

Wāhanga tuawhā:

Ō Te Waihora

Section 4:

**The lake and its
Tributaries**



Waikirikiri (Selwyn River)	Ararira (LII River)	Commercial fishing
Customary fishing	Access	Flood control
Mahinga kai	Water quality	Water quantity
Lake opening	Riparian zones	Fish
Waikekewai	Waitatari (Harts Creek)	Waiwhio (Irwell River)
Huritini (Halswell River)	Kaituna River	Agriculture
Drainage	Tuna	Wetlands
Fisherman's Point	Waterfowl	Greenpark Huts
Lower Selwyn Huts	Upper Selwyn Huts	Te Koru

Ō Te Waihora – The lake and its tributaries

Te Waihora is a central feature of the Te Taumutu Rūnanga takiwā. Te Waihora is a descriptive name meaning flat spread out water. The ancestral name is Te Kete Ika a Rākaihautū (The Great Fish Basket of Rākaihautū), named by Rākaihautū upon first seeing the lake and its abundance of fish, waterfowl and other resources.

Early settlements of Te Waihora began included the pā Waikākahi on the eastern shores of the lake, belonging to the Ngāti Mamoe/Ngāi Tahu chief Tutekawa. Another pā, Hakitai, was occupied by Tutekawa's son Te Rakitāmau at Taumutu.

These settlements became threatened with Ngāi Tahu moves southward. Ultimately Tutekawa was killed. A young chief Te Ruahikihiki had claimed Te Waihora, as he knew the lake was rich in mahinga kai, such as pātiki (flounder), tuna (eels), aua (yellow-eyed mullet), inaka (whitebait), pingao (sand sedge), harakeke (flax) and many varieties of waterfowl. Te Ruahikihiki claimed Orariki pā, which was located where the Hone Wetere Church now stands at Taumutu. Over time, the location and resources of Te Waihora made it an area of concentrated activity and settlement.

Following the arrival of Europeans, the history of the lake has seen the domination of agricultural values over ecological values. Extensive drainage schemes and flood management has reduce the lake to under half its original size. However, despite such change, the significance and value of Te Waihora to Ngāi Te Ruahikihiki and the Ngāi Tahu whānui has remained.

The bed of Te Waihora was vested fee simple in Te Rūnanga o Ngāi Tahu as part of the Ngāi Tahu Settlement 1998. Te Taumutu Rūnanga, as the representative of Ngāi Te Ruahikihiki ki Taumutu, is the primary kaitiaki of Te Waihora. The ahi kā of the chief Te Ruahikihiki remains to this day. This responsibility for the lake is shared between Te Taumutu Rūnanga and other related hapū (Rūnanga) of Banks Peninsula and Kaiapoi, whose rights extend to the lakeshore. Future management of the lake will now largely occur under the Ngāi Tahu/Department of Conservation Te Waihora Joint Management Plan, due to be publicly notified in October 2003.

Te Waihora is considered to be of international significance, and is protected by the National Water Conservation Order, established in 1990.

4.1 Ngā Mea Hira - Values

Water is the lifeblood of Papatūānuku (Earth Mother) that falls upon her from the heavens of Rakinui (Sky Father). Water is taonga and this taonga value refers to the water itself, and the resources that water sustains. Water maintains two specific roles within Ngāi Tahu cultural values: it provides the sustenance of life, and the medium to which the spirit moves freely from one world to the next.

For Ngāi Tahu, different sources of water have distinct purposes. Te Waihora is an example of waihāpua, waters of coastal estuaries and lagoons where salt and fresh water mix. The waters of such areas makes them important sources of mahinga kai. Te Waihora is rich both in abundance and diversity with fish, waterfowl and plant resources. Over forty species of fish have been recorded from the lake and its tributaries, the vast majority being indigenous. These include tuna (eel) and pātiki (flounder). Bird populations include large numbers of waterfowl such as swans and ducks, swamp birds such as pūkeko, migratory waders, indigenous waders and other birds such as the kingfisher. The lake edge margins and tributary mouths provide important sources of culturally significant plants such as raupō and harakeke.

- Cultural history associated with the lake and surrounding area
- Te Waihora as a customary fishery
- Wairua (spiritual dimension) and mauri (life force)
- Wāhi taonga and wāhi tapu associated with the lake
- Ngāi Te Ruahikihiki identity and connection to Te Waihora
- Mahinga kai sites around the lake
- The role of Te Waihora in community life, historically and currently
- Te Waihora as habitat for tuna, a taonga species
- Abundance of mahinga kai associated with the lake and its tributaries
- Water clarity of areas of the lake in the past, and ability to swim in it
- Te Koru, Whakamātakiuru (Fisherman's Point) and Kaitōrete Spit as significant sites
- Urupā sites close to lake (Otuweruweru)
- Shingle bottom on the lake in the past
- A rock outcrop at Motukarara which once formed an island within Te Waihora
- Wetland and spring areas around the lake, such as Muriwai, Greenpark sands, and Harts Creeks

Creation of Tuna

Tai timu, tai pari

Kā wai o Mahaanui
Ki Te Pou pou a Te Rakihouia
Heke ana e Tuna mai Orukaiteraki
Ki te hāpua o Muriwai o Whata.
Rere ana te pātiki
Te tohu oraka ki te takata
Te tohu rakatirataka ki te iwi.
Pūpū mai kā hau o Tāwhirimātea
I whakapurea te awa huka
Me te whenua pākihi o Waitaha e.

Tīhei mauri ora.

The coastal waters of Mahaanui

rise and fall against the great
eel weir of Te Rakihouia
and Tuna descends from the heavens above
to the cool lagoon of Muriwai o Whata
The flounder arrives in abundance and like
the constellation above, symbolises the wealth
and self determination of the people
The winds of Tāwhirimātea blow forth
cleansing the snow feed rivers and the great
spread out lands of Waitaha

Behold the life giving forces.

Tuna was a person from the heavens. The heaven in which he lived was close to the sun, and thus the place was very dry, and so he came to this world. His name was Tuna o Runga i te Raki. When he arrived here he went straight into the water. The name of that lake was Muriwai o Whata, and he dwelt there for many years.

One day Hine Te Kaere went out to fetch water from the lake. As she gathered her water, Tuna swam between her thighs making her rush ashore in fright. She returned to the pa to tell her husband Maui Tikitiki a Te Raka, and the other people of the marae that there was a tipua in the lake waters. Hine Te Kaere went back with the people of the pa to the lake so they could see this tipua.

When they arrived, Hine Te Kaere went to the place where she had felt the tipua. Tuna saw her and came towards her. The people on the shore then saw Tuna. The people said, "It looks human but lives in the water". They then decided that they had to devise a way to kill this tipua so they could continue to fish and gather water from the lake.

They gathered a tororaro vine that was seen growing on the bare land of Nuku Tawhatawhata. Hine Te Kaere's people prepared the vine, drying it and weaving it into a hinaki (eel basket) to catch Tuna. The name of this hinaki was Te Papa a Kura o Takaroa. When it was finished it was taken to the lake where Tuna had first appeared. The people looked for the best place to put the hinaki; a place where the water was fast flowing. A deep drain was dug to put the hinaki in and this was called Te Ahuhu. The hinaki was put in the middle of the drain and when the water was flowing fast and the current was strong, Tuna appeared.

Tuna was caught in the hinaki and the people pulled it ashore. Tuna was then killed by the people and he was cut into pieces. Tuna's head was thrown out to sea and this became the Koiro or Conger eel. Tuna's tail was also thrown out to sea and this became the Kanakana and the Tuere or the Blind eel and the Lamprey. The body of Tuna was thrown inland to the lakes and rivers and became tuna and his children (long and shortfin eels). At the time of the Hinapōuri, Tuna and his children heke (migrate) to the sea to be one with their parent Kukuru Tai Moana (the rumbling sea waters), that is Takaroa (God of the Oceans).

4.2 Ngā Whāinga - General policy objectives

- ❖ *That Te Waihora be managed to improve the quality and quantity of the mahinga kai resources in the lake and surrounding areas, particularly the fishery.*
- ❖ *That the lake's natural protection and resilience be restored, and that the values of ecosystems such as repo raupō be restored and recognised.*
- ❖ *That natural resource management in these areas reflect catchment based planning and the continued capacity for future generations to access, use and protect the resource.*
- ❖ *That the history of tāngata whenua remain on the landscape, through the protection of wāhi taonga, wāhi tapu, mahinga kai and wāhi ingoa.*
- ❖ *That the complexity and interdependence of different parts of the hydrological systems must be considered when carrying out activities that have known effects to water.*
- ❖ *That Te Waihora and its tributaries be managed with respect for their cultural values.*
- ❖ *That the land use practices and settlement patterns around the lake have the best interests of the lake first (learning to live with the lake).*
- ❖ *All mahinga kai must have uninhibited access to and from the rivers that flow into the lake and the lake itself, and the sea, during spawning and migration periods.*
- ❖ *That management must enhance the mauri of the lake and uphold the mana of Ngāi Te Ruahikihiki ki Taumutu.*

The National Water Conservation Order 1990:

- **declares that the lake provides outstanding wildlife habitat**
- **maintains lake levels within certain ranges**
- **restricts the right to dam or drain parts of the lake**
- **restricts granting of water rights, where they may effect provisions of the conservation order.**

4.3 Ō Te Whenua

A primary concern for Te Taumutu Rūnanga is the impact of land use activity around the lake, and in the wider catchment, on the ecological health of the lake and the customary fishery.

4.3.1 Land use around the lake and tributaries

Land use patterns around Te Waihora and immediate tributaries are largely pastoral farming and other agricultural activity. There are also semi permanent settlements (Upper and Lower Selwyn Huts, Whakamātakiuru (Fisherman's Point), Greenpark Huts) and recreational and public access reserves.

Ngā Take/ Issues:

- Effects of agricultural and dairy farm runoff on Te Waihora and tributaries
- Effects of sewage and grey water on Te Waihora and tributaries
- Destruction of wetland habitat margins by stock
- Protection of wāhi taonga and wāhi tapu
- Maintenance of wāhi ingoa associated with Te Waihora and Kaitōrete Spit
- Effect of land use activities on sites of cultural importance and history (i.e. Taumutu, Te Koru)
- Loss of wetland character of the lake edges
- Mining, sand screening, gravel extraction around the lake and lake opening site
- High silt loads in the lake from agricultural/stormwater discharges into tributaries
- Spread of weed species such as willow and gorse on lake margins
- Dumping of rubbish, cars, farm dumps on lake margins
- Stock density on grazing leases on lake margins
- Management of conservation reserves, recreational areas on lake margins
- Non point source discharge of effluent into lake from stock on lake edge lots
- Lake edge erosion (particularly Taumutu commonage land), linked to lack of lake margin vegetation and absence of weed beds that once worked to stop wave action

Lower Selwyn Huts:

Settlements such as the Lower Selwyn Huts are the first to flood when the lake reaches a certain level (about 1.6-1.7 m above msl). Such settlements were not designed for year round permanent residence, but have in recent years become more permanent rather than seasonal use. This puts an increased pressure on water and sewage systems, which are not designed for permanency.

The settlement must adapt to live with the lake rather than the lake having to cope with what the settlement imposes on it.

KAUPAPA - POLICY

1. That stock grazing activity is kept to a minimum along the lake edge. If it does occur, it must be at reasonable animals per hectare ratio scale, to minimise negative environmental impacts.
2. That grazing of sheep will be preferable to cattle, in order to minimise impact on lake edge. All pig, deer and horse farming will be prohibited on the lake edge and significant waterways.
3. That the Department of Conservation implement, uphold and enforce lease agreements on lands that they administer.
4. No stock access to stream beds and waterways of Te Waihora tributaries.
5. That the scale of land use around lake edges be at a scale as to minimise adverse effects on the environment.
6. Encourage the planting of riparian margins to offset any negative impacts.
7. That the lake edge be managed to maintain what wetland areas are left, and restore ones that have been degraded.
8. That the cumulative effects of land use around the lake are considered in terms of effects on lake health.
9. No sand screening or gravel extraction from the Te Waihora lake opening site.
10. Settlements on the margins of the lake must adapt to living with the lake.
11. Increase the use and understanding of customary place names associated with the use and occupancy of Te Waihora, the tributaries and Kaitōrete Spit by Ngāi Tahu.

One suggestion is to work towards establishing at least a 50 meter buffer zone around the lake margin. This buffer would have limited stock access, if any, and would be managed to restore natural lake edge vegetation.

Case Study: Gravel Extraction from Te Waihora lake opening area

Te Taumutu Rūnanga policy is that gravel removal or sand screening activities not be permitted at the lake opening site.

Explanations:

Cultural issues:

- an increase in heavy truck traffic may result in vibration damage to the 113 year old church and associated urupā
- an increase in heavy truck traffic would damage Waikewai creek and ford area
- an increase in heavy truck traffic would compound the beach track, allowing easier access for public vehicles
- an increase in heavy truck traffic would result in noise damage, along the beach, marae and church areas
- the unnecessary exploitation of Papatūānuku for pecuniary gain
- potential for disturbance of wāhi tapu and other sites of significance

Geological issues:

- there is inadequate study examining erosion effects to the coast on the south side of the lake opening site
- sand screening on the beach would leave behind larger materials
- extent of material that would have to be screened
- effects of activity on the lake itself, closing levels and opening site

Environmental issues:

- protection of wāhi taonga and mahinga kai areas
- maintenance of undisturbed habitat for bird life i.e. Te Koru
- protection of habitat and other animals only found on the Kaitōrete Spit i.e. Karara (lizards)

Consistency issues:

- traditionally the Rūnanga has opposed other mining/excavation applications on Kaitōrete Spit for similar reasons.

4.3.2 Banks Peninsula, the Port Hills, Kaituna valley and Te Ahu Pātiki

Banks Peninsula is largely the takiwā of other Rūnanga, however some areas of the Peninsula and the Port Hills, such as Kaituna valley, Cooper's Knob and Te Ahu Pātiki (Mount Hebert), are significant to Ngāi Te Ruahikihiki ki Taumutu in terms of landscape value and their proximity and connection to Te Waihora. They also hold historical significance in terms of Ngāi Tahu use, occupancy and mahinga kai. The Peninsula complemented the abundant resources of Te Waihora, and was thus known as Te Pataka a Rākaihautū (The Food Storehouse of Rākaihautū).

Several small streams drain from the hills into the Halswell River, and others such as Kaituna River and Prices Stream flow directly into Te Waihora. Te Ahu Pātiki is the highest point on Banks Peninsula within the Te Waihora catchment.

Ngā Take/ Issues:

- Water quality and quantity of tributaries such as Kaituna River
- Sedimentation in the Halswell River
- Land use activities and impact on Te Waihora
- Protection of areas of significant landscape value
- Effects of agricultural and dairy farm runoff on Te Waihora and tributaries
- Destruction of wetland habitat margins by stock
- Protection of wāhi taonga and wāhi tapu
- Maintenance of wāhi ingoa associated with Te Waihora and Kaitōrete Spit
- Effect of land use activities on sites of cultural importance and history (Te Ahu Pātiki)
- Maintenance of indigenous vegetation on hills

KAUPAPA - POLICY

1. That the landscape value of features on Banks Peninsula that have been identified by Te Taumutu Rūnanga as significant (such as Te Ahu Pātiki) is recognised and protected.
2. All building activity should consider specific landscape and geographical features and their significance to tāngata whenua. An unimpeded view of features such as Te Ahu Pātiki from the Taumutu side of the lake is an important cultural value.
3. That Te Taumutu Rūnanga policy for Te Waihora tributaries (see Section 4.4.5) is adhered to for those tributaries and waterways of

the Port Hills and Banks Peninsula that identified as significant to the Rūnanga.

4. The cumulative effects of land use in the hills and valleys that border Te Waihora must be considered in terms of effects on lake health.
5. Increase the use and understanding of customary place names that are associated with Ngāi Tahu occupancy of the Peninsula, Port Hills, Te Waihora and Kaitōrete Spit.

4.4 Ō Te Wai

The fundamental issues affecting the health of Te Waihora and its tributaries are water quality and quantity. Good water quality and sufficient water quantity are necessary to maintain and enhance the mauri of the lake, and to support mahinga kai.

4.4.1 Water quality in Te Waihora

Water quality in Te Waihora is a reflection of a range of factors, including land use activities in both the lower and upper catchment, lake level management regimes, the loss of weed beds, point and non point source discharges into tributaries, and wetland drainage. The poor water quality of the lake, and the potential impact on mauri, mana and mahinga kai, is of great concern for Te Taumutu Rūnanga.

Ngā Take/Issues:

- Degradation of the mauri, purity and mana of the water
- Potential risk to human health from consuming kai from lake
- Effects of eutrophication of the lake on fish resources
- Presence of lead shot and other heavy metals in lake sediments
- Pollution of inflow streams by farm effluent and agricultural runoff
- Sewage discharges into lake
- Absence of weed bed at lake margins and impact on water quality
- Salinity in the lake, and impact on vegetation and mahinga kai
- Water discolorations can prevent gaffing/spearing of eels and flounder in the customary way (water clarity)
- Impact of large numbers of water fowl on water quality
- Increased levels of rubbish and waste appearing in and around the lake
- Decrease in water clarity due to increased suspended solid/sediment in the water column

- Decline in lake edge wetlands and habitat
- Spreading of human ashes and impact on the mauri of the lake
- Absence of weed bed as wave suppressors to slow edge erosion
- Ability of lake to flow into wetland margins for short periods of time (filtering)
- Cultural monitoring of water quality in Te Waihora

KAUPAPA - POLICY

1. Te Taumutu Rūnanga views water quality as interconnected with water quantity.
2. That water quantity in Te Waihora and its tributaries is such that it improves and enhances water quality, wetlands, springs and mahinga kai values.
3. That the lake opening management regime recognise the potential impact on water quality from low lake levels.
4. That there be no discharge of effluent directly into Te Waihora and its tributaries, including dairy and farm wash, agricultural runoff and stormwater.
5. That sewage discharges into Te Waihora and its tributaries be prohibited.
6. Further nutrient loadings (nitrogen and phosphorous) in the lake shall be prevented, and existing loads reduced.
7. Overall, a stronger monitoring and enforcement component is to be adopted for resource consent applications relating to discharges and impact on the water quality of Te Waihora.
8. That water quality monitoring utilises both western scientific and cultural monitoring.
9. That no discharge of cut aquatic weeds be allowed to enter into the lake from tributaries or drains.
10. That no chemicals be used in the lake environment.
11. That efforts to improve water quality include provisions to restore riparian and wetland margins.

Te Taumutu Rūnanga maintains that the Regional Council and District Council have responsibilities under both the Treaty of Waitangi and the RMA 1991 to protect the natural environment, and those Ngāi Tahu taonga and cultural values within that environment. The Rūnanga believes that the protection and enhancement of the water quality of Te Waihora and its tributaries is a fundamental component of fulfilling this responsibility.

4.4.2 Water quantity and lake level management

Te Waihora is maintained at an artificially low level, the product of a lake level management regime that includes periodic openings to the sea. Current levels are a reflection of historical attitudes towards land use and the lake, primarily the management of the lake to maximise areas available for agricultural activity on lake margins and floodplain areas. The levels at which the lake may be opened are determined by the National Water Conservation (Lake Ellesmere) Order 1990.

A resource consent for activities associated with the lake opening was lodged by the Regional Council in March 2001. A cultural impact assessment report for this consent will be completed in early 2003. The report will contain more detailed information about cultural impacts and potential mitigation measures associated with the lake level management.

Ngā Take /Issues:

- The cumulative effect of water abstractions from tributaries and springs the Te Waihora catchment (see Section 3.4.2)
- That trigger levels are regarded as maximums, and not minimums
- The timing of lake openings with regard to fish passage to and from the sea
- The timing of lake openings and link to low summer levels
- Probability of need to dredge entrance to Te Koru due to siltation
- Drying out of lake edges and Te Koru in summer
- Reliance of lake edge vegetation on periodic inundation
- Low lake levels and impact on mahinga kai and customary access
- Potential link between lake openings and coastal erosion
- The setting of minimum and maximum levels, what focus and whose values?
- Impact of minimum and maximum levels on siltation, algal bloom, etc in the lake and Te Koru
- Impact on ocean waters from lake discharge
- The culture of using drains to catch eels has almost stopped since the location of the lake opening has changed
- Considerations of including a lake closing activity
- Cumulative effects of dry summers and low flows/restrictions being placed on many lowland Canterbury waterways

Some cultural impacts associated with the artificially maintained lower lake levels and the lake opening regime:

- **Change in the relationship between Ngāi Tahu and the environment (e.g. decline in the culture of eeling)**
- **Impact on the ability of Ngāi Tahu to be an effective kaitiaki**
- **Loss of wetland areas and associated diversity**
- **Impact of lake level management on Te Waihora fishery, movement of mahinga kai to and from the sea**
- **Build up of sediment in Te Koru and the lake itself**
- **Coastal erosion of area west of current opening site**
- **Safety (advising public of when lake is opened)**
- **Lack of flexibility with the current regime, that the current trigger levels are considered maximums, when they are really minimums.**
- **Lake water quality – discharge of contaminants into the sea**
- **That the opening activity needs to consider wider issues (long term weather forecasting, opening of Lake Forsyth)**

KAUPAPA - POLICY

1. Te Taumutu Rūnanga recognises that Te Waihora will be maintained at a lower average level than it was historically. However, it is the policy of the Rūnanga that the lake level be managed to achieve values and outcomes, and not trigger levels.
2. That existing trigger levels be used as minimums (as set by the National Water Conservation Order for Lake Ellesmere 1990), not as maximums.
3. That Te Waihora be managed as a fishery first, and therefore the duration and timing of lake openings shall provide for recruitment and escapement of fish species as a priority.
4. That the lake not be opened at a level any less than 1.3 m above sea level. Further, consultation should occur with landowners, farmers, fishers, climate and weather specialists, and others with an interest in the well being of the lake. When there is a likelihood of drought, this 1.3 m level may need to be reviewed.
5. That Environment Canterbury and/or the Lake Ellesmere Settlers Association will mitigate all adverse cultural and environmental impacts of the lake opening.
6. That it be recognised that water quality is dependent on water quantity, and that this be reflected in the lake level management regime.
7. That the lake opening should be coordinated with the weather and tidal patterns.

8. That 'trigger' levels be flexible instead of fixed. A 20-30 cm flexibility would result in meeting a greater diversity of values and interests.
9. That Environment Canterbury investigate the feasibility of periodically opening the lake at the southern end of Te Koru, where tāngata whenua historically made an opening in order to mitigate adverse effects.

4.4.3 Access to Te Waihora

Te Waihora is valued by many different stakeholders. In addition to tāngata whenua, lake users include commercial fishers, game bird hunters, farmers, anglers, trampers, jet skiers (and other watersports) and birdwatchers. There are several points of public access around the lake, in the form of legal roads, recreational hut settlements, and recreational facilities such as boat ramps and domains.

Access is a key issue for Te Taumutu Rūnanga, particularly with regard to Ngāi Tahu fee simple ownership of the lake bed and the need to ensure sufficient access for customary use.

Ngā Take /Issues:

- Limited access to mahinga kai due to extent of private land and limited resources
- Impact on access due to drainage, lake opening, low lake levels
- Conflict between different resource users
- Commercial fishing and boating
- Impact on customary access to mahinga kai by public access to the lake
- Impact on biodiversity / flora and fauna by public access to the lake
- Protection of mahinga kai for customary use
- Old structures, tires, etc left in the lake that disrupt the landscape
- The inability to swim in the lake

Greenpark Huts is a site vested in Te Rūnanga o Ngāi Tahu under the Ngāi Tahu Claims Settlement Act 1998, as a mahinga kai site that provides access to the upper Te Waihora and Halswell River areas.

Other points of access include Whakamātakiuru (Fishermans Point), Waikirikiri (Selwyn River), Waiwhio (Irrwell River), Kaitōrete Spit and Pakoau.

KAUPAPA - POLICY

1. Ensure that public access and non customary uses of the lake do not take precedence over customary use and access.
2. Te Taumutu Rūnanga shall work with Te Rūnanga o Ngāi Tahu to provide sufficient access to the lake and tributaries for tāngata whenua, both in terms of quantity and quality of access points (i.e. areas to fish without a boat).
3. That Ngāi Tahu work towards identifying and setting aside specific areas of the lakebed for the enhancement of mahinga kai and customary use.
4. That an outcome of public access reserves include indigenous plants restoration, such as raupō and harakeke, which provide habitat for mahinga kai.
5. Te Taumutu Rūnanga supports the Te Waihora Joint Management Plan, as a means to enhance access and protect Ngāi Tahu values of the lake.
6. Signage around the lake should reflect Ngāi Tahu rights and interests in Te Waihora.
7. Protection and enhancement of mahinga kai and kāinga nohoanga associated with Te Waihora.

4.4.4 Customary fishing

Te Waihora supports both a commercial and a customary fishery. Commercial fisheries are managed under the Quota Management System (QMS) by the Ministry of Fisheries. Customary fishing is governed by customary fishing regulations. These regulations provide for customary food gathering and the management of customary fisheries in general.

Under the Treaty of Waitangi, Ngāi Tahu maintain the right to mahinga kai, including customary fisheries. Customary fishing rights extend beyond Te Waihora to also include other water ways in the takiwā, and the open sea as well.

Ngā Take /Issues:

- Impact on the customary fishery due to the commercial fishery
- Decline of customary fisheries due to habitat loss, low lake levels, water quality and destruction of wetlands
- High levels of siltation may impede eel access to areas such as Te Koru
- Overall decline in the health of Te Waihora and its tributaries, and impact on customary fish species

- Decrease in number of people exercising customary takes
- Impact of lake opening management regime on fisheries in terms of access to sea and adequate water levels
- Recognition of history and importance of customary use
- Ensuring ability to take fish for marae and whānau functions
- Inadequate access points to participate in customary fishery. Access points are in some cases not suitable for facilitating mahinga kai and customary fishing. Access is restricted to small corridors.
- Customary fishing often difficult unless you have a boat, due to limited access points and no netting zones
- Decline in health of customary food gathering areas and impact on ability of tāngata whenua to manaaki (take care of) manuhiri.
- Customary fishing occurring without proper authorisation from tāngata whenua
- Cross agency communication problems – priority given to commercial and recreation sectors

KAUPAPA - POLICY

1. That Te Waihora be managed for its customary fisheries first, and other uses as secondary.
2. Te Taumutu Rūnanga will continue to encourage customary fishing through running eeling and other fishing wānanga.
3. Work to restore the customary management tikanga of Ngāi Te Ruahikihiki ki Taumutu and Ngāi Tahu.
4. Ensure that customary rights to mahinga kai are maintained and protected.
5. Ensure that tāngata whenua are able to practice customary rights, through adequate access points to Te Waihora and its tributaries.
6. To restore the customary tuna (eel) fishery through considering establishing non commercial areas.
7. To protect and improve the quality and quantity of tuna (and other customary fish species) in Te Waihora and its tributaries
8. That only customary fishing is allowed in fish migration areas.
9. That cultural monitoring practices are used in managing the customary fishery, alongside western scientific methods.
10. To restore the lake environment to once again allow for customary fishing methods to be used, such as night spearing of pātiki (which relies on water clarity).
11. To nurture and teach future generations in the aspirations and traditional management systems of their ancestors.

Using the commercial fishery to empower customary use - Pātaka (storehouse) concept

The commercial fishery can be used to support customary allocations and provide for marae and whānau needs. This way fish would be taken to the marae, and from there distributed to whānau. This would help regain what was lost in the last generation, by strengthening the connection between tāngata whenua and customary fishing.

4.4.5 Te Waihora tributaries

The principle tributaries flowing into Te Waihora are the Waikirikiri (Selwyn River), Waiwhio (Irwell River), Huritini (Halswell River), Ararira (LII River) and Waitatari (Harts Creek). There are more than thirty other creeks, streams, drains and minor tributaries that also feed into the lake, including the Waikekewai, Prices Stream and the Kaituna River.

Te Waihora tributaries were used extensively by tāngata whenua in the past, and remain important sources of mahinga kai. Rivers such as the Waikirikiri were once important kāinga sites. The Waikirikiri is a wāhi taonga management area.

Some tributaries have maintained reasonable water quality, clarity and riparian margins necessary to support mahinga kai and promote overall ecosystem health. It is from these waterways that tāngata whenua feel safe to access mahinga kai such as watercress. However, most of Te Waihora tributaries are in some way degraded, and more efforts need to be directed at reducing the adverse impacts of human activity on elements such as water quality and quantity.

* This section is limited to the tributaries of Te Waihora. For more comprehensive information on waterways, see Section 3: Ngā Pākihi Whakatekateka O Waitaha.

Ngā Take /Issues:

- Aquatic weed control on the waterways such as the Halswell
- Potential that watercress and other plants harvested by tāngata whenua could be sprayed with herbicides or pesticides, or washed in effluent, and then consumed.
- Cumulative impacts of water abstractions and discharges
- Access of mahinga kai species between lake and tributaries

- Discharges of agricultural runoff into tributaries and impact on lake
- Excessive water abstractions from the catchments and impacts on lake
- Degradation of riparian margins
- Establishing minimum flow levels for Te Waihora tributaries
- Impact on weed cleaning and riverworks on fishing reserves and mahinga kai (Te Koraha Fishing Reserve, Te Ahuriri Lagoon)
- Large scale extractions of ground water across central plains area
- Inclusion of tāngata whenua values in setting minimum flows
- Cultural monitoring of waterways (water quality and quantity)
- Effects on mana of tāngata whenua given reduced flows

If weeds cut from Te Waihora tributaries were to eventually deposit onto the bed of the lake, this would be considered an activity requiring a resource consent. This would require the consent of Te Rūnanga o Ngāi Tahu, as owner of the lakebed fee simple, and of Te Taumutu Rūnanga, as kaitiaki of the lake.

KAUPAPA - POLICY

1. That water quantity in Te Waihora tributaries is such that it improves and enhances water quality, wetlands and mahinga kai.
2. That the clearing of weeds in tributaries to maintain flow and provide flood protection not allow the discharge of cut weed to Te Waihora.
3. That the cleaning of weeds in tributaries be undertaken according to Te Taumutu Rūnanga policy on weed cleaning (Section 3.4.4).
4. Te Taumutu Rūnanga recognises that the tributaries of Te Waihora must be managed to prevent flooding. However, all efforts must be made to minimise adverse effects on the river habitat.
5. Environment Canterbury must establish minimum flow levels for all tributaries of Te Waihora.
6. Minimum flows must prioritise all instream values ahead of water abstractions.
7. The setting of minimum flows should be assessed in terms of tāngata whenua (cultural, spiritual, ecological) values, not only for ecological (scientific) values.
8. That periodic monitoring of Te Waihora tributaries utilises both western scientific and cultural monitoring. That Environment Canterbury engage Te Taumutu Rūnanga to monitor tributaries

to ensure Council is meeting its RMA 1991 s6 (e), s7 (a), and s8 obligations.

9. That there is sufficient water level and flow to maintain the natural character and appearance of the waterway, and that the habitat requirements of taonga species are met.
10. Te Taumutu Rūnanga sees water abstraction from Te Waihora tributaries for irrigation as unnecessary. There is readily accessible water from numerous confined aquifers. Existing consent holders should deepen their bores as their consents expire, not apply to extract from waterways.
11. No discharge of contaminants or effluent within a minimum of 20 m of any Te Waihora tributary.
12. No direct stock access to tributaries.

Indicators that can be used in assessing river water and riparian health:

- **Water quantity (is there a visible flow, whitewater, riffles?)**
- **Physical appearance of the channel (course of the river, bars)**
- **Water quality – how clean is the water?**
- **Colour of the water**
- **Presence or absence of noxious weeds and introduced plants**
- **Presence of foam, oils and visible pollutants**
- **Knowledge of activities on other parts of the river (Is there sewage discharge downstream that cannot be seen?)**
- **Riparian condition and health (what riparian vegetation exists?)**
- **Level of use (stock use, extent of erosion, slumping)**
- **Absence of mahinga kai species (fish, plants, birdlife)**
- **Abundance and diversity of other bird, fish and plant species**
- **Existence, type, health of aquatic vegetation**
- **Sedimentation on riverbeds (is the river infilling?)**
- **Accuracy of place names in describing the river and surrounding area (do descriptive names still reflect the place?)**
- **Historical knowledge (what was there in the past, what kinds of resources were accessed from the river area?)**

Adapted from "Environmental Performance Indicators: Taieri Case Study 1998/99".
October 1999" vol 1 and 2

4.5 Taonga o te Taiao - *Flora and fauna*

Te Waihora supports a rich diversity of flora of fauna. Historically known as Te Kete Ika a Rākaihautu (The Great Fish Basket of Rakaihautu), the lake and its tributaries have always been a primary source of mahinga kai for tāngata whenua. There are approximately 80 species of birds that are regular inhabitants of the lake and its margins, with many more species as migrants and infrequent visitors. There are 33 species of indigenous fish in the lake, and 5 non-indigenous species.

As with other regions in the takiwā, major issues of concern focus on loss of habitat and indigenous species, and the spread of exotic species.

4.5.1 Pest control and pest management strategies

Ngā Take /Issues:

- Pest management strategies and pest control in the Te Waihora area
- Impact on waterways of the use of 1080 and other poisons
- Role of tāngata whenua in developing pest management strategies
- Impact of exotic species such as purple loosestrife
- Spread of plant pests (i.e. willows and gorse) on lake margins
- Absence of macrophyte weed beds, did not re-establish after Wahine storm 1968
- Protection of the food chain and biodiversity
- Potential impact of genetically modified organisms
- Removal of indigenous species for enhancement of exotic species (i.e. removing eels from trout streams)
- High populations of black swans and inability to collect eggs

KAUPAPA - POLICY

1. Te Taumutu Rūnanga shall have input into the definition of “pest species” and to pest management strategies.
2. All pest management strategies should be conducted in such a way as to minimise impact on non target species.
3. Large scale spraying of weeds such as gorse should be done in stages, in order to minimise impacts on non target species.
4. Pest management strategies shall focus on running a good process, including science and knowledge transfer.
5. Monitoring of all pest management activity for adverse effects on indigenous species shall be a component of all pest management strategies.

6. Advocate for the control and long term removal of weed species such as willow and gorse in the riparian margins of waterways.
7. That those authorities responsible for recreational and conservation reserves on the lake margins actively control the spread of weed species such as willow and gorse.
8. Exotic weed control strategies should include provisions for staged removal, and replacement with indigenous species.
9. That the management of waterways for trout and salmon habitat not override the need to protect indigenous species.
10. There shall be no use of poisons near waterways, regardless of the size of the waterway.
11. Te Taumutu Rūnanga shall receive notification of any spraying or other pest management, at least two weeks in advance.

Customary use of Te Waihora

Improved customary use options are desired at Te Waihora through improved access to traditional resources. One view is that the Wildlife Act 1953 should be revised to include a mahinga kai provision. This provision would better enable cultural use of such species as Canada geese, Pūkeko, Pūtakitaki – game birds that sometimes require culling. This would also enable the continuation and re-establishment of traditional harvest methods such as the gathering of eggs and flappers (young), while ensuring the sustainability of indigenous bird species and habitat at Te Waihora.

4.5.2 Indigenous flora and fauna

Ngā Take /Issues:

- Status of the long fin eel
- Quality and quantity of eel habitat in Te Waihora
- Balancing needs of hunters/anglers/commercial fishers with protection of mahinga kai
- Loss of riparian vegetation and wetland habitat on lake edge and tributaries
- Protection of existing riparian zones on tributaries from future damage
- Protection of taonga species - kākahi are considered a taonga species by the hapū of Ngāi Te Ruahikihiki
- Impact on mahinga kai species by agricultural runoff and other discharge into Te Waihora
- Decline in health of pātiki (flounder) in Te Waihora

- Maintenance of undisturbed habitat for bird life
- Lake edge indigenous vegetation is dependent on periodic inundation
- Impacts of introduced species such as trout and salmon on indigenous fisheries
- Managing for introduced fisheries rather than indigenous
- Research and collection permits for indigenous species
- Impact on mahinga kai species by agricultural runoff and other discharge into water

The RMA 1991 section 7 (h) reads that particular regard be given to instream values such as "The protection of the habitat of trout and salmon".

For Te Taumutu Rūnanga, this should be subordinate to RMA 1991 sections 6 (e) providing for the relationship of Māori with ancestral lands, water and other taonga, 7 (a) kaitiakitanga and 8, the principles of the Treaty of Waitangi.

KAUPAPA - POLICY

1. Advocate for habitat enhancement and the restoration and reintroduction of indigenous species programmes.
2. Protect and improve the quality and quantity of eel habitat in Te Waihora.
3. Provisions shall be made to ensure continued customary access by tāngata whenua to use indigenous flora and fauna.
4. No release of trout or other exotic species, in areas where they do not currently exist, without approval of Te Taumutu Rūnanga. This is to prevent adverse effects on indigenous species.
5. Protection of taonga species.
6. All mahinga kai species must have access between Te Waihora, its tributaries, and the sea during spawning and migration periods.
7. Any impact on or removal of indigenous vegetation from a mahinga kai site is limited to that undertaken by tāngata whenua, for mahinga kai purposes.
8. Te Taumutu Rūnanga opposes any needless destruction of culturally significant plants.
9. All kōhanga (breeding and spawning sites) must be protected.

10. All management decisions must take into account the protection and survival of all indigenous species of flora and fauna (rare and common) in their natural habitats/ecosystems.
11. All research on, about or within the takiwā, that relates to culturally significant flora, fauna, places or other resources, shall include provisions for consultation with Te Taumutu Rūnanga (see Part IV, 4.10 and 4.11).

The need to protect long fin eels

Te Taumutu Rūnanga is concerned about the state of the eel fishery in Te Waihora, both for the longfin and shortfin eels. Both customary and commercial catches have declined.

The decline of the endemic long fin eels (*Anguilla dieffenbachii*) in Te Waihora is of particular concern to Te Taumutu Rūnanga. The virtual loss of long fin eels in the lake is identified as one of the main trends for migrating eels. The results of commercial catch sampling programmes indicate that shortfins are the predominant species in Te Waihora (99.1% of eels measured).

In accordance with Ngāi Tahu customary management practices, when the overall health or availability of a resource is at risk, a rāhui is placed on the area where the resource is obtained, or on the resource itself. Section 186 B of the Fisheries Act 1996, as amended by section 311 of the Ngāi Tahu Claims Settlement Act 1998, provides statutory recognition for a properly instituted rāhui. The steps that Tāngata Whenua must take to apply for a temporary closure are found in the document Customary Fisheries Area Management Tools: A guide for South Island iwi and Tāngata Tiaki/Kaitiaki. However, one of the difficulties is that there is no set process for assessing a 186 B proposal, and therefore no set timeframes.

Te Taumutu Rūnanga is currently assessing the feasibility of placing a rāhui on the long fin eel, for Te Waihora.

Source for statistics on the status of the long fin eel and catch sampling:
A Review of the Eel Fishery in Te Waihora (Lake Ellesmere). 2001. D. Jellyman, NIWA.

Establishing Te Waihora as a Mahinga Kai Park

Protection of Te Waihora, as a place of regional, national and international importance, is a paramount feature in natural resource planning in the Canterbury region. The lake is the focus of several management plans and projects, including the Te Waihora Joint Management Plan, and Environment Canterbury's Lake Ellesmere/Te Waihora Catchment Project.

Several options are currently under consideration to officially recognise the special status of Te Waihora. However, there is concern that such options do little to confirm Tāngata Whenua status as kaitiaki (and thus primary decision making power), or the mana of Ngāi Tahu as landowner, and that conservation is given more weight than customary use.

The preferred alternative is to establish Te Waihora as a Mahinga Kai Park. The establishment of mahinga kai parks in the takiwā of each Papatipu Rūnanga is one of the key environmental outputs identified in Ngāi Tahu 2025.

Purpose of a Mahinga Kai Park:

The main purpose of a Mahinga Kai park is to protect and sustainably manage the customary use rights of Ngāi Tahu. Use and access to mahinga kai would be given priority.

The loss of Te Waihora as a tribal taonga and source of mahinga kai was one of the key features identified by the Waitangi Tribunal in addressing the Crown's failure to ensure that Ngāi Tahu retained reasonable access to places where the tribe procured or produced mahinga kai.

The vesting of the bed of Te Waihora to Te Rūnanga o Ngāi Tahu as part of the Ngāi Tahu Settlement provides an opportunity for Ngāi Tahu to re-establish and enhance their ancestral connection to the lake. A Mahinga kai park, with a focus on customary use rights, is one way to do this.

What is a Mahinga Kai Park?

A mahinga kai park can be considered somewhat as a national park. The purpose of the park would be to conserve, protect and sustainably manage the lake and the species that reside there (with emphasis on those species of customary importance to tāngata whenua), as well as establishing conditions on access and use. However, unlike a national park, customary use occurs alongside conservation, and is given priority over other kinds of use.

- It is an area where use and access to mahinga kai have the highest status
- It is an area where the protection of customary species is paramount
- It is an area that, where possible, tāngata whenua are the primary decision makers
- It is an area where cultural wananga are held for tāngata whenua
- It is an area that is recognised for its customary importance to tāngata whenua
- It is an area where some areas are set aside for exclusive use by tāngata whenua
- It is an area that can provide for both customary non-commercial and commercial use
- It is an area where any commercial activities (concessions or other) would benefit tāngata whenua.

