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Waitaki
DISTRICT COUNCIL
TE KAUNIHERA Ā ROHE O WAITAKI

To the members of the Upper Waitaki Zone Water Management Committee

MEMBERSHIP

Barry Shepherd
Mathew Bayliss
Jay Graybill
Lisa Anderson
Simon Cameron (Chair)
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 23 June, 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 June 23rd 9:00am Mackenzie Country Inn, Twizel	
9:00	Arrive / Cup of tea	
9:30	Standing Items: Apologies, Minutes, Correspondence, Regional Committee update, action plan update	
9:45	Implementation update	Chris Eccleston
10.00	Lake Snow (Cyclotella bodanica)– Update	Graeme Clarke
10:10	Biodiversity –Presentation from the Waitaki District Councils Biodiversity Officer	Max Crowe
10:30	Communications update	Lisa /Mel
10.35	Paper – Decision required Priority Recreation and Amenity sites	Mel
11:00 Morning tea		
11.20	Strategic discussion: Briefing on Plan Change 5 decision	Craig Davison
12.00	General Business General Public	

Zone Committee – Task list

Topic	Action	Person	Due Date
Zone Communications	Prepare draft comms plan		
CWMS education in local schools	Education programme Omarama School	Mel/Debbie	In progress
	Letter to Dave Ellis acknowledging work on field day		Done
Committee membership	Sound out potential co-optees with biodiversity knowledge		
Iwi Management Plan	Once the IMP has been finalised, present to the ZC		
Braided river field trip	Letter of thanks to Cody Thyne.	Mel	Completed
LINZ Representative invited to June Zone committee meeting	Mel to extend an invite to Marcus Girvan to update committee on Lagrosiphon work Waitaki Lakes	Mel	Completed – attend next zone committee meeting
Letter sent to Brent and Dennis re CSIWG		Mel	Completed

**ENVIRONMENT CANTERBURY
MACKENZIE AND WAITAKI DISTRICT COUNCILS**

**MINUTES OF THE MEETING OF THE UPPER WAITAKI ZONE WATER
MANAGEMENT COMMITTEE, HELD AT THE MACKENZIE COUNTRY INN,
TWIZEL, ON MAY 19, 2017 AT 9.30 AM**

PRESENT:

Simon Cameron (Chair)
Sandra Hampstead-Tipene
John Wilkie
Jay Graybill
John Sunckell
Mathew Bayliss
Craig Dawson
Barry Shepherd

IN ATTENDANCE:

Mel Schauer, Zone Committee Facilitator
Keri-Ann Andrews, Committee Administrator, Mackenzie District Council
Catherine Johnson, Executive Assistant, Mackenzie District Council (Minute Secretary)
Michael Hide, ECan
Chris Eccleston, ECan
John Benn, Department of Conservation
Rick Ramsay, Aquaculture Group
Kate Doran, ECan
Rob Carson-Iles, ECan
Peter Ramsden, ECan
Nathan Hole, Planning and Regulation Manager, Mackenzie District Council

WELCOME:

The Chair welcomed everyone to the meeting. Peter Ramsden opened the meeting with a karakia.

APOLOGIES:

Resolved: that an apology be received from Russell Armstrong, Lisa Anderson and Richard Subtill.

Simon Cameron/Jay Graybill

MINUTES AND MATTERS ARISING:

Resolved: that the minutes of the meeting held on 24 March 2017, be confirmed and adopted.

Barry Shepherd/Sandra Hampstead/Tipene

CORRESPONDENCE:

David Bedford reported ECan were seeking the Zone Implementation Programme Plan.

Barry Shepherd received information on a meeting from the Waitaki Lakeshore Committee. Craig Dawson said he would be happy to be the Waitaki District Council representative as well as the Upper Waitaki Zone Committee representative at this meeting.

REGIONAL COMMITTEE UPDATE:

No meeting had been held since the last Zone Committee meeting.

ACTION PLAN UPDATE:

The Committee will receive an update from Ian Lyttle at the next Zone Committee meeting in June.

Lake Middleton

Draft Lake Middleton Catchment Report – John Benn of DOC distributed this to Committee members for their consideration, he then provided a verbal update.

Barry Shepherd – Was interested to know if the Zone Committee had requested water testing in Firewood Creek as a farmer enquired after finding an ECan worker taking water samples. ECan would report back to the committee at the next Zone meeting.

ZONE TEAM IMPLEMENTATION UPDATE: INTRODUCTION OF NEW ZONE MANAGER CHRIS ECCELSTON:

Mr Hide introduced Mr Eccelston to Committee members. Mr Eccelston will be the new Zone Manager for both the Lower and Upper Waitaki Zones.

Mr Eccelston introduced himself. He stated he had come from the South Canterbury District Health Board, with a background in quality management and expressed his interest in building relationships across the region.

ZONE TEAM IMPLEMENTATION UPDATE: Central South Island Water Group - VERBAL REPORT:

Zone Facilitator was requested to circulate papers.

Mr Hide advised that the Central South Island Water Group first came to the Zone Committee about four years ago.

Mr Hide said the cost of project would be large, of taking water from Lake Tekapo and piping it into the OTOP zone would be very expensive for the Central South Island Water Group and it would be a very high bar for consent to proceed, with all three Zone Committee's being involved.

Mackenzie District Council's Plan Change 13 would not have any impact on it as the utilisation of the water would be happening in the OTOP Zone. There would be a number of stakeholders needed to be consulted with.

Rick Ramsay said the Group would need history of Opuha Dam passed onto them to see what was actually involved.

DOC has formally opposed this proposal for 30 years.

The following clearly laid out position of the Zone Committee would be sent to Ecan. This would be communicated to Brett and Denis, and to the infrastructure working group of the Regional committee and the Runanga administration (3 Runanga as well as Ngai Tahu) and to Ecan.

The Zone Committee confirms its previous decision to oppose the transfer of water coming out of Lake Tekapo to out of zone. It is inconsistent with CWMS targets of the Zone Committee. The Zone Committee support the Runanga in their stance.

Mat Bayliss/ Jay Graybill

John Wilkie stated that even if the Group is able to be economically viable, and consultation is done at early stage, Iwi would not allow it to happen.

PLANNING MATTERS: PAPER ON PLAN CHANGE 5 (PC5):

Mel Schauer spoke to the report on page 11 of the agenda. She provided a summary and update regarding Plan Change 5 (PC5) to the Land and Water Regional Plan (LWRP) and noted a full briefing on PC5 provision will be provided at the next Zone Committee meeting on 23 June 2017.

Ms Schauer would check when the next UWZC is – 16 or 23 June and the location of this meeting and advise members. She highlighted an ECan meeting would be held on 15 June about PC5 so an update could be given at next Zone Committee meeting on either 16 or 23 June, a more thorough briefing could be given on 23 June to the Zone Committee.

Ms Schauer is to re-send meeting schedule to committee members.

BIODIVERSITY: BRAIDED RIVERS FIELD TRIP – UPDATE TO NON ATTENDEES:

The Chair provided an update to non-attendees of the recent braided rivers field trip by members of the Committee. He added spotting blackstilts had been a great experience and a very worthwhile day was had by all.

Ms Schauer to send a letter of thank you to Cody and DOC.

BIODIVERSITY: PAPER DECISION REQUIRED IMMEDIATE STEPS PROJECT PROPOSAL:

Mr Carson – Iles spoke to his report regarding Otematata Wetlands Project Stage 2 to protect and enhance the wetland by removal of willows and riparian planting to increase the diversity of species. He noted part one was funded last year. He added the Ratepayers Association had erected the fence and planted out the cleared area in spring the area was now ready to remove the willows in the remaining area and undertake planting.

Mr Carson – Iles confirmed the total requested funding was \$13,345 with the total project costing \$25,200.

Jay Graybill sought clarification on who owns the land.

Rob to report back to the committee regarding land ownership.

Barry Shepherd asked if the Zone Committee could be mentioned on a sign to say that they helped fund the project. Mr Carson-Iles said yes it could be done.

Resolved: that the Upper Waitaki Zone Water Management Committee approve the Otematata Wetlands Stage 2 project.

Craig Dawson/Barry Shepherd

Mr Carson-Iles updated the Committee regarding works carried out on predator control and cotoneaster control. He said the weed was tricky to find and hard to kill and required three sprayings to kill it (2 years apart).

Mr Carson Iles reported barriers had been erected around two locations surrounding rivers by Environment Canterbury to protect native fish species. Mr Graybill advised that Fish & Game very supportive of this project.

COMMUNICATIONS: EDUCATION PROGRAMME – VERBAL UPDATE:

Mrs Anderson and Mr Subtil were unable to attend the Zone Committee and will provide an update on this at the next meeting in June.

COMMUNICATIONS MEETING:

At the invitation of the Chair Committee member Ms Schauer provided a verbal update regarding education programme.

Kate Doran is the Communications person for the Zone Committee and based at Environment Canterbury in Timaru. Ms Doran would promote information and works from the Zone Committees in the southern areas. She invited the Committee to provide feedback regarding any issues that the Committee wished to advise the public about or promote. She will be working with the media, social media, videos and signage.

Craig Dawson offered to provide informational links regarding the Otematata wetlands project, adding this project would be a great project to highlight.

Kate Doran is to work on the following: Education in schools, Improving our communications, need to get more people in our photos rather than just landscape views, need to talk to farmers, Youth engagement work – need a passionate person in a school who is able to run it, report on the Braided river trip and information kiosks.

Mr Carson - Iles, Mrs Anderson and the Zone Facilitator would speak at the next Zone Committee meeting regarding a pond project.

The Committee adjourned for morning tea at 11:00am and reconvened at 11:25am.

STRATEGIC DISCUSSION: UPDATE FROM MACKENZIE DISTRICT COUNCIL:

The Chair welcomed Nathan Hole to the meeting. Mr Hole is the Planning and Regulations Manager at Mackenzie District Council. Mr Hole updated the Committee on the current District Plan review and Plan Change 13.

Refer to appendix A.

Mr Hide stated that Ecan had investigated nutrient allocation work, comparing aerial photos taken from 2010-2015 to identify any change in land use. He noted only one property identified which raised concerns. He added Council use GIS technology and local knowledge to identify which Farms were undertaking development. Mr Hole confirmed one Farmer had an abatement notice issued due to development and irrigation. He added land development may not trigger ECan regulations, but may be breaching Mackenzie District Council District Plan rules.

Mr Sunckell talked about cost to farmers to obtain consent that they had been directed to obtain, in order to fence waterways (again at farmers cost).

Mr Hole outlined the nature of the two recently lodged appeals by The Wolds Station Ltd and Fed Farmers Mackenzie Branch. He said some points of appeals had merit and required clarification regarding the court decision.

Mr Hide asked if a global consent would have merit with regard to fencing. Mr Hole said it would need some consideration. It's about managing indigenous plants.

Mr Hole added currently only 5% of the Mackenzie Basin is irrigated.

District Plan Review

Mackenzie District Council resolved to split off the rural chapter ahead of the rest of District Plan, and will notify this separately.

Smart Watering

Mr Hole reported Smart Watering was an Irrigation NZ initiative in which Mackenzie District Council signed up to promote. He added two wet summers had not created an issue due to the lesser need to irrigate. He noted Mackenzie District Council were just the middle man in the project, if people were interested in the project the Council directs people to Irrigation New Zealand.

REPORT CWMS:

CWMS Target: Recreation and Amenity Opportunities River and Lake Swimming in the Canterbury Region

Ms Schauer to check to what is the issue at Loch Laird in terms of Summary of our Summer report, as it received an “Acceptable – Alert”. This was the only issue for this Zone Committee.

An Ecan scientist had addressed the Committee in the past in which Mr Bayliss said there will be a record of this. Boating and recreation use stirs up sediment at Loch Laird and can affect water quality, need to ask for faecal tracking so that we can determine if bovine, sheep or human or some other contamination.

Rick Ramsay reported Loch Laird was similar to Lake Middleton and Ohau C, in that there is no recharge of fresh water. In effect just a stagnant pond, unless you get a change in water level the water will not recharge. Stock is grazed around shores of Loch Laird to manage the fire risk.

PAPER FROM THE REGIONAL COMMITTEE:

Ms Schauer reported prioritization of recreation and amenity sites across the Upper Waitaki, sites requiring action. She handed out Appendix 2 “River and Lake Swimming in the Canterbury Region: Application of the river values assessment system (RiVAS)” and noted a decision was required. She invited members to provide feedback regarding any information or on an item that appears to be missing.

2nd paper/table – Ms Schauer to send electronic copy of Appendix 2 to all committee members so that they can populate more entries onto this, for their own prized sites.

Suggestions of the dark blue colour be changed to a lighter colour due to it being hard to read.

Ms Schauer asked what sites do members feel need action?

Omarama Stream missing.

Do we focus on areas which are under increased pressure, or suffering due to neglect, and do we focus on areas that have undergone tenure review?

Nic Newman advised that the Lower Waitaki Zone Committee are focusing on the Waihao River because people cannot swim in there anymore. Will require a full day workshop to identify locations.

Issues with fisherman and no toilet facilities for them.

Mr Graybill said it would be difficult to narrow down to five priorities. He felt that angler access, habitat and nutrient loss are important matters rather than narrowing down to individual sites.

Ahuriri Bridge is under a lot of pressure with no facilities and high visitors, Lake Pukaki at the bottom end is also under pressure. Lake Poaka is now busy and also Lake Ohau – all are on Campermate App.

General committee discussion

1. Sites for remedial action (lost values) – Ahuriri River (access, freedom camping & rubbish, disrespect of site, toileting) & Tekapo River in terms of didymo, lost flow, invasive species. Lake Pukaki, Haldon campsite and Loch Laird.
2. Lake Poaka & Kellands Ponds – loss of angler access. Not costly or labour intensive projects.

Mr Bayliss believes we should be looking at where the greater number of people congregate for recreation. Approximately 1000 boats on Lake Benmore on New Year's Day. Lake Benmore has 116km of shoreline, easily 20 sites of high recreational value, the two go hand in hand and E.coli risk.

Outstanding cultural or natural significance that the community value.

Mr Newman suggested that the committee could look at areas sites that did not have an existing work stream in place. For example there is already a work stream around Loch Laird and Lake Middleton, a work stream is missing for the provision of facilities and has been a topic of concern for the committee.

Ahuriri Delta on true right bank of Lake Benmore – fishing, boating and kayaking access with no toileting facilities.

John Benn from DOC reported that DOC are well on the way for a new toilet block at Lake Poaka and the Ahuriri Bridge. LINZ has a plan for toilets at Peters Lookout. DOC & LINZ have had comprehensive talks with each other about this.

Who is talking with who from different organisations asked Mr Sunckell?

Will have June meeting, Jay requested if the facilitators and staff could arrange to have information on a discussion around the list prepared today. Staff to prepare thoughts and prioritisations.

GENERAL BUSINESS:

Mr John Benn of Department of Conservation – Provided the Committee with a brochure "Planting Natives at Twizel and Lake Ohau" that has been produced which provides suggested andscape plantings ideal for the climate in Twizel and Lake Ohau. This pamphlet is to be given to real estate agents to pass onto new property owners.

Mr Bayliss of Meridian Energy advised that a lagarosiphon algae invasion has been discovered in Lake Aviemore. This could potentially end up looking like Lake Dunstan. The Committee should ask for a Crown and LINZ representative to attend this Zone Committee meeting to advise about this invasion, the options, the impacts on the lake and recreational effects. Mr Bayliss advised that debate around whether ongoing control is futile or not. Ms Schauer is to invite them.

Marcus Irvine might be the right person to ask.

Boffa Miskell have completed a report on the Lake Aviemore invasion and had circulated it to Ecan and territorial authorities. It does not provide background on other outbreaks of this.

Peter Ramsden closed the meeting with a karakia.

NEXT MEETING:

Ms Schauer is to clarify when the next meeting is and will advise— whether it is Friday 16 June or Friday 23 June 2017.

THERE BEING NO FURTHER BUSINESS
THE CHAIRMAN DECLARED THE MEETING CLOSED AT 1:15PM
CHAIRMAN: _____
DATE: _____

Memo

Date	14/6/2107
To	Upper Waitaki Zone Committee
cc	Melanie Schauer
From	Graeme Clarke, Water Quality & Ecology Science Team Leader ,

Subject: Lake snow and the algae *Lindavia*.

What is lake snow?

Lake snow (also referred to as 'lake snot') is the clumping together of microscopic bacteria, algae, sediment and detritus within a stringy mucus-like polysaccharide material which is excreted by a large centric diatom species in the phytoplankton.

The diatom responsible for the production of the polysaccharide and 'lake snow' is *Lindavia intermedia*. *Lindavia* is a non-toxic species and has no known human health risk.

Lindavia and lake snow can in many respects be considered the 'lake' equivalent to *Didymo* and 'rock snot' in rivers.

Where is *Lindavia*/lake snow found?

There is growing evidence that *Lindavia* is likely to be a non-native species of algae recently introduced to New Zealand. Reports of lake snow by fishermen date back to 2004 and analysis of lake bed sediment cores from Lake Wanaka also show the first occurrence of *Lindavia* around 2004.

Currently, *Lindavia*/lake snow is found in Lake Wanaka (~2004), Lake Wakatipu (2016), and Lake Hawea (2016). It has also been found in Lake Coleridge (2012). Earlier this year Lake Heron was added to our only existing Canterbury record at Lake Coleridge. In examining slides from 2013 it was confirmed that it was present immediately below (and therefore within) Lake Opuha. Now NIWA has also confirmed positive presence of *Lindavia*/Lake snow in Lakes Tekapo, Benmore, McGregor, Alexandrina, and Kellands Pond from the current year's LakeSPI sampling. They are still to analyse samples from Lakes Aviemore and Waitaki, but we have every reason to expect those to be positive too.

There have been reports worldwide of increases in the presence of these centric diatom species and their 'lake snow', but only in deep clear lakes. These algae are quite heavy and sink in the water column, concentrating at mid lake depths often at more than 60m depth (the metalimnion). However, the lake snow they produce may be more buoyant and float to the water surface.

Possible environmental factors leading to of lake snow problems in NZ

- Introduction of the species to NZ and to new lakes.
- Climate change.
- Grazing pressures by the North American water flea (*Daphnia pulex*) that arrived in NZ in 2005. This water flea may remove competing algae more effectively, giving *Lindavia* a competitive advantage.
- Increased nutrient loading to lakes from land use changes and intensification.

What are the effects of lake snow?

Problems resulting from lake snow include:

- Accumulating on fishing lines and fouling of fishing gear.
- Blocking of boat water intake filters.
- Blocking of filters on household domestic devices and filters attached to reticulated water supply drawn from lake.
- Undesirable conspicuous accumulations of the material at the water surface.

Lake snow currently has significant impacts on the southern lakes (e.g. Lake Wakatipu/Lake Wanaka) as local communities have domestic water supply takes from these lakes. Significant investment in infrastructure is required to prevent algal material being entrained and reticulated through domestic water supply.

In the Canterbury region impacts will primarily be on recreational users such as fishermen and boaties.

Reports so far suggest that large, clear lakes are at the greatest risk of lake snow incursion. The lakes of greatest risk in Canterbury are therefore the large deep lakes (Sumner, Coleridge and the large Waitaki Hydro lakes).

We are continuing to support researchers that are still trying to answer specific questions such as:

- Is it in fact a recent exotic invasive species?
- Where has it primarily originated from?
- Refining sampling and identification methods.

Rare 'lake snot' mysteriously spreading through South Island lakes

CHARLIE MITCHELL
Last updated 19:21, June 7 2016



SUPPLIED
"Lake snot" attached to a water filter in Wanaka. The substance has now been found in three South Island lakes.

Fears lake snow could make Lake Wakatipu 'unfishable'

JO MCKENZIE-MCLEAN
Last updated 12:14, September 1 2016



Richard Cosgrove
Central Otago fishing Guide Stu Dever throws out 60 metres of fishing line a day because of Lake-snow algae contamination.

Articles recently reported on stuff.co.nz

AGENDA ITEM NO:	SUBJECT MATTER: CWMS Target: Recreation and Amenity Opportunities Priority recreation and amenity restoration sites for the Upper Waitaki
REPORT BY: Mel Schauer and Nic Newman	DATE OF MEETING: 23rd June 2017

Purpose

- To discuss and decide on 5 Upper Waitaki Recreation and Amenity sites that require action
- To forward the list to the Recreation and Amenity working group of the Regional Committee

Background

At the May UWZC meeting the committee discussed selecting 5 recreation and amenity sites in the Upper Waitaki that require restoration action to maintain or improve existing values. Priority recreation or amenity restoration sites include those sites that the local community sees as having outstanding cultural or natural importance that need to be protected or enhanced for future generations.

The zone committee discussed:

- Focusing on areas without an existing work programme
- Focusing on areas with the greatest congregation of recreational users
- Geographic spread of sites across the zone
- The difficulty in choosing 5 sites when the Waitaki has a large number of significant sites

When considering priority recreation and amenity sites there are two levels:

1. Sites that have been prioritised by the zone committee in terms of requiring action, these sites have an existing work programme. These sites include:
 - ✓ Willowburn stream (water quality, vegetation management)
 - ✓ Maryburn and Irishman streams (water quality, vegetation management)
 - ✓ Omarama Stream (water quality, tuna habitat enhancement)
 - ✓ Kellands Ponds (water quality and exotic tree removal)
 - ✓ Loch Laird (water quality monitoring)
 - ✓ Lake Middleton (water quality, access)
2. Sites that the zone committee have identified as requiring action/improved management, refer to the table below.

The following table provides a summary of the sites the zone committee has discussed as well as key actions to better protect existing values or enhance the values at each site.

The sites are identified as priority sites for new/upgraded facilities, requiring some form of management (dealing with rubbish, development of signage, management of freedom camping) at these sites.

Recreation/Amenity Site name and location	Importance to community /Values	Outcomes sought	Proposed actions required to achieve outcomes	Owner/agency responsible
Lake Pukaki Headland	Cultural significance – views of Aoraki /Mt Cook Walkway A20 Cycleway Camping	<ul style="list-style-type: none"> • Upgrade and/ or improved toilet facilities • Upgrade and improve signage • Management and monitoring of freedom campers 	Additional toilet facilities and associated visitor facilities Development of an agreed management plan	LINZ
Ahuriri River Bridge	Fishing and river access Freedom Camping Cycleway Nohoanga Site close by	<ul style="list-style-type: none"> • Improved visitor facilities • Improved signage • Improved management and monitoring of freedom campers 	Additional toilet/visitor facilities Management of freedom campers Agreed management plan	DOC
Haldon Arm Camp	Fishing access, camping, swimming boating	<ul style="list-style-type: none"> • Improved visitor facilities • Improved signage • Management and monitoring of freedom campers 	Additional visitor facilities Agreed management plan	LINZ
Lake Benmore Shoreline Note: <i>The Lake will need to be broken down into identifiable recreation and amenity areas.</i>	Boating, wildlife observation, Swimming, fishing access, walking	<ul style="list-style-type: none"> • Improved visitor facilities (e.g. toilets) • Improved signage • Management and monitoring of freedom campers • Improved access points • Vegetation control at specific sites 	Additional and improved visitor facilities	LINZ
Sawdon stream	Camping	<ul style="list-style-type: none"> • Improved visitor facilities 	Agreed management plan	NZTA
Longslip Creek	Camping, Fishing Access	<ul style="list-style-type: none"> • Improved visitor facilities 	Agreed management plan	NZTA
Lake Poaka	Swimming, fishing kayaking, walking, bird watching, camping	<ul style="list-style-type: none"> • Improved visitor facilities • Vegetation management to improve access for fishers 	Agreed management plan	DOC

Recommendation

That the zone committee forwards the above list of 7 sites to the RAWG, and requests that the zone committee is kept informed as to how the information will be used and how action at these sites could be supported.

Additional to the zone committee forwarding the 7 priority sites to the RAWG, that the committee add an item to their monthly (or bi-monthly) agenda “Recreation and Amenity action sites”. The committee could receive regular updates on progress from relevant agencies.