

Ngāi Tahu ki Murihiku Environmental Statement of Expectation Waiwhakaata / Lake Hayes



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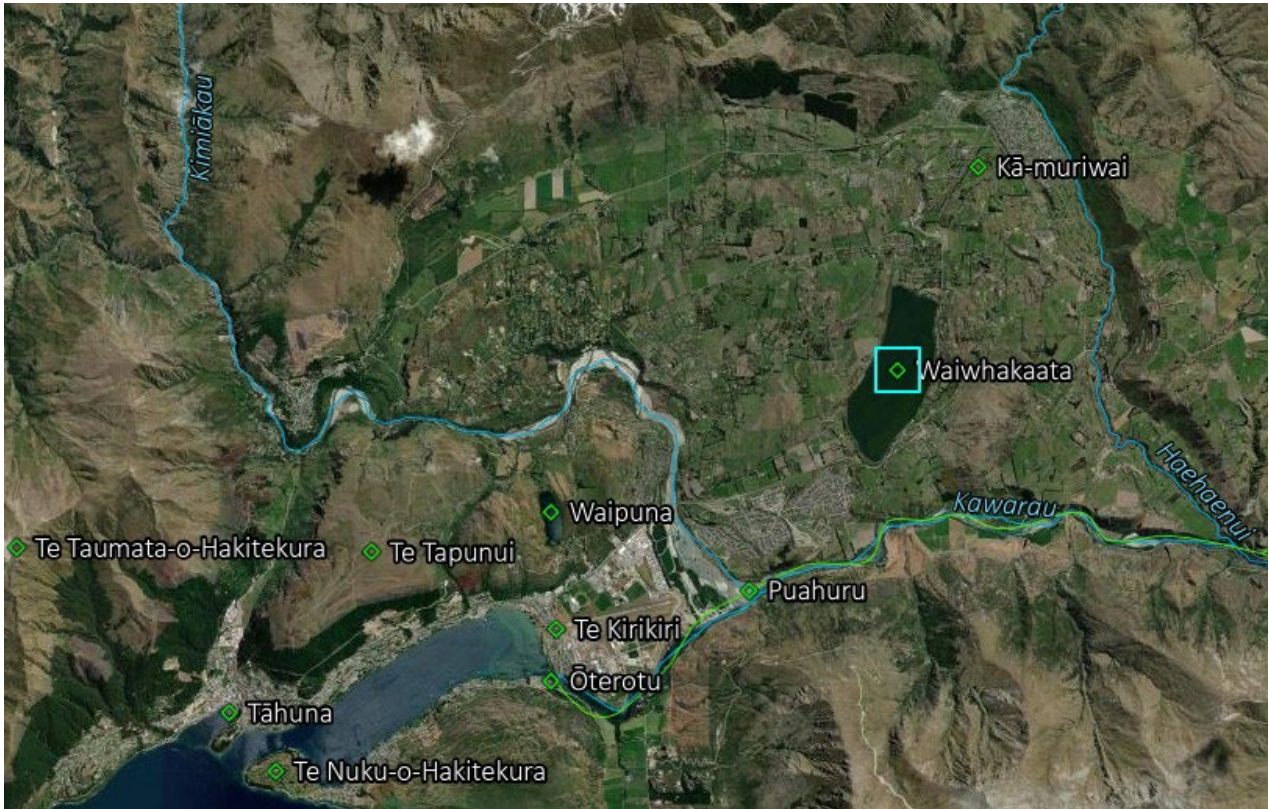
MIHIMIHI

Nāia te mihi ki ngā tangata mātau kua manaaki mai ki te kaupapa nei, Jana Davis, Gill Hopkins, Rewi Davis, Darren Rewi, Mike Rewi, Pere Rewi, Nikau Farrell, and Stevie Blair. Ko koutou te puna mātauranga, te mea whakahirahira o tēnei rīpota.

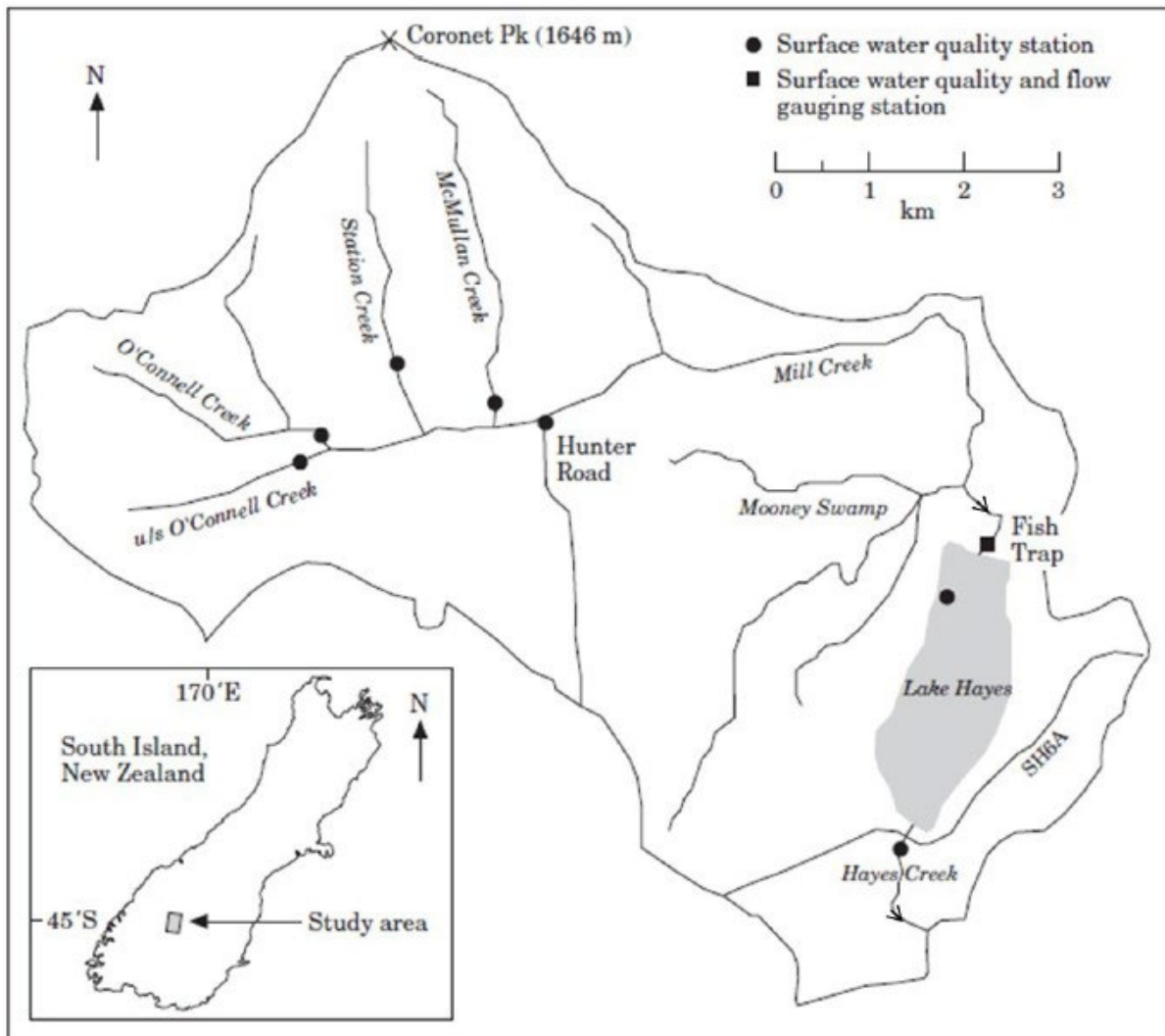
Ngā tomairangi o ngā tūpuna, hei whangaia ngā kākano nō apopo
The efforts of today will give life to the seeds of tomorrow

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Waiwhakaata/Lake Hayes, Ka Huru Manu, 2023



Waiwhakaata / Lake Hayes area, taken from the Lake Hayes Restoration and Monitoring Plan 2017

ENVIRONMENTAL STATEMENT OF EXPECTATION

The restoration of Waiwhakaata/Lake Hayes presents an opportunity for Ngāi Tahu Whānui to connect with their ancestral lands and waters and develop improved outcomes at local and regional levels. These connections have been frayed over the decades due to land alienation that has had a significant impact on Ngāi Tahu Whānui leading to detrimental social, cultural and economic effects. Ngāi Tahu ki Murihiku look to the restoration project to exercise their rangatiratanga as aligned with their expectations.

This Environmental Statement of Expectation outlines strategic objectives for Waiwhakaata through the mātauranga, kawa and tikanga of Ngāi Tahu ki Murihiku. This is a critical first step for Ngāi Tahu ki Murihiku in considering biocultural, environmental, and intergenerational outcomes for the lake and catchment. This approach aids Ngāi Tahu Whānui with:

1. Long-term visioning and goal setting.
2. Defining baselines, expectations and measures of success.
3. Identifying where the best points of influence are for any matters to be addressed or progressed.
4. Commonality in reasoning and outcomes sought.
5. Effectively using everyone's skills, time and resources.

Much of what is contained in this Statement comes from other sources including the Ngāi Tahu Deed of Settlement and Settlement Act 1998, and the Murihiku Iwi Management Plan Te Tangi a Tauira (**Te Tangi**). Information was also collated through a site visit by Ngāi Tahu Whānui to Waiwhakaata who applied two Ngāi Tahu ki Murihiku designed and lead assessments tools, Āpiti Hono Tātai Hono and the Murihiku Cultural Waters Classification System.

The strength of an Environmental Statement of Expectation is that it draws together relevant information in one place for a clear and defined purpose. It is the starting point, a mauri stone to refer to. It is written with the expectation that new information will be generated over time that can be read in conjunction with the Environmental Statement of Expectation to determine the appropriate responses and methods for the ongoing management of Waiwhakaata and the Lake Hayes catchment.

This proactive approach encourages innovative actions based on Ngāi Tahu expectations and the opportunities put before Ngāi Tahu as decision-makers, kaitiaki and manawhenua as well as being 'locals'. This positioning is particularly important for the Ngāi Tahu representatives on the Wai Whakaata Lake Hayes Rehabilitation Project due to the complex issues facing Waiwhakaata and the catchment. The Environmental Statement of Expectation also moves Ngāi Tahu representatives away from having to react and spend limited resources on matters and problem definitions that may be fundamentally misaligned with their paradigms.

This Environmental Statement of Expectation does not stand alone from or supersede other manawhenua derived documents, reports, and advice. It is to be read alongside Te Tangi and other iwi management plans, Ngāi Tahu policies, value statements, and operational procedures with associated methods, tools and timeframes.

HISTORICAL AND CONTEMPORARY ASSOCIATIONS WITH WAIWHAKAATA

The Ngāi Tahu relationships with Waiwhakaata and the broader landscapes, resources and associations remains culturally important. Waiwhakaata sits within ancestral lands that form part of the Ngāi Tahu identity, a timeless whakapapa relationship formed from tangible and intangible elements. The relationships are not solely defined by archaeological sites or Māori sites of significance. The cultural heritage of Ngāi Tahu is heavily etched on the place, and while remnants of a physical presence are at times light, this is reflective of Ngāi Tahu occupation being extensive rather than intensive.



Lake Hayes, circa 1885, New Zealand, by Burton Brothers. Purchased 1991. Te Papa (O.004714)

Waiwhakaata and the Queenstown Lakes District is in the Ngāi Tahu takiwā.¹ Ngāi Tahu has centuries' long customary associations, rights and interests in the district and its resources. These associations, rights and interests are both historical and contemporary and include whakapapa, place names, mahinga kai, tribal economic development and landholdings.² In the Whakatipu Basin, manawhenua is exercised by seven Papatipu Rūnanga³ on behalf of Ngāi Tahu whānui. This right is derived from mana ātua (gods), mana tūpuna (ancestors), mana whenua (land) and mana tangata (people).⁴

Historically, Whakatipu Waimāori, Kawarau, Te Papapuni/Nevis area, Haehaenui/Arrow River have long formed part of the extensive network of kāik, mahinga kai and ara tawhito throughout this region connecting to the pounamu seams, inland lakes and out to the Otago and Southland coasts. The inland routes from the coast to the mountains tended to follow land features and utilise the waterways. Nohoanga along these routes were usually located around lakes or waterbodies.⁵

¹ The takiwā of Ngāi Tahu is described in section 5 of the Te Rūnanga o Ngāi Tahu Act 1996.

² Queenstown Lakes District Plan, Chapter 5

³ Awarua, Hokonui, Moeraki, Ōraka-Aparima, Ōtākou, Puketeraki, Waihōpai.

⁴ Barlow, C. (1991) *Tikanga Whakaaro: Key concepts in Māori culture*, pp. 61-2.

⁵ Ritchie, N. (1986) 'Archaeology and Prehistory in the Upper Wakatipu', *Journal of Pacific Archaeology*, p.245

Whakatipu Waimāori/Lake Wakatipu supported nohoanga that were the seasonal destinations of Otago and Southland whānau and hapū, and occasionally permanent kaik were established for generations. Waiwhakaata had no known permanent Ngāi Tahu settlement, although there would have been nohoanga. There are well-developed ara tawhito along the rivers and a rock shelter with distinctive Māori rock art along the banks of Haehaenui.⁶

As a society that worked within the limits of the physical environment, Ngāi Tahu cultural and social systems evolved according to those limits.⁷ People were heavily reliant on resources being found in specific areas along the route to either consume or harvest for future use. Around Waiwhakaata, targeted mahinga kai species were weka, koreke, tuna, aruhe, kāuru and kōura and they provided a large proportion of the protein attained from the area.



Heaphy, C. (n.d.) [Maori snaring bird]. Auckland War Memorial Museum - Tamaki Paenga Hira. PD-1952-2-2-12

Waters, stones, minerals, muds, clays, and plants were also harvested for use in situ or to be taken back to permanent settlements or traded. The waters from hukawai (melt waters) are culturally regarded as highest level of purity and were accorded traditional classifications by Ngāi Tahu that recognised this value.⁸ Quarries and 'working floors' where adzes and other tools (chisels, cutters, drills) were created are common throughout Murihiku. Dr. Henry Skinner, former director of the Otago Museum, stated that 'Murihiku produced ground stone cutting implements in greater variety and in greater beauty than any other region in Polynesia, or perhaps in the whole world.'⁹ This was in part cause of the 'greater variety of rocks from which such implements can be made...and [the implement maker] could experiment to an extent impossible elsewhere.'¹⁰

⁶ Kleinlangevelsloo, M. (2019) *Cultural Values Statement: Queenstown Lakes District Council Wastewater Overflow Discharge*, p.11

⁷ Corry, S., Puentener, R. (1993) *Tikanga Maori Cultural, Spiritual and Historical Values of the Waiau River*, A Report for the Iwi Task Group of the Waiau River Working Party, p.28.

⁸ Schedule 75: Statutory Acknowledgement for Whakatipu-wai-māori (Lake Wakatipu), Ngāi Tahu Claims Settlement Act 1998

⁹ Skinner, H. D. (1974) *Comparatively Speaking: Studies in Pacific Material Culture 1921-1972*, p. 101

¹⁰ Skinner (1974) p. 101

The historical record was somewhat interrupted for Ngāi Tahu with pastoralisation and mining in the latter half of the 1800s. This period resulted in land alienation for Māori and the area being transformed to tussock grasslands and dry scrub. Introduced domestic and pest plants and animals further changed the landscape.¹¹ Whilst there was provision for it, Kemp's Purchase did not result in mahinga kai, nohoanga or kainga reserves¹² in the Whakatipu Waimāori area.

The district is within the area that Tā Tipene O'Regan refers to as 'The Hole in the Middle'. Essentially, the Hole was created by an argument about the inland boundary of the Kemp Purchase.¹³ Ngāi Tahu continue to argue that the high country was never included in the land deeds and the boundaries in any sales finished at the foothills, not the Main Divide as argued by the Crown.

In spite of more than a century of alienation and deception by the Crown, Ngāi Tahu has maintained its presence in the district as citizens, visitors, workers, and private land and business owners. However, it was not until 1998 that redress elements from the Ngāi Tahu Treaty Settlement provided mechanisms for Ngāi Tahu Whānui to continue cultural practices and the return of lands.¹⁴

The ongoing decline of Waiwhakaata is intergenerational and has altered the relationship Ngāi Tahu ki Murihiku has with its traditional waters and whenua. The practices, uses, and associations whānau have with the lake and its surrounds are not as their tūpuna had and the current relationship is largely driven by restoration efforts. Waiwhakaata is culturally degraded, and the mauri of the lake might take generations to be restored. However, as kaitiaki, Ngāi Tahu ki Murihiku are bound to do everything in their power to protect and restore its mauri.

¹¹ McIntyre, R. (2007) *Historic heritage of high-country pastoralism: South Island up to 1948*, p. 9

¹² Evison, H. C. (2007) *The Ngāi Tahu Deeds: A Window on New Zealand History*, pp.83-85

¹³ *Protecting Ngai Tahu History*, Cultural Mapping Project, kahurumanu.co.nz, accessed April 2023.

¹⁴ Cain, A. (2020) *Remarkables Conservation Area: Summary of Ngāi Tahu Values, Practices and Associations*, p. 18.

NAMES OF THE LAKE



Reflection on Lake Hayes, #179105642, by jiraphoto.

Lake Hayes has two known Ngāi Tahu names, both referring to the reflection in its waters of the wider environment and the personification of tūpuna in the landscape. One name is **Waiwhakaata** and the other is **Te Whaka-ata a Haki-te-kura** after the famous ancestress noted for her exploits and who lived at a kāik on the shores of Whakatipu Waimāori near Sunshine Bay.

OVERARCHING MATTERS

VISION FOR WAIWHAKAATA

It is the vision of Ngāi Tahu ki Murihiku that:

Waiwhakaata is in a state that reflects and upholds the mana of its name and consequently, its mauri is healthy and resilient, and permits living things to exist and thrive within their own realm and sphere.

All actions, mitigation, interventions, and best practices for Waiwhakaata are to proactively step towards achieving this vision. For over 50 years, it has been known that Waiwhakaata is under stress and continues to be in a highly degraded state.¹⁵ Action on the ground is urgently needed and requires work programmes to align with management strategies.

Education is a key tool in actioning change and must draw on Ngāi Tahu mātauranga as well as other sources. It is essential that Ngāi Tahu ki Murihiku be supported and unhindered to enact this change and work with other parties in accordance with Ngāi Tahu paradigms, mātauranga, tikanga and kawa.

NGĀI TAHU KI MURIHIKU VALUES, ASSOCIATIONS, TIKANGA AND KAWA

The associations outlined by Ngāi Tahu in the 1995 Lake Hayes Management over 20 years ago are still principally relevant today.

Ngāi Tahu ki Murihiku, like other Māori, conceptualise the environment as an undivided entity and as part of a system of lakes, rivers, wetlands, soils, plants and animals, mountains and other terrestrial lands and the relationships between them. It is this holistic perspective that pervades mātauranga Māori – a knowledge based on relationships and connections over generations.

The environmental elements discussed in the following sections (wai, whenua, and mahinga kai) reflect a mix of core values, beliefs, principles and behaviours that are sustained through Ngāi Tahu associations, uses and practices. Collectively, they represent a management ethic similar to integrated management. Central to this management approach is the sustainable use of resources. Uses and practices were, and remain, intertwined and dependent on a healthy functioning environment.

These concepts shape the understandings of Ngāi Tahu ki Murihiku and guide them in the appropriate articulation and application of values for each situation. Kawa and tikanga with mātauranga also determine the local approach to nationally derived policies and environmental approaches.

KI UTA KI TAI

Ki uta ki tai is a Ngāi Tahu environmental philosophy recognising that everything is connected and must be managed as such. Ki uta ki tai reflects that mana whenua belong to the environment and are only borrowing the resources from our generations that are yet to come. Ki uta ki tai is the basis of Ngāi Tahu Iwi Management Plans and is recognised in regional and district planning documents.

The Environmental Statement of Expectation is based on ki uta ki tai and any management tools, methods, and measures should be applied accordingly.

Ki uta ki tai is an opportunity for all resource users to enhance their management practices and undertake a holistic approach for environmental outcomes.

¹⁵ Otago Regional Council and Queenstown Lakes District Council (1995) *Lake Hayes Management Strategy*, p. 2

TE MANA O TE WAI – HAUORA

The paramount nature of wai is the connecting element of the catchment that sustains the way Ngāi Tahu interact with the environment of Waiwhakaata. In line with the responsibilities of the Regional Council to manage water, the expression of Te Mana o Te Wai is an important context for Ngāi Tahu ki Murihiku.

Recognising Te Mana o te Wai requires identification of the qualities that come together to support hauora, or the health and well-being, of waterbodies, and their associated environment and communities. Hauora is understood to be a state of health, which can be thought of as meaning fit, well, vigorous and robust, describing a healthy resilience for waterbodies.¹⁶

When a waterbody is no longer in the state of hauora, then is it degraded. If a waterbody continues to degrade over time it may come to a place where remedial actions to a state of te hauora o te wai is no longer possible or irreversible. Between the states of hauora and “terminal” is a continuum – degradation is both a state (i.e., it is either degraded or it’s not) and a process (i.e., a continuum of degradation). Cultural thresholds can be used to determine the state of degradation and/or the extent of degradation along a continuum.¹⁷

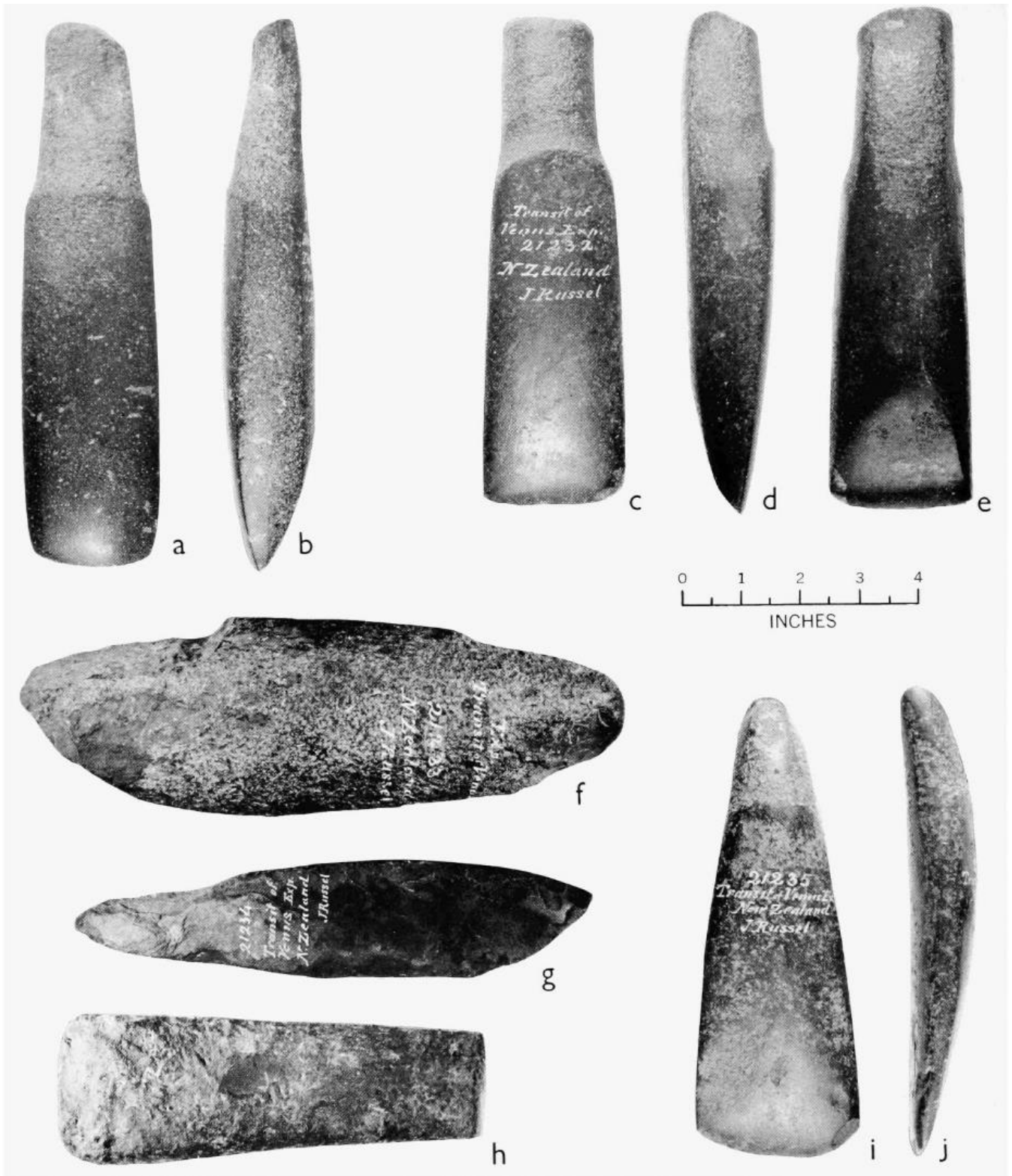
UTU

Utu is sometimes referred to as the principle of reciprocity or as the principle of equivalence, and Metge (2001) regards its main purpose as maintaining relationships. In relation to a specific issue utu can be thought of as restoring balance and thereby maintaining whanaungatanga and there are many pathways and responses by which utu is put into practice. Ngāi Tahu ki Murihiku seek to explore the practice of utu in relation to environmental issues which may provide means of restoring balance in relationships and acknowledging the obligations on this generation to seek mutual benefits to achieve improved environmental outcomes.¹⁸

¹⁶ Bartlett, M. et al. (2020) *Draft Murihiku Southland Freshwater Objectives*, p.5

¹⁷ Ngā Rūnanga (2019) *Memorandum of Counsel for Ngā Rūnanga regarding Cultural Indicators of Health*, for Environment Court, ENV-2018-CHC-47

¹⁸ Mead, H. (2016) *Tikanga Māori: Living by Māori Values*, p. 36.



Part of a cache of stone tools found by Israel Russell near Wakatipu, 1874/5, Smithsonian Institute Collection

In 1874/5, Israel Russell found a cache of adzes in the vicinity of the United States of America's observatory in Queenstown, possibly at the Frankton Arm, towards the mouth of the Kawarau River.¹⁹ The cache consisted of adzes made from locally sourced stone and one small chisel made from a stream pebble.²⁰

¹⁹ Keyes, I. W. (1967) 'New Zealand Artifacts from the United States "Transit of Venus Expedition" 1874-1875', *Smithsonian Contributions to Anthropology*, p. 22

²⁰ Keyes (1967) pp. 23-24

WAI WATER

NGĀI TAHU CONTEXT

Water is a taonga, or treasure of the people. It is the kaitiaki responsibility of tangata whenua to ensure that this taonga is available for future generations in as good as, if not better quality. Water has the spiritual qualities of mauri and wairua.

The continued well-being of these qualities is dependent on the physical health of the water. Water is the lifeblood of Papatūānuku and must be protected. We need to understand that we cannot live without water and that the effects on water quality have a cumulative effect on mahinga kai and other resources.

Ngāi Tahu ki Murihiku recognise that the welfare of the people and the success of their activities within the environment depends on water being maintained in the best possible condition. We believe that “if you have your water right, you will have everything else right”.²¹

CURRENT SITUATION

Water is the primary conduit for the constant reloading of contaminants into Waiwhakaata. Very little has improved in terms of reducing contaminant load and improving water quality since 1995 when improved catchment management was proposed as a priority action in the Lake Hayes Management Strategy.

Within the context of ki uta ki tai, consideration must also be given to the connection to other parts of the takiwā. The interconnected waterbodies of the catchment are heavily modified coming in and out of the lake. Waiwhakaata flows into the Kawarau River immediately below the confluence with the Kimiākau/Shotover River via an artificial outflow through constructed culverts under SH6 just before entering the Lake Hayes residential area. There is no provision for fish passage or movements up and down the river into and from the lake; it is managed as a drain or highly modified water course rather than functioning as a natural river. The Kawarau River connects these waters near Cromwell to Lake Dunstan and merges with the Mata-au, both water bodies having Statutory Acknowledgements from the Ngāi Tahu Claims Settlement Act 1998.

Additionally, the ground and surface waters are over allocated and there are proposals to further divert water from other waterbodies into tributaries of Waiwhakaata.

EXPECTATIONS

Ngāi Tahu ki Murihiku expect transformational improvement to the management of water in its takiwā to recognise the paramount importance of water. Te Mana o Te Wai is the fundamental concept for freshwater management and provides a framework for the hauora of water, people and the environment to be protected. To achieve this, all actions are to focus on improving the quality of the water moving through and out of the Waiwhakaata catchment.

Priority actions that are currently supported are restoration and enhancement of the land and water environments and the significant improvements in unsustainable land use practices. Ngāi Tahu ki Murihiku expects for its goals and tohu to be included in freshwater visions and management tools, and for its people to be actively involved in all aspects of water management.

²¹ Ngāi Tahu ki Murihiku (1998) *The Cry of the People Te Tangi a Taurira*, Natural Resource and Environmental Management Plan, p.147

WHAT DOES SUCCESS LOOK LIKE?

- Te Mana o te Wai – the mauri and the health of Waiwhakaata is the paramount consideration in any environmental management decision, action, target, and activity.
- Waters uphold their cultural values and support cultural uses; for example, hukawai fed waters are of the highest quality, there are wai noho places for whānau to safely camp by the lake and harvest from it.
- Existing and historical waterbodies, wetlands, and springs associated with Waiwhakaata and Haehaenui are identified, and their natural connections are proactively reinstated, maintained or improved to a state of hauora.
- Tributaries flowing into and out of Waiwhakaata are naturalised, connected, and allowed to meander along historic pathways with ecologically functioning and lively riparian margins; no longer characterised by straightened channels with unnatural banks nor regarded solely as drains and stormwaters outlets.
- At least 20% reduction in sediment and phosphorus contamination in Waiwhakaata is achieved through the restorative actions in the catchment including by achieving the connected elements below.
- In stream habitat is enhanced or restored through either direct action in stream or through natural recovery by the gradual reduced contaminant loading.
- Waiwhakaata and its tributaries, springs and wetlands and have improved water quality and quantity that is regularly reported on using manawhenua led monitoring and tools.
- Absent species can be translocated to Waiwhakaata and its tributaries because the instream habitat is flourishing or indigenous species are repopulating the catchment naturally as captured by Ngāi Tahu ki Murihiku monitoring programmes.
- Ngāi Tahu ki Murihiku is central to the decision making about how to manage in-lake algal blooms.
- Wetlands are valued as an important part of Waiwhakaata catchment and recognised for their ability to slow and manage contaminants flowing through the highly modified and channelised waterways, as well as for reducing the impacts of natural hazards and events.
- The restoration of lake edge wetlands is sustained with the removal of willows and rubbish as well as reductions in the impacts from urban and rural development and activities in the surrounding area.
- Wetlands and springs have indigenous species abundantly present both in and on the water.
- Any solution or action taken to maintain or improve water quality and quantity also benefits the groundwater aquifers, surface water, springs and wetlands.

WHENUA LAND

NGĀI TAHU CONTEXT

For tangata whenua, an important kaupapa for land use is “matching land use with land capability”. This means taking a precautionary approach to land use, to ensure that what we do on land is consistent with what the lands can withstand, and not what we would like it to withstand through utilising external inputs.²²

The abundance and quality of resources available to local whānau/hapū has throughout the past and continues today, to directly determine tribal welfare and future. History notes that those with resources flourished and those without perished, therefore management and maintenance of resources were of foremost concern.²³

The land sustains and maintains all life and holds stories that enables Ngāi Tahu to connect with its heritage, identity, and cultural practices. As such, Ngāi Tahu ki Murihiku do not recognise any one location or landscape as being more or less significant than any other. All land is a taonga and should be treated accordingly. This means that Ngāi Tahu ki Murihiku do not ascribe to dissociative ideas around ‘sites of significance to Māori’ or ‘cultural landscapes’ within planning processes as it implies that, by contrast, unlisted sites or landscapes are not significant to mana whenua.

CURRENT SITUATION

Most land in the Waiwhakaata catchment has been modified, initially for primary production and mining, and more recently residential and tourism development that also contributes to the degradation of biodiversity, soil, and water. This condition has been exacerbated by increased residential development and physical and ecological modification of many of the contributing waterways. Other land uses including forestry, general earthworks, mining, and waste and hazard management practices create similar issues.

There is no Ngāi Tahu land ownership or entitlements in the Waiwhakaata catchment such as nohoanga, statutory acknowledgements, SILNA lands, tribal properties or Papatipu Rūnanga-owned land parcels as there are elsewhere in the district.

EXPECTATIONS

Ngāi Tahu ki Murihiku supports the coupling of land use zoning with land capability to reduce the negative effects on soils from compaction, pollution/contaminants, biodiversity loss, and erosion. It is also expected that improvements within the catchment will be made in land management practices to restore soil health, with these improvements also having flow on effects for water and biodiversity.

It also expects that any actions for Waiwhakaata and the catchment shall recognise and provide for Ngāi Tahu ki Murihiku understandings of landscape and whenua, as well as promoting and supporting ways that enable Ngāi Tahu Whānui to connect/reconnect with the whenua. Mana whenua designed and lead assessment methodologies, such as Āpiti Hono Tātai Hono that has been applied to inform this Environmental Statement of Expectation, should be used when and where deemed appropriate by Ngāi Tahu.

Reconnection with these lands by Ngāi Tahu Whānui and Papatipu Rūnanga can also happen through on the ground actions, decision making and improved environmental outcomes. These types of contributions assist with reconnection to place and ahi kā. Ngāi Tahu ki Murihiku expect to see many of the systemic barriers to accessing resources at place reduced and removed, so that this land can be utilised to support whānau expectations.

²² Ngāi Tahu ki Murihiku (1998), p.136

²³ Ngāi Tahu ki Murihiku (1998), p.176

WHAT DOES SUCCESS LOOK LIKE?

- Ngāi Tahu Whānui standing anywhere along the lake shore feel proud and connected to their whakapapa, whenua, and heritage.
- Ngāi Tahu Whānui and manuhiri should feel the wairua of the place and be energised by the experience of visiting and interacting with Waiwhakaata.
- People should be enabled through the natural environment and mātauranga to view the landscape through a Ngāi Tahu cultural lens and understand its broader connections across the Te Waipounamu.
- Land management practices are enhanced by best practice and the adoption of ki uta ki tai.
- Land use is increasingly diverse with a reduction in intensive land practices.
- Point source discharges are predominantly to land with improved treatment technologies in ways which are acceptable to Ngāi Tahu ki Murihiku.
- Ngāi Tahu whānau have increased access and safe use of mahinga kai because of improved land use practices and access provisions.
- Subdivisions are well planned, encouraging a connection to place and acknowledging the vision Ngāi Tahu ki Murihiku has for Waiwhakaata.
- Land that has been degraded or heavily modified, such as contaminated land, is actively restored.
- Manawhenua monitoring shows land use activities are enhancing land, reducing pollution, and contributing to improved water quality and reduced use.
- Āpiti Hono Tātai Hono assessments and other manawhenua designed and led tools and frameworks are appropriately integrated into and inform planning processes, research, and scientific investigations.

MAHINGA KAI

NGĀI TAHU CONTEXT

Mahinga kai was, and is, central to the Ngāi Tahu ki Murihiku way of life. The collection and processing of mahinga kai is an important social and economic activity. Tangata whenua aspirations and expectations for mahinga kai are commonly expressed in any management tool relating to the environment, also noting its fundamental position in Ngāi Tahu cultural identity, social cohesion, and economy.

Mahinga kai is about mahi ngā kai - it is about places, ways of doing things, and resources that sustain the people. The loss of mahinga kai is attributed to habitat degradation, resource depletion, legislative barriers that impede access, changes in land tenure that affect the ability to access resources and the introduction of predators that have severely reduced the traditional foods of Ngāi Tahu.²⁴

Mahinga kai is a pillar of Te Kerēme as the ninth tall tree - the historical Ngāi Tahu Treaty Claim. Mahinga kai practices rely on thriving and abundant biodiversity, safe and aesthetically pleasing places to practice, and the active transfer of knowledge between people. Biodiversity and aesthetics are dependent on the sustainable management of many other natural resources in the takiwā, especially waterbodies.

Mahinga kai is considered by Ngāi Tahu to be, in today's language, the principal 'environmental indicator' in natural systems. If mahinga kai is not present, is unsafe or unable to be harvested, then that natural system is under stress and requires remedial action.

CURRENT SITUATION

Much of the Waiwhakaata catchment has been modified, leaving few areas of pre-European indigenous biodiversity remaining, much of which is in poor cultural health. Places in which to practice mahinga kai continue to be marginalised with access restricted due to development, encroachment, landscape modifications, and being unable to guarantee the safety of people harvesting, both through the act of harvesting in the water, semi or fully submerged, and the consumption of harvested species. The introduction and establishment of predatory and pest species have also severely reduced the abundance of species traditionally gathered using mahinga kai practices.

The oral and written histories where Ngāi Tahu talk about mahinga kai and its management are from a time of plenty, where preferential and optimal sites were selected. Ngāi Tahu ki Murihiku are now in a time of 'making do' with what traces are left and functioning to a nominal level that allows for aspects of mahinga kai. Many of the sites where whānau can go are not optimal or even aesthetically pleasing. Ngāi Tahu ki Murihiku are unwillingly disconnected from mahinga kai at Waiwhakaata and this has had detrimental intergenerational impacts on Ngāi Tahu identity and social cohesion, and the active transfer of mātauranga and kaitiakitanga at place.

EXPECTATIONS

Ngāi Tahu ki Murihiku expect to be able to practice mahinga kai in their takiwā at multiple locations on the shores and in the waters of Waiwhakaata and the surrounding area, deliberately selected for the quality of the resource and its ability to sustain itself. In undertaking these practices, whānau will have the opportunity to experience the landscape as their tūpuna did and rekindle the traditional practices of gathering food and other natural resources.

Ngāi Tahu ki Murihiku expect to see many of the systemic barriers to accessing resources reduced and removed so they can safely undertake cultural practices as aligned with whānau expectations.

²⁴ Ngāi Tahu ki Murihiku (1998), p.164

WHAT DOES SUCCESS LOOK LIKE?

- Mahinga kai is actively practiced around and within Waiwhakaata in accordance with Ngāi Tahu ki Murihiku tikanga and maramataka.
- Ngāi Tahu Whānui can select optimal and favoured sites to undertake mahinga kai and utilise resources in situ.
- Whānau are safe and supported in harvesting and consuming mahinga kai species.
- Mātauranga associated with mahinga kai is used to inform resource management decision making and research, and to be passed on to future Ngāi Tahu ki Murihiku generations through active practice.
- Taonga species are tohu of the hauora of the water, whenua, and people.
- Taonga species move unrestricted through the waterways and over/across the whenua with refuges and native habitat.
- Re-establishment of mahinga kai species and places that have been absent from the lake and its surrounds for generations.
- Native environments and species beyond remnant areas in urban and rural areas are restored and regenerating, especially around waterways and wetlands.
- Corridors are re-established for the restoration of natural and built pathways to re-connect biodiversity remnants and environmental processes.
- Biodiversity remnants are identified, protected, restored and revitalised.

METHODOLOGY FOR ENVIRONMENTAL STATEMENT OF EXPECTATION

NGĀI TAHU KI MURIHIKU SITE VISIT

On 8 December 2022, Ngāi Tahu ki Murihiku whānau supported by Te Ao Marama and Kauati undertook a site visit of Waiwhakaata and the surrounding catchment.

The site assessment started the evening prior with whakawhanaungatanga with the facilitators and whānau. The following day was made up of three site visits with additional informal interactions with the Waiwhakaata landscape travelling between assessment sites. The manaaki from the whānau was a highlight of the day providing a second opportunity for whakawhanaungatanga and an opportunity to look back to the previous site assessment location on the maunga encouraging further reflection.

The individual and rōpū insights, understandings and interpretation of the sites were recorded by each individual and the facilitators supporting the rōpū. This knowledge and mātauranga has been analysed from the collective written information and experiences on the day and represented in the Environmental Statement of Expectation.

Site 1: Āpiti Hono Tātai Hono - Upper Catchment: Coronet (Ski Field) Road



Whānau undertaking the Āpiti Hono Tātai Hono assessment for the catchment from the high viewpoint of Coronet Peak. Kauati 2022

Looking to the south, the rōpū settled down onto the side of the maunga on a minor ridge providing a sweeping wide view of the catchment from top to bottom (right to left) with Waiwhakaata just out of site behind the Dalethorpe elevation. The predominant positioning of the rōpū centred on the southern end of Whakatipu Waimāori in the direction of Kingston allowing a viewshaft to Whakatipu Waimāori and the majority of tūpuna maunga across the skyline in front of them.

At this point the rōpū were invited to be present in the landscape allowing them to connect with the environment in order to assist with their assessment of the upper catchment. A number of open-ended questions were put to the rōpū encouraging them to offer their personal interpretation of what they were seeing, and more importantly experiencing as mana whenua. The commentary was recorded through note taking at the time by facilitator members of the rōpū.

Site 2: Murihiku Cultural Water Classification System – Wai Tuna Theme – Lake Hayes Reserve, Mill Creek Confluence



Stevie Blair and Nikau Farrell putting in a hīnaki at Mill Creek for the Wai Tuna cultural use assessment of the Murihiku Cultural Water Classification System. Kauati 2022

For this evaluation the rōpū were situated by the lower reach of Mill Creek (150m) down to where the creek enters Waiwhakaata. The activity undertaken here was a Wai Tuna themed form which everyone filled in based on their observations with some application of broader knowledge of the area and site specific detail. The site sits within the Lake Hayes Recreation Reserve.

The evening prior two hīnaki (fyke nets) had been set to provide any further aquatic data about any species caught. Both nets were removed from the creek and their contents documented and analysed.

At the conclusion of the visit an 'outlier test' was conducted to identify if there had been any unusual data entries made. Most of the data from the forms was very similar across the rōpū.

The unexpected find of a large female long-fin tuna was an exhilarating moment for Ngāi Tahu ki Murihiku whānau and the local school group who happened to be nearby.



1.25 metre long female long-fin tuna caught and released as part of the Wai Tuna cultural use assessment. Kauati 2022

Site 3: Āpiti Hono Tātai Hono - Lower Catchment – Lake Hayes Walkway and Wetland

This third and final site was located at the south western corner at the outflow end of Waiwhakaata. The second Āpiti Hono Tātai Hono assessment was carried out using the formatted documents to record experiences and interpretations of the site and surrounding environment.

Time was taken to initially move about the immediate surrounds and orientate to the area. The outflow of the lake was situated to the east but was not visible. There was good visibility to the surrounding maunga to the east, south and north but the lake was obscured by a riparian boundary predominantly of raupō, willows and pūkio/carex secta.

Similar to how the first site visit was run, the rōpū was encouraged to offer verbal and any written observations, their experiences and feelings about the site. Facilitators recorded what was said by the rōpū.



Āpiti Hono Tātai Hono assessment was undertaken at the Threepwood side of Waiwhakaata. Kauati 2022

Debrief

Concluding the day, the rōpū was invited to debrief about the events of the day and any reflections about the way it ran or other comments.

Generally, there was a sense of positive achievement and a process much more grounded in tikanga and mātauranga than had been expected (rather than a western science based approach). There was support for the sites that were chosen and the different approaches at sites noting Āpiti Hono Tātai Hono and the Murihiku Cultural Water Use Classification were formats that provided accessible culturally based models that supported engagement as Ngāi Tahu.



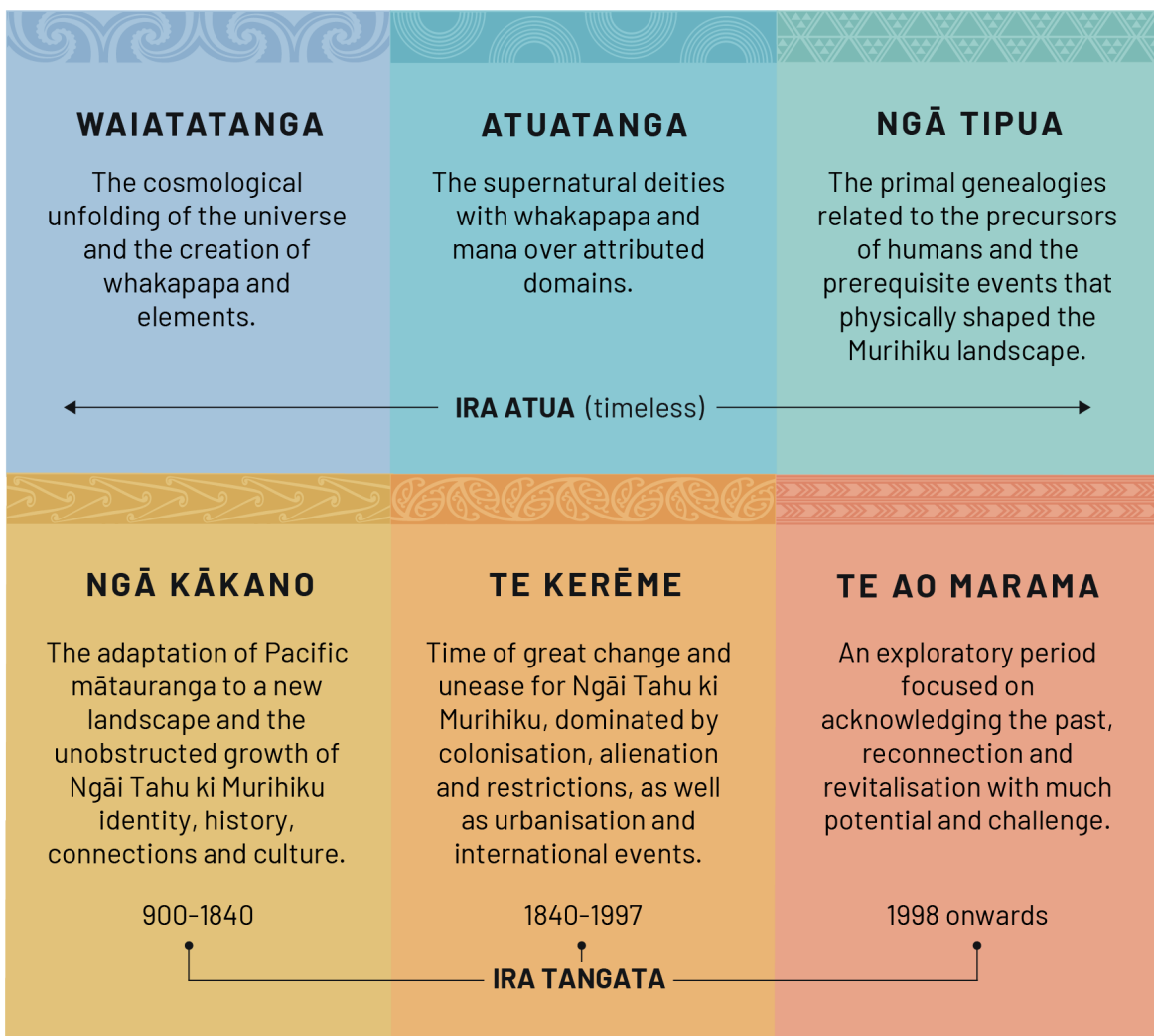
Waiwhakaata from the right bank looking towards the outlet and Kawarau. Kauati 2022.

ASSESSMENT TOOLS

All the mana whenua designed and led tools used in developing the Statement of Environmental Expectation work together as they are based on the same philosophies and principles, and their application and implementation are guided by the kawa, tikanga and mātauranga of Ngāi Tahu ki Murihiku. Their foundations are aligned with the inherent meanings, social norms and epistemological traditions of Ngāi Tahu culture.

Āpiti Hono Tātai Hono and the Murihiku Cultural Water Classification System look at different parts of landscape but are organised in the same way; consciously and subconsciously ordered by whakapapa and Ira Atua Ira Tangata. The tools expect to inform ki uta ki tai, they expect to draw on the collective knowledge of tangata tiaki/kaitiaki.

Āpiti Hono Tātai Hono: Ngā Whenua o Ngāi Tahu ki Murihiku



The six layers of Āpiti Hono Tātai Hono cultural landscape assessment methodology, 2021

In 2021, Ngāi Tahu ki Murihiku released its landscape methodology it named Āpiti Hono Tātai Hono in recognition of the act of ordering whakapapa. The methodology was designed by Ngāi Tahu ki Murihiku to enable a comprehensive understanding of landscape as known to them. The methodology is founded on the interwoven relationships between Ira Atua and Ira Tangata and the continuum of time and whakapapa. It acknowledges change, interdependencies, ki uta ki tai, duality (e.g., intangible/tangible, tuakana/teina, masculine/feminine) and the philosophies and paradigms of Ngāi Tahu ki Murihiku.²⁵

²⁵ Cain, A., Manihera, D. (2021) Āpiti Hono Tātai Hono: Ngā Whenua o Ngāi Tahu ki Murihiku, p. 7

The methodology does not assess significance; it considers what is held within a landscape and what is appropriate at place. A landscape holds and exerts many things in different ways, including whakapapa, mana, kawa, tikanga, mātauranga, identify, connections, practices, history, and future aspirations.

Āpiti Hono Tātai Hono blends Te Ao Ngāi Tahu philosophical concepts and mātauranga with aspects of heritage and landscape practice. It characterises the landscape into six layers based on Ira Atua Ira Tangata, with Ira Atua taking primacy as the tuakana.

Ira Atua recognises the metaphysical elements of culture and landscape and is not confined by time. Ira Atua has always existed and always will. The Ira Atua layers:

- **purpose** – acknowledges the metaphysical and related connections and reverence they have in the kawa, tikanga and culture of Ngāi Tahu ki Murihiku.
- **recognise and manage** – whakapapa, mauri, mana, tikanga, kawa – fundamental philosophical components of culture and identity; what is right and wrong, and the interconnections between the elements, landscape and people.

Ira Tangata recognises the associations and connections humans have within the landscape over a defined period of time. The period focuses on 900CE to the modern day and into the future. The methodology acknowledges that some connections and events cross these periods; therefore, the dates are a guide rather than fixed starts and ends. The Ira Tangata layers:

- **purpose** – identifies tangible and intangible cultural heritage and mātauranga, the evidential record of human occupation, personification of landscape and place names, and future aspirations.
- **recognises and manages** – safeguarding whakapapa and connections between whenua and people, the human record, history, and continuing evolution of Ngāi Tahu ki Murihiku cultural heritage and mātauranga.

Murihiku Cultural Waters Classification System

For Ngāi Tahu the continuation of cultural uses and practices associated with the freshwaters in their takiwā/ tribal area, is crucially important for the sustenance of cultural identity, social cohesion, health and wellbeing. The concept of mahinga kai encompasses many entities and related aspects, including the resources harvested (such as fish, plants and stone), connections to place, intergenerational knowledge transmission, cultural tradition, and access. Use and associations are a key element that binds Ngāi Tahu to the landscape, and numerous attributes require landscape scale biocultural processes and connections to be protected and enabled.

Although mahinga kai is a central element in the Ngāi Tahu Treaty Settlement legislation, the protection and enhancement of mahinga kai is impeded by the numerous pieces of legislation and government agencies involved, that are not unified in this purpose, and in some cases act against this purpose.

This challenging situation requires mechanisms to empower decision-making and outcomes for Māori and protection of cultural use. To this end, Ngāi Tahu ki Murihiku, developed the Murihiku Cultural Water Classification System (MCWCS). The development of the MCWCS was part of six-year MBIE funded research programme Ngā Kete o te Wānanga: Mātauranga: Science and Freshwater Management (C01X1318).

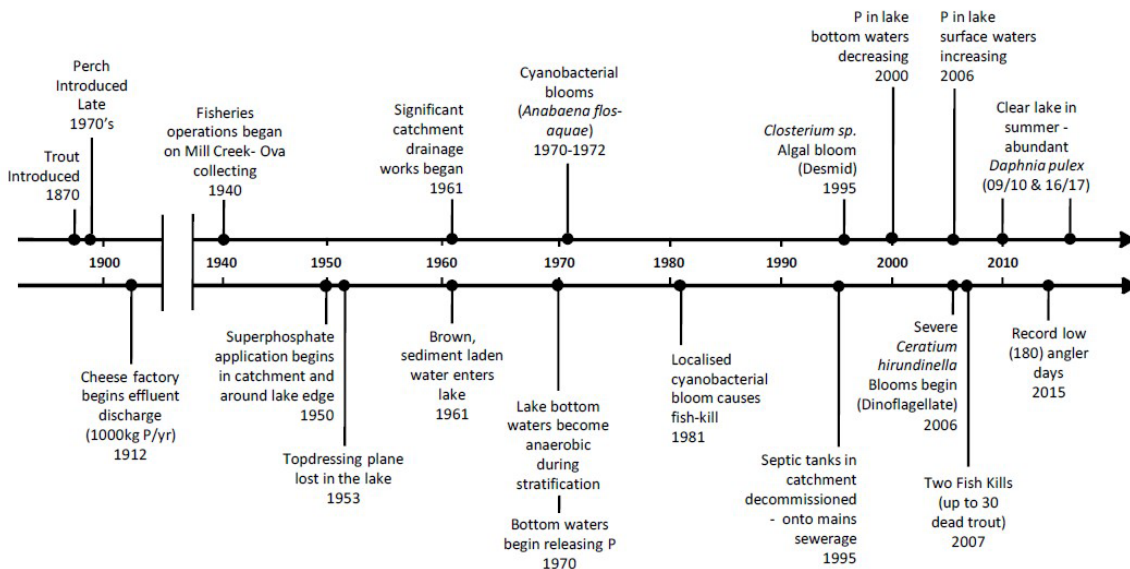
The Ngā Kete o te Wānanga: Mātauranga programme sought to align with Ngāi Tahu ki Murihiku freshwater research and management priorities, the current freshwater management context, the skillsets of Murihiku expert knowledge holders and scientists, and the outcomes expected by MBIE.

The MCWCS is a mixed methods approach to strengthens cross-cultural understandings about Murihiku cultural values and uses, and their water-related dependencies– as defined by Murihiku whānau – in a robust, respectful and meaningful way. The approach was built on the foundations of Ngāi Tahu ki Murihiku

tikanga and mātauranga and includes including understandings of place, time, and connections within the landscape, and different knowledge streams blended from various disciplines (including mātauranga Māori, social science, science and cultural heritage) around different cultural value/use theme that are of importance to Murihiku whānau. The initial cultural uses developed are:

- Wai Pounamu (Waters for the movement, collection and working of pounamu)
- Wai Nohoanga (seasonal camping areas across the landscape) and
- Wai Tuna (waters that sustain the intergenerational harvest of tuna/eels).

LITERATURE REVIEW



Waiwhakkata historical timeline of major events, taken from Lake Hayes Restoration and Monitoring Plan, 2017

Much of what is contained in this document comes from sources mana whenua have published themselves or have been actively involved in writing and approving, including:

- Ngāi Tahu Claims Settlement Act 1998 and Deed of Settlement
- Ngāi Tahu 2025
- Te Tangi a Tauria - Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan
- Cultural Use in Murihiku (Draft)
- Lake Hayes Management Strategy 1995
- Lakes Hayes Restoration and Monitoring Plan 2017
- Statement of evidence of Jana Davis on behalf of Otago Regional Council and Kāi Tahu ki Otago and Ngāi Tahu ki Murihiku. Plan Change 8: Urban provisions, November 2022.

BIBLIOGRAPHY

Books, Articles and Newspapers

- Barlow, C. (1991) *Tikanga Whakaaro: Key concepts in Māori culture*
- Bartlett, M., Kitson, J., Norton, N., Wilson, K. (2020) *Draft Murihiku Southland Freshwater Objectives*, technical report for Environment Southland and Te Ao Marama Inc
- Cain, A. (2020) *Remarkables Conservation Area: Summary of Ngāi Tahu Values, Practices and Associations*, prepared for the Department of Conservation Te Papa Atawhai
- Cain, A., Manihera, D. (2021) *Āpiti Hono Tātai Hono: Ngā Whenua o Ngāi Tahu ki Murihiku*, Stage 1 of the Southland Cultural Landscapes Study
- Corry, S., Puentener, R. (1993) *Tikanga Maori Cultural, Spiritual and Historical Values of the Waiau River*, A Report for the Iwi Task Group of the Waiau River Working Party
- Dacker, B. (1990) *The People of the Place: Mahika Kai*
- Davis, J. (2022) *Statement of evidence of Jana Davis on behalf of Otago Regional Council and Kāi Tahu ki Otago and Ngāi Tahu ki Murihiku, Plan Change 8: Urban provisions, Parts A and G, ENV-2020-CHC-128*
- Dingfelder, J. (2020) *Approaches for Minimising Water Quality Impacts from Urban Development Lake Hayes/Wai Whakaata Catchment, New Zealand*, prepared for The Nature Conservancy
- Evison, H. C. (2007) *The Ngāi Tahu Deeds: A Window on New Zealand History*
- Hamel, J. (2001) *The Archaeology of Otago*
- Keyes I. W. (1967) 'New Zealand Artifacts from the United States "Transit of Venus Expedition" 1874-1875', *Smithsonian Contributions to Anthropology*, vol. 2, no. 2, Smithsonian Press, Washington.
- Kleinlangevelsloo, M. (2019) *Cultural Values Statement: Queenstown Lakes District Council Wastewater Overflow Discharge*, prepared for Queenstown Lakes District Council
- Mead, H. (2016) *Tikanga Māori: Living by Māori Values*
- McIntyre, R. (2007) *Historic heritage of high-country pastoralism: South Island up to 1948*
- New Zealand Geographic Board (1990) *Ngā Tohu Pūmahara The Survey Pegs of the Past: Understanding Māori Place Names*
- Ngā Rūnanga (2019) *Memorandum of Counsel for Ngā Rūnanga regarding Cultural Indicators of Health*, for Environment Court, ENV-2018-CHC-47
- NIWA (2018) *Lake Hayes Water Quality Remediation Options*, prepared for the Otago Regional Council
- Otago Daily Times, *The Southern Māori: Stray Papers*, Issue 21348, 30 May 1931
- Queenstown and District Historical Society (1999) *The Queenstown Courier*, Issue 62
- Ritchie, N. (1986) 'Archaeology and Prehistory in the Upper Wakatipu', *Journal of Pacific Archaeology*
- Skinner H. D. (1943) 'The classification of Greywacke & Nephrite Adzes from Murihiku, New Zealand', *Journal of the Polynesian Society*, vol 52, no. 2
- Skinner, H. D. (1974) *Comparatively Speaking: Studies in Pacific Material Culture 1921-1972*, University of Otago Press, Dunedin
- Southland Times, *Place Names of Otago and Southland*, Issue 17658, 1914
- Taiao Hokonui Rūnanga (2021) *Te Kawa o te Taiao*, prepared by Kauati and Kete Planning Consultancy
- Te Karaka Special Edition (1998) *Crown Settlement Offer: Consultation Document from the Ngāi Tahu Negotiating Group*
- Te Rūnanga o Ngāi Tahu (2001) *Ngāi Tahu 2025*
- Tipa, R. (2018) *Treasures of Tane: Plants of Ngāi Tahu*

1879 Smith-Nairn Royal Commission of Inquiry into the Ngāi Tahu land claims

Management Plans

Friends of Lake Hayes (2021) Vision Lake Hayes

Ngāi Tahu ki Murihiku (2008) Te Tangi a Taurira: The Cry of the People – Natural Resources and Environmental Iwi Management Plan

Queenstown Lakes District Plan

Otago Regional Council and Queenstown Lakes District Council (1995) Lake Hayes Management Strategy

Schallenberg, M., Schallenberg, L. (2017) Lake Hayes Restoration and Monitoring Plan

Legislation

Ngāi Tahu Claims Settlement Act 1998

Te Rūnanga o Ngāi Tahu Act 1996

Websites

<https://digitalnz.org/>

<https://gazetteer.linz.govt.nz/>

<https://www.heritage.org.nz/protecting-heritage/archaeology/digital-library>

<https://www.kahurumanu.co.nz/atlas>

<https://paperspast.natlib.govt.nz/>