



# **WAIORA ONE WATER STRATEGY**

**WAIKIRIKIRI SELWYN | 2024 - 2074**



**Te Taumutu  
Rūnanga**



# MIHI

*Te wai tuku kiri, te wai tipua, te wai oraka*  
*The skin caressing waters, the water of ancient times, the living waters*

In Waikirikiri Selwyn we know that lasting long term outcomes for our environment and communities are the result of trust, partnership, intergenerational thinking and consideration. This Waiora One Water Strategy is the result of those values and action. It has been jointly contributed to by Te Taumutu Rūnanga, Te Ngāi Tūāhuriri Rūnanga and Selwyn District Council representatives as we look to the next 50 years and beyond.

We acknowledge the work of our ancestors who have carried the traditions and importance of water we still hold dear today, as well as the efforts of the working party which has representation from Selwyn District Council and Te Taumutu Rūnanga.

This strategy will come to life through the delivery of actions and its embedding into our day-to-day business at the Council, on the marae, and through all the ways we work together in between.

We look forward to the outcomes this strategy envisages, the improvement in environmental outcomes, and the opportunities for families and businesses to buy into this strategy and contribute at a local level.

We also envisage this being the first of many ways continued partnership between mana whenua and Selwyn District Council will add to the richness of outcomes for our environment and communities in other areas of joint interest, from co-design through to delivery and monitoring.

Mā te tokomaha, ka ora ai te wai, te taiao, te takata.

By the work of many will the health of the water be restored, the environment flourish and the people thrive.

Waiora One Water is the name of this strategy. The name reflects the collective desire for the wellbeing of our water and its future sustainable management. The word Waiora translates as 'healthy water.'

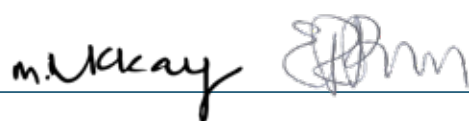
Waiora One Water Strategy, kia toitū te wai, kia wai ora, ki te ao tūroa, ki te ao mārama, ensuring sustainable and healthy water for our future.

As recognition of mana whenua and kaitiakitaka, we have been guided by Ngāi Te Ruahikihiki on the use of the 'k' often referred to as the Kāi Tahu or Ngāi Tahu dialect.

The writers of this document use the 'k', which you will see throughout the document. Please note, all proper nouns or direct quotes are kept in their original dialect. So, at times, you may see a mixture of 'ng' and 'k'. A glossary of commonly used terms can be found at the end of this document.



Selwyn District Council



Te Taumutu Rūnanga

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# ONE WATER STRATEGY

## Waiora One Water Strategy - Context

We have learnt a lot since the first water strategy. It is time for a new, current and future-focused step change to clearly reflect our social and environmental challenges. The term 'One Water' reflects the holistic 'no boundaries' nature of the water cycle; a growing and deeper recognition from the community of cultural values.

The Waiora One Water Strategy expresses a collective desire that, rūnaka and the Council have an agreed strategic framework and roadmap for those involved in water management to upholding the mana and mauri of all water, (irrespective of the future management structures for water).

The Waiora One Water Strategy forms part of the Council's wider strategic direction for Waikirikiri Selwyn. It aligns with other plans and strategic documents including the District Plan and Selwyn District strategies. The Waiora One Water Strategy will direct planning, development and investment across Council.

Its implementation will require integrated planning across land, water and infrastructure.

The Waikirikiri Ki Tua Future Selwyn will be supported by the Waiora One Water Strategy in regard to the protection of waters within Waikirikiri Selwyn and land development impacts on water.

The Waiora One Water Strategy and Implementation Plan actions will be implemented through Council planning processes. Use of the strategy will be supported by, but not replace, mana whenua positions on water as expressed through key documents including Te Whakatau Kaupapa: Ngāi Tahu Resource Management Strategy, Mahaanui Kurataiao Iwi Management Plan and Te Taumutu Rūnanga Natural Resources Plan 2003.

## Vision

*Hei whakamana kā wai tūpuna,  
Hei whakahaumanu kā wai oraka,  
Hei whakamauru kā wai kōrero,  
Mō te hāpori whānui, mō kā uri*

*Upholding the mana of our ancestral waters,  
Restoring the mauri of our life giving waters,  
Enhancing the performance of our water infrastructure,  
For our community, for our descendants.*

## Guiding Principles

The mana and mauri of all water is upheld in all decisions.

We work collaboratively within our Treaty partnership recognising the duties of Council and the expectations and priorities of mana whenua.

The hierarchy of Te Mana o Te Wai is applied in all decision-making concerning water infrastructure, land use and management of the inter-relationship between land and water.

We commit to continuous knowledge building of the health of water that combines mātauraka Māori and science.

Decisions are made to support long term outcomes and elevate the needs of future generations for abundant and clean water.

We will collaborate with other agencies and secure adequate resourcing and funding to achieve the goals of this strategy.

## Goals

### Waterways

**The health and wellbeing of water is prioritised and all water systems are protected and enhanced**

- 1) Protect and restore the natural processes of all water and waterways.
- 2) Protect and enhance Te Waihora Lake Ellesmere and all tributaries by identifying actions that will make a meaningful contribution to improving water quality and restoring the mauri of Te Waihora.
- 3) Recognise the interconnectedness of all waterbodies including between natural, modified and constructed.
- 4) Protect and enhance naturalised habitats and biodiversity within water bodies, races and drains.
- 5) Restrict unnatural mixing of water bodies and their waters.

### People

**Healthy people, whānau and communities are supported by enabling water infrastructure.**

- 1) Ensure that safe water services maintain public health.
- 2) Protect and enhance safe access to water for recreation, mahika kai and cultural connection.
- 3) Connect communities to water and associated biodiversity through enhanced accessibility, water literacy, education and promotion.
- 4) Enable waters servicing to support community wellbeing, residential development and kāika nohoaka within environmental limits.
- 5) Support and promote a commitment to, and innovation in, the efficient use and recycling of water for all water users.

### Land & Infrastructure

**Integrated water and land development ensures that enabling infrastructure is resilient and sustainable.**

- 1) Develop resilient and sustainable infrastructure solutions which are adaptive to our changing climate.
- 2) Integrate land use planning and water infrastructure to ensure development protects water and contributes to enhanced water outcomes.
- 3) Promote demand management, water recycling and nutrient reuse opportunities to support a circular system (environmental, social, cultural, and economic wellbeing).
- 4) Ensure that water sources and distributions are protected, within available water takes, and ecological and environmental limits.
- 5) Lead best practice, innovative infrastructure and service delivery to enable resilience, mitigation and adaptation.

# WHAKATAKI INTRODUCTION

## About our Waiora One Water Strategy

Managing our water into the future requires an integrated approach to managing all waters, across management responsibilities. Our One Water approach recognises the water cycle and the interconnected nature of all water, the relationship between water and our wider environment (land, biodiversity and people), takes a whole of environment view to explore relationships within and between catchments. It also acknowledges Te Mana o Te Wai.

Through co-design between Council, Te Taumutu Rūnanga and initially Te Ngāi Tūāhuriri Rūnanga, we are working with our partner agencies to improve water and biodiversity outcomes, protect water sources for the life-sustaining needs of our environment and people, minimise the impacts of our infrastructure on water, and uphold the intrinsic value of water.

This Waiora One Water Strategy outlines our shared vision for water, a framework for identifying appropriate use and management of water, and some of the steps we will be taking to improve water outcomes for our district, its environment, and all people.

The Waiora One Water Strategy covers the intersection between iwi culture, values and needs and the infrastructure and activities which relate to the water cycle of Waikirikiri Selwyn.

# Who should use this Waiora One Water Strategy

Anyone with an interest in water across Waikirikiri Selwyn District should consider this strategy in the context of their relationship with water.

This Waiora One Water Strategy is intended to guide Council, other water infrastructure providers, developers and interested community members.

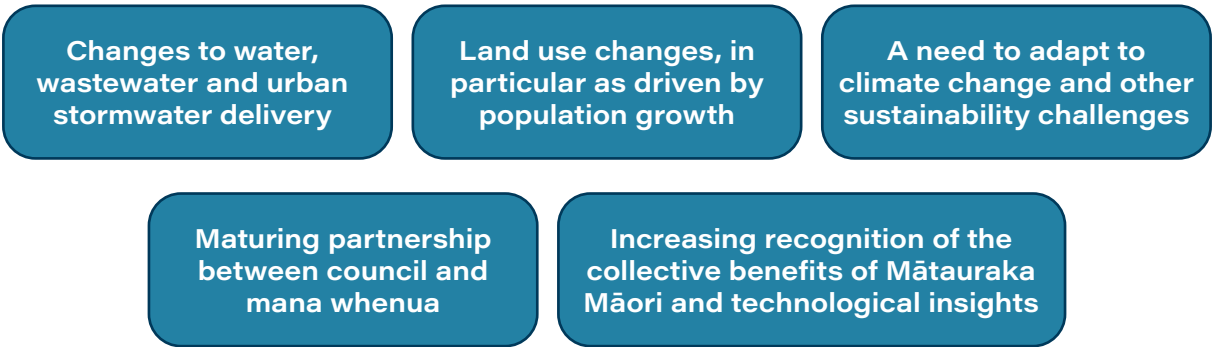
It describes the shared strategic intentions of Te Taumutu Rūnanga, Te Ngāi Tūāhuriri Rūnanga and Council for water over the next 50 years.

## A 50-year outlook

This strategy is fundamentally based on ensuring healthy water, healthy people and communities and a resilient environment with appropriate infrastructure now and for future generations.

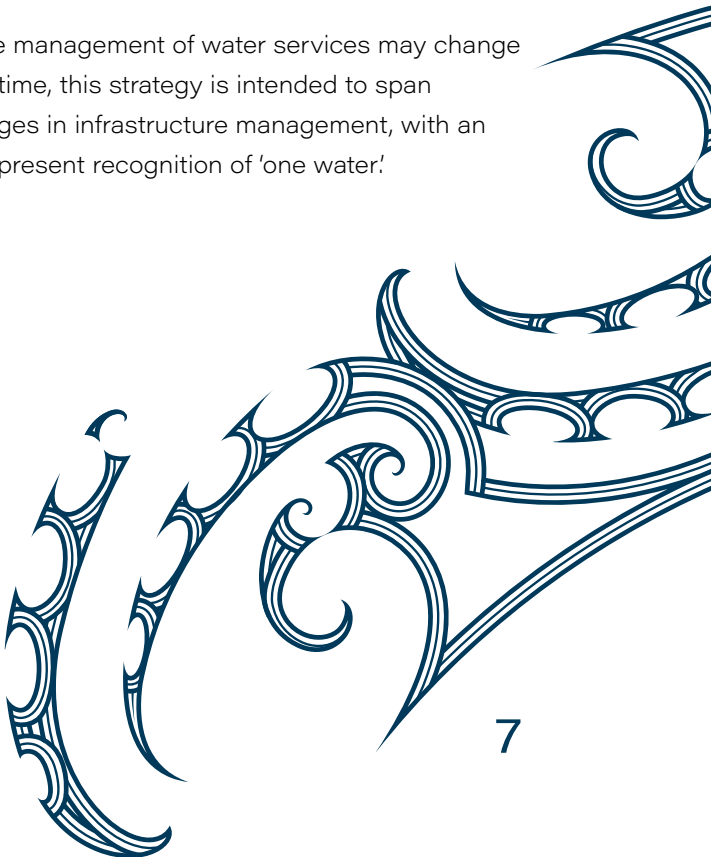
The Waiora One Water Strategy takes a 50-year view, recognising that sometimes incremental changes happen and that we need to adapt, as shown below:

### Changes this strategy aims to support over 50 years



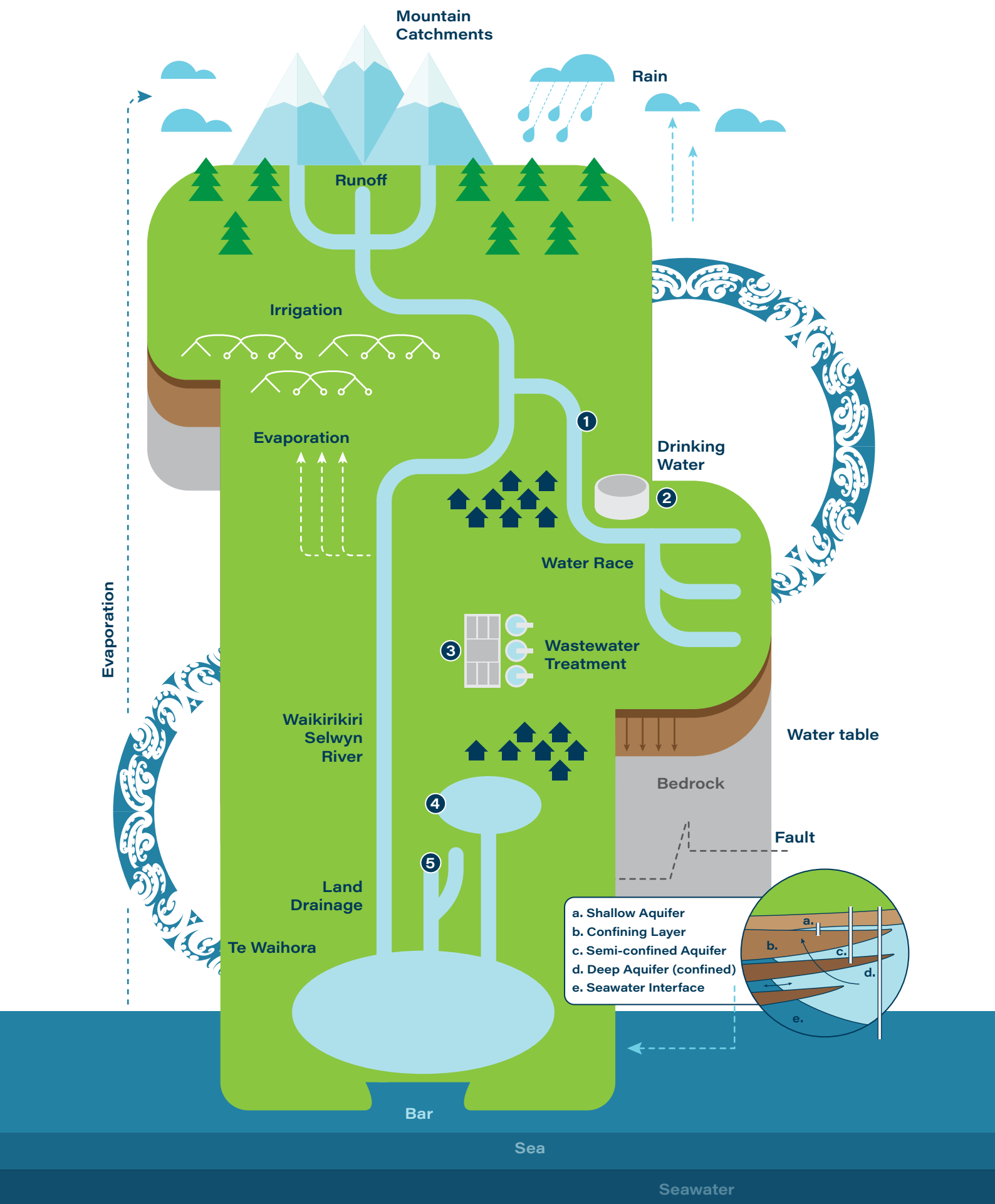
Given the timeframe of this Waiora One Water Strategy, the implementation plan has been developed with more detailed focus on tangible short and medium term actions, while setting out a 50 year guiding vision illustrative of needs which would be supported by future opportunities.

While management of water services may change over time, this strategy is intended to span changes in infrastructure management, with an ever present recognition of 'one water.'





# One Water Cycle





## 5 Waters infrastructure components within the Waioira One Water Strategy







Devil's Punchbowl Waterfall Arthur's Pass



# KĀ PUTAKA FOUNDATIONS

***Nā Te Pō, ko Te Ao***

***Tana ko Te Ao Mārama, ko Te Ao Tūroa***

***Tana ko Te Kore Te Whiwhia***

***Tana ko Te Kore Te Rawea***

***Tana ko Te Kore Te Tāmaua***

***Tana ko Te Kore Te Matua***

***Tana ko Mākū, ka moe i a Māhoranuiātea***

***Ko Raki, ka moe i a Pokoharuatēpō***

***Ka puta ko Tāwhirimātea, ko Tiu,***

***Ko Aoraki, ko Rakirua, ko Rakiroa, ko Rarakiroa***

***Ko Tūterakiwhanoa uira ki te Mahaanui a Māui***

***Ko Te Ao Takata***

***Tīhei mauri ora!!***

## Whakapapa genealogical origins

The Ngāi Tahu creation tradition explains the origins of all things, past and present. It provides the thread between natural world and people. It is sacred and unique to, and orders, the world from Te Pō, the darkness through to the emergence of Mākū, the moisture; the birth of the various atua gods; and eventually Te Ao Takata, the world of people.

Importantly, Mākū, the ancestor of water is one of the earliest elements to emerge. It was Mākū who coupled with Māhoranuiātea, and gave life to Raki who in turn coupled with Pokoharuatēpō to give life to the great winds – Tāwhirimātea, Tiu, Te Puaitaha and Te Operuaraki. Aoraki and his brothers Rakirua, Rakiroa and Rarakiroa were also born of this union. It was Tūterakiwhanoa, Raki's grandson, who was responsible for shaping the great wreckage of Aoraki's canoe – Te Waka o Aoraki – now known as the Te Waipounamu or the South Island – and making it habitable for people.

Ko Rākaihautū te takata nāna i tīmata te ahi ki ruka ki tēnei whenua – Rākaihautū was the man who lit the fires of occupation on this island.

Under the leadership of Rākaihautū, the first people to arrive in Te Waipounamu were Te Kāhui Tipua, Te Kāhui Roko and Te Kāhui Waitaha. They came from Te Patunui-o-Aio in the Pacific landing at Whakatū Nelson, before splitting into two parties, one under the leadership of Rākaihautū who traversed the interior, and the other under the leadership of his son, Te Rakihouia. The second party circumnavigated Te Waipounamu on the waka, Uruao.

The discovery and settlement of Te Waipounamu by Rākaihautū is celebrated and commemorated through the many place names that exist today, including Te Kete Ika a Rākaihautū and Kā Poupou o Te Rakihouia.



## Te Waihora Lake Ellesmere

The origins of Te Waihora Lake Ellesmere are intricately tied to the whakapapa of the iwi. It was Tūterakiwhanoa who caused the indent in the land with his heel as he raked up the wreckage of Te Waka o Aoraki. The indent was eventually to create the base of the lake now known as Te Waihora Lake Ellesmere. Traditions record that generations later, with the arrival of the waka Uruao, Te Rakihouia discovered the coastal lagoon teeming with fish. Staking his claim, the coastline became known as Kā Poupou o Te Rakihouia, the eel weirs of Te Rakihouia. The lake was claimed by his father, Rākaihautū and became known as Te Kete Ika a Rākaihautū, the fish basket of Rākaihautū. The tradition of discovery is recorded in the Rākaihautū narrative.

The name Te Kete Ika a Rākaihautū is the earliest name for Te Waihora Lake Ellesmere and reflects the abundance of resources sustained by the lake and its tributaries. The lake is renowned for its mahika kai, including pātiki flounder, tuna eels, aua yellow-eyed mullet, īnaka whitebait, pīkao sand sedge, harakeke flax and many varieties of waterfowl.

Over time, Te Waihora Lake Ellesmere became an area of concentrated activity and settlement. Early settlements included the pā Waikākahi on the eastern shores of the lake, and Hakitai at Taumutu, along with the settlements of Orariki and Te Pā o Moki. Recorded Māori archaeological sites around Te Waihora Lake Ellesmere include pā sites fortified settlements, kāika undefended settlements, nohoaka campsites, urupā burial grounds, gardens, borrow pits (small quarries) as well as numerous mahika kai sites. Te Waihora Lake Ellesmere was also an important source of sustenance for Māori and Europeans travelling to world wars, with kai being taken and transported to support the campaigns.

There are more than 30 waterways that feed into the lake. These include Waikirikiri Selwyn River, Waiwhio Irwell River, Huritini Halswell River, Ararira LII River, Waitatari Harts Creek,

Waikēkēwai and Kaituna In the past, there was also a significant wetland buffer around Te Waihora Lake Ellesmere. It stretched from the State Highway 1 Bridge at Northwood across to Lincoln, meeting up with the Port Hills near Halswell – most of which has since been drained.

This wetland buffer was a significant source of mahika kai, and helped keep Te Waihora Lake Ellesmere waters healthy. Ngāi Tahu kaumātua recall Te Waihora Lake Ellesmere having clear water with a shingle bottom and extensive beds of large aquatic plants including macrophytes around the lake margins.

The areas covered fluctuated as land use changed. For Ngāi Tahu, the changes have been immense, with Te Waihora Lake Ellesmere going from being a critical source of drinking water, food and cultural resources, to today being classified as super-eutrophic (ie. rich in dissolved plant nutrients such as nitrogen and phosphorus which encourages aquatic plant growth).

Despite its current state, Te Waihora Lake Ellesmere remains significant as a tribal taoka and mahika kai, and is internationally recognised as a significant wetland habitat with associated conservation values. It is protected by a National Water Conservation Order gazetted in 1990. The bed of Te Waihora Lake Ellesmere was vested fee simple in Te Rūnanga o Ngāi Tahu as part of the Ngāi Tahu Settlement with the Crown in 1998 and its management and restoration is subject to a Joint Management Plan and Co-Governance arrangement between Ngāi Tahu and Crown Agencies including Environment Canterbury, Selwyn District Council, Christchurch City Council and Te Papa Atawhai Department of Conservation.

Historically, Te Waihora Lake Ellesmere was part of a continuum of coastal lagoons, estuaries and wetlands extending along the coast to the Rakaia River and further south. Muriwai Coopers Lagoon, and Rakaia River mouth and lagoon are two significant settlements and mahika kai in this chain.

## Whakatekateka o Waitaha The Plains

The numerous puna springs, repo wetland, pātītī grasslands and ngahere forests of Kā Pākihi Whakatekateka o Waitaha the Canterbury Plains provided mana whenua with food and fibre resources to sustain their various pā and kāika throughout the district. Many of the creeks and streams on the plains are spring-fed, including the Ararira LII River, Ōhiahia Lee River, Tentburn River, Waiwhio Irwell River and Waikēkēwai, while the Waikirikiri Selwyn River is a mixture of rain-fed (upper catchment) and groundwater-fed (lower catchment).



Aerial view Rakaia River near Rakaia Gorge

## Alpine Lakes

The high-country lakes and alpine areas are valued for their mahika kai, as well as their spiritual values. The high-country lakes including Whakamatau Lake Coleridge, Waikawa Lake Lyndon, Ōpōrea, Moana Rua Lake Pearson and Ōpōreaiti Lake Grassmere were critical food sources and resting areas for those travelling the numerous trails connecting the Ngāi Tahu settlements of the east and west coasts. They provided a source of tuna eels, kea, āruhe fern root, kāuru cabbage tree root and various water birds, as well as valuable plants including taramea wild spaniard which was valued as a perfume, and tikumu mountain daisy, which was used to weave waterproof garments.

Ōpōrea, Moana Rua Lake Pearson and Whakamatau Lake Coleridge are identified in the statutory acknowledgements of the Ngāi Tahu Claims Settlement Act (1998). This recognises the cultural, spiritual, historic and traditional association of Ngāi Tahu with these water bodies.

## Braided Rivers

The three main rivers in the District are the Waimakariri River (northern boundary), Waikirikiri Selwyn River (that feeds into Te Waihora Lake Ellesmere) and the Rakaia River (southern boundary). The rivers are fast flowing in the steep and narrow mountain streams, while the plains are traversed by wide, braided rivers with shingle riverbeds. The Rakaia and Waimakariri Rivers are the largest braided rivers in New Zealand and have been recognised as having "an outstanding natural characteristic in the form of a braided river". The Rakaia River is subject to the Rakaia Water Conservation Order 1988. Both rivers are also culturally significant to Ngāi Tahu for traditional food gathering. These waterways are associated with ara tawhito or historical trails that were used to traverse the Plains and the Southern Alps. These trails, and the rivers and lakes along them, were particularly important for the trade in pounamu. Pounamu was central to the traditional economy and wellbeing of Ngāi Tahu. Each trail had associated nohoaka or places of shelter and respite as well as urupā, kāika pā and mahika kai.

One such trail encompasses Noti Raureka Browning's Pass, which takes in the Rakaia River and the headwaters of the Waitāwhiri Wilberforce River. The pass is named for Raureka of Ngāti Wairangi. When Ngāi Tahu had arrived and settled on the east coast, Te Tai Poutini West Coast, had already been settled by Ngāti Wairangi. Kā Tiritiri o te Moana the Southern Alps were a major barrier between the east and west. Raureka found a route through the alps and shared that knowledge with Ngāi Tūhaitara. The sharing of this knowledge led to Ngāi Tahu migrating to the West Coast and eventually taking control of the prized pounamu and its trade.

Other routes to the West Coast utilised the upper Waimakariri River.

Hawden River, Arthur's Pass National Park



# WAI PUTAKA SOURCE WATER

## How are we connected to the water?

***Tai timu tai pari***

***Kā wai o Mahaanui ki Kā Poupou a Te Rakihouia***

***Pūpū mai kā hau a Tāwhirimātea***

***I whakapurea te awa huka o te whenua Pākihi Waitaha e***

***Tīhei mauri ora!***

*The tides of Mahaanui rise and fall*

*Against the great eel weir of Te Rakihouia*

*The winds of Tāwhirimātea blow forth*

*Cleansing the snow fed rivers and the great plains of Waitaha*

*Behold the life giving forces!*

The Waikirikiri Selwyn District is unique. Water connects us. It is central to our cultural, social, economic and environmental wellbeing.

We are bordered by two significant braided rivers - the Waimakariri and the Rakaia, which flow from pristine alpine lakes and snow-fed valleys of Kā Tiritiri o te Moana the Southern Alps.

We have a network of rivers, streams, wetlands and other waterways leading to Te Waihora Lake Ellesmere - all connecting to the coastline of Te Tai o Mahaanui and Kā Poupou a Te Rakihouia. For mana whenua, water is a taoka of the utmost importance. It plays a central role in the culture, traditions and ongoing identity of people, particularly in relation to the custom of mahika kai.

Water is a source of food, physical sustenance, mana and spiritual sustenance, being intricately linked to, and reflective of, the wellbeing of mana whenua.

The co-design of this strategy is therefore supported by the respective worldviews, connections and experiences of mana whenua and our wider community. As we explore how we are connected to water, we draw together Te Ao Māori and early European views into a contemporary context.

## Mana whenua and Te Ao Māori view

***Koia hoki te haukū, he roimata nō Raki***

***Koia hoki te kōpaka, kā poroporoaki a Papatūānuku***

***Koia te tuturoroa, ko tō Papatūānuku aroha***

***Koia te takapau wharanui***

*It is the dew, the tears of Raki weeping for Papatūānuku*

*The ice as Papatūānuku farewelled Raki*

*And the mist, the love of Papatūānuku*

*This is the birthing place of the generations*

The relationship between mana whenua and water is founded within Ngāi Tahu tribal traditions and a world view that understands waimāori freshwater, Raki Sky father, Papatūānuku Earth mother. The health and wellbeing of water resources, in all forms, is inextricably linked to the health of people. This is reinforced by the words above from Matiaha Tiramorehu, a renowned Ngāi Tahu tohuka and rakatira of the 19th century.

The history of Waikirikiri Selwyn is steeped in the traditions of the people of Ngāi Tahu, Ngāti Māmoe and Waitaha, the original inhabitants of this landscape. Mana whenua identity is firmly bound by whakapapa genealogy to the whenua, the water and the heavens.

**Water is the basis of all life.**

**Creation traditions, historical accounts and associations support this.**

**Science supports this.**

Water has its own mauri and intrinsic value.

It includes awa rivers, roto lakes, hāpua coastal lagoons, repo wetlands, puna springs, groundwater and aquifers.

Waterbodies such as the Waimakariri River, Waikirikiri Selwyn River, Te Waihora Lake Ellesmere, Waitāwhiri Wilberforce River and the Rakaia River are examples of waterways that hold immense cultural significance. They are known wāhi taoka and wāhi tapu places of significance, valued for their ancestral associations, and their natural and cultural values.

Each waterbody has its own mauri. Mauri can be described as life force. It reflects the health, wellbeing and spiritual state of the waterway and is a critical element in the special relationship between Māori and the natural world. Mauri can be understood and sensed through physical qualities like flow and clarity, as well as biodiversity abundance, productive capacity and the ability to enable the use of resources for cultural purposes. The protection and enhancement of mauri is essential to ensure sustainable management of a resource for future generations.

Mahika kai refers to the customary gathering of food and natural materials, and the places where those resources are gathered.

In the 1880s, 1,712 mahika kai sites were recorded in Canterbury and Otago. Those sites sustained multiple pā and a thriving trade economy.

Water was integral to those mahika kai. As noted, the central value of waterways for mana whenua revolves around mahika kai providing habitat for valuable food resources, including fisheries, birds and plants. In particular, native fisheries are significant as a key indicator of waterway health.

Traditions, memories and whakapapa are memorialised in the names of waterways, landmarks and places.

The importance of water for transport is supported by the concentration of archaeological sites and settlements along river and stream corridors and the lakes and lagoons across the district.

The connection to water, for mana whenua, is not something that only sits in tradition. Successive generations have maintained and continued to evolve the relationship with water and te taiao, the natural world. Perhaps one of the biggest challenges facing this generation are the interventions now required to protect the water and te taiao, to facilitate the sustainable health and wellbeing of water and do so that in partnership. It will be a significant journey.



# Post-European arrival

When European settlers arrived, they observed and recorded a place where water and waterways were readily accessible and vital for trade and sustenance. While water was plentiful in the rivers, the inner Canterbury plains were mostly dry and difficult to inhabit, other than at a subsistence level. The plains had extensive open tussock lands interspersed with groves of shrubby vegetation, wetlands and occasional forest patches which supported kiore polynesian rat and the now extinct koreke native quail and Eastern Bluff weka. The foothills and mountains beyond were extensively covered in native forest, native sub-alpine and alpine vegetation, which was home to kākāpō, kākā, kiwi, kākārīki and kea.

In 1848 the Crown purchased most of the Canterbury region off Ngāi Tahu for £2,000 (fig 3,4), in what became known as the Kemps Purchase. This purchase allowed for the subsequent sale of land to settlers and the establishment of the early run hold farms of Canterbury.

For Ngāi Tahu, the sale placed obligations on the Crown. "Places of residence and ... food gathering places are to be left to us without impediment for our children and for those after us" (Evison 2006, p. 89). Subsequent generations of Ngāi Tahu have fought to hold the Crown to account to honour its obligations.



Fig 1

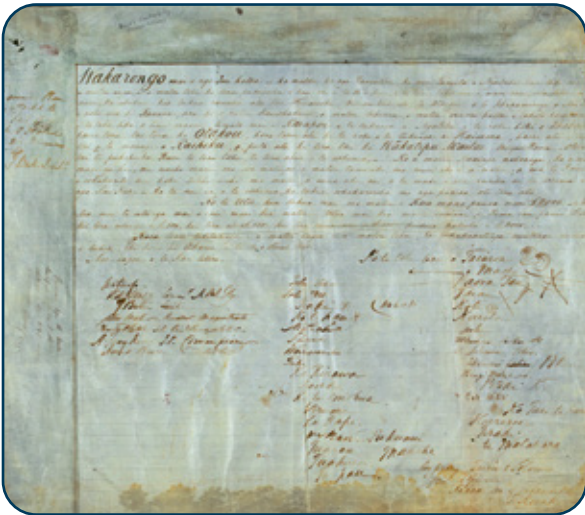


Fig 2

Description	Citation
Canterbury Deed Plan	Te Rūnanga o Ngāi Tahu Collection, Ngāi Tahu Archives 2014-104 <b>Fig 1</b>
Centerbury Deed	Te Rūnanga o Ngāi Tahu Collection, Ngāi Tahu Archives 2014-104 <b>Fig 2</b>

From the late 1800s, open channels (water races) were constructed to move water from alpine and foothill rivers to the plains using the natural fall of the land. This dramatically increased the scale, extent and productivity of farms. In the lowland areas, the extensive wetlands and swamps surrounding Te Waihora Lake Ellesmere were gradually drained to provide for agricultural production.

From the early 20<sup>th</sup> century, technologies used to access and extract deep groundwater allowed for increasing land use intensification and urban development. This improved the ability to live and have productive livelihoods almost anywhere across the plains. Further change occurred with the completion of the Central Plains Irrigation Scheme from 2014.

Our district also has a diverse network of engineered infrastructure, through drinking water, wastewater, water races, stormwater and land drainage systems developed to support the health and wellbeing of our residents and growing population.

Some drains and water races have become the remaining connections and refuges for important freshwater species, while others need enhancement to continue to meet regional and national standards and provide for our community.

All of these water systems are intricately linked to the quality and quantity of the water cycle, and all the people that visit and live in the district.



Fig 3: Map of natural and man-made waterways in the Waikirikiri Selwyn District.

# The shared future of our water

The long history of Waikirikiri Selwyn District, together with the enduring relationships between people and water, and the investment decisions that have been made have created a complex context for future management of water and the wider environment. Understanding the characteristics and challenges provides opportunities and solutions which are unique to this place.

For more than 150 years our land and water resources have been modified to provide for modern lives, sustaining a strong district and regional economy, as well as providing recreational opportunities.

However, this development has come at the cost of significant biodiversity loss, including a major loss of natural streams, rivers and lakes, and the degradation of waterways seen in reduced water quality and quantity.

Ultimately this has affected the ability of mana whenua to provide for cultural practices and wellbeing as well as the whole community's ability to enjoy waterways.

The cohesive, collective and sensitive management of water to protect and restore all waterbodies is a matter of critical importance. Our water, and our environment can no longer be taken for granted.

**Action is required to protect water systems and restore the life-giving nature of water within the district.**

We have strong guiding documents informing the future management of water which complement this strategy. The Mahaanui Iwi Management Plan urges us all to rethink the way water is used, including the kind of land use that water supports and the use of water as a receiving environment.

**"Because of the fundamental importance of water to all life and human activity, Kāi Tahu maintain that the integrity of all waterways must be jealously protected... This does not preclude the responsible use of water, but merely states the parameters which Kāi Tahu believe any such use should remain within. The utilisation of any resource for the benefit of the wider community is encouraged, providing that it is done with the long-term welfare of both the community and the resource in mind."**<sup>1</sup>

This strategy is focused on documenting and setting a framework for this to happen. This is a step change from the 2008 Five Waters Strategy and based on a generational change in understanding and relationships.

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<sup>1</sup>Anake Goodall, 1992, Ko Waitaki te awa, Kā Roimata Nā Aoraki I Riringi, Aoraki Press.



**As water flows Ki Uta Ki Tai - from the mountains to the sea - so too must our approach to its management.**

The Ngāi Tahu Ki Uta Ki Tai philosophy recognises the interconnectedness of all elements within the environment, including the relationship between natural elements and people. This philosophy is fundamental to understanding the natural environment and the considerations and actions that should be applied to its management. This approach has a hierarchical focus on the sustained integrity and functioning of the natural environment and its ability to support the on-going wellbeing of people as part of an inter-connected natural world.



Pines Wastewater Treatment Plant

# IMPLEMENTING THE ONE WATER STRATEGY

## Prioritising our actions

Implementation of the Waioira One Water Strategy is planned around the three-year review cycles of Council's Long-Term Plan (LTP) and Asset Management Plans, taking a 50 year view.

Setting the Waioira One Water Strategy Implementation in line with the LTP cycle ensures that projects and infrastructure requirements coincide with Council's major funding rounds, enabling this strategy to be delivered in a real, purposeful and programmed manner.

The delivery of physical infrastructure and supporting programmes is dependent on availability of sufficient funding, through the Council's capital expenditure budget, or where eligible, from other Government or third-party funding sources.

The Implementation Plan is a compilation of actions which should be taken to meet this Strategy's vision, objectives and goals. It will require regular review and progress monitoring.

No matter what the future direction set by Government, this strategy is intended to chart and follow a course that will continue to strengthen the relationship between mana whenua, Māori and Council over its 50-year horizon, regardless of the governance structure for water infrastructure.

All decisions relating to water management, or impacting on water, should be guided by the vision, guiding principles and goals of this strategy.

While the goals are not an agreed position of Te Mana o Te Wai, this Waioira One Water Strategy will be complemented by Ngāi Tahu and Papatipu Rūnaka positions on Te Mana o Te Wai.

Actions will be prioritised for consideration in developing Long-Term Plans and annual work programmes. The Implementation Plan sets the priorities and framework for projects to be scoped and planned through the planning processes of the governance authority. Prioritisation allows for assessment of the benefits and relative merits offered by proposed actions, to ensure future funds are spent where they achieve the greatest benefit for water and our communities.





Lake Coleridge view from Peak Hill



## Implementation plan: timeframes

Priority	Term	Description
<b>Business as Usual (BAU)</b>	<b>Ongoing</b>	BAU actions include activities, plans or policies that are already delivered by Council or our strategic partners, or ongoing actions. Continuing these actions will contribute toward the strategic objectives of the Waioara One Water Strategy.
<b>Short term</b>	<b>Years 1-3 of Council's LTP</b>	Quick win or 'act-now' projects that could be implemented in the next three years, or projects that require planning ahead of implementation of capital works in future periods.
<b>Long term</b>	<b>Years 4-10 of Council's LTP</b>	Projects with a strong contribution to the objectives that could be delivered over the next 10-year period of the LTP. These include complementary actions dependent upon the completion of other activities.
<b>Generational term</b>	<b>Years 11-30</b>	Actions that will contribute to the strategic objectives of the Waioara One Water Strategy but are programmed beyond the current LTP. These have been included to provide a line of sight. The priority of these actions may change in future revisions of the strategy.
<b>Inter-generational term</b>	<b>Out to 50 years</b>	Opportunities that will capitalise on future states, including technological advancements. Where appropriate, these actions may have particular triggers or scenarios under which they would be accelerated, e.g. coastal/sea level changes, or water allocation pressures.

# Waiaora One Water Strategy Implementation Plan



## Goal 1. Waterways

The health and wellbeing of water is prioritised and all water systems are protected and enhanced

### Policy 1.

Protect and restore the natural processes of all water and waterways.

### Policy 2.

Protect and enhance Te Waihora and all tributaries by identifying actions that will make a meaningful contribution to improving water quality and restoring the mauri of Te Waihora.

### Policy 3.

Recognise the interconnectedness of all waterbodies including between natural, modified and constructed.

### Policy 4.

Protect, enhance and naturalise habitats and biodiversity within water bodies, races and drains.

### Policy 5.

Restrict unnatural mixing of water bodies and their waters.



## Goal 2. People

Healthy people, whānau and communities are supported by enabling water infrastructure

### Policy 1.

Ensure that safe water services maintain public health.

### Policy 2.

Protect and enhance safe access to water for recreation, mahika kai and cultural connection.

### Policy 3.

Connect communities to water and associated biodiversity through enhanced accessibility, water literacy, education and promotion.

### Policy 4.

Enable waters servicing to support community wellbeing, residential development and kāika nohoaka within environmental limits.

### Policy 5.

Support and promote a commitment to, and innovation in, the efficient use and recycling of water for all water users.



## Goal 3. Land & Infrastructure

The health and wellbeing of water is prioritised and all water systems are protected and enhanced

### Policy 1.

Develop resilient and sustainable infrastructure solutions which are adaptive to our changing climate.

### Policy 2.

Integrate land use planning and water infrastructure to ensure development protects water and contributes to enhanced water outcomes.

### Policy 3.

Promote demand management, water recycling and nutrient reuse opportunities to support a circular system (environmental, social, cultural, and economic wellbeing).

### Policy 4.

Ensure that water sources and distribution systems are protected, within the conditions of available water takes, ecological and environmental limits.

### Policy 5.

Lead best practice, innovative infrastructure and service delivery to enable resilience, mitigation and adaptation.

## Implementation - Overview

## Implementation - Specific Actions and Timeframes

Stormwater policies, bylaws and the Engineering Code of Practice (ECoP) do not reflect some current practices and processes. Amendment to focus on delivering multiple benefits for waterway management e.g. stormwater treatment, embedding Waiora One Water Strategy principles  
– 'ki uta ki tai' is appropriate.

*Responds to Goals and Policies: G2 – P1/P5, G3-P1 to P5*

(i) Updates including to: bylaws (metals, runoff)

(ii) Policies

(iii) The ECoP (fish passage, treatment requirements, biodiversity corridors, embodied carbon) for the protection of flora and fauna **Lead: SDC, Timeframe: Short Term - by the end of 2025/26**

Catchment management plans (CMPs) and associated integrated stormwater management plans (ISMP) provided a framework from which progressive and cohesive improvement in lowland areas can be delivered. Mātauraka Māori concepts are not well understood, but are considered to provide strong complementary support to current service delivery approaches.

*Responds to Goals and Policies: G1 - P1/P2/P3/P5*

(i) Complete CMPs and associated stormwater management plans **Lead: SDC, Timeframe: Short Term - by the end of 2026/27**

(ii) Alongside existing monitoring programmes, upskill Council staff and contractors through delivery of mātauraka Māori monitoring practices **Lead: Rūnaka, Timeframe: Short and Long Term 2024/2025 (ongoing)**

(iii) Understand areas and practices impacting on mixing of waters **Lead: Rūnaka, Timeframe: from 2024/25 (ongoing)**

Waterway enhancement is being observed across the network. Protection of water quality is being progressively achieved through practices such as planting, transitioning from exotic to native flora and fauna (where possible), and waterway fencing.

*Responds to Goals and Policies: G1 - P2/P4/P5*

(i) Liaise with ECan to coordinate Council waterway improvement and education programmes in Te Waihora catchment **Lead: ECan, Timeframe: Short and Long Term from 2023/24 (ongoing)**

(ii) Influence for better environmental outcomes

Land drainage cleaning protocols have been developed, though with increased knowledge of waterways biota and techniques, it is timely that these are reviewed e.g. pest and native fish separation, rescue and alternative cleaning methodologies such as returning sediment to adjacent land, and plantings to increase shading for control of macrophyte growth.

*Responds to Goals and Policies: G1-P1/P2/P4 G2-P3/P4*

(i) Update waterways operations plans (protocol for fish recovery, cleaning, flora, fauna and soils preservation practices **Short Term by end of 2024/25**

(ii) Prepare and review adaptive waterways management practices and plans including fish and macrophyte control **Lead: SDC, Timeline: Generational from 2024/25 (ongoing)**

Observed rapid changes in climate, and an expectation that resilience is built into existing and new infrastructure to support the ongoing effort to improve and clarify impacts and priorities (areas of focus) across One Water assets. Potential impacts can arise from coastal erosion, flooding and drought and critical naturalised and manmade infrastructure such as road corridors.

*Responds to Goals and Policies: G2 – P2/P4, G3 – P1/P4/P5*

(i) Utilising existing reviews (cycles, trends), develop an asset level climate adaptation resilience plan for One Water infrastructure including mātauranga Māori practice. **Lead: SDC, Timeline: Short and Long Term from 2024/25 (ongoing).**



# MONITORING AND REVIEW

## Measuring progress

Regular monitoring is necessary to evaluate the success of the Waiora One Water Strategy projects and programmes. The implementation of actions and progress towards the vision, objectives, policies and implementation plan will be monitored.

Joint monitoring at an annual or as agreed frequency will occur.

We know that some actions will require intergenerational effort. In this context we will look for evidence of tangible progress. The below traffic light system will be used against the implementation program.

### Has the goal been met?

Met	Partially met	Not met
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## Reviews

The Waiora One Water Strategy will next be reviewed in 2027, and then at least once every six years from that time i.e. in 2034 or where Council and mana whenua consider major changes are needed. Ideally, these reviews would align with every second LTP review process. This will ensure that the strategy remains aligned with

national and regional policy, and allows Council to monitor the effectiveness of the projects delivered through the strategy against its strategic outcomes.

The Implementation Plan has a different three-yearly review cadence, to inform the development of LTPs and budget allocations.

# GLOSSARY

To support the clarity of this Waiora One Water Strategy, the following definitions have been provided as common translations/definitions of terms. Many Te Ao Māori concepts are not adequately captured in the brief translations provided, but it is considered reasonable to at least provide some direction and level of clarity for them.

<b>Ahikāroa</b>	Fires of occupation, continuous occupation with traceable lineage to the primary ancestor who first lived on the land
<b>Atua</b>	God, deity
<b>Awa</b>	River, stream, creek
<b>Biodiversity</b>	The variability among living organisms from all sources, including land, marine and freshwater ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems
<b>DIA</b>	Department of Internal Affairs
<b>Five Waters</b>	Council management of community water supplies (drinking water), wastewater, stormwater, water races, and land drainage
<b>Iwi</b>	Extended kinship group, tribe, nation, people, nationality, race - often refers to a large group of people descended from a common ancestor.
<b>Hapū</b>	Sub-tribe, kinship group, consisting of a number of whānau with a shared ancestor, the collective of which form an iwi
<b>Kāika</b>	Home, dwelling, traditional village.
<b>Kaitiaki</b>	Guardians
<b>Kaitiakitaka</b>	Guardianship, protection, a term used for environmental management
<b>Kā Pākihi Whakatekateka o Waitaha</b>	The Canterbury Plains

<b>Ki uta ki tai</b>	From the mountains to the sea, integrated management approach
<b>Kaumātua</b>	Elders (plural). Kaumatua, without a macron on the a, is a singular elder.
<b>Mahika kai</b>	The customary gathering of food and natural materials, and the places where those resources are gathered
<b>Manaakitaka</b>	The process of showing respect, generosity, and care for others
<b>Mana Whakahaere</b>	Governance, authority, jurisdiction, management, mandate, power
<b>Mana whenua</b>	Territorial rights, power from the land, authority over land or territory
<b>Mātauraka</b>	Knowledge system, term used interchangeably with education, skill
<b>Mauri</b>	Life principle, life force, vital essence
<b>Moana</b>	Sea ocean, large lake
<b>One Water</b>	Integrated management of water based on the interconnected principles of the water cycle
<b>Pā</b>	Traditional settlements, villages
<b>Papatipu Rūnaka</b>	The collective of tribal councils or rūnaka which represent the rights and interests of their constitute membership. Membership to rūnaka is based upon whakapapa and land rights. Te Rūnanga o Ngāi Tahu is made up of 18 Papatipu Rūnanga.
<b>Papatūānuku</b>	Earth, Earth mother and wife of Raki, from whose union all living things originate
<b>Placemaking</b>	A multi-faceted approach to the planning, design and management of public spaces. Placemaking capitalises on a local community's assets, inspiration, and potential, with the intention of creating public spaces that promote people's health, happiness, and wellbeing



<b>Pou</b>	Pole, post, pillar
<b>Rākaihautū</b>	Ancestor of Waitaha, explored and named many of the lakes and waterways in Te Waipounamu
<b>Raki</b>	Atua of the sky and husband of Papatūānuku, from whose union all living things originate. Also known as Rakinui or Ranginui.
<b>Rohe</b>	Boundary, district, region, territory, area, border (of land)
<b>Rūnaka</b>	Tribal council, iwi authority, assembly.
<b>Takiwā</b>	District, area, territory
<b>Takaroa</b>	Atua of the sea and fish and one of the children of Raki and Papatūānuku
<b>Tānemahuta</b>	Atua of the forests and birds and one of the children of Raki and Papatūānuku
<b>Taoka</b>	Treasure including socially or culturally valuable objects, resources, phenomenon, ideas and techniques, an object or natural resource which is highly prized
<b>Tāwhirimātea</b>	Atua of weather and one of the children of Raki and Papatūānuku
<b>Te Ao Māori</b>	The Māori world view which acknowledges the interconnectedness and interrelationship of all living and non-living things
<b>Te Ao Takata</b>	The world of people, signifies the transition from the time of the atua gods to humankind.
<b>Te Kete Ika a Rākaihautū</b>	Traditional name for Te Waihora, meaning the food basket of Rākaihautū – the legendary ancestor who led the first migration into Te Waipounamu
<b>Te Mana o te Wai</b>	Refers to the vital importance of water, a principle used in freshwater management to ensure the health and wellbeing of the water is protected and human health needs are provided for before enabling other uses of water. Also refers to a document of the same name released by Taumata Arowai in 2020

<b>Te Papa Atawhai</b>	The Department of Conservation
<b>Te Waipounamu</b>	The South Island
<b>Tikaka</b>	The customary system of values and practices that have developed over time and are deeply embedded in the social context
<b>Tino rakatirataka</b>	Self-determination, sovereignty, autonomy, self-government, domination, rule, control, power
<b>Tōpuni</b>	A concept within the Ngāi Tahu Settlement Act to confirm and place an 'overlay' of Ngai Tahu values upon a piece of land owned and/or managed by the Crown, while not overriding the powers and obligations of the Crown to manage that land for the purpose for which it is held
<b>Tumu taiao</b>	Mana whenua experts appointed to the Canterbury regional council
<b>Wai</b>	Water
<b>Wai Māori</b>	Freshwater
<b>Wāhi taoka</b>	Areas, places or sites that are significant to Māori
<b>Wāhi tapu</b>	A sacred place.
<b>Water cycle (hurihaka wai)</b>	The cycle of processes by which water circulates between the oceans, atmosphere, and land (surface water and groundwater), involving precipitation as rain and snow, drainage into streams and rivers, and return to the atmosphere by evaporation and transpiration
<b>Whakapapa</b>	Genealogy, a taxonomic framework that links all animate and inanimate, known and unknown phenomena in the terrestrial and spiritual worlds, connects all things
<b>Whānau</b>	Family or kinship

# WAIORA ONE WATER STRATEGY

**WAIKIRIKIRI SELWYN | 2024 - 2074**



**Te Taumutu  
Rūnanga**