

## 10 March 2022

## Submission on Future of Lake Camp and Lake Clearwater

This written submission is provided to the Ashburton District Council by Central South Island Fish and Game (referred to subsequently as **Fish and Game**). Fish and Game wishes to thank the Council for the opportunity to provide feedback on the future and long-term vision for Lake Camp (Ōtautari) and Lake Clearwater (Te Puna a Taka).

#### **Submitter Details**

Submitter: Central South Island Fish and Game

Contact person	Angela Christensen	
Council	Central South Island Fish and Game	
	Council	

- 1. Fish and Game is both a hutholder and a statutory agency that manages the sports fish and game resource in the recreational interests of anglers and hunters per section 26Q Conservation Act 1987. Fish and Game has a long-standing association with the area in terms of our species management role that is confirmed by the original purpose of the village to provide for 'fishing baches' as stated in the consultation document.
- 2. The degradation of the lakes is of worrying concern. Fish and Game is a member of the Ō Tū Wharekai working group, a collaborative effort of individuals, iwi and organisations working to address the water quality issues in the area. Therefore, it is timely that the Council revisit the long-term vision for this area and Fish and Game supports this work.
- 3. Fish and Game applauds the recent work by the Council to end the use of long drop toilets. As a hutholder at the village, Fish and Game decommissioned the long drop at its property in 2008/09. This move by the Council to disestablish all long drops is a positive step in mitigating any leaching that may be occurring into freshwater from these systems. For those remaining properties where long drop toilets are still in use, Fish and Game supports swift action by the Council to address the issue.

Statutory managers of freshwater sports fish, game birds and their habitats

- 4. The *Resource Management Act 1991* ("**RMA**") requires the Council to control the effects of the use and development of land including the prevention or mitigation of any adverse effects of development, and the maintenance of indigenous biological diversity. This is of particular relevance to the Council's functions at  $\bar{O}$  Tū Wharekai.
- 5. As stated above and in the consultation document, the Lake Clearwater village was originally provided for fishing baches. The footprint of the village grew over time as interest in the area increased. With more wealth and advancements in technology, larger homes were constructed and many now have solar power generation capacity that allows for more people to stay for longer periods of time. Fish and Game submits that the current footprint of the village is retained, including the existing hut footprints. This would allow for the community to continue to enjoy the village and the experiences that it offers while also mitigating any potential adverse effects that could arise from further expansion.
- 6. The collection and treatment of greywater is an area that the Council may need to investigate going forward. Greywater, especially in large amounts can have adverse effects on freshwater and can lead to algal growth. With people staying for longer periods of time, greywater from kitchen sinks, laundry tubs, showers and basins may be contributing to adverse effects in the environment if not handled appropriately. This can be exacerbated further with the use of soaps and detergents containing enzymes and chemicals.
- 7. Many people value the ability to freedom camp along the lake edge. The Council should give consideration as to how camping may change or look in the future when setting out its long-term vision for the area. It may be that freedom camping should have a designated lake edge where this type of stay is acceptable so that it does not impact on high public use areas. It may also be appropriate that freedom camping areas are designated nearer to toilet facilities.
- 8. The village is visited by people with diverse interests including windsurfing, kiteboarding, fishing, hunting, water skiing, hiking and 4-wheel driving to name a few. Public access in and around the basin is one of the drawcards to the area. In certain circumstances, some activities may detract from others' experiences and the general solitude and peace that many value the area for. Places like Mystery Lake, once remote and seldom visited, are now relatively easy to access and it is not uncommon to see many parties accessing these areas, including via mountain bikes and E-bikes. It is recommended that the Council give consideration to how to balance the sensitivity of the ecosystem with the diverse recreational activities that the community values.

9. Land use and changes in farming practice in areas surrounding sensitive lakes and wetlands may also be having adverse effects on the environment. The Council has a function to maintain indigenous biological diversity under the RMA and this is also set out in the *Canterbury Regional Policy Statement 2013*. Fish and Game seeks assurance that the Council has thoroughly assessed the land in the basin to identify all locations of significant indigenous vegetation and significant habitats of indigenous fauna and that appropriate provisions are contained within the District Plan to protect these areas as well as provisions to maintain indigenous vegetation not considered significant but that may play an important role in the life-supporting capacity of ecosystems.



Have your Say

Ashburton District Council

PO Box 94

Ashburton 7740

2 March 2022

HAVE YOUR SAY CONSULTATION: Future of Lake Camp and Lake Clearwater Submission from the Lake Clearwater Hut Holders Association Incorporated

## Introduction

Tēnā koutou katoa

Thank you for the opportunity to share our views on the future of Lake Camp (Ōtautari) and Lake Clearwater (Te Puna a Taka) and contribute to the development of a 30-year plan for the area. We are very keen to be involved throughout the process.

Over the next 30 years, three outcomes must drive forward-planning for the area:

- Improved water quality of Lake Clearwater and other lakes in the Ashburton lakes catchment.
- 2. Sustainable maintenance of the settlement at Lake Clearwater at its current size.
- Continued and strengthened partnerships between all those responsible for water and land used in and around Lakes Camp and Clearwater

These outcomes can only be achieved through shared commitment by the Ashburton District Council, iwi o Te Rūnanga o Arowhenua, Environment Canterbury, Department of Conservation, Fire and Emergency New Zealand, adjacent landowners, Lake Clearwater Hut Holders Association, all campers and visitors to the area and other stakeholders. We must all work collaboratively and constructively.

We agree with the issues raised in the Council's consultation material. Undoubtedly the foremost challenge is to attain a significant improvement in the water quality of Lake Clearwater and the other lakes in the Ashburton lakes catchment.

Lake Clearwater and Lake Camp are 'jewels in the crown' of the Ashburton District and their location in the heart of the Hakatere Conservation Park reinforce the importance of environmental protection of the lakes, the settlement and surrounding land.

## About us

The Lake Clearwater Hut Holders Association (LCHHA) represents the 180 bach owners at the settlement. The LCHHA was formed in the early 1960s. Since then, hard-working committees have consistently undertaken a huge amount of maintenance and betterment work around the settlement, enhanced the local environment, and ensured that the settlement is a safe and friendly place for bach owners, campers and visitors to the area.

With almost 100% membership of bach owners, the LCHHA enjoys solid support. We work hard to maintain constructive working relationships with Ashburton District Council officers and elected members, and key stakeholders in the area – in particular Fire and Emergency New Zealand (FENZ), Department of Conservation (DOC), Environment Canterbury (ECan) and adjacent land owners. We are keen to grow our relationship with Te Rūnanga o Arowhenua, as we all work together to respect and value and land, water and mountains of the area that we all love.

Activities that the LCHHA committee (of 16) and other volunteers undertake include:

- Regular meetings and information liaison with Council staff to discuss current issues
- Dissemination of Council information, on your behalf, to bach owners
- Maintaining public amenity around the settlement and foreshore areas: extensive grass mowing and weedeating at playgrounds, camping area, fire breaks and foreshores; maintaining equipment at two playground areas, cleaning the Clearwater camping area public toilets
- · Spraying invasive weeds around the settlement and foreshores; reducing spread of wilding pines
- Planting and watering Council-funded trees
- Maintenance and enhancement of the community hall (LCHHA-owned)
- Members of the FENZ Lake Clearwater Voluntary Rural Fire Force (21 volunteers).

# Our support for the Council's work

The LCHHA is appreciative of the goodwill between its Committee and Council staff and the strong interest that Elected Members show in the area.

We fully support the Council's recent requirement for baches' long drop toilets to be decommissioned – this is a positive step towards mitigation of the declining water quality of Lake Clearwater.

We support the investigative work underway to look at suitable procedures to deal with historic property encroachments, which have resulted in some issues with resource and building consenting. A pragmatic approach is favoured.

We endorse the continued regulatory approach to public health and safety at and around the settlement through the Dog Control bylaw provisions for the area, and the recent reduction in road speed limits on the Potts Hakatere Road. We appreciate maintenance of the Potts Hakatere Road which continues to have increasing traffic volume from 4WD vehicles and boat trailers.

# Our responses to your consultation questions

# Question 1: How often do you visit the Lake Camp and Lake Clearwater area?

You will be hearing from individual submitters about how often they individually visit the area. The LCHHA offers the overall observation that visitor numbers in total have grown exponentially in recent years – more people staying at baches, more boats, more mountain bikes, more campers and caravans, more trampers, more day-trippers...

International promotion of the area following the Lord of the Rings filming at Mt Sunday, the opening of the area as a Conservation Park, and domestic tourism promotions during Covid times have triggered a huge increase in numbers staying at and passing through the settlement and lakes.

Increasingly, the area is used for recreational sports such as wind-surfing, paddle boarding, water and jet ski-ing, mountain and e-biking, and 4WD driving. The influx of predominantly 4WD vehicles, trailers, caravans and camper vans generates congestion around the settlement, camping areas and foreshore throughout the whole summer.

# Question 2: Where do you stay when you visit?

Again, you will hear from individual submitters. We make the overall observation that some baches are in much greater use now than, say, 20 years ago. Work patterns have changed, people have more flexibility to stay longer, and baches, caravans and tents are more comfortable for longer stays. The increasing range of recreational activities available in the area attracts greater numbers of people to visit their baches, camp or caravan here.

# Question 3: What do you value most about the area?

Based on our in-depth knowledge of hutholders' interests and activities, and any concerns that are raised with the Committee, the following are greatly valued by our members:

- Natural environment the lakes, mountains, rivers, streams, wetlands, plants, purity of the Night Sky
- Water quality being able to swim and fish safely in the lakes
- Special built character of the bach settlement the simplicity of the baches, their intergenerational history in many instances
- **Community fabric** –the family-friendly, safe setting for children and young people, willingness by everyone to 'chip in' and help with settlement or individual bach projects.

## Question 4 (a): What does a thriving future at Lake Camp and Lake Clearwater look like to you?

The following statements depict what we believe a future, thriving Lake Clearwater and Camp look like.

- There is improved water quality of Lake Clearwater, in particular, and also of all the lakes, rivers, wetlands and streams in the area.
- The Lake Clearwater and Lake Camp area continues to be a place where bach owners, campers, caravaners and day visitors enjoy staying, passing through, playing, exploring and enhancing the area, through careful stewardship of the land and water.
- The settlement retains its strong sense of local community a simple, off-grid holiday and recreational location where volunteering and 'helping out' continues to be the way things get done.
- There is continued commitment by the Council and other stakeholders to investigate and put in place appropriate requirements and/or facilities to ensure improved environmental outcomes; e.g. appropriate treatments for disposal of campervan waste and sustainable methods for the disposal of recyclable materials.
- There is space for the growing number of non-bach-based visitors to the area to rest or stay in the area without causing damage to the natural environment nor exacerbate issues associated with parking, rubbish and demand on the public toilets.
- The LCHHA and the Council, and other stakeholders continue to share positive, proactive relationships and work together for the betterment of the settlement and take into account the impacts of climate change on the natural environment.

## Question 4 (b): What do you see for the density and character of future development (if any) of the area?

The density of the Lake Clearwater settlement must not be increased, and indeed cannot, in accordance with the rules in the Ashburton District Plan. Lake Clearwater settlement is included in the Residential B Zone and its characteristics are specifically addressed through rules and supporting reasons.

Refer:

## 4.10 Zone Standards

4.10.1 Hut Settlements Generally a) No additional residential units shall be constructed in or relocated into the Residential B Zone at Lake Clearwater, Hakatere, Rakaia or Rangitata River Mouths.

And the reasons cited for this:

## 4.7.1 Residential Density and Building Coverage

Due to the existing difficulties within these hut settlements, particularly regarding natural hazards, additional development is limited by the rules.

## 4.7.16 Hut Settlements

Each of the hut settlements has significant limitations to additional development which would result in adverse effects on their surrounding environment and general amenity. The huts at Hakatere, Rangitata and Rakaia have been substantially 'improved' and do provide a place of permanent residence for some people although historically these were built as fishing huts. The hut settlement at Lake Clearwater (Te Puna- O Taka), has demonstrated a similar trend for hut development but without any aspect of permanent occupancy.

The Lake Clearwater settlement and Lake Camp area is already straining at full capacity and any further development of baches or camping areas would put waters and land at further risk of degradation.

# Question 5: What do you think is holding us back from this?

The LCHHA is confident that there is nothing to hold back the Lake Camp and Clearwater area from continuing to thrive as a settlement and be a much-loved place for many to use; as long as all future planning is driven by

- Actions that contribute to addressing declining water quality
- Adherence to the reasons and rules in the Ashburton District Plan that prevent increased density
- Actions and planning that harness and benefit from the enormous capacity and capability and willingness of the LCHHA and hut holders to look after and enhance the settlement and environs
- Actions that focus on mitigating climate change impacts
- Continued constructive relationships between all stakeholders.

## Conclusion

Thank you for this opportunity to submit our views. We hope that the LCHHA has been able to set out useful points to take into account in planning for a positive future for the Lake Camp and Lake Clearwater area.

We request time to speak at the Hearing on 13 April 2022.

We will be pleased to participate in all subsequent planning work too. We believe we have a practical, local knowledge that could usefully inform future thinking.

Ngā mihi

Steve Hadler Chairman

Lake Clearwater Hut Holders Association

## **Submitter: Erith Boyd**

We are hut holders at Lake Clearwater and the deterioration of the water quality and landscape are our main concerns. As you can see from the attached photos this is the damage and erosion of the surrounding slopes at Lake Camp and Lake Clearwater. I would like to see vehicle / motor bike access severely restricted to just the camp area and not beyond. This level of damage shows how fragile the environment is and the scars on the landscape are not acceptable, taking years to get vegetation to grow back.

The erosion will not be helping with the water quality in both Lake Camp and Lake Clearwater, as the suspended particles will be making the water more turbid and in turn increasing the water temperature. High levels of erosion will also be increasing the nutrient levels in the lake.

Fisherman are happy to walk while they fish and therefore there is no good reason to have vehicle access.

All baches need to be inspected for a sewage holding tank and enforced. Grey water may also need to be in a tank if the water quality of Lake Clearwater does not improve.

Can Environment Canterbury change the terms to the lease tenure for Mt Possession Station, where all fertilising is banned on the land that feeds into Lake Camp and Lake Clearwater?

I am aware that a number of people have questioned the No Dog policy, my view is that as long as the dog is on a lead then there should be no good reason to exclude them. The few Crested Greebs do not warrant the banning of dogs, especially when cats are not banned and they are a real problem to the bird wildlife.

Thank you Erith Boyd



































# Received by Mail

1 1 MAR 2022

\*Please note all submissions are public documents and will be made available on Council's website with the names of submitters included.



Your d		Last name: Watson
	u wish to speak in support of your submission kes are ticked, it will be considered that you do not wish to be h	
	Yes: The hearing will be held in the Council Chamber on Wednesday 13 April 2022. Please note that hearings are live-streamed to our online channels.	No: I do not wish to speak in support of my submission and ask that the following written submission be fully considered.
You ca	n submit on any or all of the questions below. Yo	ou don't have to complete every question.
Signat	ure: IfWalson Masse	n Date: 1/- 3-2022
Su		n or accompanied by multiple signatures will be
	processed as a s	single submission.
Fee	dback on Future of Lake Ca	mp and Lake Clearwater
1	How often do you visit the Lake Camp and Cle	arwater area?
	sver the last Sc	years we have visited
20	re Mora water avea	many times
-	ac ejear www.es area	yriovi ( ivic)
<b></b>		
2	Where do you stay when you visit? (tick all tha	t apply)
V	In your own bach	Freedom camp around the lake
$\bigcirc$	Stay with friends	Usually only come for day trips
$\overline{\bigcirc}$	At Lake Clearwater campground	Other:
$\widetilde{\bigcirc}$	Rent/borrow a bach	

Wind Sur Ling Boating Fishing and the Outsanding
Open 8 paces
What does a thriving future at Lake Camp and Lake Clearwater look like to you? What do you see for the density and character of future development (if any) of the area?
Must have water quality that allow's contact
recreation to be allowed on both lakes,
of the Canterbury water management straterage No future develop What do you think is holding us back from this? for housing, or camping.
of the Conterbury water managment strateraye No future develop
What do you think is holding us back from this? for housing or cam ping.
Intensified farming Surrounding lake
camp & elearwater a A failure to achieveing
And the principles that unust be met.
And the principles that must be met.
Do you have any other comments? (feel free to attach additional pages to your submission)
yes we do included.





Ashburton District Council PO Box 94 Ashburton 7740 Other Comments we would like to attach to our submission. about the future management of Lake Camp + Clearwater and surrounding environment

- We have been going to these lakes for many years, Firstly on day trips then staying in a caravan in clearwater camping ground. Then some 30 years ago we purchased a holiday home at . Mt Alma Street.
- 2. The main reason for going to the area was for windsurfing on lake Clearader & fishing. We also have used Lake Camp for boating & water sking & fishing. We also enjoy the many outstanding open spaces eg mountains Rivers etc.
- 3 You will appreciate that after using both these lakes for water sports over the last 30 years we are well conversed to express our views.
- Lake Clearwater is a outstanding lake for windsurfing as well as locals. Windsurfers Come from all over NZ. + Some overseas. It is reconized. For strong winds and reasonably Safe envortment. We first storted going there to windsurf we felt it was a very clean + heathy lake. Hence the name Lake Clearwater
- 5 About 15 years ago we were 2 of about 8 people that collected, water samples on Sunday evenings and sent to Ean by Courier for water testing. This happen over a whole Summer. The result of these water Samples were all good, except for one spike after a heavy rainfall. So it would be fair to say that the deterioation of the water in Lake clearwater is relatively resent eg over the last 15 years some thing has changed in this time. The most

Possible cause to us is that by retiring the Stock from the high mountain area's and. Intensifing the farming in the Vallies & flats exspessled above clearwater swamp area's that drains into the lake. A lot of land in this area has been cultivated and been growing green feed crops for winter grazing.

6 There has also appears to have been existic grass planted on this cultivated land above the swamp of Timothy Grass. The seed from matured plants obvisley be blown clown towards the swamp and now well established if not over taking this natural tussock in this area. By developing the walking and mountain bike tracks in the area. If these grasses cannot be eliminated there is the protential to spread these introduced plants right through out the surrounding over Tt has been our out the surrounding area. It has been our observation that the hillside around Lake Clearwater and Lake Camp have been much greener suspecting that there is more fertilizer being applied. It has certainly our observation that the weed growth in Lake Clearwater, has increased since the intensification of the farm land around the lake Clearwater and.
Companie last 3 to 4 years. There has been a
Very rapped weed growth and some area's of Lake Clearwater
it has been impossible to windsurf in fact quite
alangerous because the fins of windsurfers boards
get eaught up and tips you off and their is so
much weed its difficult to get free of the weed
and back on your board

The most dissapointing thing to us is that water quality and zine excessive weed growth did not need to happen. If the priority and goals set out in the Canterbury Water Managment Strategy had been their hald. hake Clearwater would today been still

Page 3, 7 be in pristine condition. Refere to page 6 of the the strategy achieving the vision and the principles that must be met. The goals and target areas for recreation by 2020 states a positive trend in the availably end or quality of recreation apportunity in each zone Understand. Threats and act to reduce risks to freshwater recreetional apportunities. Page 138 of the strategy gives clear direction to how wetlands. High Country lakes & high Country catchment should be maintained also gives actions to what has to be done when standards are not met. The 30 years plan should clearly demand that page 138 of this strategy and recreactional water quality standards be action immeditally for the Lake clearwater and Camp.

Long drop. Toilets
It is good that Clearwater hutholders are meeting there obligation's in decommissioning long drop toilets. Long drop toilets have been at.

Lake cleawater for many decades and we would be suprised that if this is the only reason for the deteriation of water quality over resent years, many hutholders have been installing holding tanks. And the Ashburton District Council has also installed holding tanks at the lake Clearwater camping ground. Also there has been an up grading of the toilets at Lake Camp. Also we have noticed porta. Loo's at busy xmas holldays times. The area is also visited requally by many Self Contained Camper Van's. It would be fair to say that over resent years there has been, a huge increase in the standards of toilet facilities at Lake Camp & Clearwater.

Freedome Camping We believe that unmanged, freedome Camping

Page 4

9 Lake Camp & Clearwater, particually at busy that stresses are being placed on the area

Fishing Batch's and the change in dwellings We are 3rd generation fisher's of our River's and lakes. Our family are 4th 5th 6th generation fisher's. Most places like hake Clearwater hake Camp Ashburton mouth, Rangitata River mouth. Rakaia river mouth started as fishing Village's where people built modest huts to stay in to go fishing the of these places once had outstanding fisheries. The deline in the volume of water and the quality of water has had a direct result on the once outstanding fishing and amenity values that our local Lakes and rivers use to provide. It has been our observations when this happen's the local communities changes.

The changes in the Lake Clearwater fishing huts and the building of larger structures that often provide more capacity for more people and therefore the protential for a larger environmental impact. Its difficult for us to understand and there needs to be some evidence that this directly having effect on environmental impact effect on the area and the water quality of Lake Camp and clearwater.

A 30 year plan for the future of Lake Camp and clearwater is to long.

Your statement that Lake Clearwater is currentley in a fragile state. Its water quality is declining and is at risk of flipping that statement requires urgent action NOW If the lake flips it will be allerestating

11

10

Page 5

12 The main challenges to water quality in the high country are development land, use intensification and climate change.

We believe the Canterbury Water Managment Strategy Nov. 2009 gives direction's and. Strategy Nov. 2009 gives direction's and. actions page 138 on what needs to be done to restore the water quality in Lake Clearwater. If this common be done Lake Clearwater will join the growing List of other Canterbury waterways. that are unsuitable for Contact recreation.

Thank you for your time in hearing.

Allason.

Attachments 6 Pages

from Canterbury Water mangement Strategy

# Canterbury Water Management Strategy

Strategic Framework - November 2009

Targets updated July 2010.
Interim Targets for 2025 and 2030 added August 2019

R19/122 E19/7624 Ian WATSON

Canterbury Mayoral Forum

He puna wai, he puna tangata
The pool of water sustains the pool of people

Canterbury Water

## Cultural health of waterways

The cultural health of freshwater in Te Waipounamu is moderate to poor.

## Water use efficiency

Some substantial efficiency gains can be made.

# Climate change

- Projections of climate change suggest the region will become drier and need more irrigation simply to maintain existing outputs from the land.
- Natural systems for delivering water will become less reliable and therefore less able to support current levels of output.

## Water quality impairment issues

- If there are to be substantial increases in land-uses associated with nitrogen leaching, then there must be a corresponding decrease in nutrient leaching from existing land.
- Modelling suggests it will be possible to substantially increase agricultural output while maintaining groundwater quality within acceptable limits as long as land management practices and technologies that reduce nutrients and other contaminants are applied across the region.
- To achieve this outcome will require existing users of water as well as new users to adopt the improved land management practices and technologies.

## Infrastructure issues

- New infrastructure needs to be introduced in conjunction with much more efficient use of water, both by existing users and new users. This will reduce the scale of new infrastructure that has to be built to manageable levels.
- New ways must be found to harness the knowledge and experience of existing irrigators in conjunction with external world class engineering, financial and management resources to build the next generation of storage.

## The Vision

## What would success look like?

The desired outcome of the strategy is:

To enable present and future generations to gain the greatest social, economic, recreational and cultural benefits from our water resources within an environmentally sustainable framework.

If the strategy is successful, the following features should be evident within 10 years:

- people will feel they are being treated fairly and involved in decisionmaking
- allocation decisions will be resolved in most cases without resorting to the courts
- there will be a high level of audited self management, and compliance action will be targeted on a minority of non-complying water users

- ecosystems, habitats and landscapes will be protected and progressively restored, and indigenous biodiversity will show significant improvement
- water quality will be protected and starting to return to within healthy limits for human health and ecosystems
- opportunities to exercise kaitiakitanga<sup>1</sup> and rangitiratanga<sup>2</sup> will be operative, and increasing
- opportunities for recreational activities will be returning and improving
  - water users will have access to reliable water, which will be used efficiently and productively
  - primary production and employment will be increasing, and the net value added by irrigation to the Canterbury economy and the national balance of payments will be increasing
  - opportunities for tourism activities based on and around water will be returning and improving, and the net value to Canterbury's economy from these activities will be increasing
  - efficiency in the use of energy will be improving
  - rural community viability will be improving and community cohesion will be maintained
- understanding and empathy between rural and urban dwellers will be increasing
  - the water management system will be better able to adapt to climate change in the future.

# Paradigm shift needed in water management

There is a need for new paradigm in the way water is allocated and managed. There is capacity for further development but it will require existing users and new users to improve the way they use water.

The key changes will be:

- a shift from effects-based management of individual consents to integrated management based on water management zones
- management of the cumulative effects of water abstraction and land use intensification
- water allocation decisions that address sustainable environmental limits and climate variability
- actions to protect and restore freshwater biodiversity, amenity values and natural character.

Regulatory action to deal with environmental problems will need to be complemented with incentive mechanisms that progressively drive efficiency in the use of water and responsible land management practices.

<sup>&</sup>lt;sup>1</sup> Kaitiakitanga. Traditional guardianship - the active protection and responsibility for natural and physical resources by tangata whenua

<sup>&</sup>lt;sup>2</sup> Rangitiratanga - having the mana or authority to exercise the relationship between Māori, and their culture and traditions, with the natural world. Iwi management plans and the active involvement of tāngata whenua in resource management decision-making processes are practical expressions of rangitiratanga

The key incentive mechanism to drive these changes will be the availability of reliable water from new storage and distribution infrastructure. However, this water must not be over-allocated for production purposes, as some water resources have been, but instead used to achieve balanced outcomes. In particular, protection of ecosystems, recreational and customary uses, and environmental conservation can no longer be seen as "add-ons" to development, but mainstream elements of a sustainable agenda.

# Achieving the vision

# Principles that must be met

Fundamental principles have been developed to underpin the strategy.

**First order priorities**: environment, customary use, community supplies and stock water.

**Second order priorities:** irrigation, renewable electricity generation, recreation and amenity

**Primary principles** – sustainable management, regional approach, and tangata whenua

**Supporting principles** – natural character, indigenous biodiversity, access, quality drinking water, recreational opportunities, and community and commercial use.

These are designed to ensure that our water resource is managed sustainably.

## **Targets**

The strategy will focus on delivering a balanced set of quantified outcome targets by specified dates. The measurable outcome targets will be in the following areas:

- drinking water
- irrigated land area
- energy security and efficiency
- ecosystem health/biodiversity
- water use efficiency
- kaitiakitanga
- regional and national economic growth
- natural character of braided rivers
- recreational and amenity opportunities.

These targets will give the strategy a sense of direction and balance and ensure that all aspects of the solution are advanced in parallel. They will also enable progress with implementing the strategy to be monitored and measured over time. There will be further engagement with stake folders before the targets are finalised by the end of 2009.

Wetlands: Includes swamps, bogs and seeps	Maintain natural character, hydrology, connectivity (where relevant), trophic status, ecological functioning and habitat diversity	Actions
		control  Planning  Prevent further loss (area, diversity)
High country lakes	Maintain natural character, levels, connectivity, trophic status and habitat diversity	Actions  Stock exclusion  Pest and weed (e.g. willow) control to enhance habitat values  In some instances retain disconnectivity (e.g. tarns)  Protect outlet streams  Planning  Avoid level controls (e.g., weirs) and other barriers to connectivity  Catchment management including allocation limits for nutrient inputs within particular lake catchments
Intermontane streams: Catchments and margins often have higher natural character and are less modified that is the case for lowland streams	Maintain natural character, flow variability, water quality, habitat values	Actions
Hill country catchments	Maintain stream flows, water quality and habitat values	Planning     Commence process for setting environmental flows     Set water quality standards and/or catchment contaminant load limits

# Threnne: Hheh country and foothill streams and takes

Water quality in the high country is variable among river types, predominantly influenced by sediment inputs and associated contaminants from overland run-off and stock access. Aquatic ecosystem health and water quality is typically higher than in lowland streams, particularly for streams that receive a large volume of flow from higher up in the catchment. Spring-fed streams in the high country are particularly vulnerable to habitat degradation and siltation through stock access, upwelling of groundwater and associated contaminants or runoff from intensive land use. Hill-fed streams may be hampered by inflowing spring-fed tributaries or fluxes of contaminant sources during high flows. Alpine and hill sourced rivers are generally less impacted by contamination sources due to a large volume of flow originating high up in the catchment.

By 2010: No Targets set for 2010.

By 2015: Highlighted any high-country spring-fed or foothill streams where ecosystem health is declining, and identified the cause with an action plan in place.

By 2020: All foothill rivers and high-country rivers and/or lakes either in good ecological health or better, or showing upward trend.

By 2025: Maintain or improve aquatic ecosystem health of all foothill and high-country rivers and high-country lakes.

By 2030: Maintain or improve aquatic ecosystem health of all foothill and high-country rivers and high-country lakes.

By 2040: Maintained upland spring-fed streams and lakes in very good aquatic ecosystem health (no decline from 2010).

80% of other rivers/streams and lakes with very good aquatic ecosystem health.

# Theme: Understanding emerging containin ant disks

Managing emerging contaminants is fundamental to ensuring safe drinking water. District health boards, Environment Canterbury, territorial authorities and water suppliers are conducting ongoing monitoring and reporting, are implementing and enforcing catchment load limits and are working with communities to improve water quality

By 2010: No Targets set for 2010.

By 2015: Understood any emerging contaminant risks and identified any at-risk areas for targeted management.

Emerging contaminant risks are understood and any at risk areas identified for targeted management, and a remedial programme underway.

By 2020: Understood any emerging contaminant risks and identified any at-risk areas for targeted management and a remedial programme underway.

By 2025: Emerging contaminant risks are understood, and limits are set where appropriate; at risk areas are managed with targeted remedial programme in place.

Emerging contaminant risks are identified with targeted remedial programmes in place and evaluated.

By 2030: Emerging contaminant risks are understood, and limits are set where appropriate; at risk areas are managed with targeted remedial programme in place.

Emerging contaminant risks are identified with targeted remedial programmes in place and evaluated.

By 2040: Understood any emerging contaminant risks and identified any at-risk areas for targeted management.

Understood any emerging contaminant risks and identified any at-risk areas for targeted management and a remedial programme underway.

## Thems: Catching his Load Limits

Managing emerging contaminants is fundamental to ensuring safe drinking water. District health boards, Environment Canterbury, territorial authorities and water suppliers are conducting ongoing monitoring and reporting, are implementing and enforcing catchment load limits and are working with communities to improve water quality.

By 2010: No Targets set for 2010.

By 2015: Achieved nutrient efficiency targets for the zone on all new irrigated land and 50% of other rural properties (and of properties within urban boundaries that apply nutrients over significant areas).

Identified where environmental flows are not met or require change to meet ecosystem health and biodiversity outcomes and implemented actions to rectify.