



Waitaki
DISTRICT COUNCIL
TE KAUNIHERA Ā ROHE O WAITAKI



Everything is connected
Promoting quality of life through
balanced resource management.



**Notice is given of a Upper Waitaki Zone Water Management Committee Meeting
to be held on:**

Date: Friday, 16 October 2020

Time: 9.30am

**Location: Tekapo Community Hall
Lake Tekapo**

AGENDA

Upper Waitaki Zone Water Management Committee Meeting

16 October 2020

Upper Waitaki Zone Water Management Committee Membership:

Simon Cameron (Chair)
Lisa Anderson
Matthew Bayliss
Richard Subtil
John Sunckell
John Wilkie
Joy Paterson
Kieran Whyte
Ross McRobie
Stuart Barwood
Michael McMillan

The purpose of local government:

(1) The purpose of local government is—

- (a) to enable democratic local decision-making and action by, and on behalf of, communities; and
- (b) to meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses.

(2) In this Act, good-quality, in relation to local infrastructure, local public services, and performance of regulatory functions, means infrastructure, services, and performance that are—

- (a) efficient; and
- (b) effective; and
- (c) appropriate to present and anticipated future circumstances.

(Local Government Act 2002)

Order Of Business

1	Reports	6
5.1	Minutes of Upper Waitaki Zone Water Management Committee Meeting - 18 September 2020	6
5.2	Interests Register.....	12
5.3	State of Water Quality in Upper Waitaki Zone	14
5.4	Mahinga Kai-Takapō area	22
5.5	Ahuriri Catchment	26
5.6	Zone Facilitator's Report	33

Upper Waitaki Zone Committee Meeting Friday 16 October 2020 9.30am Community Hall, Tekapo			
9.00am	Item	Arrive	Lead
9.30am		Standing Items Apologies, Minutes, Correspondence, Conflicts of Interest, Matters arising	
9.40am	1	Water quality in lakes and rivers in Tekapo area and elsewhere in the zone	Graeme Clarke, Environment Canterbury
10.30am	2	Mahinga Kai - Takapō area	Keiran Whyte and Michael McMillan
11.15am- 11.30am		Morning tea	
11.30am	3	Ahuriri Catchment Report	Tami Woods, Environment Canterbury
12.10m	4	Zone Facilitator's Report	Ian Whitehouse, Environment Canterbury
12.20pm	5	General Discussion	All
12.35pm		Close	

1 REPORTS**5.1 MINUTES OF UPPER WAITAKI ZONE WATER MANAGEMENT COMMITTEE MEETING - 18 SEPTEMBER 2020**

Author: Arlene Goss, Governance Advisor

Authoriser:

Attachments: 1. Minutes of the meeting of the Upper Waitaki Zone Committee meeting on 18 September 2020 [!\[\]\(5a132f13505a6571904d622757b7a8f0_img.jpg\) !\[\]\(0f17417dd77a61b2fdbff69a33adf9f2_img.jpg\)](#)

RECOMMENDATION

That the Minutes of the Upper Waitaki Zone Water Management Committee Meeting held on Friday 18 September 2020 be received and confirmed as an accurate record of the meeting.



Unconfirmed MINUTES

Upper Waitaki Zone Water Management Committee Meeting

18 September 2020

**MINUTES OF MACKENZIE DISTRICT COUNCIL
UPPER WAITAKI ZONE WATER MANAGEMENT COMMITTEE MEETING
HELD AT THE COMMUNITY HALL, OTEMATATA
ON FRIDAY, 18 SEPTEMBER 2020 AT 9.30AM**

PRESENT: Chairperson Simon Cameron, Matthew Bayliss, Richard Subtil, Cr John Sunckell, Kieran Whyte, Cr Ross McRobie, Michael McMillan, Lisa Anderson

IN ATTENDANCE: Ian Whitehouse (Facilitator), Chris Eccleston (Ecan), Ian Lyttle (Ecan), John Benn (DOC), Janine Roux (Ecan), Lesley Woudberg (Ecan), Arlene Goss (Mackenzie District Council – Governance Advisor), and four others.

1 OPENING

Kieran Whyte opened the meeting with a karakia and the chairman welcomed everyone.

2 APOLOGIES

Apologies were received from Joy Paterson, Cr Stuart Barwood, John Wilkie and Cr Miriam Morton.

3 DECLARATIONS OF INTEREST

There were no declarations of interest other than those attached to the agenda.

4 VISITORS

There were no formal visitors at the meeting.

5 REPORTS

5.1 MINUTES OF UPPER WAITAKI ZONE WATER MANAGEMENT COMMITTEE MEETING - 17 JULY 2020

COMMITTEE RESOLUTION UPP/2020/71

Moved: Cr Ross McRobie

Seconded: Mr Matthew Bayliss

That the Minutes of the Upper Waitaki Zone Water Management Committee Meeting held on Friday 17 July 2020 be received and confirmed as an accurate record of the meeting.

CARRIED

5.2 INTERESTS REGISTER

The interests register was noted.

5.3 IMMEDIATE STEPS BIODIVERSITY FUNDING 2020-2021

This report was from Jenna Hughes-Games, Land Management Advisor, Environment Canterbury. It outlined the projects proposed for 2020 – 2021 Immediate Steps Biodiversity Funding in the Upper Waitaki zone. Jeanine Roux spoke on behalf of Jenna Hughes-Games. Each application was considered separately as follows:

Quailburn Bog Pine Protection – No concerns were expressed.

Richard Subtil arrived at 9.35am.

Glenmore Tarns – The committee said it was good to hear positive discussion around the benefits of grazing for controlling weeds. They did not have any questions. They did not have any questions. Member Kieran Whyte raised the issue of the McGregor outlet he said as you entered the station at the outlet there were a number of unfenced cattle making a mess. This area was used for trapping and transferring tuna. It would be good to clean it up. The chairman offered to talk to the owners of the station.

Upper Ohau – The chairman said it would be good to get on top of this weed area. Lisa Anderson asked if there would be continued weed control in this area, as there would be seeds in the system. Funding has been allocated for the next five years for weed control.

Spring Creek Willow Control -- Discussion took place on this area. There were no concerns.

Lake Alexandrina Conservation Trust – The committee recognised the involvement of the community in this project.

Cr Sunckell said a challenge had been issued regarding the legitimacy of previous decisions made by the committee on allocating money from the Immediate Steps front. He said this had been checked by the auditor general and the committee had been cleared of wrongdoing. He reminded the committee that their decisions were written in the form of recommendations to Environment Canterbury to allocate the funding.

COMMITTEE RESOLUTION UPP/2020/72

Moved: Ms Lisa Anderson

Seconded: Mr Kieran Whyte

1. That the report be received.
2. That the Upper Waitaki Zone Water Management Committee recommends to Environment Canterbury that 2020 – 2021 Immediate Steps Biodiversity Funding be allocated to the following:
 - Quailburn Bog Pine Protection: \$17,600;
 - Glenmore Tarns (additional funding): \$7,405;
 - Upper Ohau (Dobson River) Landscape Weed Control (additional funding): \$30,000;
 - Spring Creek Willow Control: \$7,000;
 - Lake Alexandrina Conservation Trust Native Planting: \$4,600.

CARRIED

5.4 SOUTHERN ZONE TEAM PROGRESS REPORT

This report is from Chris Eccleston, Zone Manager - Southern, Environment Canterbury.

Chris Eccleston provided an update on the projects and activities of Environment Canterbury's Southern Zone Team in the Upper Waitaki zone. He circulated a one-page summary of his report. A copy of this summary is available as an attachment to these minutes.

The committee noted that the items "Community Drinking Water Protection Zones" and "Willowburn Mahinga Kai" were behind schedule.

Richard Subtil said the Willowburn work was behind schedule or delayed in several areas. The TLI of the lake was influenced by the Willowburn Stream, so he would like to see more attention given to this area.

Discussion took place on the prioritisation of staff resources. The committee asked for more resources to be allocated to the work in the Upper Waitaki Zone.

Chris Eccleston suggested that a future agenda item would be a plan to address those items that were falling behind. Discussion continued on whether some outcomes were possible to achieve under current legal arrangements and other restrictions.

5.5 ZONE FACILITATOR'S REPORT

Chris Eccleston was asked for an update on the Ruataniwha toilets. Mackenzie District Council and Ecan would co-fund a temporary toilet there over the summer period. They were expecting a large influx of people over the holiday. The committee agreed to re-look at Lake Ruataniwha next year when the e. coli results were available.

Cr Ross McRobie said other areas would also need toilets, including the Alps2Ocean cycleway. This was not just a Ruataniwha issue. He asked for someone in the zone committee to take responsibility for this issue in the wider area. The chairman asked for this to be recorded and for a follow-up on who was going to do the work. Cr McRobie noted he would be attending and upcoming Alps2Ocean summit.

A suggestion was made by Richard Subtil that Ecan supports farmers to apply for funding from various sources. Discussion followed on this.

Facilitator Ian Whitehouse said the next zone committee meeting was going to focus on Tekapo. This would be a community meeting. The committee agreed to do a field trip to Glenmore Station after the Tekapo meeting. To allow enough time they would start the meeting at 9am at the Tekapo Hall.

A hangi was suggested for the November meeting at Omarama.

The committee was alerted to an opportunity to contribute its views to the tourism taskforce. An online submission was due next Tuesday. It was agreed the committee needed to submit on the effects of tourism on water quality. Ian Whitehouse agreed to organise a submission with feedback by email.

COMMITTEE RESOLUTION UPP/2020/73

Moved: Cr Ross McRobie

Upper Waitaki Zone Water Management Committee Meeting Minutes

18 September 2020

Seconded: Chairperson Simon Cameron

That the report be received.

CARRIED

The Meeting closed with a karakia at 10.49am.

The minutes of this meeting were confirmed at the Upper Waitaki Zone Water Management Committee Meeting held on 16 October 2020.

.....
CHAIRPERSON

5.2 INTERESTS REGISTER

File Reference:

Author: Arlene Goss, Governance Advisor

Authoriser:

Attachments: Nil

STAFF RECOMMENDATIONS

That the information be noted and updated when required.

DECLARATION OF INTERESTS REGISTER – AS AT 7 OCTOBER 2020

Keeping a Zone Committee Members' declarations of interest register allows Zone Committees to identify and manage a conflict of interest when it arises.

The Office of the Auditor General notes a conflict of interest can arise when: "A member's or official's duties or responsibilities to a public entity could be affected by some other interest or duty that the member or official may have."¹

If a member is in any doubt as to whether or not they have a conflict of interest, then the Member should seek guidance from Catherine Schache (General Counsel, Environment Canterbury), the Zone Facilitator and/or refer to the following guidance: <https://www.oag.govt.nz/2010/lamia>

Types of Interest to be documented in the register:

- Employment, trade or profession carried on by the Member or the Member's spouse for profit or gain

- Company, trust, partnership etc for which the Member or their spouse is a director, partner or trustee, or a shareholder of more than 10% shares

- Address of any land in which the Member has a beneficial interest and which is in the area of the Zone Committee

- The address of any land where the landlord is Environment Canterbury, Mackenzie District Council or Waitaki District Council and:

 - The Member or their spouse is a tenant;

 - Or

 - the land is tenanted by a firm in which the Member or spouse is a partner, a company of which the Member or spouse is a director, or a Trust of which the Member or spouse is a Trustee.

- Any other matters which the public might reasonably regard as likely to influence the Member's actions during the course of their duties as a Member.

- Any contracts held between the Member or the Member's spouse and Environment Canterbury or [name of TLA/s]. Including contracts in which the Member or their spouse is a partner, a company of which the spouse is a director and/or holds more than 10% in

¹ Office of the Auditor General Good Practice Guide – Managing Conflicts of Interest: Guidance for public entities

shares, or a Trust of which the Member or their spouse is a trustee (noting that no committee member should be a party to a contract with Environment Canterbury or the relevant TLA if that value is more than \$25,000 per annum)


Zone Committee members are to ensure that the information contained in this register is accurate and complete.

Name	Committee Member Interests
Lisa Anderson	Farmer and irrigator in Lake Benmore Ahuriri Arm catchment. Resource consents CRC201984, CRC136698, CRC156110, CRC012017.
Stuart Barwood	Mackenzie District Council Councillor, Chairman Assets and Services committee MDC, trustee of Helwood Trust.
Mat Bayliss	Chairs the Meridian Energy Waitaki Community Fund. Asset Maintenance Manager for Meridian Energy in Twizel. Shareholder of Meridian Energy. Consents held CRC142283
Simon Cameron	Local Merino sheep farmer. Trustee of Ben Ohau Farming Trust. Trustee Cameron Investment Trust. Trustee of Mackenzie Wilding Trees Trust. Trustee Aoraki Mount Cook Museum Trust. Resource consents CRC952244, CRC952245, CRC952267, CRC952268, CRC952269, CRC100234,
Ross McRobie	Shareholding Director of RPM Management Limited, Chair of Otago Community Trust, Trustee Bayliss Family Trust. Councillor Ahuriri Ward for Waitaki District Council.
Joy Paterson	Member of Canterbury Aoraki Conservation Board, Trustee of LineTrust South Canterbury. Husband is a Mackenzie District Councillor.
Richard Subtil	Farmer and irrigator in Omarama catchment. Member of Omarama Stream Water Users Group. Committee member of Omarama Airfield. Resource consents CRC010693.1, CRC010694, CRC010727.2, CRC110202, CRC122382, CRC174573, CRC194088, CRC194520, CRC203348.
John Sunckell	Environment Canterbury Councillor, Register of interest held by Environment Canterbury
Keiran Whyte	Te Rūnanga o Moeraki, Employee of Tuna Trap and Transfer Team.
John Wilkie	Te Rūnanga o Waihao. Representative on the Waitaki Native Fish Committee.
Michael McMillan	Te Rūnanga o Arowhenua.

5.3 STATE OF WATER QUALITY IN UPPER WAITAKI ZONE

Author: Arlene Goss, Governance Advisor

Authoriser:

Attachments: 1. Presentation on Water Quality in Upper Waitaki Zone, to be given by Graeme Clarke [!\[\]\(950a62bbddad88d64435fd35607dfc42_img.jpg\)](#) 

STAFF RECOMMENDATIONS

That the information be noted.

BACKGROUND

This report is from Graeme Clarke, Environment Canterbury.

This report provides information on the state of water quality in rivers and lakes in the Upper Water zone.

Upper Waitaki Zone Water Quality.

Graeme Clarke

Topics

- Recreational water quality
- Lakes – Trophic Level Index
- Ecology
- Rivers

Contact Recreation

- All sites in the zone suitable for swimming

Changes for 2020/21 season

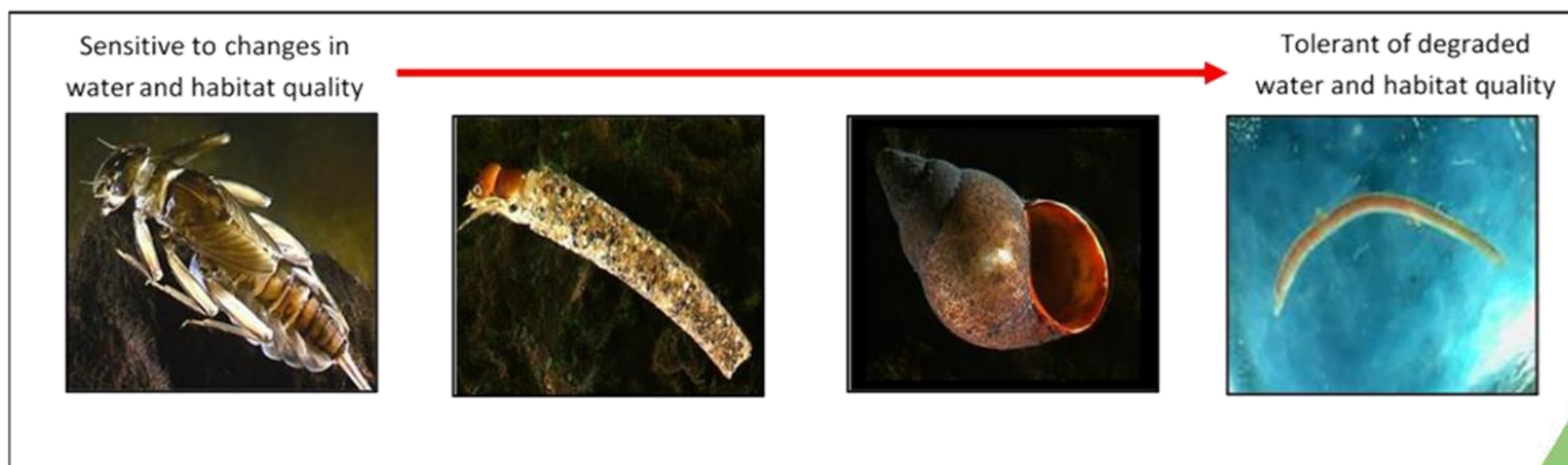
- Twizel River: Good → Fair
- Lake Ruataniwha: Very Good → Fair

Tropic Level Index

Location	2019	2020	Plan TLI Limit	Plan limit met 2020?
Lake Alexandrina	2.89	3.30	3.10	No
Lake Tekapo	1.26	1.70	1.70	Yes
Lake Pukaki	1.41	1.90	1.70	No
Lake Ohau	1.44	1.98	1.70	No
Lake Benmore - Haldon	2.12	2.21	2.70	Yes
Lake Benmore- Ahuriri	2.94	2.75	2.90	Yes
Lake Benmore - Dam	2.19	2.32	2.70	Yes
Lake Aviemore	1.97	2.24	2.00	No
Kellands Pond shore	3.33	3.57	3.20	No

Most lakes meeting plan limits. Heavy rain impacted several lakes last year.

Aquatic ecology



Macroinvertebrate Community Index??

Aquatic ecology

Site	Macroinvertebrate community Index	Trend	NPS-FM Band
Forks Stream	119	Improving	B
Spring Creek	93.6	Improving	C
Ahuriri River	109.4	Degrading	C
Irishmans Creek	108	Degrading	C
Mary Burn	100	Degrading	C
Otematata River	100	Degrading	C
Quail Burn	99	Degrading	C
Twizel River	98.2	Degrading	C
Omarama Stream	84.6	?	C

Aquatic community increasingly impacted over time at many sites

River water quality trends

River trends	N	P	E.coli
Ahuriri River at Ben Omar	Degrading		Improving
Forks Stream	Improving		
Irishmans Creek			Degrading
Mary Burn			Degrading
Omarama Stream	Degrading	Improving	Degrading
Otematata River			
Quail Burn			
Sutherlands Creek	Degrading		
Tekapo River at Steel Bridge			Degrading
Twizel River d/s	Degrading		Degrading
Wairepo Creek	Degrading		Degrading
Willow Burn	Degrading	Improving	

Water quality (especially nitrogen and E.coli) degrading at more sites than improving.

5.4 MAHINGA KAI-TAKAPŌ AREA

Author: Arlene Goss, Governance Advisor

Authoriser:

Attachments: Nil

Te Pūtake Pūrongo (PURPOSE OF PRESENTATION/REPORT)

This report has been prepared by Brad Waldon-Gibbons, Environment Canterbury. Presentations will be made by Keiran Whyte and Michael McMillan.

Purpose of the presentations:

- 1) The Upper Waitaki Zone Committee sought guidance (July meeting) by rūnanga representatives to identify mahinga kai sites/ areas of significance in the zone. Thus, to provide a holistic knowledge base and understanding to support better discussions and collaborative outcomes.
- 2) To gain an insight into cultural values and areas of significance related to mahinga kai and Mana whenua.
- 3) To support the kaitiakitanga, mahinga kai, ecosystem health/biodiversity, and environmental limits targets within the CWMS.

Ngā Tūtohu (RECOMMENDATIONS):

1. That the verbal presentation be received.
2. The knowledge is retained/included by Zone committee members in future discussions and decisions related to the Takapō area.

KÖRERORERO (DISCUSSION):**1. Presentation on the trap-and-transfer programme****a. Korero- About the longfin Tuna/eel.** (Sources: Department of Conservation, Te Ara Encyclopedia of New Zealand, Image from Niwa website)

Longfin tuna live mainly in rivers and inland lakes but can be found in almost all types of waters, usually well inland from the coast. Tuna are slow growing – a longfin may grow only between 15–25 mm a year. Large longfins have been estimated to be at least 60 years old. Longfin Tuna breed only once, at the end of their life. When they are ready to breed, they leave New Zealand and swim 5000 kilometres up into the tropical Pacific to spawn, probably in deep ocean trenches somewhere near Tonga. When they reach their destination, the females lay millions of eggs that



are fertilised by the male. The larvae are called leptocephali and look nothing like an eel – they are transparent, flat, and leaf-shaped. The larvae reach New Zealand by drifting on ocean currents. Before entering fresh water, the leptocephali change into a more familiar eel shape, although they remain transparent for up to a week after leaving the sea. These tiny “glass” eels enter fresh water between July and November each year, often in large numbers. Eels take many years to grow, and it can be decades before an individual is ready to undertake the long migration back to the tropics to breed. The average age at which a longfin Tuna migrates is 23 years for a male, and 34 for a female. The adults never return, as they die after spawning.

b. Trap and transfer programme (in the Takapō area).

(verbal presentation)

2) Traditional resources found and used in the Takapō region.**a) Te Kōuka (Cabbage tree)**

Botanical name: *Cordyline australis*

This tree is one of at least five different varieties of cabbage tree found throughout the country. Mature trees grow up to 13 meters in height anywhere from the coast to an altitude of 600 meters.

Te kōuka is a hardy tree that grows in a range of environments from dry windswept coastal landscapes through to swampy environments or rich soils in river flood plains. It flowers in late spring with white, sweetly scented spikes. A prolific flowering is believed to be a sign of a long, hot summer. It fruits in summer; the small blueish white fruits attract korimako and kererū.

Te Kōuka was one of the more reliable vegetable food sources for Ngāi Tahu (in Te Waipounamu) before European arrival. The tough fibres of the te kōuka leaves were used for traditional weaving of baskets, bird snares, sandals (which were stronger and stood up longer to hard wear, than



those weaved from harakeke). Leaves were also weaved into effective rain-capes or thatched to shed water from the roof of a whare. All varieties of Te Kōuka have a tapered taproot of up to a meter long. Both the root and the lower stem of a young tree are rich in fructose, the sweet crystalized sugars that were extracted by cooking and pounding. Tī kōuka were harvest twice a year, in November and February. Generally, the first crop was cut before flowering, when the sugar content was greatest.

After harvesting the cork like material on the trunk of the young trees was chipped off, and the kāuru (stem of the cabbage tree) and taproot were stood on end to dry. In January these pieces were cut into lengths of about 60cm and stored in woven baskets from the te kōuka leaves. During the February harvest while the second cut was stacked to dry, the first crop of tī was carried to the nearest wood supply where long pits (umu-iti) up to 2 meters deep were dug and filled with firewood. Large stones were stacked on top of the firewood to fill the pit. The fire would be lit at dawn, when it had burnt down the stones were arranged in the bottom. Layers of earth and vegetation covered the stones, then the kāuru was placed on top, layer upon layer. Water was added before further layers of vegetation and earth were piled on to seal the pit. In this way, the kāuru slowly steamed for at least 24 hours. At the end of the process the pit was opened to allow the contents to cool. The kāuru was then pounded to separate the crystallized sugars from the fibrous core and stacked away in elevated, covered storehouses (Whata) until it was required. The process was repeated for the February harvest to stock up for the winter supply, that would last up to two or three seasons without decay.

The tap root could be dud up at any time of the year. It was roasted on hot ashes of a fire and pounded to soften it or cooked in a umu (earth oven) and mixed with the fat of tuna (eels) and manu (birds), which made it more palatable.

Tī kōuka had medicinal properties as well. The leaves were brewed into a tea to treat diarrhoea and dysentery. The tender inner shoots and tops of the stems were boiled, and women nursing children drank the resulting liquid to stimulate or stabilize their milk flow. The same liquid was used to settle upset stomachs. Scrapings of leaves were also used as a dressing for wounds, sores, and cuts along with other medicinal species.

b) Raupō (Bulrush)**Botanical name:** *Typha angustifolia*

Raupō thrive in swamps, marshlands, and the shallow lake margins throughout lowland Aotearoa. It grows up to 2.7m tall, and flowers from December through to March. Each plant produces a single seed stalk bearing a distinctive cluster of flowers. At the height of summer tūpuna would collect raupō flower heads in huge quantities,

left them to dry in the sun for several days then stripped the yellow pollen from them above the seed stalk. They sifted the pollen to remove the down, and then mixed the pollen with a little bit of water to make a porridge called rerepe, sweet breads or cakes known as pungapunga, or pua. For the latter, the dough was placed in leaf-lined baskets and cooked in an umu for 3-4 hours.

Perhaps one of the best-known uses of raupō in Te Waipounamu was the construction of Mokihi, light buoyant rafts. To make these, tight bundles of raupō reeds were lashed together into cylindrical tubes, similar in appearance to a modern-day inflatable raft. Mōkihi were used by both Māori and Pākehā to get across fast flowing rivers. Longer beamier mōkihi could carry up to 20 people as well as their summer harvest of weka, tuna, and native ducks, on the long return journey to coastal kāinga from annual food gathering heke (expeditions) to the southern lakes. Mōkihi were common on the Waitaki rivers and other southern rivers. The raupō leaves were also used to thatch the inside of houses to make them waterproof. Sails, kites, and poi were also notable items made from this material.

- 3) **(Verbal presentation): a pūrākau looking at the cultural history of the area with context to today's activities.**

5.5 AHURIRI CATCHMENT

Author: Arlene Goss, Governance Advisor

Authoriser:

Attachments: Nil

PURPOSE OF REPORT

This report is from Tami Woods, Environment Canterbury.

This report provides a summary of the actions arising from past Zone Committee recommendations for the Ahuriri catchment; identifies issues discussed at a workshop on 21 August about potential on-going risks of future TLI exceedances in Ahuriri Arm of Lake Benmore and presents recommendations for the Committee to consider.

STAFF RECOMMENDATIONS

1. That the report be received.
2. That the committee decides whether it works with Benmore Irrigation Company and encourages them to show leadership, with their shareholders, in the Ahuriri catchment to reduce nutrient losses beyond those associated with good management practice (GMP).
3. That the committee confirms whether it would like to make the following recommendations to Environment Canterbury:

That Environment Canterbury:

- a) Monitor permitted activity farms to ensure they have 'Management Plans' in place and encourage them to implement the full suite of GMP's.
- b) Reports back to the Committee on whether there is an increased risk of the TLI limit for the Ahuriri Arm of Lake Benmore being exceeded after exploring any differences between the modelled assumptions (as part of the ZIPA process) and:
 - Changes in knowledge about climate change impacts in Upper Waitaki;
 - Any nutrient losses beyond what was modelled; and
 - The implementation of GMP (loss rates and/or practices) through the LWRP and assessment of consent compliance.

CONTEXT

Lake Benmore is highly valued by all. Environment Canterbury measures the lakes state using a Trophic Lake Index (TLI).

TLI is not used as an indicator of safety for swimming; Land and Water Aotearoa reports that the sites monitored in Lake Benmore are generally suitable for swimming, based on three years of summer-time monitoring.

The TLI, or the Trophic Level Index, is an index used across the country as a measure of the nutrient status of a particular lake. A higher TLI results from higher nutrient concentrations and higher algal biomass (phytoplankton). Lakes with high TLIs generally have greener and more turbid (cloudy) water columns.

The low TLI limit of 2.9 for the Ahuriri Arm of Lake Benmore recognises the lakes good water quality and the values attached to its low nutrient state and blue colour.

The TLI limit for Ahuriri Arm of Lake Benmore was set to achieve the community outcomes agreed by the Upper Waitaki Water Zone Committee, which included maintaining its good water quality and providing for a diverse ecosystem of plant and animal life, recreational opportunities and customary use.

If the TLI limit is exceeded there is an increased risk that water clarity will deteriorate, lake colour will change from blue to green, and there will be algal blooms.

BACKGROUND

In 2018/2019, The Trophic Level Index (TLI) calculations for the Upper Waitaki Lakes had reached 2.9 which was the lakes TLI limit in the Land and Water Regional Plan (LWRP).

Although the lake limit was not exceeded, 1/3rd of the farms in the catchment with water permits (granted prior to the TLI 2.9 limit being included in the LWRP) with an early warning TLI trigger level of 2.75, were required to reduce their nutrient discharge allowances (NDA's) and operate within the new allowances.

A further 1/3rd of consent holders consent holders, with farming land use consents, had no actions required. If the TLI had however exceeded 2.9 they would have needed to prepare a remedial action plan.

The last 1/3rd of farms in the catchment, that are either dryland or with small areas of irrigation and winter grazing, were not required to carry out any actions linked to the lakes TLI.

Last summer's (2019/20) TLI, at 2.75, did not trigger any additional actions on top of a farmer's usual consent requirements.

There is however on-going concern that the TLI could again, in future years, exceed the limit or the trigger levels on water permits.

ACTIONS IN 2019 AND EARLY 2020

As a result of the TLI reaching 2.9, over the summer of 2018/19, the following actions occurred in response to the Zone Committee's recommendations:

- Environment Canterbury prepared the 'Cause Report' on behalf of consent holders. Consent holder were charged a small fee for the time preparing.

- Meetings were held with consent holders and their consultants with the 2.75 TLI trigger levels to clarify the reductions to the NDA's required and alternative pathway of demonstrating they were not contributing to the TLI.
- Consent holders with the 2.75 TLI trigger levels, all made the reductions to their NDA's and choose not to take an 'alternative pathway'.
- A technical group of Environment Canterbury staff and consultants formed to further discuss options to address the inequity between consent holders and a discussion was then held with consent holders.
- All farms that required farming land use consents were followed up to ensure they applied for their farming land use consents. All required farming land-use consents in the catchment have now been obtained.
- All farms with Environment Canterbury consents were visited to ensure they were operating in accordance with their consent conditions.
- All farms with irrigation were visited by an Environment Canterbury Land Management advisor to check their irrigation management.
- To support collective action, all farms in the catchment (and industry bodies) were invited in December 2019 to a catchment meeting. The meeting was independently facilitated and addressed what was influencing the TLI, including where nutrients were coming from, the importance of all farms operating at good management practice (GMP) and what GMP covered.

At the end of the catchment meeting there was good support for the formation of a catchment group.

A facilitator/coordinator was identified, and a committee was established to progress the Ahuriri Catchment Community Group (ACCG). The focus of the Community Group is on education, upskilling and relationship building. In February 2020 topic ideas were identified for the next six months by the steering committee. The first field event was held in March. This focused on irrigation management in conjunction with Environment Canterbury Land Management staff. Progress was subsequently delayed due to COVID-19.

The group have now become an incorporated society and have an upcoming 'Resilience' workshop (with guest speaker John Kirwan) in November. A workshop on the implications of the Essential Freshwater package is also being organised with Beef and Lamb.

FARMING LAND USE CONSENTS AND WATER PERMIT 'INEQUITIES'.

At the Committee's June meeting it heard from Haidee McCabe from Irricon about the further analysis that had been undertaken looking at the 'inequities' across farming land use consents and water permits.

Haidee highlighted that these were not 'inequities' as such, but difference on consents due to time when they were granted. There was also a range of difference across the farming land use consents and water permits. For example the water permits had a TLI trigger levels of 2.75 compared with a limit of 2.9 on the farming land use consents. However, the nutrient discharge allowance (NDA's) on the farming land use consents were tougher than those on the water permits. Farming land use consents were required to implement good management practices (GMP) nitrogen loss rates.

It was noted that in time the difference would be addressed as everyone applied for farming land use consents on expiry of their water permits (for most this was 2025).

Haidee reinforced that in the interim it was a case-by-case decision for consent holders, based on their personal circumstances, as to whether they moved more quickly to operate under a farming land use consent with a lower TLI threshold. There were therefore no specific actions for the Committee to recommend to Environment Canterbury around the differences (or 'inequities').

There was also a discussion around the importance of equitable enforcement. The committee therefore recommended that Environment Canterbury increase compliance monitoring in the Ahuriri catchment, with a focus on delivering GMP and a consistent approach to enforcement.

PLANNED STREAM WALK AND ADVICE TO FARMS ALONG THE WILLOWBURN STREAM

At its July meeting the Committee heard from Jenna Hughes-Games, Land Management and Biodiversity Advisor, Environment Canterbury about the further targeted stream walk that was planned on the Willowburn, subject to landowner approval for access.

The report noted the following properties had carried out fencing following on from a stream walk in 2016. This included: Willow Burn Station (approx. 6km); Buscott Station (approx. 1km); Ribbonwood Station (approx. 1.5km). The reaches in the Glens were fully fenced prior to the project starting, Buscott Station was 90% fenced, Benmore Station (approx. 3km), Willow Burn (Approx. 1.2km), Ohau Downs(3.2 km in QE11 covenant), Glen Eyrie 0.5km largely stock excluded, Ribbonwood (0.5km).

A further stream walk was proposed for this year to identify high risk reaches that had not yet been fenced and identify further good management practices (GMP) required.

This action was endorsed by the Committee. This work commenced in September.

PROVINCIAL GROWTH FUND (PGF) APPLICATION FOR AHURIRI CATCHMENT

At the July meeting the Committee also supported an application to the Provincial Growth Funding (PGF) prepared by Ian Lyttle and Jenna Hughes-Games from Environment Canterbury. The application was to fund the following work in the catchment.

- 50.5 km of waterway fencing (including stock crossings, drinking water bays and weed management);

- 34 km of wetland fencing;
- 1.3 ha of riparian/ wetland planting; and
- 11 km riparian planting.

The total funding sought was \$1,942,940.

Environment Canterbury has heard that the application was unfortunately unsuccessful.

WORKSHOP ON 21 AUGUST: REDUCING THE FUTURE RISK TLI EXCEEDANCES

On 21 August, the Zone Committee had a workshop on the Ahuriri Catchment progress. The workshop covered the situation in the catchment, provided a summary of the actions arising from the Zone Committee recommendations (as identified above) and a discussion was held about on-going risks of future TLI exceedances and further potential steps or recommendations to Environment Canterbury.

Two key issues were traversed:

1. Managing to GMP or Better

Having all farming at GMP is important for managing the nutrient losses to the lake and maintaining the TLI at or below the limit. However:

- The Land and Water Regional Plan (LWRP) does not currently require all farms in the catchment to implement GMP (loss rates and/or practices); and
- Permitted activity farms are not checked for their compliance around preparing Management Plans and encouraged to implement GMP through these plans.

In summary, the LWRP requires **GMP practices** to be implemented by large irrigators with water permits or farming land use consents through the preparation, implementation and auditing of Farm Environment Plans (FEPs) (2/3rds of farms in the catchment). Achieving **GMP nitrogen loss rates** is required for those with farming land use consents (1/3rd of farms in the catchment). Management Plans are required to be implemented by the remaining farms, without, or with small areas of irrigation (below 50 hectares). Management Plans require implementation of a narrower list of practices or can be aligned with industry templates that reflect the full suite of GMP's.

As noted in Section 4 of this paper, as water permits for irrigation come up for renewal (for most this is 2025), farming land use consents will need to be obtained. At this point 2/3rds of farms in the catchment will be required to operate to GMP nitrogen loss rates.

The workshop discussion also included discussion around how not everyone who would need to have their FEP practices audited (to check they are at GMP) have yet been audited. First audits do not occur until 12 months after a farming land use consent is granted. And, many had only been issued recently.

It was therefore noted that the Committee did not yet know the full effect of GMP implementation required by the LWRP.

The recommendation therefore discussed at the workshop, for the Committee to consider recommending to Environment Canterbury therefore, included:

- *Monitor permitted activity farms to ensure they have 'Management Plans' in place and encourage them to implement the full suite of GMP's.*

However, it is also noted that even with GMP it is likely that seasonal variations, in rainfall for example, may lead to the TLI limit being reached or exceeded again in the future. Reducing nutrient losses beyond GMP would reduce the risk of the TLI being exceeded. The LWRP however does not require any farms in the catchment to manage beyond GMP (through practices or nitrogen loss rates)

An option, to help ensure farms with some of the highest loss rates in the catchment move to operating at beyond GMP, could be to work with Benmore Irrigation Company and encouraging them to show leadership with their shareholders to reduce nutrient losses beyond those associated with GMP. An example of this occurred in the Hurunui Waiau Zone. The Committee, assisted by Environment Canterbury Councilors, worked with Amuri Irrigation to get them to take leadership in reducing nutrient losses and going beyond GMP. The Upper Waitaki Zone Committee, given its composition, may not wish to take such a role with Benmore Irrigation.

2. Implications from changes to key modelling assumptions since the Zone Implementation Programme Addendum – 2015 was prepared

The setting of the TLI limit for the Ahuriri Arm of Lake Benmore and the understanding of the impacts on the lake and farms in the catchment was informed by a range of modelling assumptions.

Discussion occurred about the potential risks of future TLI exceedances as a result of improved knowledge and/or differences in implementation compared to what was modelled. Key factors of concern included:

- Changes in knowledge about climate change impacts in Upper Waitaki;
- Any nutrient losses beyond what was modelled; and
- The implementation of GMP (loss rates and/or practices) through the LWRP, as noted above, and assessment of consent compliance.

Irrigated farms can be assessed as consent compliant (achieving an A or B FEP Audit grade) but not necessarily be considered to be operating at GMP practice (as this is considered to be when a farm has an A grade audit).

At the workshop the draft recommendation discussed was about whether Environment Canterbury should look at the differences between the modelled assumptions for these three factors and current knowledge/implementation and report back to the Committee on whether there could be an increased risk of the TLI limit for the Ahuriri Arm of Lake Benmore being exceeded.

5.6 ZONE FACILITATOR'S REPORT

Author: Arlene Goss, Governance Advisor

Authoriser:

Attachments:

1. ACCG Resilience Night final [↓](#) 
2. UWZC submission to Tourism Futures Taskforce [↓](#) 

PURPOSE OF REPORT

This report is from Ian ("Whit") Whitehouse, Acting Zone Facilitator, Environment Canterbury.

This report provides information that may be of interest to the Zone Committee that is not covered elsewhere in the agenda or where feedback is sought to inform the focus for the committee.

The committee's feedback is sought on:

- what the Zone Committee wants to do in 2021 with regards to meeting topics and field visits.
- who the committee wishes to invite to the 20 November hangi.

STAFF RECOMMENDATIONS

1. That the report be received.

1. Zone Committee meetings/events

The Zone Committee's hangi is on 20 November at Omarama Station. Mackenzie Basin Agency Alignment staff have been invited. Guidance is sought from the committee on who else should be invited.

It is time to think about the location and schedule for the committee's 2021 meetings and field visits.

A field trip to Glenmore Station/Lake Alexandrina to see Immediate Steps Biodiversity funded projects was planned for 16 October but had to be postponed because of lambing. The landowners are keen to show the committee what they are doing. It is suggested this visit be scheduled in February or March 2021.

The committee usually meets in Twizel. It has previously agreed to have at least one meeting a year in Tekapo and Otematata. Does the committee have requests for when it meets at these locations and at Omarama?

The committee meets monthly, about nine times a year (including field trips or other events). Usually the committee does not meet in the middle of winter to avoid driving in dangerous

conditions. Does the committee want to have a meeting in July but not August, or in August but not July?

Does the committee have organisations they would like to hear from in 2021 – such as DOC, Benmore Irrigation, Ahuriri Catchment Group, Mackenzie Basin Agency Alignment.

2. Zone Facilitator appointed

Janine Roux has been appointed as Zone Facilitator while Tami Woods is on secondment. Janine has been a Land Management Advisor with Environment Canterbury in Timaru. She has primarily worked in the OTOP (Opihi Temuka Orari Pareora) zone.

3. Submission views to the New Zealand Tourism Futures Taskforce

The Acting Zone Facilitator made a submission on behalf of the zone committee to the New Zealand Tourism Futures Taskforce. This is attached.

4. Lake Ruataniwha update

As announced at the September meeting, Environment Canterbury and Mackenzie District have funding for temporary toilets for the 2020/21 summer. Chris Eccleston, Southern Zone Manager, Environment Canterbury will provide a verbal update at the meeting.

5. Resilience and wellbeing event

The Ahuriri Catchment Community Group has organised an event with Sir John Kirwan speaking on resilience and wellbeing on 11 November at Buscot Station. See attached flyer.

6. Simons Pass media article

Newsroom published an article in late September on Simons Pass – see <https://www.newsroom.co.nz/greenroom/last-battles-loom-for-mackenzie-dairy-farm>

This is a long article, seemingly triggered by a consent application from Simons Pass for earthworks in relation to three centre-pivot irrigators. The article quotes material from Murray Valentine (Simons Pass), LINZ (Jerome Sheppard) and Gary Taylor (EDS).

7. Updated Action List

The Action List below updates the committee on progress on items identified at previous zone committee meetings in 2019 and 2020. Items from early 2019 that have now been completed are not included in this updated list.

Upper Waitaki Zone Committee – October 2020 Action list (updated from July 2020)

Date of meeting	Action	Who	Status
18 September	Provide an update to committee in early 2021 on Lake Ruataniwha <i>E. coli</i> and related actions including progressing long-term solution for public toilets	Zone Facilitator, Zone Manager	Schedule agenda item for February or March
19 June	Investigate issues within Twizel Riverbed and responsibilities	Zone Facilitator	This was not progressed substantially before the facilitator was seconded. Will be taken up by new facilitator.
19 June	Environment Canterbury works with farmers in Ahuriri and Omarama catchment to understand and make better use of the local data, with the results shared with farmers and the zone committee	Environment Canterbury (Graeme Clarke)	Not yet progressed
19 June	Increased focus on compliance monitoring in the Ahuriri catchment, with a focus on delivering good management practice and a consistent approach to enforcement	Environment Canterbury	Underway
19 June 2020	Update on the Lake Alexandrina Management Plan to be included in Facilitators report	Tami Woods	Emails to consultant who prepared draft report for stakeholder consultation. Report not released yet.
21 February 2020	Elected representatives on the committee to come back with a response on how their council intends to respond to the report on Tourism from the Parliamentary Commissioner for the Environment.	Zone Committee Council representatives	Completed
21 February 2020	Concern was expressed about a lack of representation on the committee from the north of the basin. To follow-up with the community board and other contacts to see if there were people that could help	Tami Woods	Chair met with Tekapo Community Board. Zone Meeting in Tekapo in October

	bring issues from the north to the committee table.		
21 February 2020	That the Upper Waitaki Zone Water Management Committee writes to Mackenzie District Council in support of the need to join the Lake Ruataniwha campground to the main sewerage system	Tami Woods	Completed
21 February 2020	Signage linking poor quality water to human activity is installed at Lake Ruataniwha	Tami Woods/Kate Doran	Completed
21 February 2020	The Committee agreed that once a year they needed to meet in Otematata and Lake Tekapo.	Tami Woods/Arlene Goss	Completed
21 February 2020	That the Upper Waitaki Zone Water Management Committee registers its disappointment that after five months nothing has been received from the parties involved in Destination Mackenzie.	Tami Woods	Completed
20 September 2019	Committee recommends that DOC commission a survey report around lake Middleton and then return to the Committee for a discussion around next steps	Jeremey Severinsen	Jeremy Severinsen had advised that he would pay for a survey and had been in touch with Alastair Ensor who represents the landowner. He recommended that the zone committee contact Alastair to follow-up.
20 September 2019	The Committee recommends that Jeremy Severinsen draft a formal report on DOC timing and plans around the Drylands Heritage Area with how it aligns with the Mackenzie Trust and the MDC District Plan for November.	Jeremey Severinsen	Request passed onto Dave Wilkins (DOC) at the June 2020 meeting
17 May 2019	Changes to Ahuriri delta – find out whether there is new LIDAR or other data that provides new information on build-up of the delta and	Graeme Clarke	Work in progress

	sedimentation of the lake. If new data available, then advise committee and indicate whether this can be analysed and brought to the committee.		
--	---	--	--

AHURIRI CATCHMENT COMMUNITY GROUP

PRESENTS WESTPAC AMBASSADOR

SIR JOHN KIRWAN ON WELLBEING & RESILIENCE



To secure your free seat please email:

Fleur@Mckenzieca.co.nz

A world class winger, JK's contribution to rugby, both as a player and a coach, has been immense. JK is one of the highest try scorers in international rugby union history and still holds a couple of NZ rugby records. The other side of the story is while he was scoring tries and becoming a rugby legend, he was also battling depression.

JK's personal journey with depression has led him to be actively involved in mental health awareness campaigns in New Zealand. For his incredible commitment and work in this space JK was appointed as an Officer of the New Zealand Order of Merit for services to mental health in the 2007 Queen's Birthday Honours. And in the 2012 Queen's Birthday and Diamond Jubilee Honours, JK was appointed a Knight Companion of the New Zealand Order of Merit, for services to mental health and rugby.

SPONSORED BY:



Come along to one or both! RSVP essential.

DATE: 11th November 2020

LOCATION: Buscot Station

AGENDA: 4:30 PM Sir John Kirwan talk

-The Woolshed Tour-

6:00 PM Fundraising BBQ & Bar

7:00 PM Show starts

Book tickets for The Woolshed Tour here:

<https://www.eventfinda.co.nz/2020/the-woolshed-tour-lifes-bitch-mel-parsons/omarama>



Upper Waitaki Zone Committee feedback to the Tourism Futures Taskforce

Strengths of the current tourism system

What are the strengths, or emerging strengths of the Tourism system (now, or prior to COVID-19)?

The natural environment, Aotearoa's rivers, lakes, landscapes, flora and fauna, is the drawcard for many international and domestic visitors. Unfortunately, tourism puts pressure on the environment and water quality, biodiversity and mana whenua values have deteriorated or are at risk. There are signs that the need to manage visitor impacts on the environment is being recognised and starting to be addressed.

In the Mackenzie Basin/upper Waitaki area we see some signs of this including:

- Some new infrastructure – toilets
- Councils trying to manage freedom camping and its impacts
- Initiatives to educate visitors about their impacts and what they can do to eliminate them. For example, our Water Management Zone Committee has worked with Environment Canterbury on "Love our Lakes" campaigns see – <https://ecan.govt.nz/your-region/your-environment/water/whats-happening-in-my-water-zone/upper-waitaki-water-zone/love-our-lakes/>

What are important next steps (if any) to preserve or grow these strengths?

Investment in infrastructure and actions to manage the negative impacts of visitors on the environment needs to increase. Government support is needed for councils, such as the Mackenzie and Waitaki District Councils, where visitor numbers are high, but the council rating base is small.

A tourism strategy is needed that looks for visitor value, not volume.

More support for initiatives that educate and encourage visitors to do the right things for the environment.

Challenges the tourism system is facing or will face

What are the challenges or areas of the tourism system most in need of addressing (now, or prior to COVID-19)? What would your top three areas for focus be?

The impacts of tourism, both from domestic and international visitors, on environmental, biodiversity, landscape and cultural values needs to be reduced. Water quality is particularly at risk.

For each of your three challenges/areas mentioned above, what actions would you like to see to implemented?

1. A set of enforceable national self-containment rules to regulate freedom camping in vehicles without toilets. Make the NZMCA self-containment rules mandatory for camping in areas with no or limited toilet facilities, encourage and enforce responsible camping in our wilderness areas

2. Policy settings for Councils, DOC and LINZ that requires toilets to be available in high use areas (both for day use and overnight) and are mandatory where freedom camping is permitted in non-self-contained vehicles
1. Additional funding for Councils and DOC to pay for infrastructure needed to manage the impacts of tourism, specifically for regions with low rating base and limited means. This should include additional funding for areas suffering the worst impacts from tourism, Mackenzie, Aoraki/Mt Cook and Waitaki Valley

The ideal tourism system

What positive change would you like to see embedded into the tourism system in 10 to 15 years (e.g. values, ways of operating)? Please share up to three.

1. Tourists (foreign and domestic) have access to and use quality toilets which reduces the effluent being deposited in our wilderness areas and polluting our water
2. Tourism focuses on value not volume, visitors get to experience Aotearoa New Zealand's wilderness areas without being affected by pollution and over-crowding
3. The financial benefits of tourism translate into investment in infrastructure for the regions, 3 waters, toilets and regulated camping areas

What needs to happen to enable this positive change? e.g. What changes would be required? Are there limitations or barriers the Taskforce should consider? Are there existing documents, strategies or processes that would be useful for the Taskforce?

Collaboration between Councils, DOC and the tourism industry to achieve common objectives and shared responsibility for managing the impacts of tourism on our environment. The benefits of tourism are largely lining the pockets of the operators. Those responsible for the land and infrastructure are not receiving the significant increase in funding and resources needed to manage the impacts on our natural and wilderness areas. If we continue as we were pre-COVID the tourism experience will be degraded, what people love Aotearoa New Zealand for will be lost, not just for tourists but for mana whenua and all New Zealanders.

Minimise negative impacts of tourism on communities to avoid ill-feeling and antipathy. Manage destinations carefully so the benefits of tourism are widely shared. Shift from destination marketing to destination management planning to adequately care for the total population at a place, both permanent and temporary. Develop, resource and implement broadly-scoped, integrated destination management plans, co-designed with communities.

Investment is needed by central and local government, landowners and the public in actions to address environmental issues including water quality, pests and weeds, and biodiversity loss. Without more investment, there will no longer be the same drawcard to attract domestic and international visitors.