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Waitaki
DISTRICT COUNCIL
TE KAUNIHERA A ROHE O WAITAKI

To the members of the Upper Waitaki Zone Water Management Committee

MEMBERSHIP

Simon Cameron (Chair)
Barry Shepherd
Mathew Bayliss
Jay Graybill
Lisa Anderson
Russell Armstrong
Sandra Hampstead Tipene

Moeraki Representative (vacant)
John Sunckell
John Wilkie
Richard Subtil
Craig Dawson

Notice is given of the Meeting of the Upper Waitaki Water Zone Management Committee to be held on Friday 20 October, 2017, at 9.30am

VENUE: Mackenzie Country Inn, Twizel

BUSINESS: As per agenda attached

WAYNE BARNETT
CHIEF EXECUTIVE OFFICER, MACKENZIE DISTRICT COUNCIL

MICHAEL ROSS
CHIEF EXECUTIVE OFFICER, WAITAKI DISTRICT COUNCIL

Upper Waitaki Zone Committee Meeting

Friday 20 October 9:30am

Mackenzie Country Inn, Twizel

9:00am	Arrive / cup of tea	Lead
9:30	Standing Items Apologies, Minutes, Correspondence, Regional Committee update, Facilitators update	
9:45	Communication Reflections on media training - Lessons – tips, tools, techniques	Lisa Anderson Richard Subtil
10:15	Chairs/Deputy Chairs meeting Report back	Simon Cameron
10:30	Lake Snow – distribution/source - telling the story	Graeme Clarke Science Team ECan
11:00 – 11:20	Morning Tea	
11:20	What are we trying to achieve? - ZIP/ZIPA Community Outcomes <ul style="list-style-type: none"> • How are we doing? <ul style="list-style-type: none"> ○ Water quality ○ Lake TLI ○ L Middleton and catchment • What are we doing? <ul style="list-style-type: none"> ○ Access to information – integrated monitoring ○ Work programme 	Helen Shaw Graeme Clarke Science Team Ecan Chris Eccleston Zone Mgr ECan
12:15	Regional Committee update	Sandra Hampstead-Tipene
12:15	General Discussion	All
12:30	Close and Lunch	

Notes

- Lake Tekapo village - sewage upgrade (Bernie Haar, MDC, - Compliance report Nick Froude, ECan) coming to meeting on 17th Nov.
- Iwi management plan – eta?
Aquaculture Environment Plan – approved?
(ref numbers in limit setting process ref. Helen Shaw)
- Feedback regional cmtt on swimming sites – eta Oct

**ENVIRONMENT CANTERBURY
MACKENZIE AND WAITAKI DISTRICT COUNCILS**

**UNCONFIRMED MINUTES OF THE MEETING OF THE UPPER WAITAKI ZONE
WATERMANAGEMENT COMMITTEE,
HELD AT THE MACKENZIE COUNTRY INN,
TWIZEL, ON SEPTEMBER 22, 2017, AT 9.30 AM**

PRESENT:

Simon Cameron (Chair)
Lisa Anderson
Matthew Bayliss
Sandra Hampstead-Tipene
Barry Shepherd
Richard Subtil
John Sunckell
John Wilkie
Jay Graybill
Craig Dawson

IN ATTENDANCE:

Pat Shuker, Twizel Community Board
Rick Ramsay, Aquaculture Industry Group
Nic Newman, Zone Committee Facilitator
Arlene Goss, Committee Administrator
Tania Harris, Environment Canterbury
Chris Eccleston, Environment Canterbury
Lesley Woudberg, Environment Canterbury
Aaron Hakaart, Mackenzie District Council
Karina Morrow, Mackenzie District Council

WELCOME:

The chairman asked John Wilkie to open the meeting and he greeted those present.

APOLOGIES:

An apology was received from Cr Russell Armstrong, Mackenzie District Council.

MINUTES AND MATTERS ARISING:

Resolved: that the minutes of the meeting of the Upper Waitaki Zone Water Management Committee, held on June 23, 2017, be confirmed and adopted as a true record of the meeting.

Richard Subtil/Lisa Anderson

Resolved: that the minutes of the joint meeting of the Upper Waitaki Zone and Lower Waitaki Zone Water Management Committees, held on August 18, 2017, be confirmed and adopted as a true record of the meeting.

John Sunckell/Craig Dawson

Jay Graybill noted that Fish and Game are looking for guidance from Ecan regarding lake snow. Nic Newman offered to follow this up with communications staff.

CORRESPONDENCE:

Nic Newman has received correspondence from a group of white water rafters who use the Tekapo River, downstream of Tekapo. They are concerned about being downstream of the wastewater treatment plant and the pressure on this plant due to an increasing number of visitors to Tekapo. Aaron Hakaart from Mackenzie District Council said the council is planning to upgrade the wastewater system by the end of the year.

The committee requested that Mackenzie District Council Asset Manager Bernie Haar attend the next meeting to answer questions.

REGIONAL COMMITTEE UPDATE:

Lesley Woudberg, Environment Canterbury, said the regional committee's recent work has been reporting on targets in the Canterbury Water Management Strategy. This report went to the Mayoral forum. Moving forward, the regional committee will look at which targets to prioritise. A planned focus on 10 recreation sites in Canterbury will include Lake Ruataniwha in the Upper Waitaki Zone to raise awareness of where to find the latest water quality monitoring data.

The chairman mentioned problems with traffic at the boat ramp at Lake Ohau. Work is needed to improve this as it is a safety issue. This will be raised with Mackenzie District Council.

The committee were also concerned about new activity involving hovercraft on Lake Pukaki. The coast guard need somewhere to launch a boat if there is an accident on the lake. Karina Morrow, planning manager at MDC, updated the committee on the resource consent process required to operate on Lake Pukaki. John Wilkie expressed concern that tangata whenua were not informed or involved in the resource consent process to date. She responded that once an application for resource consent was received they would be consulted.

FACILITATOR UPDATE:

Nic Newman said applications had opened for new committee members as part of the committee refreshment process.

The Iwi Management Plan, discussed at previous meetings, would be available to the committee in a month or two.

AQUACULTURE ENVIRONMENT PLANS:

Rick Ramsay updated the committee on the Aquaculture Environment Plan template. The aim of the plan is to allow operators to farm smarter and minimise impact on the environment. Current research was outlined and Mr Ramsay answered questions from committee members on what improvements could be made by the aquaculture industry. The committee requested an update at the next meeting on whether the aquaculture environment plan template had been approved.

This led to a discussion on the lack of information going to the community on progress with the zone's TLI figures and water quality improvements. The committee requested an improvement in communicating environmental outcomes to the public. A timetable was requested outlining when information would be available and released. Chris Eccleston agreed to follow this up.

MACKENZIE DISTRICT PLAN REVIEW:

Karina Morrow and Aaron Hakaart from Mackenzie District Council spoke regarding the district plan review currently underway. The two priority areas for consultation are surface water activities and vegetation clearance in the rural zone. The committee members provided feedback on these two topics and their views were noted.

The committee adjourned for morning tea at 11.39am and reconvened at 12.04pm.

ZONE DELIVERY UPDATE:

Chris Eccleston reported to the committee on the prioritisation of the items in the zone implementation plans and getting measurable outcomes. Discussion was held on the best ways to communicate outcomes to both the committee and the community, and the timeframe to do this work. Concern was expressed that public reporting on the ZIP priorities, set in 2012, had not yet occurred.

Member Craig Dawson moved the following and it was supported by the committee:

Resolved: to recommend that Environment Canterbury report back to the next meeting with a brief information plan, including examples of information posted on key waterways, for implementation by November this year.

Craig Dawson/Sandra Hampsted-Tipene

Chris Eccelston listed his recent activities in the zone. These included meeting with Mackenzie District Council to discuss ways to make consent processes easier. He went through the consent monitoring information supplied in the agenda. Discussion was held on a noticed change in perceptions in the community regarding compliance and enforcement.

ENVIRONMENT CANTERBURY LONG TERM PLAN:

Nic Newman asked for feedback from the committee on fresh water management and how to get a step change in indigenous biodiversity. The committee provided their suggestions and they were noted.

THANKS:

The chairman thanked Nic Newman for his work with the committee and wished him the best for the future. Nic Newman responded with a short speech saying he will miss the people he has worked with in his role as committee facilitator.

NEXT MEETING:

The next meeting of the committee will be held on Friday, October 20, 2017, at the Mackenzie Country Inn, Twizel.

**THERE BEING NO FURTHER BUSINESS
THE CHAIRMAN DECLARED THE MEETING CLOSED AT 1:09PM**

CHAIRMAN: _____

DATE: _____

AGENDA ITEM NO:	SUBJECT MATTER: <i>Lindavia intermedia</i> – Lake Snow
REPORT BY: Graeme Clarke Team Leader Water Quality & Ecological Science	DATE OF MEETING: 20 October 2017

Purpose

To provide the latest research on the origins of “Lake Snow” and current advice on managing its spread

Staff Recommendation

That the Upper Waitaki Zone Committee

Receive the report on the origins of *Lindavia intermedia* (Lake Snow)

Notes the current advice to manage the spread of *Lindavia intermedia* (Lake Snow)

Report

Otago Regional Council commissioned Landcare Research to;

“...test whether *Lindavia intermedia*, the causative agent of Lake snow in New Zealand, is a recent invader in New Zealand Lakes”.

The Landcare report “*Lindavia intermedia*, the causative organism in New Zealand land snow: relationships between New Zealand, North America and European populations according to molecular and morphological data” can be found at <https://www.orc.govt.nz/managing-our-environment/biodiversity-and-pest-control/pest-control/lake-snow>

In summary the report found;

- Lake snow should be regarded as invasive
- Quite likely from North America
- Drivers: more complex than straight environmental change
- Another biosecurity lesson

The report does not tell us;

- Anything about mechanisms
- Exactly when it arrived
- How to fix it

In the Canterbury region, 10 lakes have been confirmed via microscope with the *Lindavia* algae (below), but only two lakes (Lakes Coleridge and Benmore) have had visible

observations of the Lake snow material. There are no large reticulated community water uses from Canterbury lakes, and so anticipated impacts will primarily be on recreational users such as fishers and boaties.

Order of sampling	Site	Region	Date sampled	Lindavia observed?	Relative abundance
	ECan lake surveys 2017				
1	Lake Camp	Canterbury	21-Feb-17	no	
2	Lake Roundabout	Canterbury	21-Feb-17	no	
3	Maori Lake East	Canterbury	21-Feb-17	no	
4	Lake Clearwater	Canterbury	22-Feb-17	no	
5	Lake Heron	Canterbury	22-Feb-17	Yes	occasional
6	Lake Denny	Canterbury	23-Feb-17	no	
7	Lake Emma	Canterbury	23-Feb-17	no	
8	Lake Emily	Canterbury	23-Feb-17	no	
9	Maori Lake West	Canterbury	23-Feb-17	no	
10	Spider Lakes	Canterbury	24-Feb-17	no	
11	Lake Donne	Canterbury	24-Feb-17	no	
12	Lake Ohau	Canterbury	26-Apr-17	no	
13	Lake Tekapo	Canterbury	27-Apr-17	Yes	abundant
14	Lake McGregor	Canterbury	27-Apr-17	Yes	common
15	Kellands Pond	Canterbury	28-Apr-17	Yes	rare
16	Lake Middleton	Canterbury	29-Apr-17	no	
17	Lake Alexandrina	Canterbury	29-Apr-17	Yes	common
18	Lake Ruataniwha	Canterbury	14-Jun-17	Yes	abundant
19	Lake Aviemore	Canterbury	not sampled	n/a	

20	Lake Waitaki	Canterbury	15-Jun-17	Yes	abundant
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Other records					
21	Lake Benmore	Canterbury	Apr-17	Yes	abundant
22	Lake Opuha	Canterbury	11-Feb-13	Yes	occasional
23	Lake Coleridge	Canterbury	2012	Yes	abundant

Best Currently Advice

- When moving between water bodies - Check, Clean and Dry gear
<http://www.mpi.govt.nz/travel-and-recreation/outdoor-activities/check-clean-dry/>

AGENDA ITEM NO:	SUBJECT MATTER: Water Quality Monitoring and Reporting
REPORT BY: Graeme Clarke, Helen Shaw and Chris Eccleston Environment Canterbury	DATE OF MEETING: October 20, 2017

Waitaki Lakes water quality update

Trophic Level Index (TLI) results

TLI is an index related to lake productivity. Of the 10 lakes monitored in the Upper Waitaki zone, only 2 changed trophic bands this year compared to last year (Table 1). These were Lake Alexandrina and Lake Pukaki, which both went up a trophic level and returned to a state seen frequently in previous years. Lake Alexandrina returned to a Mesotrophic state and Lake Pukaki returned to a Microtrophic state.

Lake Benmore has been relatively stable over the last few years, but a graph of lake productivity shows an obvious pattern over time at all sites (Figure 1). We have observed this pattern in a number of lakes across the region.

Table 1: TLI in the Waitaki Lakes

Location	2010	2011	2012	2013	2014	2015	2016	2017
Lake Middleton	n/s	n/s	3.52	3.60	n/s	n/s	n/s	3.39
Lake Alexandrina	3.09	2.93	3.00	2.96	3.15	3.14	2.90	3.33
Lake Tekapo	2.17	1.94	1.54	1.43	1.25	1.22	1.32	1.05
Lake Pukaki	2.00	2.01	1.59	1.32	0.99	1.84	1.00	1.46
Lake Ohau	2.08	1.96	1.46	2.07	0.87	1.12	1.42	1.38
Lake Benmore - Haldon	2.17	2.06	1.79	2.04	1.69	1.83	1.69	1.73
Lake Benmore- Ahuriri	2.55	3.03	2.50	2.80	2.06	2.56	2.11	2.31
Lake Benmore - Dam	2.23	1.97	1.97	1.71	1.61	1.75	1.72	1.77
Lake Aviemore	2.24	2.02	1.85	2.33	1.44	1.93	1.61	1.74
Kellands Pond shore	n/s	n/s	n/s	n/s	3.30	3.70	3.41	3.49

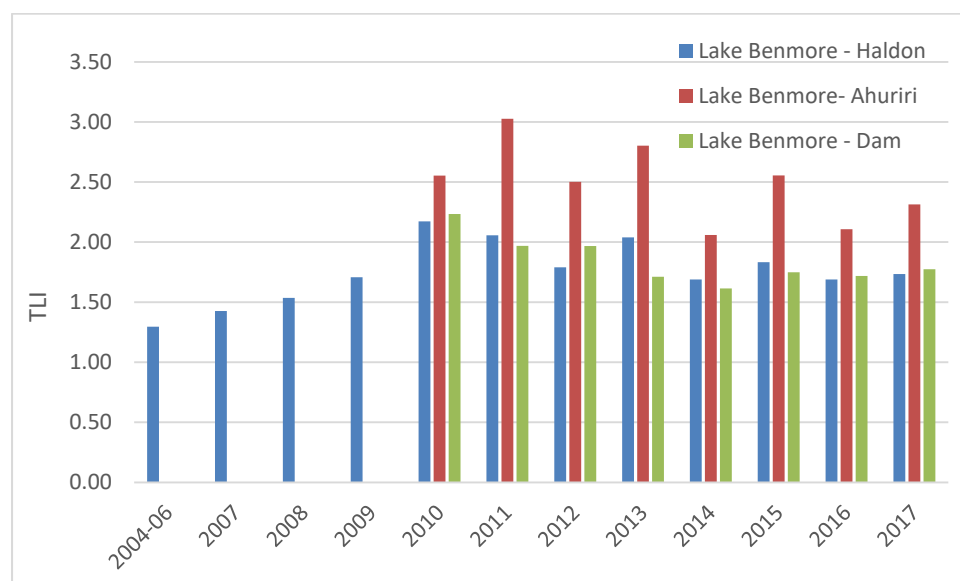


Figure 1: Lake Benmore TLI results

LakeSPI (submerged plant indicator) results

LakeSPI is an index of lake ecological condition. Lake SPI results for most lakes have been stable (Table 2), but Kellands Pond, Lake Ohau and Lake Tekapo have been improving. There are a number of potential drivers for the observed changes in macrophyte communities in these lakes, but the changes may be related to changes/increases in water clarity and climatic factors.

Table 2: 2016/17 LakeSPI results for Waitaki lakes

Lake	Score	Trend
Lake Alexandrina	High	Stable
Lake Aviemore	High	Stable
Kellands Pond	High	Improving
Lake McGregor	Moderate	Stable
Lake Middleton	High	Stable
Lake Ohau	Excellent	Improving
Lake Tekapo	Excellent	Improving

Contact Recreation

The two lakes in the zone that have previously been considered unsuitable for swimming (Loch Laird and Lake Alexandrina) have improved in grade, and are now considered suitable for swimming. The grade at Lake Ruataniwha has also improved, and now has a “Very good” grade (Table 3). Grades over time for lakes that have changed recently are shown below.

Table 3: 2017/18 Suitability for Recreation Grades for sites in the Upper Waitaki zone

Lake Tekapo Beach	Very good
Lake Alexandrina at bottom huts	Fair
Lake Ruataniwha at camping ground	Very good
Twizel River at picnic area	Good
Lake Middleton at north end of lake	Good
Lake Aviemore at Loch Laird	Fair
Lake Benmore at Sailors Cutting	Good
Lake Benmore at Pumpkin Bay	Good

Lake Alexandrina at bottom huts

Year	No. of samples	95%ile	MAC	SIC	SFRG
2012/13	-	-	-	Moderate	Insufficient Data
2013/14	-	-	-	Moderate	Insufficient Data
2014/15	45	1140.8	D	Moderate	Poor
2015/16	60	849	D	Moderate	Poor
2016/17	75	525.5	C	Moderate	Fair

Lake Ruataniwha at camping ground

Year	No. of samples	95%ile	MAC	SIC	SFRG
2012/13	75	129.8	B	Moderate	Good
2013/14	75	65.5	A	Moderate	Good
2014/15	75	59.8	A	Moderate	Good
2015/16	75	59.8	A	Moderate	Good
2016/17	75	60.3	A	Very low	Very good

Lake Aviemore at Loch Laird

Year	No. of samples	95%ile	MAC	SIC	SFRG
2012/13	75	820	D	Moderate	Poor
2013/14	75	797.5	D	Moderate	Poor
2014/15	75	1180	D	Moderate	Poor
2015/16	75	1112	D	Moderate	Poor

2016/17	75	502.3	C	Moderate	Fair
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Faecal Source tracking results

Lake Aviemore at Loch Laird

Conflicting results based on only one sample, indicating possible bird and historic human faecal sources.

Lake Alexandrina at bottom huts

Two samples processed but the analysis was inconclusive due to low contamination levels.

AGENDA ITEM NO:	SUBJECT MATTER: Regional Committee
REPORT BY: Sandra Hampstead-Tipene Lesley Woudberg	DATE OF MEETING: 20 October 2017

Purpose

To provide a summary report of the Regional Committee discussions 10 October 2017.

Staff Recommendation

That the Upper Waitaki Zone Committee

Receive the summary report of the Regional Committee.

Report

Managed Aquifer Recharge(MAR) and Targeted Stream Augmentation (TSA)

The meeting received a progress report on three pilot projects (one in the Hinds and two in the Selwyn catchment). The Hinds project has been running for 12 months, delivering clean water from a stock race to a leaky pond. There has been extensive monitoring before and after the trial began that is showing a noticeable impact both to the groundwater levels and quality downstream of the site. A full report can be found at <https://www.ecan.govt.nz/get-involved/news-and-events/zone-news/ashburton/managed-aquifer-recharge-pilot-achieves-two-out-of-three-goals/>

The two targeted stream augmentation projects in the Selwyn catchment are under way but will only operate in below average dry years. <https://www.ecan.govt.nz/get-involved/news-and-events/zone-news/selwyn-waihora/restoring-lowland-streams/>

CWMS Targets Report

The committee discussed what could be done within the next 2 years, given budget constraints of councils, to make better progress on Drinking Water and Recreational Water Quality Targets.

Drinking Water

- Identify communities – develop specific solutions
- Encourage new technologies eg. plantain, water efficiency, TSA, MAR
- Generate more revenue eg. targeted rates
- Ensure new consents are not in conflict with drinking water sources

Recreational Water Quality

- Timing is important – recreational releases eg. Ashburton and Tekapo Rivers
- Direct people to water quality monitoring data at popular recreational sites
- Identify source of contamination – if natural (eg. blackbill gulls) then ensure people know the reason for contamination and that no action is/will be taken or change monitoring site

Good Management Practice (GMP)

The committee discussed the progress being made by landowners (50ha+ of irrigated land) to adopt GMP. Environment Canterbury told the committee that if landowners hadn't made an effort to move toward GMP by November then it would progressively move into a compliance mode.

"Telling our Story"

The committee briefly discussed the challenges of getting "our story" out there in a world dominated by the "echo chamber" of social media (last 5 years print media down 38% social media up 250%). The committee agreed to discuss this item further next meeting.

Report from the Recreation/Amenity and Communication/Education Working Group

PURPOSE

To update the Regional Committee on the recent combined meeting of the Recreation and Amenity Working Group (RAWG) and Education and Communications Working Groups (EDWG).

BACKGROUND

1 Priority recreation or amenity restoration sites

The Working Groups reviewed the list of recreation or amenity restoration sites submitted by zone committees. There are common themes throughout the data that, if implemented, would enhance popular sites, e.g. providing toilet facilities, improving signage and access, weed control and plantings, and rubbish removal. Through the Regional Committee, RAWG will work closely with Environment Canterbury and zone committees to partner with local district or city councils to find ways to improve these priority sites. There may be opportunities to access central government's tourism fund.

2 River and Lake Swimming in the Canterbury Region

The report identified popular freshwater rivers and lakes for swimming throughout Canterbury. These swimming sites will be reviewed against ECan's current 'swimmability' monitoring programme.

3 'Can I Swim Here?'

Communications is piloting a project to build awareness of 10 swimmable recreation sites closest to Christchurch this summer by developing signage, an app and promotion through an advertising and social media campaign. ECan's weekly summer water quality monitoring of river and lake sites is posted on LAWA and ECan's website and could be linked to local district or city council websites. Connections are starting to be made with zone committees, district and city councils, communities and community groups.

RECOMMENDATIONS

That the Regional Committee note the combined report of RAWG and ECWG.

AGENDA ITEM NO:	SUBJECT MATTER: Update on Farming at Good Management Practice Campaigns
REPORT BY: Tami Woods, Regional Implementation	DATE OF MEETING: 20 October 2017

Purpose

For Information

Report

Farming at Good Management Practice Stage 1 Campaign

The Farming at Good Management Practice Stage 1 Campaign targeted farms who were likely to require consent under operative Land and Water Regional Plan and subsequent Plan Changes. The Campaign's customised zone direct mail pack went to 1000 farms with more than 50 hectares of irrigation across Waimakariri, Christchurch-West Melton, Selwyn-Waihora, Ashburton and Orari Temuka Opihi and Pareora Zones.

The direct mail packs were also supported by tools, processes, information sharing (e.g. drop in sessions run by zone teams and rural professional networking events) and a region-wide rural and urban advertising campaign.

See www.canterburywater.farm and www.canterburywater.org for more information.

Progress

In July follow up phone calls were made by Environment Canterbury to target farms. The purpose of the phone calls was to confirm how farms were progressing with establishing whether they needed a consent and if so preparing a farm environment plan, nitrogen budgets and completing applications. Contact was made with 56% of the target farms.

Of the farms contacted more than 80% had taken the action needed, whether it was determining they were permitted, applying for consent, completing a Farm Environment Plan and preparing a nitrogen baseline – or joining a waitlist.

Almost 70% of farms contacted, who required consent, identified they were on a waitlist for a nitrogen budget to be prepared.

From this data a follow up list was created for each Zone Team. The list included, those not able to be contacted and those who were not considered on track (excluding farms that are permitted, on a waitlist, who have lodged a consent, or who were about to apply). Notably the most significant follow up list was in Ashburton.

Zone Teams are now contacting those on their follow up list. Zones with a higher number of follow-up have given priority to those who have been contacted and needed follow up support.

Next steps

Further letter and targeted communication was sent on 29 September to farms in Ashburton, Selwyn-Waihora and Orari Temuka Opihi and Pareora zones who were unable to be contacted. Landowners have been given until late October to respond. Staff are also working with Fonterra who will contact their farmers that receive letters.

In November further analysis will be undertaken to identify farms still 'not on track', or who have not provided information to Environment Canterbury about their progress. Final warning letters will be sent late November (after show weekend), before compliance visits occur over the summer period. Targeted abatement notices will follow if no response occurs to the warning letter.

Farming at Good Management Practice South Coastal Canterbury Streams Campaign

The South Coastal Canterbury Streams (SCCS) area was not included in the Stage 1 Regional Campaign due to the uncertainty around changes to the nutrient management rules through the appeals process for Plan Change 3 (PC3).

On the 1 September 2017, PC3 was notified as operative.

Earlier this year, there was a study undertaken in the SCCS area researching how engaged farmers are with getting a land use consent to farm. One of the main points highlighted in this research was that farmers are still uncertain about what is required of them and how these new regulations will impact on their business. The need for a further Campaign for SCCS was therefore identified.

The SCCS Campaign essentially follows the same campaign format as the Farming at GMP Stage 1 Regional Campaign.

A direct mail package will be received by farms from 24 October and will be followed by specific community drop in sessions.

The direct mail package will be sent to all farms in the SCCS area outside of Irrigation Schemes. This is based on the Zones desire to communicate requirements to all farmers. Compliance follow up will however continue to prioritise farms with over 50ha of irrigation.

Upper Waitaki Zone Committee
20 October 2017

The deadline for land use consents is 1 March 2018, which is 6 months after PC3 became operative.

This Campaign like the Regional Stage 1 Campaign will also include an end to end process of follow up phone calls, zone team follow up and then further action utilising escalating compliance tools and reports on progress.