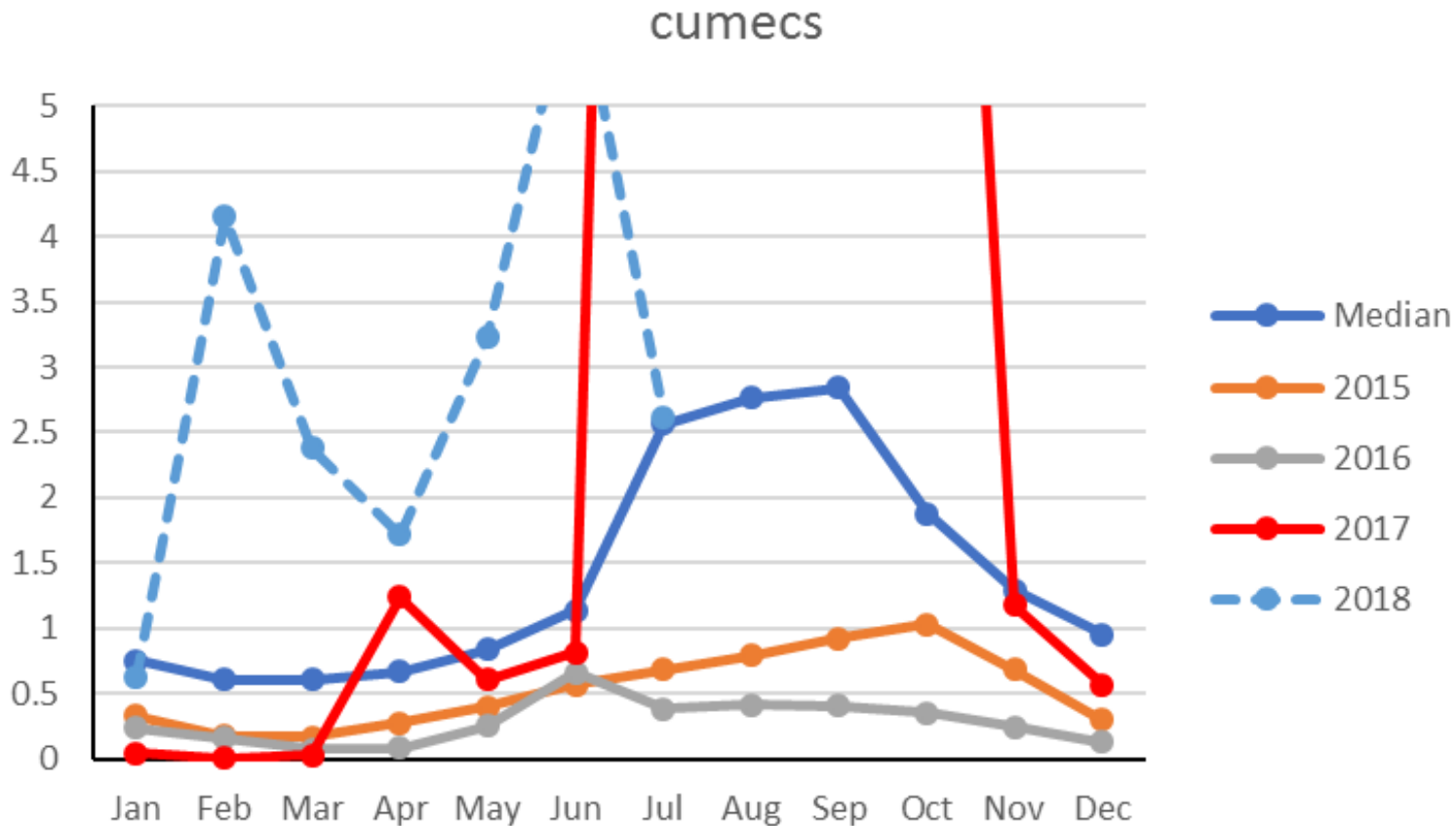
Selwyn/Waikirikiriri river flows

18



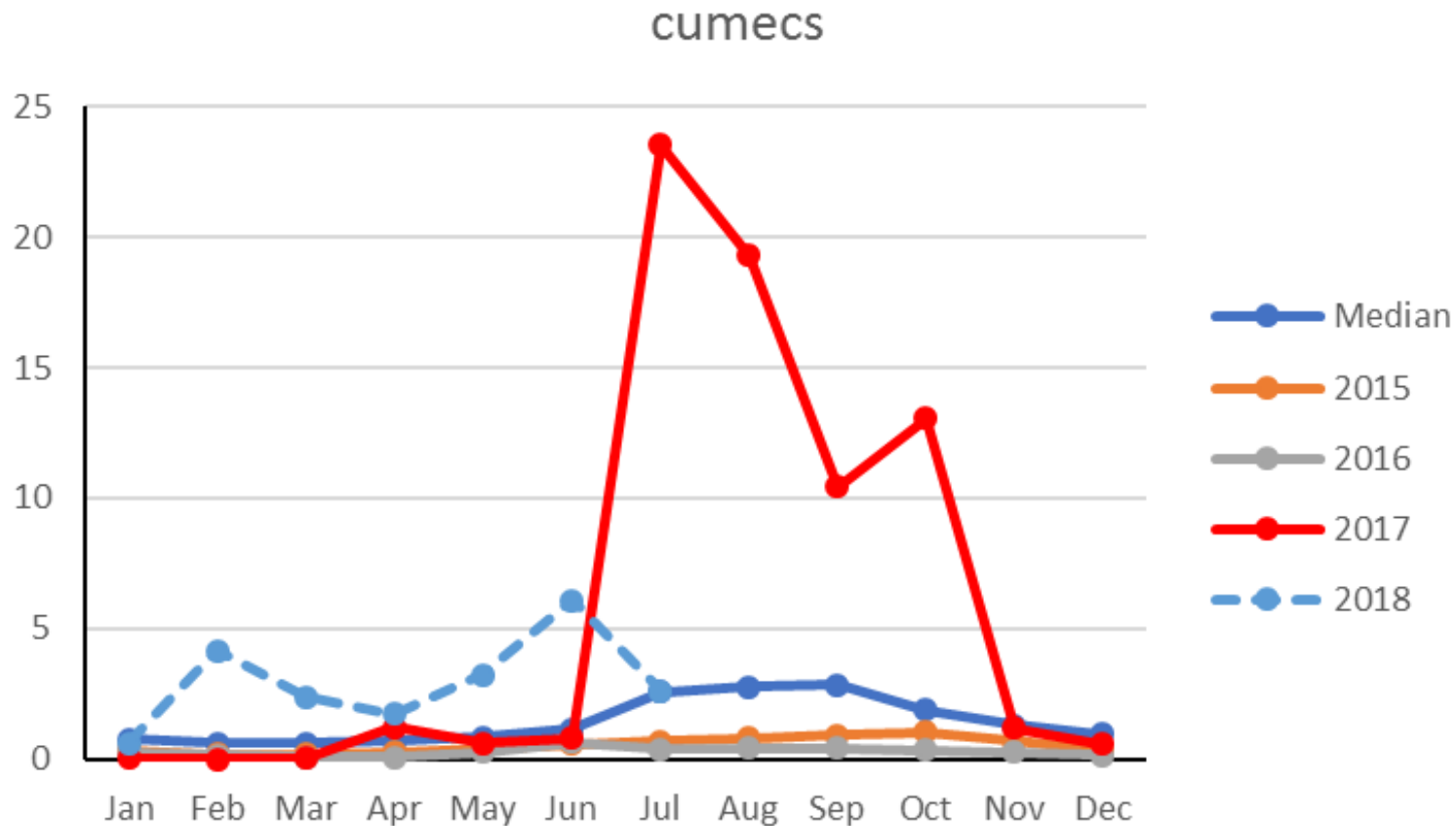
Selwyn/Waikirikiriri river flows

19

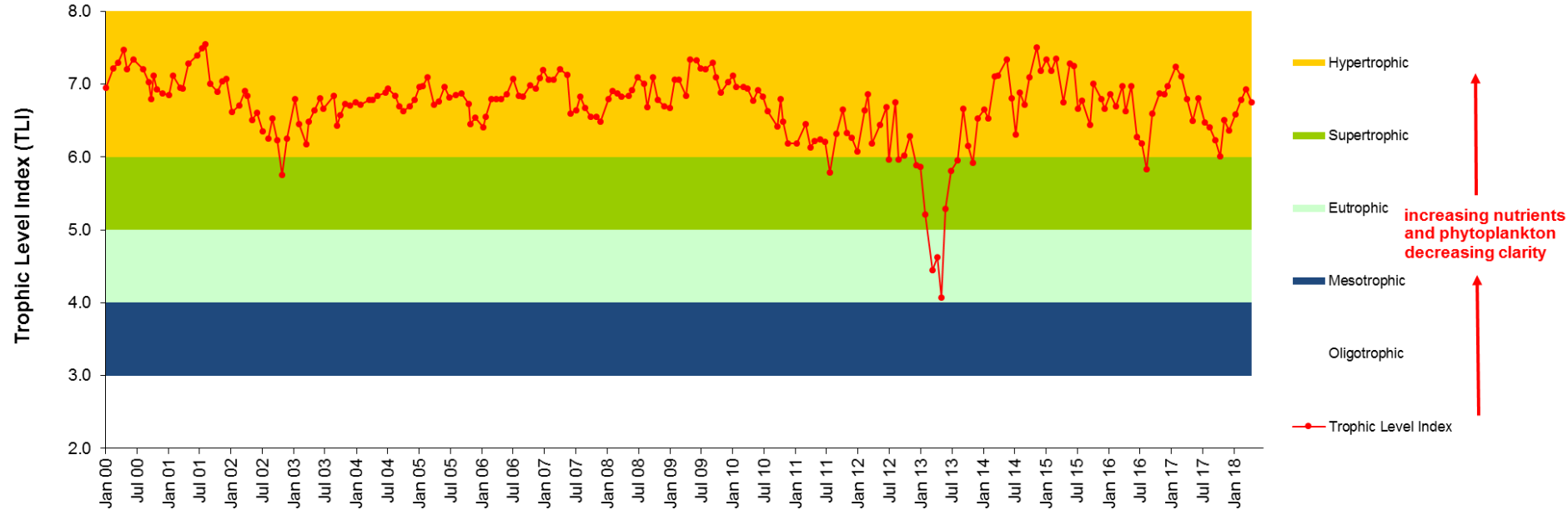


Selwyn/Waikirikiriri river flows

20



Trophic level index



Annual TLI

	2004-06	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
(Selwyn mth)	6.79	6.97	6.89	6.97	6.95	6.22	6.49	6.18	6.70	7.20	6.76	6.78
(Taumutu)	6.77	6.99	7.02	7.02	6.87	6.28	6.46	5.21	6.57	7.07	6.74	6.81
(Timberyard)	6.82	7.01	6.85	7.08	6.86	6.40	6.47	5.89	6.69	7.12	6.762	6.66
(Kaituna)	n/s	n/s	n/s	n/s	6.36	5.36	5.70	5.25	6.03	6.50	6.32	5.91
(Average 4 sites)	6.80	6.99	6.89	7.08	6.90	6.31	6.47	5.85	6.68	7.15	6.77	6.78

Selwyn-Waihora Plan: Mid lake 6.6
 Margin 6.0

Summary

- Groundwater levels are high
- Selwyn/Waikirikiriri river flows have been higher than average and are likely to remain in good flow into the summer
- TLI remains high

Selwyn River/Waikirikiriri Plan Working Group

First meeting, 31 July 2018, 1-4 pm at Selwyn District Council

Attendees: Paul Hodgson (Convenor and Zone Committee), Ron Pellow (Zone Committee), Mike Glover (SWWIM), David Irvine, John Grigg and Warwick James (Farmers), Rachel Brown and John Benn (Department of Conservation), Denise Ford (Waihora Ellesmere Trust), Scott Pearson (Fish and Game), Brett Painter (Environment Canterbury), Katie Nimmo (Waterways Centre for Freshwater Management), Ian Whitehouse and Miria Goodwin (Environment Canterbury Zone Facilitators)

Apologies: Murray Lemon (SDC and Zone Committee), Les Wanhalla (Taumutu rūnanga, Zone Committee), James Guild (Farmer), Iaeen Cranwell (ECan Councillor and Zone Committee)

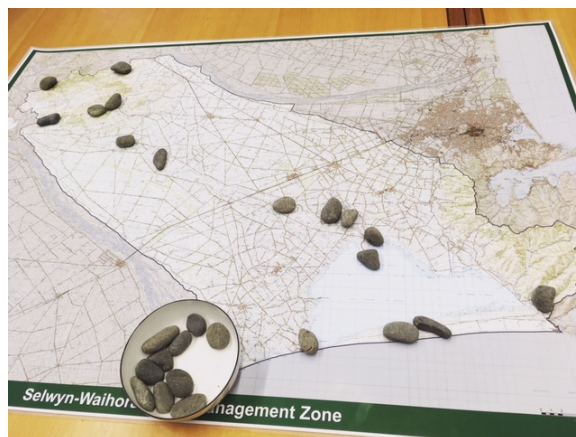
Agenda

1. Welcome and introductions
2. What are we going to do and why are we here?
3. Did you know? - workshop led by Whit and Miria
4. Closing comments

Meeting summary

The unique special characters of the Selwyn/Waikirikiriri catchment

The first meeting of this group focused on getting to know each other and the need for, focus of and meeting logistics of the group. Members participated in a process to acknowledge the importance of the Selwyn/Waikirikiriri River and Catchment – placing a stone in a place that is special and explaining why. It was very clear that this catchment is a unique and special place for everyone in the group; for special memories, family connections, historical value, biodiversity values, amazing views, economic connections and more.





The working group was successful because...

The working group identified important elements of success (by imagining they were in the future and looking back) as:

Process oriented

- Working well together:
 - Everyone understands different interests/views/values
 - Come up with solutions together – and collectively confident that they are achievable
 - Respect for everyone's views
 - People don't walk away
 - Not a blame game
- Good process:
 - Everyone knew what they wanted to do so know it's successful
 - Genuine process, commitments and contributions – things that will address the issues
 - Process resourced appropriately
- All parts of community involved
 - Rūnanga involvement
 - Working group has credibility with wider community
- Ways of working:
 - Forward-focus; not trying to turn the clock back
 - Decisions supported by good science
 - This country group meets town groups (e.g. Avon Heathcote)
 - Proactive approach to future problems e.g. monitoring
 - Include education

Outcome oriented

- Glentunnel has a swimming hole again (toxins fixed)
- Win-wins
- A swimmable Coes ford
- A fix for Phormidium in the Selwyn

- Improved habitats for endangered species
- Positive outcomes for the lake

Next steps

The group agreed to meet on the third Tuesday of every month, 1-4pm, and usually at Selwyn District Council in Rolleston.

The focus of the next meeting will be on identifying what the issues are and collating suggested solutions.

It was agreed that no meeting notes will be taken but that a summary of the meeting will be written by Environment Canterbury and provided to the Selwyn Waihora Zone Committee each month and sent to Working Group members.

Actions:

1. If members are approached by the media, please refer them to Paul Hodgson.
2. Send Katie Nimmo suggestions for people in the catchment who would be good to be interviewed for oral histories – part of a student scholarship from the Waterways Centre for Freshwater Management
3. Environment Canterbury to provide the link to 'Selwyn te Waihora – our water story' booklet

<https://www.canterburywater.farm/assets/Uploads//CWMSSelwynBookJune2017.pdf>

7th August 2018

Central Plains Water Limited: Environmental Management Fund

Letter of support from Selwyn Waihora Zone Committee of funding application for long-term mudfish protection

Kia ora,

I write in support of the funding application by the Environment Canterbury Biodiversity officer on behalf of land owners. The application proposes a long-term mudfish protection barrier to safeguard one of the last remaining strongholds of Canterbury mudfish near the Hororata River above the confluence with the Waikirikiri / Selwyn River.

The project has already been very successful in gaining funding through various project partners including the Department of Conservation and Environment Canterbury and Zone Committee over the past 6 months.

The Zone Committee is and has been very supportive of the protection of mudfish habitat in the Selwyn Waihora Zone and has provided funding support to several projects through Immediate Steps over the past 5 years.

Canterbury mudfish (kōwaro) have a nationally threatened conservation status. Selwyn catchment (which Haldon Pasture Springs is part of) has the most remaining and largest area remaining of fragments of Canterbury mudfish of any catchment across the Plains.

This project is a New Zealand and Southern Hemisphere first in protecting a key strong hold of the nationally threatened Canterbury mudfish (kōwaro). The project would lead to an estimated 10-fold increase of habitat for the threatened mudfish from 880m² to 8000m² in the Selwyn Waihora catchment.

The project will be a NZ case study and enable increased community awareness and appreciation of sustainable farming and conservation in the diverse agricultural landscape of Canterbury.

The project aligns well with the Zone Committee's priorities around the Hororata biodiversity corridor and the focus on protection of remnant native biodiversity and water ecosystems on the plains.

It is my pleasure to support this application. The Selwyn Waihora Zone Delivery team looks forward to working with the land owners and project partners towards achievement of mudfish protection.

Ngā mihi

Allen Lim

Chair: Selwyn Waihora Zone Committee

22 August 2018

David Ward
Chief Executive, Selwyn District Council

Nigel Barnett
Chair, Selwyn District Council Water Race Committee

Request from Selwyn Waihora Zone Committee for closer engagement with the Selwyn District Council Water Race Committee

Dear David and Nigel,

The Selwyn Waihora Zone Committee has appreciated opportunities to discuss the work of your water race committee to date. I know we agree that the water races within the catchment are an important part of water management in our district. The zone committee has, over time, gained a good understanding of the ecological values within some of these water races and the importance of looking after those values.

The zone committee would like continued and regular interaction with the water race committee. We suggest that this could be achieved by having a zone committee member on the water race committee. We look forward to your response and thank you again for the important work the water race committee undertakes.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Allen Lim', with a stylized, flowing script.

Allen Lim
Chair, Selwyn Waihora Zone Committee

Monitoring and Compliance Annual Report 2017-18

Selwyn Waihora Zone Delivery

Consent types monitored in Selwyn

- Water (Physically monitored)
- Water (System verified)
- Discharge (Dairy, Other and Human Effluent)
- Landuse
- Coastal

Grades



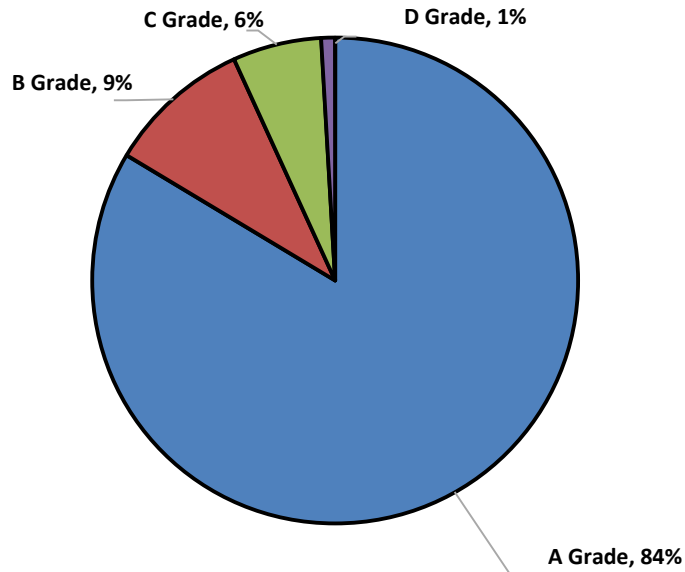
A or B = Compliant (work
with consent holder)



C or D = Compliance Issues
(Provide advice and
require action to be taken)

Monitored Consents

Water (physically monitored)



Totals

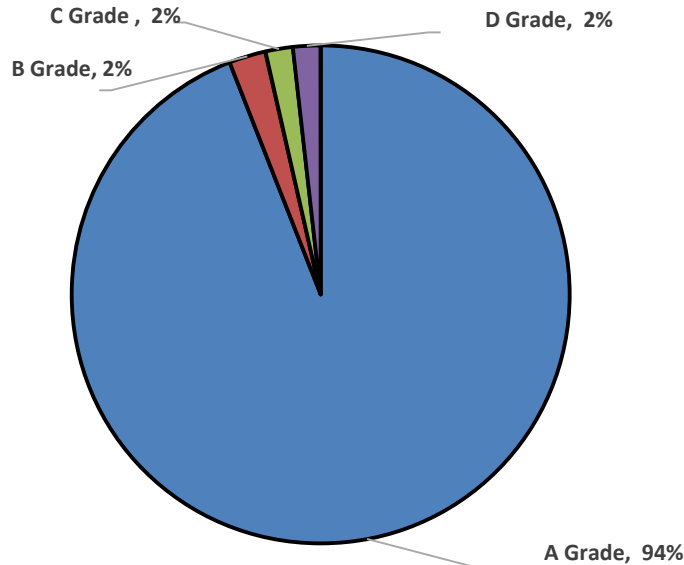
- A Grade = 454
- B Grade = 52
- C Grade = 32
- D Grade = 5
- Total graded YTD = 543
- In process = 108
- Total YTD = 651
- % Snapshot = 66%
- % of consents monitored = 66%

Monitored Consents

- Water (system verified)
- Data segmented and compliance verified automatically
- 414 consents monitored (100% compliant)
- 66% water consents monitored

Monitored Consents

Discharge (Dairy)

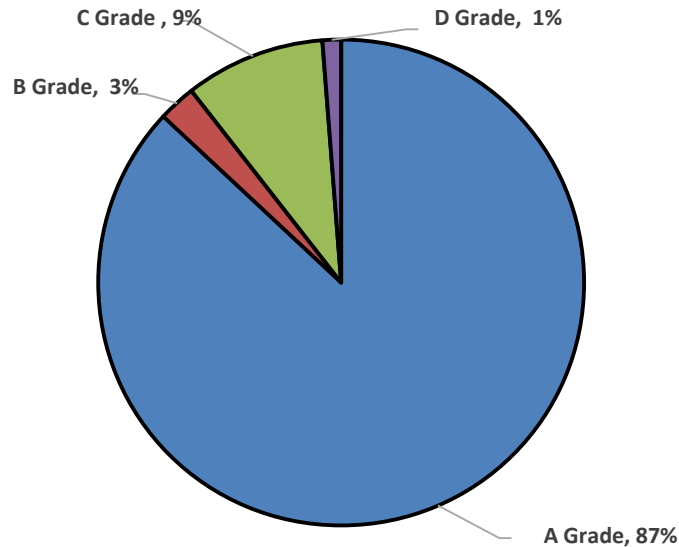


Totals

- A Grade = 158
- B Grade = 4
- C Grade = 3
- D Grade = 3
- Total graded YTD = 171
- In process = 3
- Total YTD = 171
- % Snapshot = 11%
- Consents monitored = 28%

Monitored Consents

Discharge (Other)

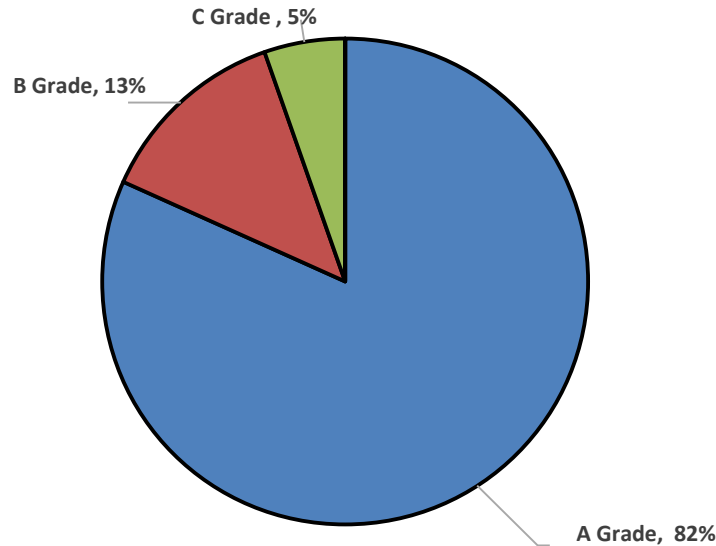


Totals

- A grade = 140
- B Grade = 4
- C Grade = 15
- D Grade = 2
- Total graded YTD = 161
- In process = 23
- Total YTD = 184
- % Snapshot = 11%
- Consents monitored = 28%

Monitored Consents

Discharge (Human Effluent)

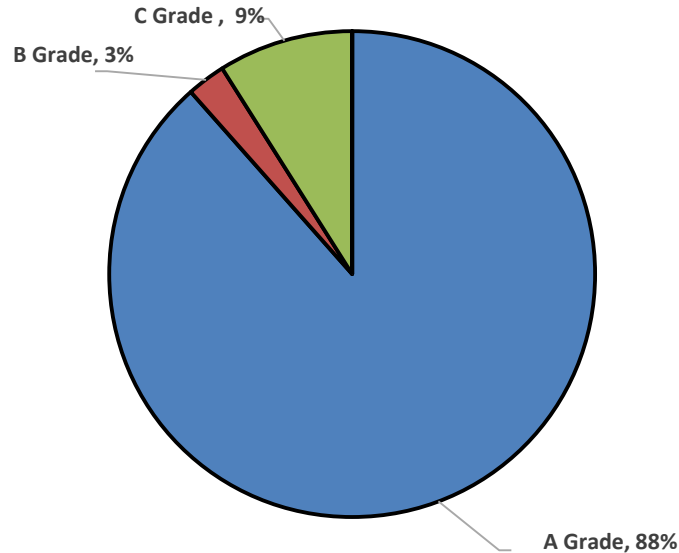


Totals

- A Grade = 76
- B Grade = 12
- C Grade = 5
- D Grade = 0
- Total graded YTD = 93
- In process = 10
- Total YTD = 103
- % Snapshot = 6%
- Consents monitored = 28%

Monitored Consents

Land Use



Totals

- A Grade = 69
- B Grade = 2
- C Grade = 7
- D Grade = 0
- Total graded YTD = 78
- In process = 9
- Total YTD = 87
- % Snapshot = 5%
- Consents monitored = 5%

Monitored Consents

- Coastal consents
- Only one coastal consent currently in process for Selwyn Waihora Zone

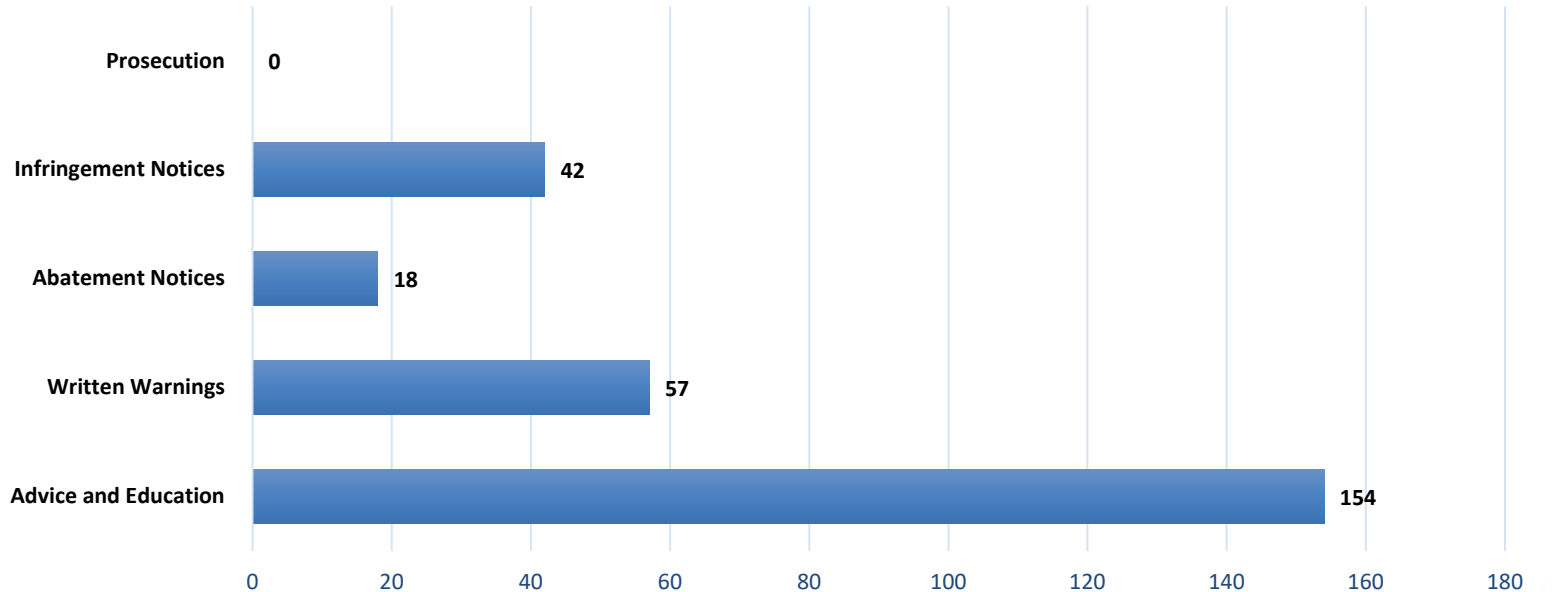
Monitoring Consent Summary

- A Grade = 1311
- B Grade = 74
- C Grade = 62
- D Grade = 10
- 90%
- 5%
- 4%
- 1%
- Total graded YTD = 1457
- In process = 154
- Total YTD = 1611

How did we respond?

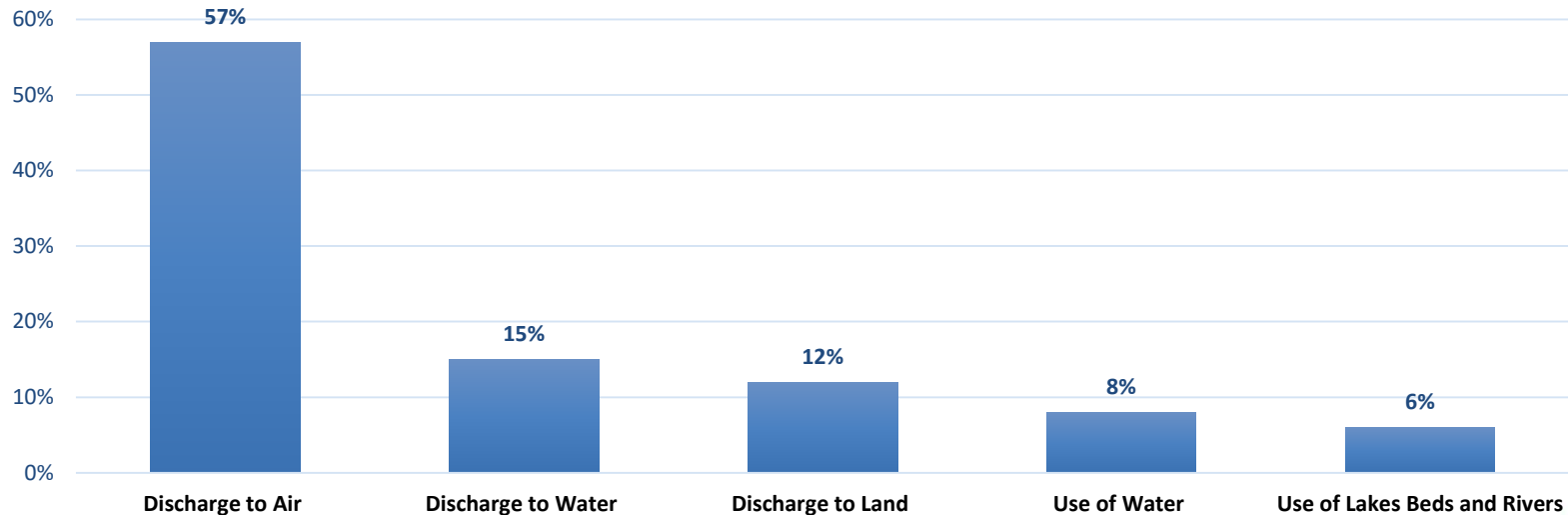
- **Prosecution** - Serious offences to court
- **Infringement** – Fines for significant breaches
- **Abatement** – No cooperation from consent holder
- **Written warnings** – Notify offence action required
- **Advice and education** – Well received and valued

How did we respond?

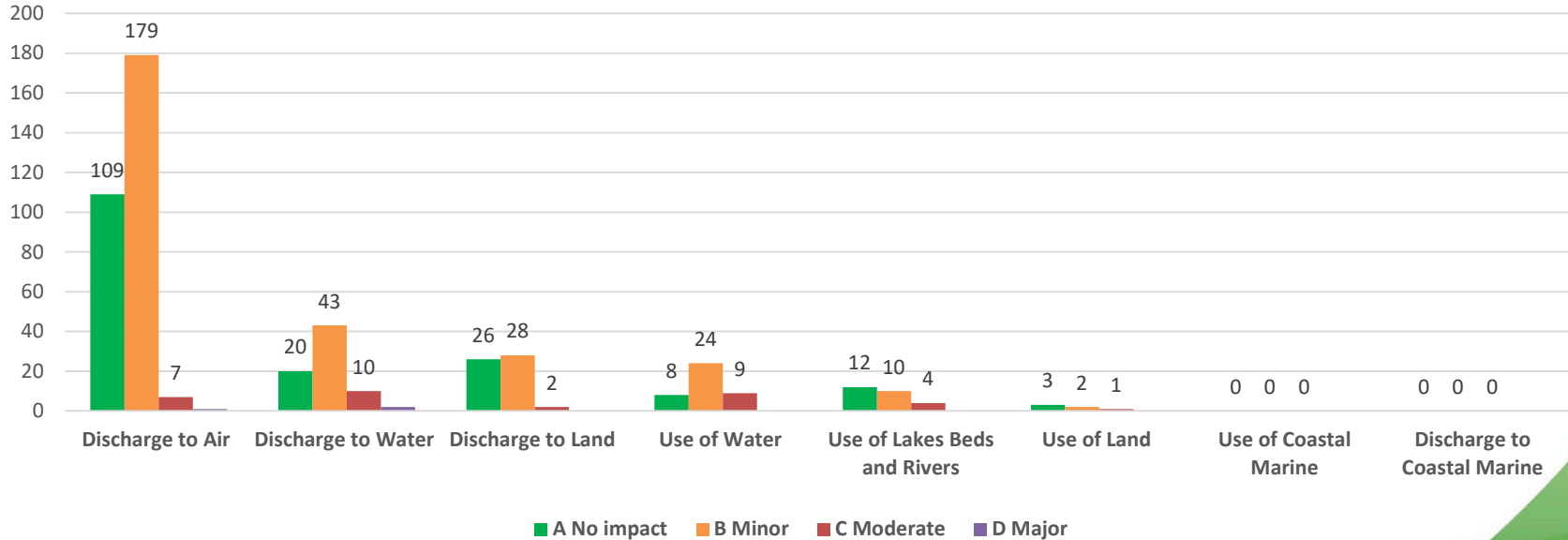


Pollution Types of Incident Reported

2017 - 2018

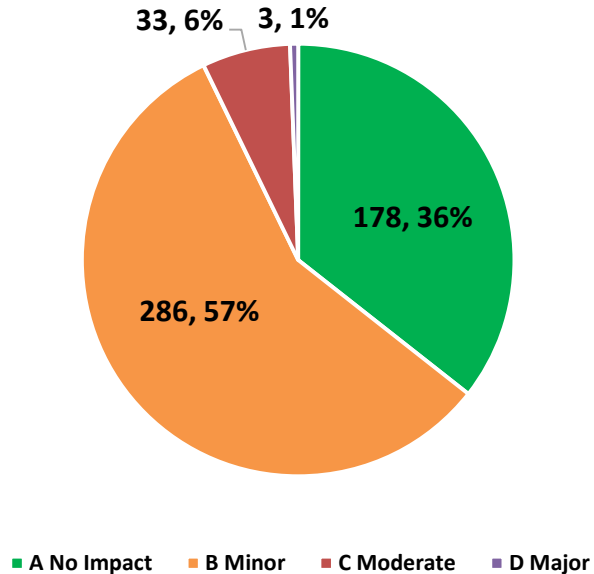


Incident Response Grading



Summary

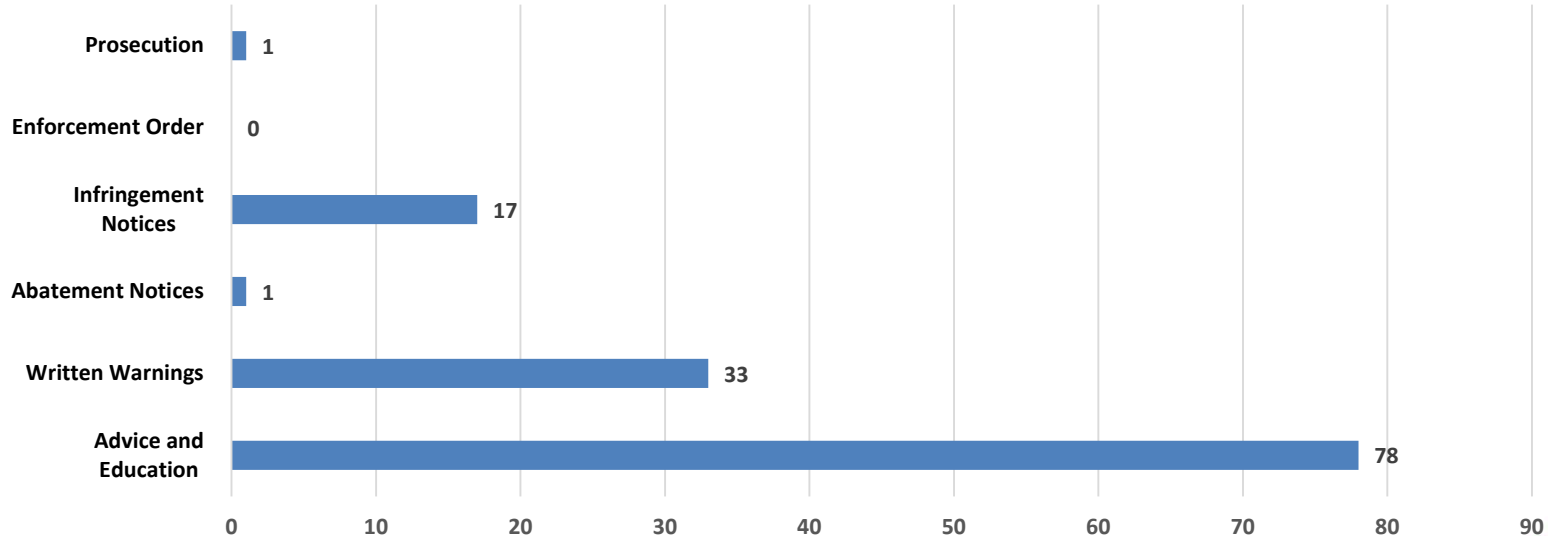
Graded Incidents



Totals

- 500 total graded incidents
- 39 in process
- 539 YTD

How did we respond?



Summary

- 1457 consents graded (90% graded A)
- 66% of all water consents monitored
- 42 infringement notices issued (5 last year)
- 18 abatement notices issued (50 last year)
- 307 discharge to air incidents (57%)
- 17 infringement notices issued (9 last year)
- 1 prosecution (0 last year)

Monitoring and Compliance Annual Report 2017-18

Selwyn Waihora Zone Delivery

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Grades



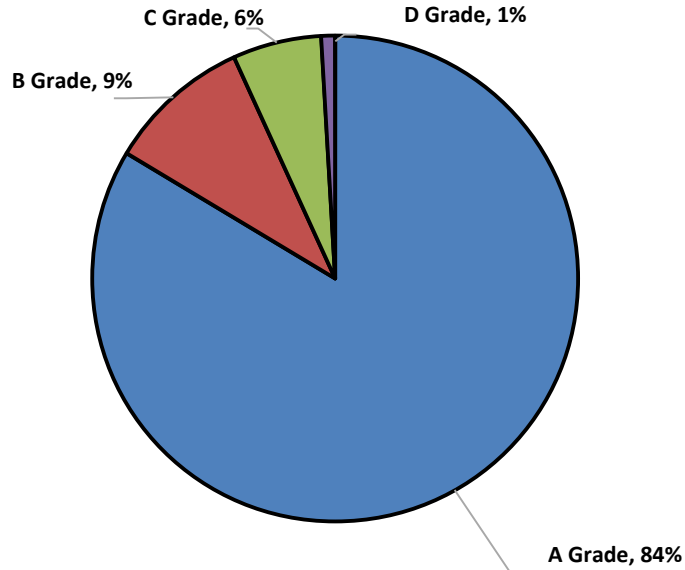
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C or D = Compliance Issues
(Provide advice and require action to be taken)

Monitored Consents

Water (physically monitored)



Totals

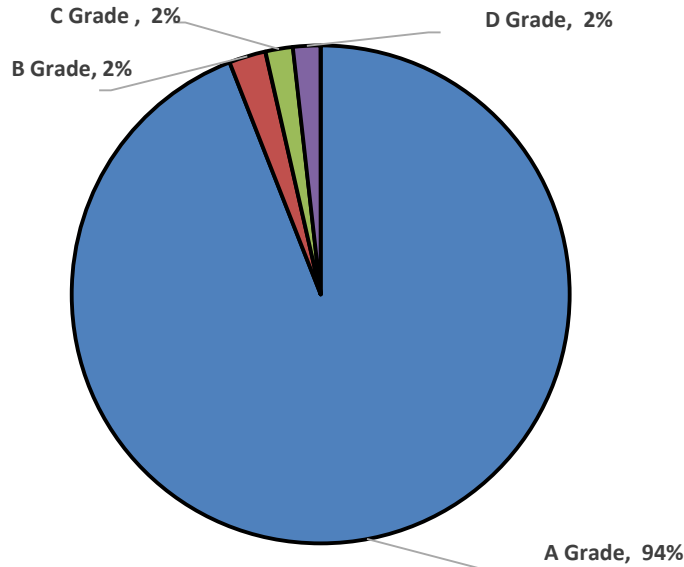
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Monitored Consents

Discharge (Dairy)

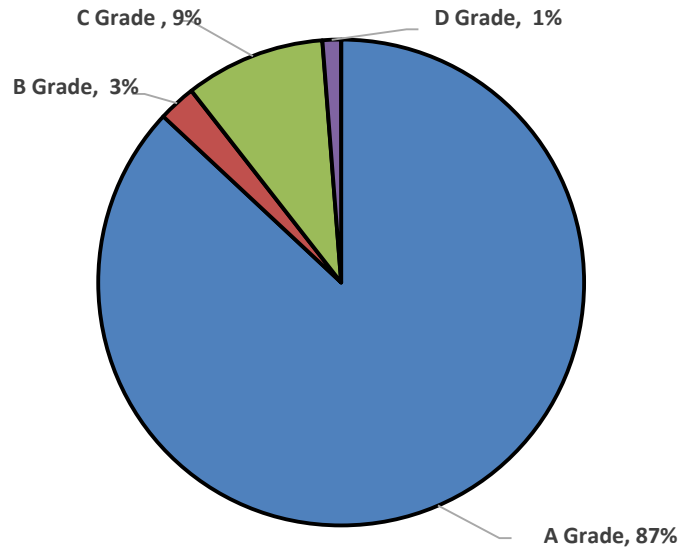


Totals

- A Grade = 158
- B Grade = 4
- C Grade = 3
- D Grade = 3
- Total graded YTD = 171
- In process = 3
- Total YTD = 171
- % Snapshot = 11%
- Consents monitored = 28%

Monitored Consents

Discharge (Other)

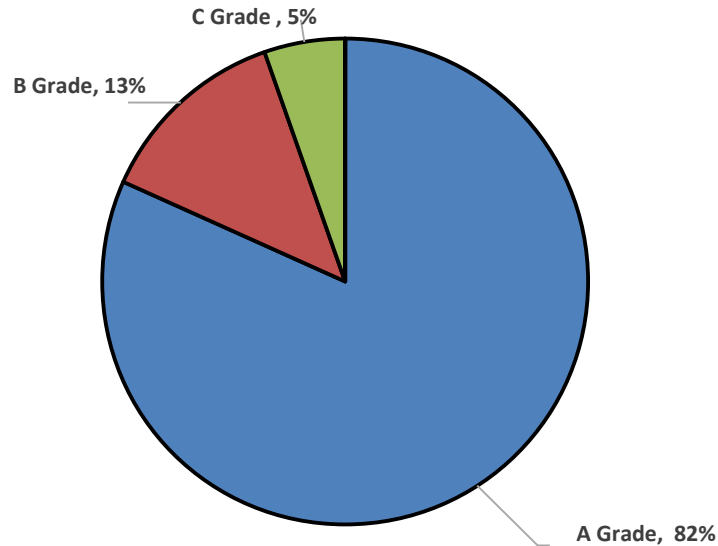


Totals

- A grade = 140
- B Grade = 4
- C Grade = 15
- D Grade = 2
- Total graded YTD = 161
- In process = 23
- Total YTD = 184
- % Snapshot = 11%
- Consents monitored = 28%

Monitored Consents

Discharge (Human Effluent)

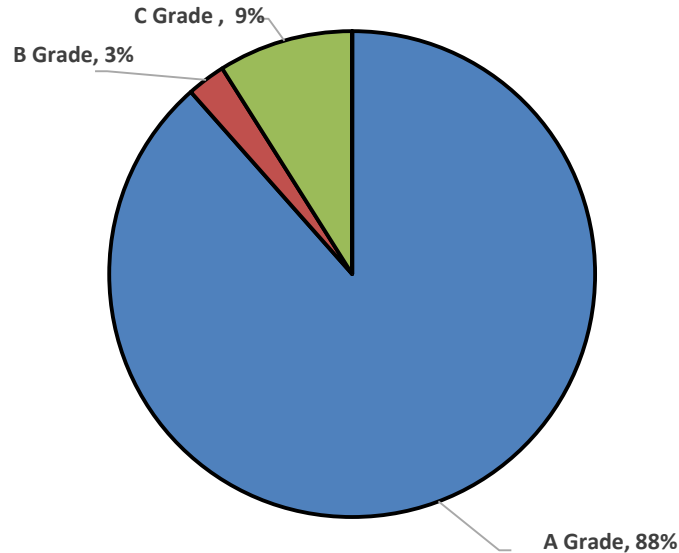


Totals

- A Grade = 76
- B Grade = 12
- C Grade = 5
- D Grade = 0
- Total graded YTD = 93
- In process = 10
- Total YTD = 103
- % Snapshot = 6%
- Consents monitored = 28%

Monitored Consents

Land Use



Totals

- A Grade = 69
- B Grade = 2
- C Grade = 7
- D Grade = 0
- Total graded YTD = 78
- In process = 9
- Total YTD = 87
- % Snapshot = 5%
- Consents monitored = 5%

Monitored Consents

- Coastal consents
- Only one coastal consent currently in process for Selwyn Waihora Zone

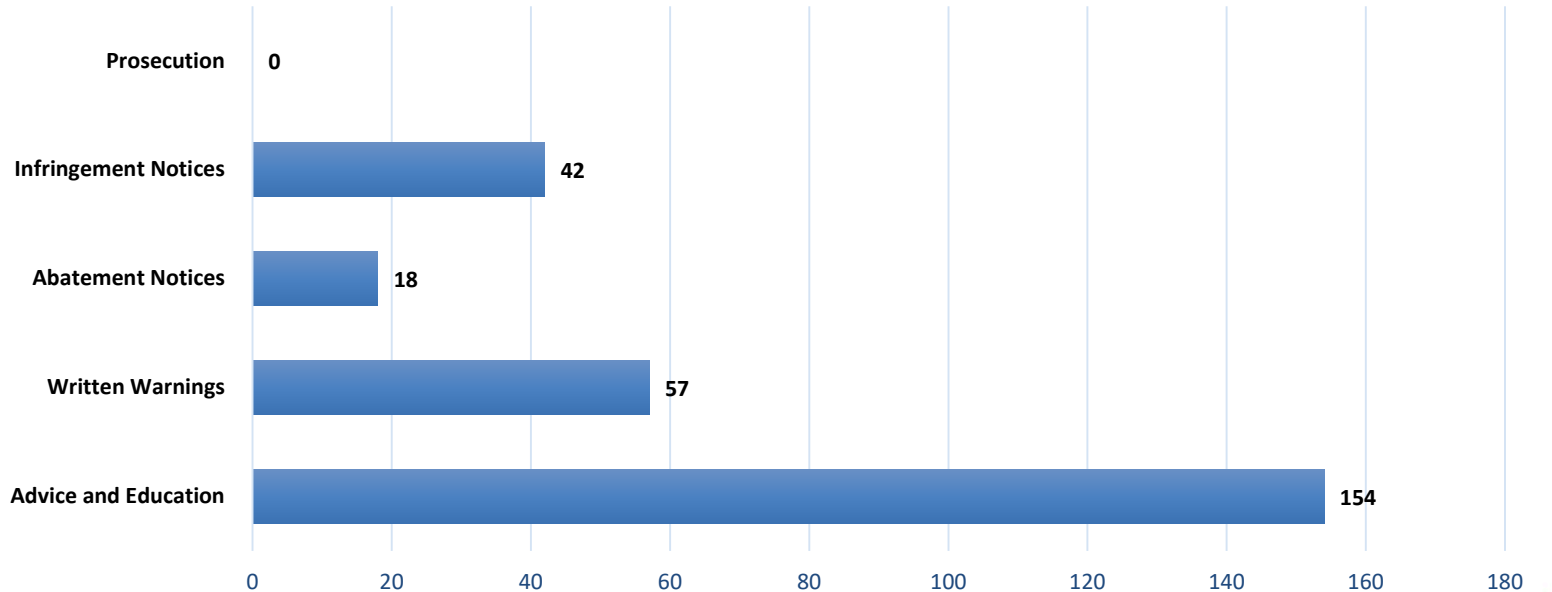
Monitoring Consent Summary

- A Grade = 1311
- B Grade = 74
- C Grade = 62
- D Grade = 10
- 90%
- 5%
- 4%
- 1%
- Total graded YTD = 1457
- In process = 154
- Total YTD = 1611

How did we respond?

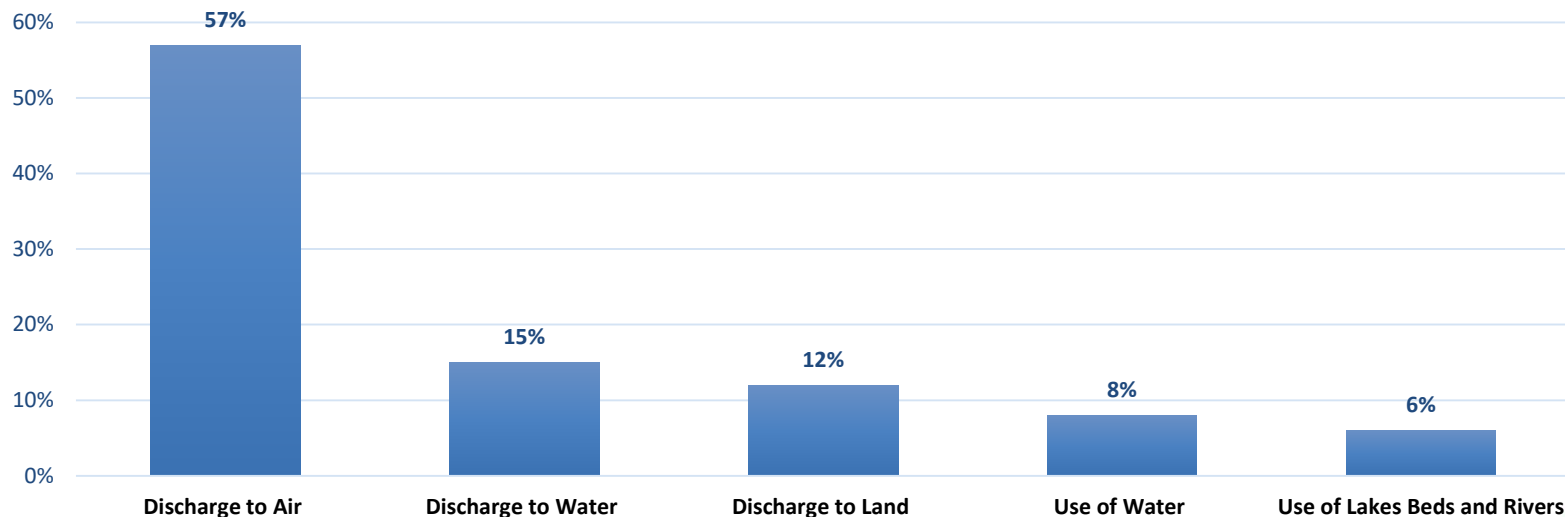
- **Prosecution** - Serious offences to court
- **Infringement** – Fines for significant breaches
- **Abatement** – No cooperation from consent holder
- **Written warnings** – Notify offence action required
- **Advice and education** – Well received and valued

How did we respond?

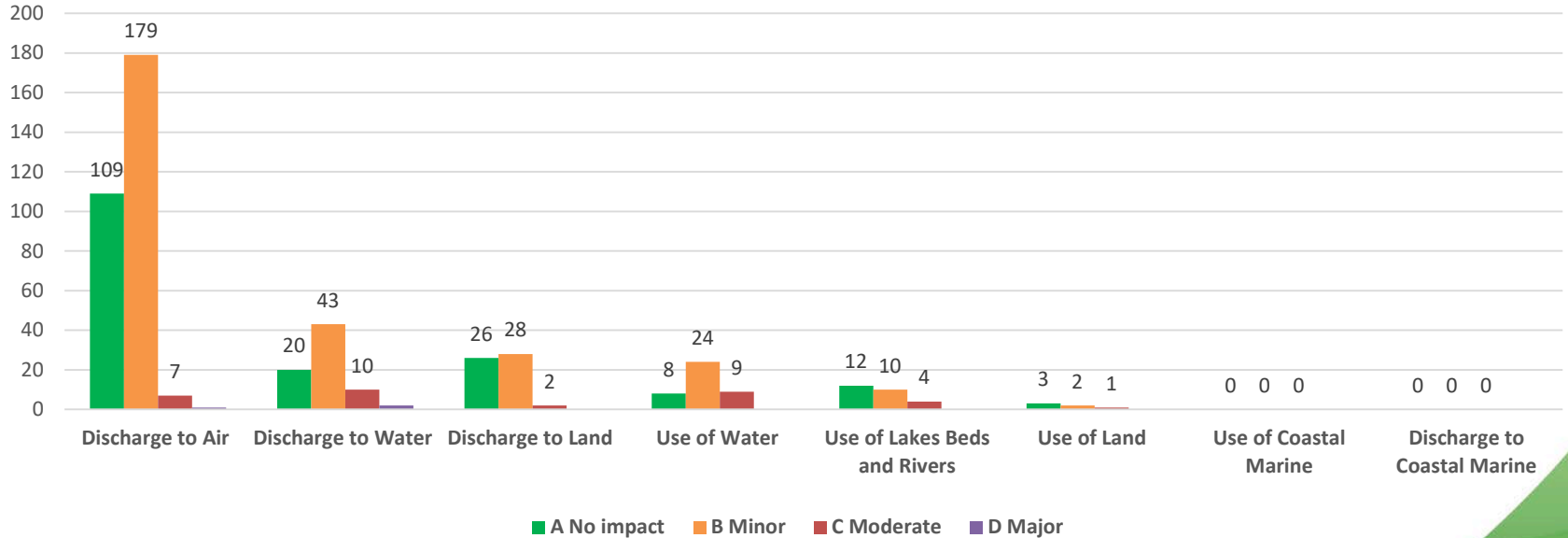


Pollution Types of Incident Reported

2017 - 2018

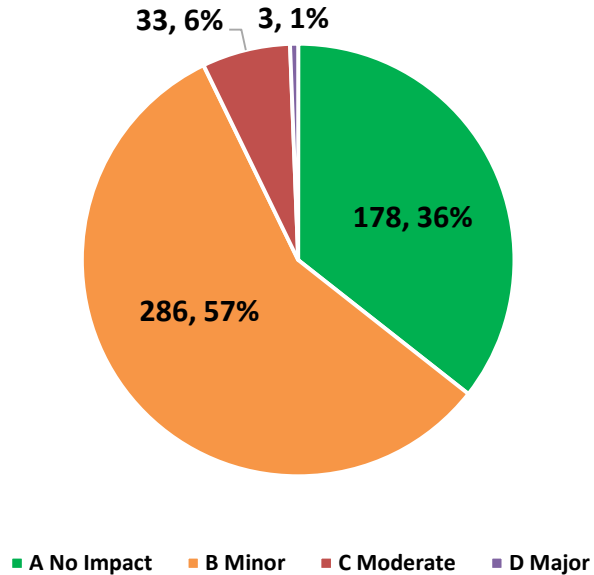


Incident Response Grading



Summary

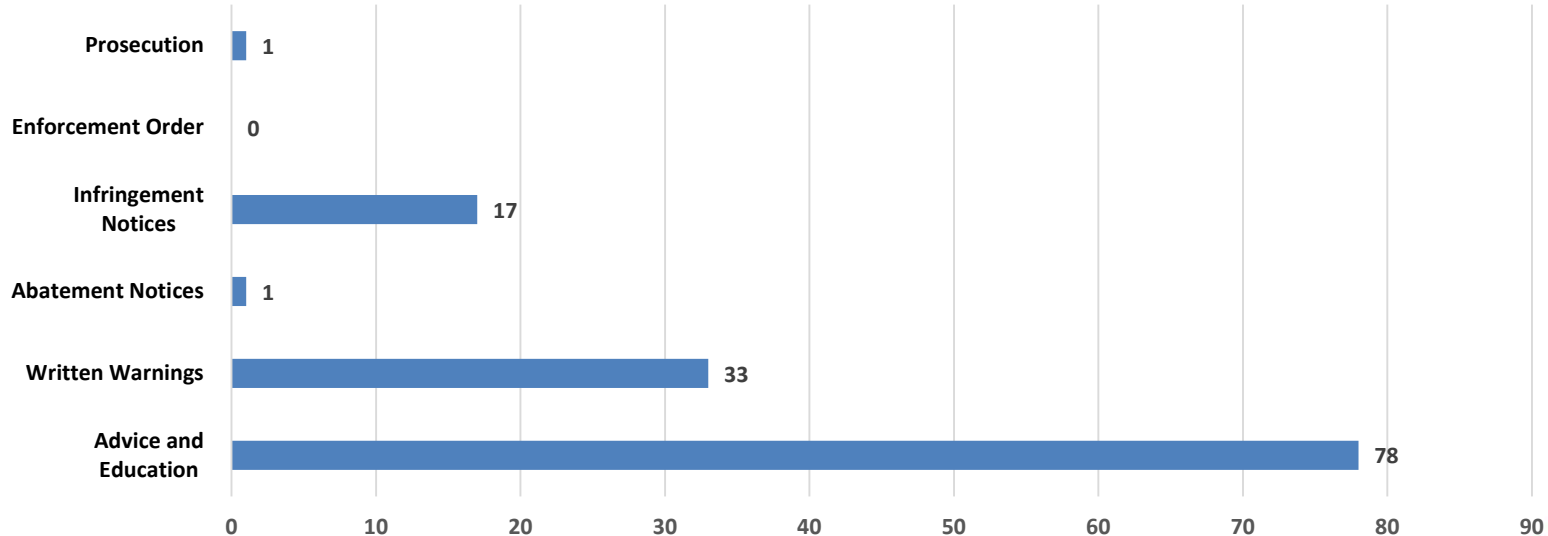
Graded Incidents



Totals

- 500 total graded incidents
- 39 in process
- 539 YTD

How did we respond?



Summary

- 1457 consents graded (90% graded A)
- 66% of all water consents monitored
- 42 infringement notices issued (5 last year)
- 18 abatement notices issued (50 last year)
- 307 discharge to air incidents (57%)
- 17 infringement notices issued (9 last year)
- 1 prosecution (0 last year)

AGENDA ITEM NO: 4	SUBJECT MATTER: Selwyn Te Waihora Good Management Practice Nitrogen Loss Rates
REPORT BY: Tami Woods, Environment Canterbury	
DATE OF MEETING: 4 September 2018	

Action required

1. Note the revised Q and A's and minimum standards for determining Selwyn Te Waihora gmp nitrogen loss rate in Attachment 1.

Summary

2. The Selwyn Te Waihora Section of the Land and Water Regional Plan (LWRP) require that farming activities achieve a rate of nitrogen loss that is consistent with good management practice (Selwyn Te Waihora 2017 gmp nitrogen loss rate), by 1 January 2017.
3. There has been on-going interest from the primary sector, consultants and irrigation schemes, and clarification provided by Council Staff, on the minimum standard the Council expects to see modelled (using OVERSEER®) to reflect this standard when farming land use consents are lodged and processed.
4. In response to questions around existing advice, Council Staff proposed a revised minimum standard in May. After further technical analysis and legal advice the **existing approach** with amendments is proposed to be retained (refer Attachment 1).

Background

5. The step of farms achieving a rate of nitrogen loss that is consistent with gmp, by 1 January 2017 is a key part of the planning framework under the Selwyn Te Waihora Plan Change (Plan Change 1) to the LWRP. It determines how the property nitrogen loss limits from 1 January 2017 are set¹ and provides the reference point from which percentage reductions are made².
6. This step and the further reductions, alongside other actions identified by the Zone Committee, are an important part in achieving the water quality outcomes for Te Waihora, groundwater, the Selwyn River and the lowland streams/drains.
7. Depending on where these standards are set it can impact on the ability of farms to meet their nitrogen loss limits and achieve the further reductions. Conversely it can also impact on achievement of the water quality outcomes for the Hinds area.

¹ For farms that require land use consents to farm and their nitrogen loss calculations are more than 20 kgN/ha/yr.

² These are included as consent conditions on land use consents to farm.

Selwyn Te Waihora 2017 gmp nitrogen loss rate

8. The Selwyn Te Waihora 2017 gmp nitrogen loss rate is not the same as the Good Management Practices loss rates introduced by Plan Change 5.
9. The Selwyn Te Waihora 2017 gmp nitrogen loss rates are not defined in the LWRP. However, guidance can be found in the policy framework which states it is to be determined by:
 - a. The type of farming activity; and
 - b. The drainage characteristics of the soil; and
 - c. The climatic conditions and topography of the property; and
 - d. The type of irrigation system used (if any); and
 - e. Whether the practices set out in Schedule 24 or 24a have been fully adopted.
 - f. The nitrogen baseline for the property and the level of any enduring reductions in nitrogen loss already achieved relative to that baseline.
10. Schedule 24 then require that irrigation is managed in accordance with either property specific soil moisture monitoring, a soil water budget, or an irrigation scheduling calculator. There is however no direct guidance on how the use of these tools should then be modelled in OVERSEER®.
11. In May, Council Staff sought feedback on a revised approach to determining the minimum standards in response to questions that had been raised about existing guidance. As part of this process we sought feedback from the Industry Overseer Working Group.
12. Feedback highlighted that although the revised approach would work for efficient irrigation systems using soil moisture monitoring or a soil water budget, it would have significant impact on less efficient irrigation systems. This would be inconsistent with the policy framework which notes that the type of irrigation system in place is to be considered along with the option of using an irrigation scheduling calculator (see paragraphs 9 and 10 above).
13. After further technical and legal analysis, a refinement to the existing approach, removing the reference to soil moisture monitoring being beyond good management practices, along with further guidance on how to model the minimum standards for inputting irrigation management into OVERSEER® was developed. This is:
 - a. consistent with the policy framework;
 - b. applicable to all irrigation systems; and
 - c. results in gmp nitrogen loss rates that are consistent with the loss rates modelled as good management practice during the development of the Committees ZIP Addendum and resulting Plan Change 2.

Attachment 1 includes the updated Q and A's on how Hinds gmp nitrogen loss rates are to be determined. This information is also now available at <http://www.canterburywater.farm/zones#ashburton>

What are the good management practice nitrogen loss rates to be achieved in Selwyn Te Waihora?

In accordance with Policy 11.4.15 in the Land and Water Regional Plan(LWRP) within the Selwyn Te Waihora catchment a farms good management practice nitrogen loss rate is determined by:

- a. The type of farming activity; and
- b. The drainage characteristics of the soil; and
- c. The climatic conditions and topography of the property; and
- d. The type of irrigation system used (if any); and
- e. Whether the practices set out in Schedule 24 have been fully adopted.

This level of practice is applied to the farms baseline land use (2009-13).

When is the good management practice nitrogen loss rates required to be met?

The good management practice nitrogen loss rate for a farms baseline land use is to be met from 1 January 2017.

What is the threshold from which further reductions are required?

Further reductions for farms with a nitrogen loss greater than 15 kgN/ha/yr in Selwyn Te Waihora are made from the good management practice nitrogen loss rate for a farms baseline land use.

Why are the good management practice nitrogen loss rates for Selwyn Te Waihora not the same as in Plan Change 5?

While Plan Change 5 (PC5) introduced a definition of the term “Good Management Practice” (GMP) it does not apply in the Selwyn Te Waihora catchment. The architecture of the LWRP means sub-regional rules prevail over region wide rules. The rules for the Selwyn Te Waihora catchment (PC1) require compliance with Schedule 24 and the other factors in Policy13.4.15 respectively, not compliance with the GMPs definition introduced by PC5.

The definition of “Good Management Practice” introduced by Plan Change 5 also has each word capitalised to indicate a difference, in PC1 the phrase is in lower case. The introductory text of the notified version of PC5 also stated submissions lodged on Plan Change 5 could not seek to amend the provisions in PC1 If the intent of Plan Change 5 had been to change the PC1 thresholds from which reductions were to be made, then the catchment load and percentage reductions would have been recalculated and changes made to the PC1 policies accordingly.

How is a good management practice nitrogen loss rate for baseline land use to be determined?

A Nitrogen Baseline (2009-13) OVERSEER® file for a farm is to be prepared. This will however need to reflect the minimum level of farm practices as contained in Policy 11.4.15.

This means the modelling of a farm's nitrogen baseline needs to reflect the type of farming activity, the drainage characteristics of soil, climatic considerations and topography, the type of irrigation system used and the practices in Schedule 24.

The information below outlines the minimum standard to be reflected in Nitrogen Baseline (2009-13) files and provides advice on how the file can be adjusted to reflect the minimum.

Irrigation

Minimum

Schedule 24 states irrigation application¹ needs to reflect use of soil moisture monitoring², a soil water budget, or an irrigation scheduling calculator. The data inputted into OVERSEER® will therefore need to reflect one of these irrigation management techniques while also reflecting the type of irrigation system used³.

The minimum practice for irrigation management accepted by the Council is outlined in Attachment A. This reflects an irrigation scheduling calculator approach with further refinements in accordance with Policies 4.65, 4.66, 11.4.15 and 13.4.15 to reflect:

- a. the monthly and annual amount of water required based on the irrigation system used; and
- b. the annual amount of water that was available as detailed in the relevant water permit(s).

Overseer file adjustment

As set out in Attachment A

Nitrogen (Fertiliser and Effluent Management) - Pastoral Systems

Minimum

The minimum practice for nitrogen anticipates:

- a. No application of nitrogen fertiliser in the months of May, June or July; and
- b. The cumulative application of nitrogen (i.e. from fertiliser and effluent) is not greater than 450kg/ha/yr. This is at a block level rather than property level.

Overseer file adjustment

¹ Clause b(iii).

² Soil moisture monitoring is defined in Schedule 24 as meaning "methods of monitoring soil moisture that uses volumetric or tension based methodology.

³ Consistent with policies 11.4.15 and 13.4.13

- a. Delete May, June and July fertiliser applications unless a narrative is included as to why an application during this period is within good management practice.
- b. Reduce applications to max of 50 kgN/ha/month and 450 kgN/ha/yr total unless a narrative is included as to why this achieves good management practice.

Attachment A: Process for inputting irrigation management into OVERSEER®

Data Entry

- a. Obtain an understanding of the irrigation system(s) in place on the property between 2009-13 (baseline).
- b. Block property with consideration of the irrigation systems during 2009-13 (i.e. decision tools in use, return interval, application depth, irrigator type). Each irrigation system is blocked separately in OVERSEER with appropriate areas.
- c. Enter irrigation system type as one of the following:
 - i. Linear and centre pivot.
 - ii. Travelling irrigator
 - iii. Spray lines
 - iv. Micro-irrigation (drip and sprinkler)
 - v. Solid set
 - vi. Controlled flood
 - vii. Border Dyke
- d. In the irrigation management section choose to schedule irrigation based on "visual assessment/dig a hole".
- e. Choose the months when irrigation might be applied – remember that the OVERSEER model utilises 30 years of averaged climate data, therefore the irrigation data must also use the long-term irrigation information relevant to an 'average year' as opposed to within year tactics based on a drier or wetter year. Typically, the farms will apply irrigation from October until March.
- f. Enter irrigation management by month – the farmer will provide information about how they made their decision to start and stop irrigating along with the irrigation depth applied and the return interval. Because of the way most travelling irrigator irrigation systems have been designed, it is more common for farmers to apply the same depth of irrigation (mm) throughout the season, and to alter the return interval than it is for farmers to vary the depth applied each month. The return interval must vary over the season and during the shoulders of the irrigation season (September-October and March-April). Also note the irrigation applications will be determined by the lightest soil in the irrigation run. This should be reflected in the nutrient budget.
- g. If farmer information is unavailable, then take time to understand the system in place on the farm and make assumptions based on the rate of take, length of irrigator runs and the capacity the irrigation system is designed to deliver. (i.e. many Canterbury irrigation systems are designed for between 3.5-5 mm/day).
- h. Because some properties did not have enough water allocated to them during the baseline seasons, the maximum consented volume of irrigation per hectare in the consent should not be exceeded in baseline file calculation. An exception to this is when a dairy farmer had obtained an effluent consent and a building consent during the baseline period. In these instances, it is possible to model the "operative farm system" assumed in the effluent consent, including the irrigation and cow numbers modelled as part of the application.

Key sensibility checks

- a. Consented take – convert to depth per hectare from litres per second or consented annual volume and compare with OVERSEER® block Other Values page
- b. Irrigation system specifications - instantaneous take rate, application depth and return interval.
- c. Model the depth and return interval for the most limiting factor (e.g. the water permit might limit volume available, or the irrigation system may have too long a return interval to utilise the annual volume)
- d. Check the modelled annual application depth is no greater than the IRRICALC average annual volume, plus or minus one system application depth. For example, for a rotorainer, if the IRRICALC annual volume was 600 mm/ pa, and the rotorainer application depth was 50 mm, then the annual application volume used shall not exceed a maximum of 650 mm/ pa. Similarly, for a centre pivot if the IRRICALC annual volume was 400 mm/ pa and the pivot application depth was 15 mm then the annual volume used shall not exceed a maximum of 415 mm/ pa.
- e. Check the distribution of the annual application depth approximates the IRRICALC monthly distribution. Also, for irrigation applications in September, October, March and April, check the modelled monthly application depth is no greater than the IRRICALC monthly application depth plus 25%. If the IRRICALC monthly application depth plus 25% is less than the minimum irrigation system application depth, then no irrigation application can be applied. For example, if the September IRRICALC monthly application depth plus 25% is 25 mm and the minimum application depth of a rotorainer is 50 mm then there must be no irrigation recorded in September.
- f. Irrigation events will mostly be dictated by the lightest soil in the irrigation run. Where there are two soil blocks irrigated at the same time the IRRICALC volume should be chosen for the lower WHC soil to reconcile with the other values calculated by OVERSEER. It should be noted that in practice irrigation systems with long return intervals cannot be easily altered to account for within paddock soil type variations.
- g. For crops, check that the irrigation inputs are sensible for the crop grown in the block to which irrigation water is applied (e.g. crops such as clover may require less water than pasture). Irrigation must also not be applied to bare land (unless it is required to manage soil structure/cultivation timing for which a narrative is included). Irrigation must also be removed from the month the crop is harvested - unless a narrative is included to demonstrate the reason why.
- h. Check the modelled annual irrigation depth applied does not exceed the annual consented volume.
- i. Alter application depths or return intervals accordingly until OVERSEER calculates a similar irrigation depth, with a comparable annual distribution, added to pasture (mm/yr) as supplied by IRRICALC (within one irrigation application depth)

Using IRRICALC to reconcile annual volumes and comparable annual distribution entered as a sensibility check against the OVERSEER® estimate based on the user inputs of irrigation management

- a. <http://irrimap.aqualinc.co.nz>⁴
- b. Enter the GPS coordinates used in the relevant OVERSEER® block to choose the farm location
- c. Select the irrigation method
- d. Select soil water holding capacity for the lightest soil in an irrigation run and align with the PAW from S-Map (assume 600 mm depth)
- e. Select crop type as pasture
- f. Read the monthly and average annual irrigation water use in mm.
- g. Alter the depth or return interval in the OVERSEER® nutrient budget until the annual average irrigation depth reconciles with the IRRICALC annual average volume⁵ and is consistent with points d. and e. under the 'key sensibility checks' section of this document.
- h. In the 'property description' box in OVERSEER®, enter in that IRRICALC was used, and also the relevant irrigation type, soil PAW and GPS coordinates. This ensures consent planners and FEP auditors can easily check the IRRICALC calculation, as the relevant report will often not be included with the OVERSEER® file.

Notes:

1. An OVERSEER® user will need a basic understanding of irrigation systems and the maths associated with checking these calculations and conversions.
2. A Certified Nutrient Management Advisor (CNMA) is recommended to have either completed the work or reviewed it.

⁴ Do not use the Irricalc model version found at <http://mycatchment.info/> as this is outdated for Canterbury

⁵ One of the key assumptions of Irricalc modelling is that soil is free draining. Note irrigation requirements may be less than reported in Irricalc if the soils are poorly drained or the water table is close to the soil surface.

Selwyn River/Waikirikiriki Plan Working Group

Second meeting, 21 August 2018, 1-4 pm at Lincoln Events Centre

Attendees: Paul Hodgson (Convenor and Zone committee), Mike Glover (SWWIM), David Irvine, John Grigg, Warwick James (Farmers), Denise Ford (Waihora Ellesmere Trust), Brett Painter (Environment Canterbury), Katie Nimmo (Waterways Centre for Freshwater Management), Ilean Cranwell (Environment Canterbury Councillor and Zone Committee), Les Wanhalla (Zone Committee), Murray Lemon (SDC and Zone Committee), Miria Goodwin (Environment Canterbury Zone Facilitator)

Apologies: Ron Pellow (Zone Committee), Rachel Brown (Department of Conservation) Scott Pearson (Fish and Game), James Guild (Farmer)

Purpose of the working group:

[From TOR] The purpose of the “plan” is to pick up issues from the Selwyn Water seminars hosted in 2017 by the Zone Committee and to propose a roadmap to achieve a healthy Waikirikiriki/Selwyn River with healthy people.

2nd meeting aims:

- Getting to know each other
- Getting into stage 1 (technical focus)
 - Generating a collective understanding of the Selwyn Waikirikiriki catchment
 - Starting to identify what has already been done, what the issues are, and what information is available/required

Agenda:

1. Introductions
2. What are the issues/solutions?
3. What do you want the river to look like in 10, 20, 50 years' time?
4. What is already being done?
5. What information do we need?
6. Wrap-up and next steps

Meeting summary

A vision for the Selwyn/Waikirikiriri River

The second meeting of this group focused on getting to know each other, generating a collective understanding of the Selwyn Waikirikiriri catchment, and starting to identify what the issues are and what information is available and required. The meeting started with participants pairing up, listening to the vision of their partner, and then relaying that vision back to the group.

The vision for each member of the group had unique and personal aspects, but there were also many commonalities. These include:

- The importance of ki uta ki tai – from the mountains to the sea and taking a holistic approach to acknowledge that the whole catchment is connected
- Improving water quality in the river and therefore Te Waihora
- Addressing water quantity issues
- Enhancing ecological values

The facilitator will collate the information gathered to present important aspects of the vision at the next meeting.



Identifying issues



In three groups participants identified important issues that need to be acknowledged and/or addressed. Again, the issues identified by each group were very similar, especially between the (self-selected) groups of “farmers” and “rūnanga and environmental”. Eight clear categories of ‘issues’ emerged; Public perception and understanding; complex jurisdictions and responsibilities; declining/poor water quality; water quantity, data requirements, Te Waihora/Lake Ellesmere, Economic issues and issues within river beds. See Table 1 for the list of issues.

What information do we need?

The group has started to identify more specific information requirements. This list (Table 2) will be added to and collated and form the basis of Stage 1 of the Working Group's plan.

Table 1: Issues in the Selwyn/Waikirikiriri River and catchment August 2018

Public perception & understanding	Complex jurisdictions & responsibilities	Declining/poor water quality	Water Quantity
<ul style="list-style-type: none"> • Perceptions have changed from 20 years ago • Hindered by negative media headlines • Can be difficult for land-users • What are the good news stories 	<ul style="list-style-type: none"> • So many groups and agencies and plans make it difficult to understand. E.g. CWMS, LWRP, SDC, PC1, ECan, Co-Governance, LINZ, DOC, Farming Industry, Government, Ngāi Tahu 	<ul style="list-style-type: none"> • Nitrates in the future (50% increase) • Phosphates • E-coli – science to identify • Algal blooms • Lack water • Identify where the problem is • Stock in waterways • Impacts of CPW • Impact of near river recharge project 	<ul style="list-style-type: none"> • Too much extraction? • Changing land use • Loss of native forest in hills – changing to pine • On plains – dryland farmers changed to intensive irrigated dairy • Drained wetlands • Addressing the physical lack of water in the system
Te Waihora/Lake Ellesmere	Economic	Issues in river beds	Data issues
<ul style="list-style-type: none"> • Modified • Need to understand the science and human needs 	<ul style="list-style-type: none"> • There are economic benefits and costs • Tension between economics and the environment • Co-habiting as a civilisation – need to give and take 	<ul style="list-style-type: none"> • Stock in river beds and drains • Pests • River beds not clearly defined • Weeds – gorse, broom, willow • Rubbish dumping 	<ul style="list-style-type: none"> • Monitoring data not available/agreed on/understandable for all/is fragmented • A 'black box' around water quality – very little historic data and lack of baseline data • Research findings aren't always immediately implemented in a specific catchment and funding rounds and priorities don't always line up

			<ul style="list-style-type: none"> • Need agreement on information gaps, problems that need research, identifying researchers and funding • Researchers less inclined to do applied research that might be of more interest to communities • Specific questions e.g. why are there toxic algal blooms at Coes Ford and Whitecliffs? and are we doing enough at Silverstream and Snake Creek? Is what we are doing addressing the issues?
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Table 2: Working Group information requirements

Water Quality	
Nitrates in river and tributaries	<ul style="list-style-type: none"> • What's the current state? • What is still to come and when? • What are the likely effects and outcomes? • What is the effect of removing gorse and broom on nitrogen levels? • Do we have graphs for nitrate levels for the Selwyn River and the tributaries e.g. Snake Creek, Silverstream going back over time? • Have any studies been done with nitrogen data loggers in the Selwyn River Catchment? • What is the link between the nitrogen model (OVERSEER nutrient budget) and nitrate in the aquifer, tributaries and the river? • Do nitrate levels vary for the tributaries? Is there any difference in the nitrate levels in the river and wells that are monitored?
E-coli	<ul style="list-style-type: none"> • Is there science/data on sources of e-coli for rivers and tributaries in this catchment? Key contact includes ESR
Phosphorous	<ul style="list-style-type: none"> • Do levels vary for the tributaries?

General water quality	<ul style="list-style-type: none"> • Is there data on Silverstream? Key contacts are Dave Hewson and Jon Harding • Information on land-use and water quality interactions • What, if anything, has been the impact of irrigation practices on river quality? • What is the impact of riparian planting on water quality? • What is the impact of swamps/wetlands on water quality? • Do dissolved oxygen levels vary in the tributaries? • Is there any water quality data differences for a) Headwaters, b) Whitecliffs to Hororata, c) Hororata to SH1, and d) SH1 to lake
Water Quantity	
Rainfall impacts	<ul style="list-style-type: none"> • What studies have been done to show the impact of rain events on aquifer levels and wells? • What are the impacts on the river and its tributaries from rain events?
Historical flows	<ul style="list-style-type: none"> • What were the historical flows of the river in the 1950s and 1960s? How does that compare to the last 20 years?
Land use/ecological impacts	<ul style="list-style-type: none"> • What, if anything, has been the impact of irrigation on water quantity? • What is the impact of wetlands/swamps on water quality? • What is the impact of riparian planting on water quantity?
Biodiversity	
Fish	<ul style="list-style-type: none"> • Do eel numbers over the 1950s and 1960s mirror the trout decline? • What if any data exists around bully numbers and other native fish, invertebrates etc in different parts of the river? •
Indicators	<ul style="list-style-type: none"> • Are there any key indicators that can be used to indicate a healthy river? • What data is available for abundance e.g. eels, bullies, invertebrates, trout that can be used as indicators for a healthy river? • What is native plant and animal abundance within riverbed?

Riverbed	
General	<ul style="list-style-type: none"> • Are there studies in riverbed morphology? Has it changed over time? Is it monitored? • Is siltation of riverbed monitored? Has it changed over time?
Pests and weeds	<ul style="list-style-type: none"> • Is weed build up monitored? Has it changed over time? • Are pests monitored? Have they changed over time?

Solution ideas

The group agreed to start collating solution ideas as they come up, acknowledging it is important not to jump to solutions immediately. The one idea listed to date is: *Identify three key questions (or case studies) for researchers/scientists to investigate.*

Next steps

The next meeting will be at Lincoln Events Centre on 18 September 2018.

Meeting 3

- Reviewing the issues and visions
- Identifying good news stories and practical projects
- Expanding our understanding of the history of the Selwyn/Waikirikiriri River
- Determining what types of data are available and if the data can be used to describe what the river was like in the past, particularly the 1950's – 60's

Meeting 4 *What a healthy contemporary Waikirikiriri/Selwyn River might look like in terms of measures such as mahinga kai, cultural, nutrient concentrations, sediment, microbial contamination, people and ecological health.*

Meeting 5 *How does the historical compare with the current state and what do the working group think the Selwyn river should look like*

Actions:

1. If members are approached by the media, please refer them to Paul Hodgson.
2. Send Katie Nimmo suggestions for people in the catchment who would be good to be interviewed for oral histories – part of a student scholarship from the Waterways Centre for Freshwater Management
3. Please send Paul Hodgson and Miria Goodwin your ideas on:
 - a. What projects are already underway? Where are they and what is their aim?
 - b. Data/information requirements for the group
 - c. Feedback on the process at any time along with ideas for next steps

AGENDA ITEM NO: 6	SUBJECT MATTER: Zone Facilitator's Report
REPORT BY: Miria Goodwin, Environment Canterbury	DATE OF MEETING: 04 September 2018

Action required

1. Note the committee refresh process is underway. Applications for Zone Committee community members will be open and advertised from 10 September and close 7 October. Please encourage people to apply.
2. Note and discuss key items for future zone committee meetings including different meeting format/timing for November and December meetings
3. Note summary of meeting with Te Waihora Co Governors
4. Register for Peter Skelton's RMA series at Environment Canterbury if you're interested in attending.

1 Committee Refresh

Applications for Zone Committee community members will open on open 10 September and close 7 October. More information will be available on Environment Canterbury's website and we will send this information out to the Zone Committee.

This is part of the refresh process that enables some community members to be replaced or reappointed each year. The Selwyn Waihora community member whose term ends at the end of 2018 is Maree Goldring. She is able, should she wish, to put herself forward for a further term on the zone committee but would have to submit an application like anyone else. There is no limit on the number of consecutive terms a member may serve.

Recommendations on appointments of community members are made by representatives of the partners to the CWMS (Environment Canterbury, local Territorial Authority(s) and local rūnanga) with decisions made by respective councils in formal council meetings. The community members are appointed for three years from February 2019.

2 Key items for future zone committee meetings

- | | |
|-------------|--|
| 02 October | Workshop with Environment Canterbury's communications team: using social media
Discussing the Canterbury Water Management Strategy Fit for Future Project
Update on Near River Recharge Project |
| 06 November | Youth zone committee starting with welcome and lunch at 12pm and finishing with youth at 3pm. Proposed short zone committee meeting from 3pm to cover any business. Note this meeting starts at 12 pm instead of the usual 1 or 2 pm. Please let Therese Davel know of your availability. |
| 04 December | Proposed high-country/biodiversity-focused field-trip and end-of-year sharing of kai |

3 Summary of meeting with Te Waihora Co-Governors



The Selwyn-Waihora Zone Committee held their August meeting on Ngāti Moki marae in Taumutu, where they met with Te Waihora Co-Governors.

The Zone Committee and Co-Governors both took the opportunity to tell each other about the work they have been doing including practical work and strategy and review work that they have done or recommended. The Co-Governors shared in detail their vision and plan, what is important to them, and some of the background to the way they work. They noted the strong similarities between their vision and aspiration and that of the zone

committee. They agreed that the groups need to come together more regularly to avoid overlap or doubling up of effort.

Ngāti Moki marae provided an important location for the two groups to commit to better communication and engagement and working towards the many parts of their visions that are shared.



The sentiment that the two groups have not always understood each other was expressed by both groups, and it was agreed that sharing of information between the groups as well as more regular meetings will help.

Information sharing has already started. Attached is a summary of the Whakaora Te Waihora Annual Report 2017-18.

4 Councillor Peter Skelton's sessions on the RMA

RMA 101 Series

This series of six sessions is your opportunity to find out everything you need to know about the Resource Management Act.



If you have questions for Peter you can submit pre-prepared questions that he can address and answer during or after presentations (peter.skelton@ecan.govt.nz). You will also have the opportunity to ask questions during the sessions.

We are extremely fortunate that Councillor Professor Peter Skelton, CNZM, D.Nat.Res, LLB, FEIANZ has agreed to share his in depth knowledge and experience of the RMA.

The sessions are open to all staff and you can attend as many as you would like to. They will be available via Skype and will also be recorded (look out for the work notices on Puna Kōrero).

1	Introduction to RMA Pt 1. History of planning in New Zealand leading to the RMA Pt 2. Purpose and principles, duties and responsibilities.	Tuesday 4 September 3.00pm - 4.30pm Waimakariri Room, Tuam St
2	Policy and plans and conservation orders Including the National Policy Statement on Freshwater Management and private plan changes.	Wednesday 12 September 3.00pm - 4.30pm Waimakariri Room, Tuam St
3	Consenting Resource consenting, and reviewing of consents.	Tuesday 18 September 3.00pm - 4.30pm Waimakariri Room, Tuam St
4	Compliance and enforcement	Tuesday 25 September 3.00pm - 4.30pm Waimakariri Room, Tuam St
5	Urban Development Strategy for Greater Christchurch Links into the Regional Policy Statement and the Process of review including National Policy Statement on Urban Capacity.	Tuesday 2 October 3.00pm - 4.30pm Waimakariri Room, Tuam St
6	Waitaki Catchment water allocation regional plan Paper: Waitaki Allocation Plan. Plan Change 3 and processes adopted. Example of a plan change process followed by a resource consent process, to give effect to the plan change.	Tuesday 9 October 11.30am - 1.00pm Pukaki Room, Timaru

If you are interested in attending, please e-mail Sandy Bowman (Sandy.Bowman@ecan.govt.nz) with the specific session(s) you'd like to attend.

Whakaora Te Waihora

ANNUAL SUMMARY REPORT OF THE WHAKAORA TE WAIHORA PROGRAMME FOR 2017/2018

In the 2017/2018 the Whakaora Te Waihora programme successfully delivered its annual work plan within budget. This achievement is of significance as it was also the first year of the Whakaora Te Ahuriri project, where all deliverables were also achieved.

Key achievements were:

- For the Whakaora Te Ahuriri project: the funding deed was signed with the Ministry for the Environment; the design of the constructed wetland was completed (with rūnanga and community input, Photo 1); a Mātauranga Māori monitoring programme was developed (with rūnanga input); an applied research methodology was developed; and, a communications action plan was developed with a [media release on the project that featured drone footage of the site](#).
- A feasibility study, and design, for a sediment trap on Burke's Creek/Drain (that carries water into the Huritini/Halswell River on the northern boundary of Ahuriri Lagoon) was completed.
- Further maintenance of Te Repo Orariki (Taumutu Wetlands) was completed, and the management of the site was handed over to Te Taumutu Rūnanga (Photo 2).
- For willow and weed control: through a working partnership with the Department of Conservation, the programme funded \$94,000 of willow control on the lakeshore of Te Waihora (that added to a total of \$169,000 for willow control, with an additional \$75,000 from Environment Canterbury's Te Waihora Flagship funding); and, to accelerate willow control work, Environment Canterbury and the Department of Conservation have developed a Weed Strike Force that will operate initially for a three year commitment, where Whakaora Te Waihora has committed funding;
- In partnership with Te Taumutu Rūnanga, a riparian site along Waikekewai Stream, behind the Ngāti Moki Marae, was planted.
- Maintenance work of existing plantings was conducted at priority sites.
- There was further support for the Kids Discovery Plant-out delivered by Te Ara Kākāriki.



Photo 1: Design Hui overlooking Ahuriri Lagoon.



Photo 2: Planning Hui at Te Repo Orariki (Taumutu Wetlands)

Two lakes Healing

Hearing the stories of Lakes Wairewa and Waihora
A JOURNEY OF DISCOVERY BY BIKE.

A 68km journey from Little River to Taumutu with stops for observation, writing, drawing, photography and the telling of stories.

Potluck meal and stay overnight at Wairewa Marae. Bring your own breakfast goodies and lunch for Saturday. Saturday evening meal & overnight at Ngati Moki marae.

Friday 5th, 5:00pm–
Sunday 7th, 9.30am
October 2018

\$90/person



Register interest by September 16th, 2018
Bring your own bike & helmet.

Email: manager@wet.org.nz with your contact details so a registration pack can be sent. Limited spaces available.

